

Search history

Search 1: FT=(ENDOSSEOUS~ AND SCREW~ AND ASSEMBLY~) (Results 223)

Search 2: FT=(ENDOSSEOUS~ AND SCREW~ AND ASSEMBLY~ AND FEMUR) IC=(A61B) (Results 0)

Search 3: FT=(ENDOSSEOUS~ AND SCREW~ AND ASSEMBLY~ AND FEMUR) (Results 29)

Title: PERIOSTEAL DISTRACTION BONE GROWTH

Abstract: A periosteal distraction osteogenesis method and apparatus uses a sheet member for covering a surface of living bone that is, in turn, covered by soft tissue. The sheet member is under the soft tissue and over an area where bone growth outwardly and normally to the bone surface is desired. An attractor member adapted to magnetically attract the sheet member for exerting a pulling force on the sheet member in a direction outwardly and normally of the bone surface, is secured at an outwardly spaced location from the sheet member for causing growth of bone outwardly and normally to the bone surface.

Classifications:

International (IPC 8-9): A61B17/56 A61B17/66 A61F2/30 A61F5/00 A61F5/04 (Advanced/Invention);

A61B17/56 A61B17/60 A61F2/30 A61F5/00 A61F5/04 (Core/Invention)

International (IPC 1-7): A61B17/56 A61F2/30 A61F5/00 A61F5/04

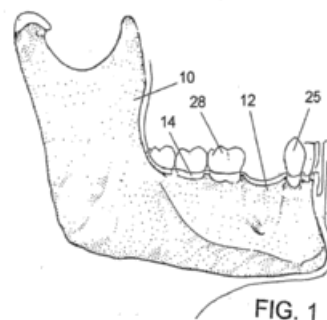
CPC: A61B17/66 A61B17/663 A61B17/666 A61C8/0006 A61F2/2846 A61F2002/30471 A61F2002/30507 A61F2002/30563

European: A61B17/66 A61B17/66J A61B17/66J2 A61C8/00C1A

US: 606/53 606/53S 606/86 606/86.00RP 606/86R

PatBase - US2005159754_AA

Patent Application Publication Jul. 21, 2005 Sheet 1 of 10 US 2005/0159754 A1



Family:

Publication number	Publication date	Application number	Application date
US2005159754 AA	20050721	US20040761840	20040121
US2005159755 AA	20050721	US20040935413	20040907

Priority:

US20040761840 20040121 US20040935413 20040907

Probable Assignee: ODRICH RONALD B

Assignee(s): ODRICH RONALD B

Inventor(s): (std): ODRICH RONALD B

Inventor(s): ODRICH RONALD

Agent(s): NOTARO AND MICHALOS

Legal status (INPADOC)

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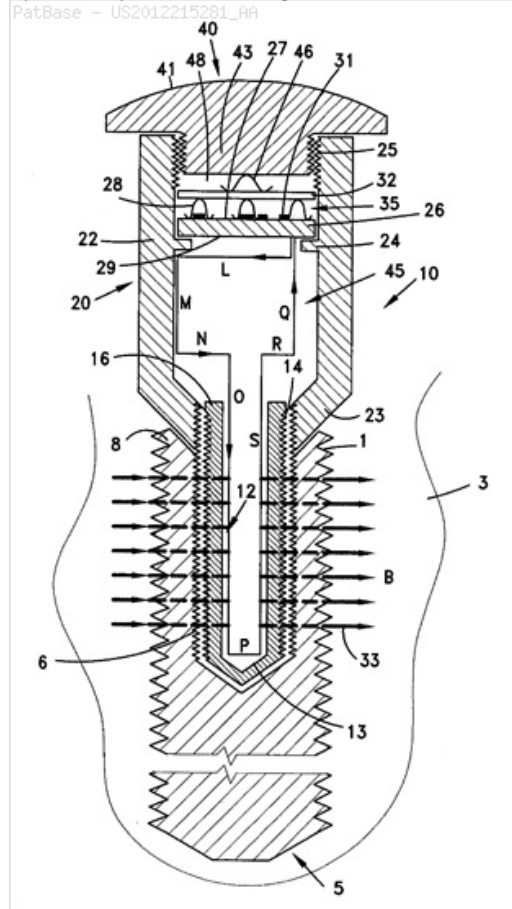
Patent	Date recorded	Event group	Code	Event	Details
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US2005159754 AA	20061127	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005159754 AA	20061127	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2005159755 AA	20050721	LSPB	+	published / reissued	
US2005159755 AA	20080122	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005159755 AA	20080122	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

Title: IMPLANT DEVICE FOR STIMULATING OSTEOGENESIS AND OSSEOINTEGRATION

Abstract: An implant device for stimulating osteogenesis and osseointegration comprises a hollow annular housing member, a pulsed current modulator, and a coil connected to the current modulator. The current modulator and at least a portion of the coil are mounted within the housing member. A frequency of the pulsed current is selected to generate an electromagnetic field of a predetermined flux density that penetrates, and propagates radially outwardly from, the housing member for a sufficiently large propagation distance to stimulate osteogenesis and osseointegration, by means of the generated electromagnetic field, of a bone region in which the implant device is implanted and which is disposed radially outwardly from the housing member.

Classifications:**International (IPC 8-9):** A61B18/18 A61C19/06 A61C8/00 A61C8/02

A61N1/00 A61N1/32 A61N2/02 (Advanced/Invention)

CPC: A61N1/326 A61C8/0006 A61N2/02**European:** A61N1/32P**US:** 1/1 607/51 607/51P**Family:**

Publication number	Publication date	Application number	Application date
BR112012010030 A2	20161129	BR20121110030	20101028
EP2493549 A1	20120905	EP20100826227	20101028
EP2493549 A4	20131113	EP20100826227	20101028
EP2493549 B1	20190403	EP20100826227	20101028
KR20120091256 A	20120817	KR20127013913	20101028
US2012215281 AA	20120823	US20100503854	20101028
US9327115 BB	20160503	US20100503854	20101028
WO11051947 A1	20110505	WO2010IL00897	20101028

Priority:

US20090255904P 20091029 US20100255904P 20101028 WO2010IL00897 20101028
US20100503854 20101028

Probable Assignee: MAGDENT LTD**Assignee(s):** (std): MAGDENT LTD ; MEGADENT LTD ; NEUMAN MOSHE ; SHECHTER JOSEPH**Inventor(s):** (std): NEUMAN MOSHE ; SHECHTER JOSEPH**Inventor(s):** MOSHE NEUMAN**Agent(s):** ZIMMERMANN TANKRED KLAUS; LUZZATTO AND LUZZATTO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
BR112012010030 A2	20170207	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	
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EP2493549 A1	20120905	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120529
EP2493549 A4	20131113	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20131014
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EP2493549 B1	20190403	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP2493549 B1	20190403	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2493549 B1	20190415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1114988 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190415
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EP2493549 B1	20301028	PEXP		Calculated Patent Term Expiry	

KR20120091256 A	20120817	LSPB	+	published / reissued	
KR20120091256 A	20151129	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
US2012215281 AA	20120823	LSPB	+	published / reissued	
US2012215281 AA	20130911	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAGDENT LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SHECHTER, JOSEPH; REEL/FRAME:031179/0358 EFFECTIVE DATE : 20130501
US2012215281 AA	20160413	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9327115 BB	20160503	LSGT	+	granted / extensions (spc, cpc, pte)	
US9327115 BB	20120517	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MAGDENT LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NEUMAN, MOSHE; REEL/FRAME:028223/0411 EFFECTIVE DATE : 20120422
US9327115 BB	20160105	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9327115 BB	20160413	LSGT	PAT1	Patented Case	
US9327115 BB	20301028	PEXP		Calculated Patent Term Expiry	
WO11051947 A1	20110505	LSPB	+	published / reissued	
WO11051947 A1	20120425	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13503854 COUNTRY OF REF DOCUMENT : US
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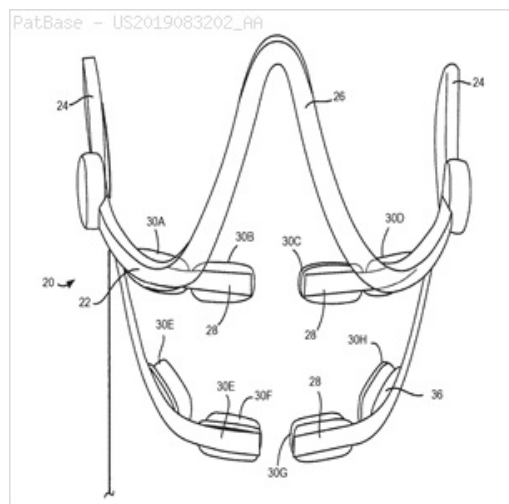
Title: APPARATUS AND METHODS USEFUL FOR REMODELING MAXILLOFACIAL BONE USING LIGHT THERAPY, AN ORTHODONTIC APPLIANCE, AND OPTIONALLY, VITAMIN D ADMINISTRATION

Abstract: An apparatus includes a mouthpiece sized and shaped to be disposed within a patient's mouth. The mouthpiece includes a bite tray and a flange coupled to the bite tray, the flange being deflectable with respect to the bite tray. A posterior portion of the flange extends beyond a posterior end of the bite tray. The apparatus also includes a light emitter at least partially disposed within the flange. The light emitter is configured to emit light to oral tissue, such as alveolar mucosa, of the patient when the mouthpiece is disposed within the mouth.

Classifications:

International (IPC 8-9): A61B5/00 A61C19/06 A61C7/00 A61C7/08 A61C8/02 A61N5/06 (Advanced/Invention)

CPC: A61C7/08 A61N5/0603 A61B5/0088 A61C8/0006 A61C19/06 A61N2005/0662 A61N2005/0627 A61N2005/0659 A61N2005/0647 A61N2005/0606 A61B5/01 A61B5/065 A61B5/4836 A61N2005/0626



Family:

Publication number	Publication date	Application number	Application date
US2019083202 AA	20190321	US20180135842	20180919
WO19056101 A1	20190328	WO2018CA51169	20180919

Priority:

US20170560475P 20170919 US20180135842 20180919

Probable Assignee: BIOLUX RESEARCH LTD

Assignee(s): (std): BIOLUX RES LTD

Assignee(s): BIOLUX RESEARCH HOLDINGS INC ; BIOLUX RESEARCH LTD

Inventor(s): (std): BRAUN PETER ROBERT ; STRANGE KEVIN ; MATHEWS PAUL ; MARSANYI ROBERT ; DEMYKIN ALEXEY ; CHRISTENSEN PAUL

Agent(s): MARLES JENNIFER A ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2019083202 AA	20190321	LSPB	+	published / reissued	
US2019083202 AA	20181101	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH LTD., CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BRAUN, PETER ROBERT; STRANGE, KEVIN; MATHEWS, PAUL; AND OTHERS; SIGNING DATES FROM 20180924 TO 20181001; REEL/FRAME:047387/0652
US2019083202 AA	20190613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH HOLDINGS, INC., CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOLUX RESEARCH LIMITED; REEL/FRAME:049462/0510 EFFECTIVE DATE : 20190426
WO19056101 A1	20190328	LSPB	+	published / reissued	

Title: METHODS AND APPARATUSES USEFUL FOR REGULATING BONE REMODELING OR TOOTH MOVEMENT USING LIGHT THERAPY, A FUNCTIONAL APPLIANCE, AND/OR VITAMIN D

Abstract: Methods are provided for regulating bone remodeling or tooth movement, comprising allowing a functional appliance to exert a force on oral or maxillofacial bone, muscle, or soft tissue, or one or more teeth of a patient in need thereof; and administering an effective amount of light to the oral or maxillofacial bone, muscle, or soft tissue, or one or more teeth, wherein the light is administered before, during, or after the force is exerted. Methods are also provided for regulating bone remodeling, comprising administering an effective amount of vitamin D to an oral or maxillofacial bone, muscle, or soft tissue, or to one or more teeth of a patient in need thereof; and administering an effective amount of light to the oral or maxillofacial bone, muscle, or soft tissue, or to the one or more teeth. Apparatuses useful for providing light therapy and/or vitamin D is also provided.

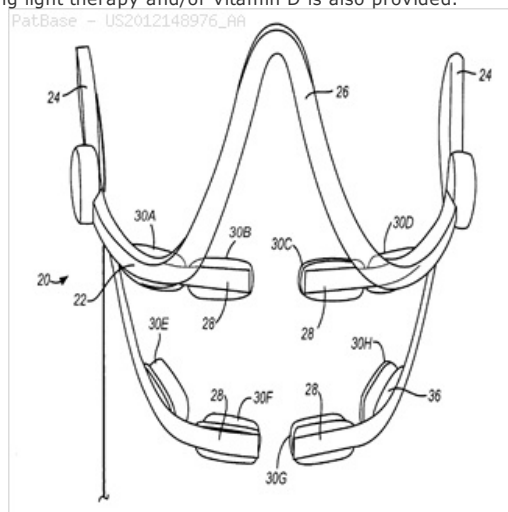
Classifications:

International (IPC 8-9): A61C19/06 A61C7/00 A61C7/06 A61C7/08 A61K31/59 A61N5/06 (Advanced/Invention); A61N5/067 (Advanced/Non-invention)

CPC: A61N5/0613 A61C7/06 A61C19/06 A61N5/06 A61N2005/0606 A61N2005/0647 A61N2005/0652 A61N2005/0659 A61N2005/0662 A61C7/08

European: A61C19/06 A61C7/06 A61N5/06C K61N5/06B4M K61N5/06S6W2 K61N5/06T2A K61N5/06W2 K61N5/06W6

US: 1/1 433/24 433/24P 433/29 433/29S



Family:

Publication number	Publication date	Application number	Application date
DE602011032798 D1	20170105	DE201160032798T	20111207
EP2648651 A1	20131016	EP20110846346	20111207
EP2648651 A4	20140716	EP20110846346	20111207
EP2648651 B1	20161123	EP20110846346	20111207
US2012148976 AA	20120614	US20110314006	20111207
US2016096037 AA	20160407	US20150965786	20151210
US2019117994 AA	20190425	US20180230752	20181221
US9242118 BB	20160126	US20110314006	20111207
WO12075584 A1	20120614	WO2011CA50755	20111207

Priority:

US20100421068P 20101208	US20100421073P 20101208	EP20110846346 20111207
US20110314006 20111207	WO2011CA50755 20111207	US20150965786 20151210
US20180230752 20181221		

Probable Assignee: BIOLUX RESEARCH LTD

Assignee(s): (std): BIOLUX RES LTD ; BRAUN PETER ROBERT

Assignee(s): BIOLUX RESEARCH HOLDINGS INC ; BIOLUX RESEARCH LIMITED ; BIOLUX RESEARCH LTD

Inventor(s): (std): BRAUN PETER ROBERT

Agent(s): GRUENECKER PATENT U RECHTSANWALTE PARTG MBB; KOPF KORBINIAN PAUL; COOLEY UK LLP; COOLEY LLP; MARLES JENNIFER A ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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EP2648651 A1	20131016	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130708
EP2648651 A4	20140716	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20140617
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EP2648651 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161229 YEAR OF FEE PAYMENT : 6
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EP2648651 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONNOFLAPSE : LAPSE

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161231
EP2648651 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170323
EP2648651 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170731	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2648651 B1	20170824	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011032798 COUNTRY OF REF DOCUMENT : DE
EP2648651 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170223
EP2648651 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				INFORMATION FROM NATIONAL OFFICE TO EPO]	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20171004	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2648651 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161231
EP2648651 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161207
EP2648651 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161231
EP2648651 B1	20171101	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170824
EP2648651 B1	20171113	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2648651 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161207
EP2648651 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171113 YEAR OF FEE PAYMENT : 7
EP2648651 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171129 YEAR OF FEE PAYMENT : 7
EP2648651 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171206 YEAR OF FEE PAYMENT : 7
EP2648651 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123

EP2648651 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20111207
EP2648651 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
EP2648651 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20161207
EP2648651 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161123
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EP2648651 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181123 YEAR OF FEE PAYMENT : 8
EP2648651 B1	20311207	PEXP		Calculated Patent Term Expiry	
US2012148976 AA	20120614	LSPB	+	published / reissued	
US2012148976 AA	20160106	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016096037 AA	20160407	LSPB	+	published / reissued	
US2016096037 AA	20160620	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH LIMITED, CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: BRAWN, PETER ROBERT; REEL/FRAME: 038960/0271 EFFECTIVE DATE : 20120207
US2016096037 AA	20180131	LSSES	NFA1	Non Final Action Mailed	
US2016096037 AA	20181127	LSSES	NFA1	Non Final Action Mailed	
US2016096037 AA	20190610	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2016096037 AA	20190610	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

US2016096037 AA	20190613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH HOLDINGS, INC., CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOLUX RESEARCH LIMITED; REEL/FRAME:049462/0510 EFFECTIVE DATE : 20190426
US2019117994 AA	20190425	LSPB	+	published / reissued	
US2019117994 AA	20190124	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH LIMITED, CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BRAWN, PETER ROBERT; REEL/FRAME:048127/0227 EFFECTIVE DATE : 20120207
US2019117994 AA	20190613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH HOLDINGS, INC., CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOLUX RESEARCH LIMITED; REEL/FRAME:049462/0510 EFFECTIVE DATE : 20190426
US9242118 BB	20160126	LSGT	+	granted / extensions (spc, cpc, pte)	
US9242118 BB	20120221	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH LIMITED, CANADA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BRAWN, PETER ROBERT; REEL/FRAME:027737/0554 EFFECTIVE DATE : 20120207
US9242118 BB	20151215	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9242118 BB	20151217	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9242118 BB	20160106	LSGT	PAT1	Patented Case	
US9242118 BB	20190613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOLUX RESEARCH HOLDINGS, INC., CHINA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOLUX RESEARCH LIMITED; REEL/FRAME:049462/0510 EFFECTIVE DATE : 20190426
US9242118 BB	20190614	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9242118 BB	20311207	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
WO12075584 A1	20120614	LSPB	+	published / reissued	
WO12075584 A1	20130610	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12075584 A1	20130708	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011846346 COUNTRY OF REF DOCUMENT : EP

Title: **ENDOSSEOUS** IMPLANT HAVING IMPROVED ANCHORAGE

Abstract: The invention relates to an **endosseous** implant capable of being implanted into osseous tissue. The implant comprises an attachment device (3), comprising: a so-called gripping portion (31) for gripping the osseous tissue, a so-called expansion portion (32), said two portions being mobile in relation to each other, engaging mechanical connection means (33, 33a, 33b), located on the gripping portion (31) on the one hand and on the expansion portion (32) on the other hand, such that the relative mobility of the two portions has at least one degree of freedom, and such that a relative movement of said two portions causes an extension of the gripping portion, said extension causing the gripping portion to engage with the osseous tissue. The **endosseous** implant can in particular be used in the dental field.

Classifications:

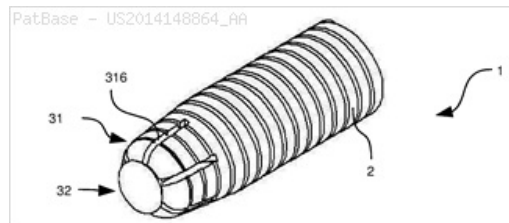
International (IPC 8-9): A61B17/68 A61B17/84 A61C8/00

A61F2/28 (Advanced/Invention)

CPC: A61C8/0033 A61B17/844 A61B17/686

European: A61C8/00F7

US: 606/327



Family:

Publication number	Publication date	Application number	Application date
DE602011036932 D1	20170524	DE201160036932T	20111005
EP2603163 A1	20130619	EP20110767239	20111005
EP2603163 B1	20170412	EP20110767239	20111005
EP2603163 B8	20180418	EP20110767239	20111005
ES2632347 T3	20170912	ES20110767239T	20111005
FR2965473 A1	20120406	FR20100058048	20101005
FR2965473 B1	20130809	FR20100058048	20101005
US2014148864 AA	20140529	US20110824009	20111005
US9788920 BB	20171017	US20110824009	20111005
WO12045787 A1	20120412	WO2011EP67410	20111005

Priority:

FR20100058048 20101005 EP20110767239 20111005 WO2011EP67410 20111005

Probable Assignee: LACAZE GUILLAUME

Assignee(s): (std): ALTADE ; LACAZE GUILLAUME

Inventor(s): (std): LACAZE GUILLAUME

Inventor(s): GUILLAUME LACAZE

Agent(s): FOURCADE EMMANUELLE; IPSIDE; ELZABURU SLP ELZABURU SLP; CABINET SCHMIT CHRETIEN; NORTON ROSE FULBRIGHT US LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP2603163 A1	20130619	LSPB	+	published / reissued	
EP2603163 A1	20130619	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130315
EP2603163 A1	20161130	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20161103
EP2603163 A1	20170301	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : LACAZE, GUILLAUME
EP2603163 B1	20170412	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2603163 B1	20170412	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP2603163 B1	20170413	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2603163 B1	20170503	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH

EP2603163 B1	20170515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 883099 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170515
EP2603163 B1	20170524	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602011036932 COUNTRY OF REF DOCUMENT : DE
EP2603163 B1	20170825	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2603163 B1	20170912	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2632347 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170912
EP2603163 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170412
EP2603163 B1	20171027	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2603163 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170412
EP2603163 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170713
EP2603163 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170412
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EP2603163 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170712
EP2603163 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170812
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EP2603163 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 7
EP2603163 B1	20180115	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011036932 COUNTRY OF REF DOCUMENT : DE
EP2603163 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170412
EP2603163 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170412
EP2603163 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170412
EP2603163 B1	20180131	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT : EE

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EP2603163 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170412
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EP2603163 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 7
EP2603163 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20171026 YEAR OF FEE PAYMENT : 7
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EP2603163 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 7
EP2603163 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171204 YEAR OF FEE PAYMENT : 7
EP2603163 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20171027 YEAR OF FEE PAYMENT : 7
EP2603163 B1	20180321	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180115
EP2603163 B1	20180404	LSGT	R26N	NO OPPOSITION FILED (CORRECTED)	EFFECTIVE DATE : 20180115
EP2603163 B1	20311005	PEXP		Calculated Patent Term Expiry	
EP2603163 B8	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170412

EP2603163 B8	20180725	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
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EP2603163 B8	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170412
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EP2603163 B8	20181031	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2603163 B8	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20181030 YEAR OF FEE PAYMENT : 8
EP2603163 B8	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20181003 YEAR OF FEE PAYMENT : 8
EP2603163 B8	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181026 YEAR OF FEE PAYMENT : 8
EP2603163 B8	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20181031 YEAR OF FEE PAYMENT : 8
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EP2603163 B8	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181031 YEAR OF FEE PAYMENT : 8
EP2603163 B8	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20181026 YEAR OF FEE PAYMENT : 8
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ES2632347 T3	20311005	PEXP		Calculated Patent Term Expiry	
FR2965473 A1	20120406	LSPB	+	published / reissued	

FR2965473 B1	20130809	LSGT	+	granted / extensions (spc, cpc, pte)	
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FR2965473 B1	20161028	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 7
FR2965473 B1	20170707	LSAS	TP	TRANSMISSION OF PROPERTY	PARTYTYPE : OWNER OWNER : LACAZE, GUILLAUME, CH EFFECTIVE DATE : 20170607
FR2965473 B1	20171027	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
FR2965473 B1	20181031	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 9
FR2965473 B1	20301005	PEXP		Calculated Patent Term Expiry	
US2014148864 AA	20140529	LSPB	+	published / reissued	
US2014148864 AA	20170310	LSES	NFA1	Non Final Action Mailed	
US2014148864 AA	20170828	LSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2014148864 AA	20170829	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014148864 AA	20170913	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2014148864 AA	20170915	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014148864 AA	20170927	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US9788920 BB	20170927	LSGT	PAT1	Patented Case	
US9788920 BB	20340208	PEXP		Calculated Patent Term Expiry (PTA 857 days)	
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WO12045787 A1	20130315	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011767239 COUNTRY OF REF DOCUMENT : EP
WO12045787 A1	20130405	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12045787 A1	20130603	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13824009 COUNTRY OF REF DOCUMENT : US

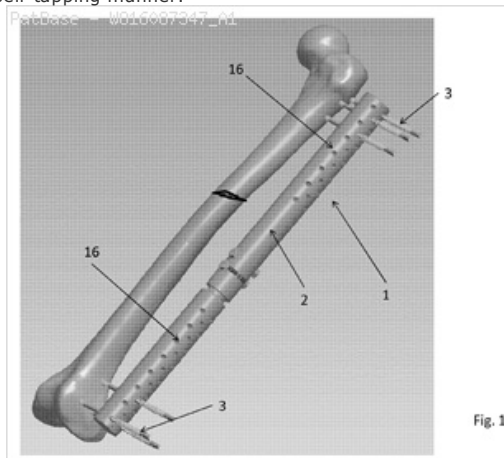
Title: ORTHOPEDIC EXTERNAL FIXATION SYSTEM FOR THE TREATMENT OF COMPLEX FRACTURES UNDER PRECARIOUS SURGICAL ENVIRONMENTAL CONDITIONS

Abstract: The present invention relates to an integrated orthopedic external fixation system (1), for the treatment of complex or displaced fractures under precarious environmental conditions, of the type comprising an external fixator (2, 2') and a plurality of bone screws (3, 3') for fixing the fixator to a fractured long bone. Advantageously, the system (1) according to the present invention comprises: a pair of cylindrical portions (4, 5) interconnected coaxially together by means of interlocking connection means (6, 7) able to adjust the movement towards and away from each other of these portions (4, 5); a plurality of through-holes (16, 16') formed transversely with respect to the axis (X) of the body of the fixator (2, 2') and at a predefined distance from the opposite free ends (21, 22) of the fixator (2, 2'), for receiving a respective bone screw (3, 3'); each bone screw (3, 3') having a smooth cylindrical central section and being slidably engaged in a guided manner inside the corresponding hole (16, 16') of the body of the fixator (2, 2'); a threaded front tip portion, intended to come into screwing engagement with said long bone, in a substantially self-tapping manner; and a threaded rear tail portion intended to come into screwing engagement with the corresponding hole (16, 16') of the fixator body (2, 2'), in a substantially self-tapping manner.

Classifications:

International (IPC 8-9): A61B17/64 A61B17/86 (Advanced/Invention)

CPC: A61B17/6416 A61B17/6458 A61B17/863



Family:

Publication number	Publication date	Application number	Application date
EP3226788 A1	20171011	EP20150816375	20151130
WO16087347 A1	20160609	WO2015EP78020	20151130

Priority:

EP20140196301 20141204 WO2015EP78020 20151130

Probable Assignee: ORTHOFIX SRL

Assignee(s): (std): ORTHOFIX SRL

Inventor(s): (std): MARINI GRAZIANO ; VENTURINI DANIELE

Agent(s): BOTTI MARIO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP3226788 A1	20171011	LSPB	+	published / reissued	
EP3226788 A1	20171011	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170703
EP3226788 A1	20190123	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190103
WO16087347 A1	20160609	LSPB	+	published / reissued	
WO16087347 A1	20170606	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE

Title: CLAMP FOR TEMPORARY OR DEFINITIVE EXTERNAL ORTHOPAEDIC FIXATION, AND EXTERNAL FIXATION SYSTEM COMPRISING SAID CLAMP

Abstract: A clamp applicable to both temporary and definitive orthopaedic external fixation systems comprising a first coupling element having a pair of opposite jaws defining one or more seats to house a first component of the orthopaedic external fixation system. A second coupling element comprises a pair of opposite jaws defining one or more seats to house a second component of the orthopaedic external fixation system. An interconnection pin passes through and connects the first and second coupling elements along an axis of rotation. A fastening means is arranged to bring the clamp from a slack configuration. The first and second coupling elements are relatively rotatable along the axis of rotation to a locked configuration, and are relatively rotatable with each other. These fastening means include manually operable temporary fastening means to temporarily lock the clamp, and definitive fastening means operable with a fastening tool, to definitively lock the clamp.

Classifications:

International (IPC 8-9): A61B A61B17/00 A61B17/60 A61B17/64

A61F4/00 A61F5/04 B23C5/20 B23F21/14 (Advanced/Invention);

A61B (Subclass/Invention)

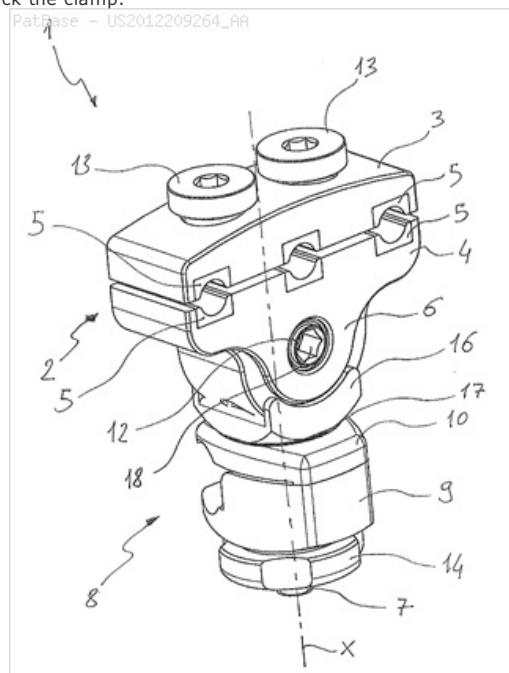
CPC: A61B17/6466

European: A61B17/64M

US: 606/105 606/278 606/324 606/54 606/54P 606/59

JP F-Term: 4C160 4C160/LL18 4C160/LL21

JP F-Index: A61B17/60



Family:

Publication number	Publication date	Application number	Application date
AR085061 AA	20130807	AR2012P100450	20120210
AU20111358377 AA	20120816	AU201110358377	20110909
AU20111358377 BB	20141113	AU201110358377	20110909
BR112013020335 A2	20170718	BR20131120335	20110909
CA2823579 AA	20130702	CA20112823579	20110909
CA2823579 C	20181016	CA20112823579	20110909
CN103354734 A	20131016	CN201180067302	20110909
CN103354734 B	20160302	CN201180067302	20110909
CO6801665 A2	20131129	CO20130213242	20130909
DE602011017517 D1	20150813	DE201160017517T	20110909
DK2672907 T3	20150914	DK20110767913T	20110909
EP2672907 A1	20131218	EP20110767913	20110909
EP2672907 B1	20150701	EP20110767913	20110909
ES2546178 T3	20150921	ES20110767913T	20110909
HK1186948 A1	20160226	HK20130114436	20131231
HK1186948 A1	20140328	HK20130114436	20131231
HK1186948 B	20160226	HK20130114436	20131231
IL227875 A0	20130930	IL20110227875	20110909
IL227875 A1	20180329	IL20110227875	20110909
IN06556CN2013 A	20140801	IN2013CN06556	20130814
JP2014512854 T2	20140529	JP20130552845T	20110909
JP6031046 B2	20161124	JP20130552845T	20110909
MX2013008959 A1	20131104	MX20130008959	20110909
TR201512030 T4	20151021	TR20150012030T	20110909
US2012209264 AA	20120816	US20120370980	20120210
US2014025077 AA	20140123	US20130034223	20130923
US8540713 BB	20130924	US20120370980	20120210
US8728079 BB	20140520	US20130034223	20130923
WO12107060 A1	20120816	WO2011EP04549	20110909

Priority:

US20110441953P 20110211
US20120370980 20120210

EP20110767913 20110909
US20130034223 20130923

WO2011EP04549 20110909

Probable Assignee: ORTHOFIX SRL

Assignee(s): (std): ORTHOFIX SRL ; NAYAGAM SELVADURAI ; ZANDONA ENRICO ; VENTURINI DANIELE ; ASSOM MARCO ; LORENZINI DENIS

Assignee(s): ORTHOFIX S R L ; ORTHOFIX SRL BUSSOLENGO

Inventor(s): (std): ZANDONA ENRICO ; LORENZINI DENIS ; VENTURINI DANIELE ; NAYAGAM SELVADURAI ; ASSOM MARCO ; LORENZINI DENI ; NAYAGAM SEVADURAI ; ENRICO ZANDONA ; DANIELE VENTURINI ; DENIS LORENZINI ; MARCO ASSOM ; ZANDON ENRICO ; SELVADURAI NAYAGAM ; ENRICO ZANDON

Inventor(s): SEVADURAI NAYAGAM

Agent(s): SMOORENBURG PATENT AND TRADE MARK ATTORNEYS; MBM INTELLECTUAL PROPERTY LAW LLP; JESUS MARIA MENDEZ BERMUDEZ; HANNKE BITTNER AND PARTNER; BOTTI MARIO; ARIZTI MONICA; EMILY YIP AND CO; PEARL COHEN ZEDEK LATZER BARATZ; SOGA MICHIHARU; ZEKAI SARIKAYA ATATUERK BULVARI NO 105 708 KIZILAY ANKARA; AKERMAN SENTERFITT; BAKER AND MCKENZIE LLP; BOTTI MARIO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR085061 AA	20130807	LSPB	+	published / reissued	
AR085061 AA	20150320	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AU2011358377 AA	20120816	LSPB	+	published / reissued	
AU2011358377 BB	20141113	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011358377 BB	20150312	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2011358377 BB	20310909	PEXP		Calculated Patent Term Expiry	
CA2823579 AA	20130702	LSPB	+	published / reissued	
CA2823579 AA	20160912	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160902
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CO6801665 A2	20140805	LSGT	+FG	APPLICATION GRANTED	
DK2672907 T3	20150914	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2672907 T3	20310909	PEXP		Calculated Patent Term Expiry	
EP2672907 A1	20131218	LSPB	+	published / reissued	
EP2672907 A1	20131218	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130808

EP2672907 A1	20150225	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20150127
EP2672907 A1	20150225	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : ORTHOFIX S.R.L.
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EP2672907 B1	20150921	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2546178 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20150921
EP2672907 B1	20151123	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NO REF LEGAL EVENT CODE : T2 EFFECTIVE DATE : 20150701
EP2672907 B1	20151228	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2672907 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151002
EP2672907 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160226	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1186948 COUNTRY OF REF DOCUMENT : HK
EP2672907 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151102
EP2672907 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151101
EP2672907 B1	20160404	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602011017517 COUNTRY OF REF DOCUMENT : DE
EP2672907 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150909
EP2672907 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20160608	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160404
EP2672907 B1	20160629	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2672907 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150909
EP2672907 B1	20160822	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2672907 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160823 YEAR OF FEE PAYMENT : 6

TO EPO]					
EP2672907 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160825 YEAR OF FEE PAYMENT : 6
EP2672907 B1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160823 YEAR OF FEE PAYMENT : 6
EP2672907 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160823 YEAR OF FEE PAYMENT : 6
EP2672907 B1	20161230	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160824 YEAR OF FEE PAYMENT : 6
EP2672907 B1	20170331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20110909
EP2672907 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20170715	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : UEP REF DOCUMENT NUMBER : 733468 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150701
EP2672907 B1	20170822	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2672907 B1	20170929	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170821 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170825 YEAR OF FEE PAYMENT : 7

EP2672907 B1	20171031	LSFE	+PGFP	NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20170824 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170828 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170822 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170821 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170821 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20170822 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170823 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170824 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20170824 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20171130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20170822 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20171003 YEAR OF FEE PAYMENT : 7
EP2672907 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701
EP2672907 B1	20180822	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150701

EP2672907 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180822 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180821 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180824 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO PAYMENT DATE : 20180824 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20180824 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180824 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20180903 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180823 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180823 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180828 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180822 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20181001 YEAR OF FEE PAYMENT : 8
EP2672907 B1	20310909	PEXP		Calculated Patent Term Expiry	
ES2546178 T3	20150921	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2546178 T3	20310909	PEXP		Calculated Patent Term Expiry	

HK1186948 A1	20140328	LSPB	+	published / reissued	
HK1186948 A1	20160226	LSPB	+	published / reissued	
HK1186948 A1	20331231	PEXP		Calculated Patent Term Expiry	
HK1186948 A1	20331231	PEXP		Calculated Patent Term Expiry	
HK1186948 B	20160226	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1186948 B	20331231	PEXP		Calculated Patent Term Expiry	
IL227875 A1	20180329	LSPB	+	published / reissued	
IL227875 A1	20180731	LSGT	+FF	PATENT GRANTED	
IL227875 A1	20181031	LSFE	+KB	PATENT RENEWED	
IN06556CN2013 A	20140801	LSPB	+	published / reissued	
JP2014512854 T2	20140529	LSPB	+	published / reissued	
JP2014512854 T2	20140904	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20140903
JP2014512854 T2	20150624	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150623
JP2014512854 T2	20151005	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20151005
JP2014512854 T2	20160302	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20160301
JP2014512854 T2	20160519	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160519
JP2014512854 T2	20160927	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014512854 T2	20161004	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20161004
JP2014512854 T2	20161027	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20161021
JP2014512854 T2	20161028	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6031046 COUNTRY OF REF DOCUMENT : JP
JP6031046 B2	20161124	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6031046 B2	20161006	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6031046 B2	20161025	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6031046 B2	20161028	LSGT	+R150	特許証 (Patent certificate)	
JP6031046 B2	20310909	PEXP		Calculated Patent Term Expiry	
MX2013008959 A1	20131104	LSPB	+	published / reissued	
TR201512030 T4	20151021	LSGT	+	granted /	

TR201512030 T4	20310909	PEXP		extensions (spc, cpc, pte) Calculated Patent Term Expiry	
US2012209264 AA	20120816	LSPB	+	published / reissued	
US2012209264 AA	20130904	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014025077 AA	20140123	LSPB	+	published / reissued	
US2014025077 AA	20140407	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ORTHOFIX S.R.L., ITALY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZANDONA, ENRICO; LORENZINI, DENIS; VENTURINI, DANIELE; AND OTHERS; SIGNING DATES FROM 20120126 TO 20140218; REEL/FRAME:032617/0104
US2014025077 AA	20140430	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8540713 BB	20130924	LSGT	+	granted / extensions (spc, cpc, pte)	
US8540713 BB	20120215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ORTHOFIX S.R.L., ITALY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ZANDONA, ENRICO; LORENZINI, DENIS; VENTURINI, DANIELE; SIGNING DATES FROM 20120126 TO 20120131; REEL/FRAME:027708/0587
US8540713 BB	20130904	LSGT	PAT1	Patented Case	
US8540713 BB	20140324	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ORTHOFIX S.R.L., ITALY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:NAYAGAM, SELVADURAI; ASSOM, MARCO; SIGNING DATES FROM 20130924 TO 20140218; REEL/FRAME:032507/0080
US8540713 BB	20170223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8540713 BB	20320210	PEXP		Calculated Patent Term Expiry	
US8728079 BB	20140520	LSGT	+	granted / extensions (spc, cpc, pte)	
US8728079 BB	20140430	LSGT	PAT1	Patented Case	
US8728079 BB	20171020	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8728079 BB	20330923	PEXP		Calculated Patent Term Expiry	
WO12107060 A1	20120816	LSPB	+	published / reissued	
WO12107060 A1	20130502	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011358377 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20110909 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12107060 A1	20130702	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2823579 COUNTRY OF REF DOCUMENT : CA
WO12107060 A1	20130801	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2013/008959 COUNTRY OF REF DOCUMENT : MX
WO12107060 A1	20130808	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011767913 COUNTRY OF REF DOCUMENT : EP
WO12107060 A1	20130809	LSNP	ENP	ENTRY INTO THE	REF DOCUMENT NUMBER :

				NATIONAL PHASE IN:	2013552845 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12107060 A1	20130812	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12107060 A1	20130909	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13213242 COUNTRY OF REF DOCUMENT : CO
WO12107060 A1	20170718	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112013020335 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130809

Title: APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS

Abstract: An apparatus for removing portions of bone marrow from a bone is provided. The apparatus includes a housing and a hollow drive shaft operable to engage a gear **assembly**. The hollow drive shaft includes a first end operable to penetrate the bone and a second end operable to allow retrieval of portions of bone and bone marrow. The apparatus also includes a removable trocar. The removable trocar includes an inner channel operable to convey portions of bone and bone marrow. The gear **assembly** is able to engage and rotate the hollow drive shaft. A motor operable to drive the hollow drive shaft into the bone marrow by rotation of the hollow drive shaft and a power supply and associated circuitry operable to power the motor are also included.

Classifications:

International (IPC 8-9): A61B A61B1/00 A61B10/00 A61B10/02 A61B17/00 A61B17/10 A61B17/14 A61B17/16 A61B17/32 A61B17/3205 A61B17/34 A61B17/56 A61B17/58 A61B17/72 A61B17/88 A61B19/00 A61B19/02 A61B19/08 A61B19/10 A61B46/00 A61B46/10 A61B46/23 A61B5/103 A61B5/153 A61B50/20 A61B50/30 A61B50/31 A61B50/33 A61B90/00 A61F2/46 A61F5/00 A61M A61M1/00 A61M1/06 A61M25/00 A61M25/06 A61M31/00 A61M39/10 A61M5/00 A61M5/14 A61M5/145 A61M5/158 A61M5/168 A61M5/20 A61M5/24 A61M5/31 A61M5/315 A61M5/32 A61M5/34 A61M5/46 A61N1/30 B23B45/00 B23G1/46 B23P17/04 B25B23/16 B25G1/00 B65D33/00 F41A17/46 F41A17/50 F41A17/52 F41A17/54 (Advanced/Invention); A61B10/00 A61B10/02 A61B17/00 A61B17/064 A61B17/068 A61B17/16 A61B17/32 A61B17/3205 A61B17/34 A61B17/92 A61B19/00 A61B19/02 A61B46/23 A61B90/00 A61B90/11 A61B90/40 A61M1/00 A61M5/158 A61M5/168 A61M5/20 A61M5/24 A61M5/31 A61M5/315 A61M5/32 A61M5/34 A61M5/46 B25B23/00 B25B23/12 (Advanced/Non-invention); A61B1/00 A61B10/00 A61B10/02 A61B17/00 A61B17/03 A61B17/16 A61B17/32 A61B17/34 A61B19/00 A61F5/00 A61M31/00 A61M5/00 A61M5/14 A61M5/20 A61M5/31 A61M5/46 B23P17/00 B65D33/00 (Core/Invention); A61B10/00 A61B10/02 A61B17/00 A61B17/16 A61B17/88 A61B19/00 A61M1/00 (Core/Non-invention); A61B (Subclass/Invention)

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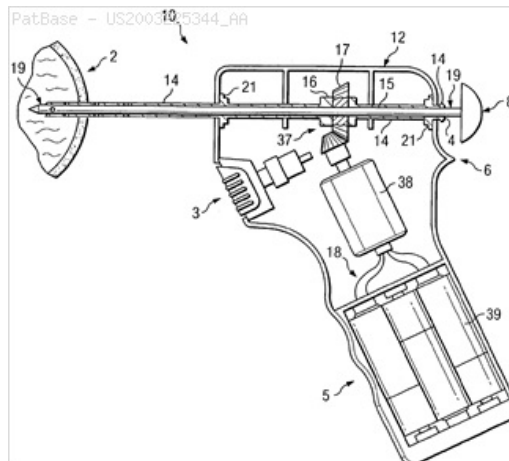
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Family:

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Probable Assignee: TELEFLEX MEDICAL DEVICES RL SA

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ

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Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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EP1509139 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091015
EP1509139 B1	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091115
EP1509139 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20100623	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20100416
EP1509139 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091016
EP1509139 B1	20101231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20100531
EP1509139 B1	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20100530
EP1509139 B1	20110531	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : VIDACARE CORPORATION REF LEGAL EVENT CODE : PFA OLDPARTY : VIDACARE CORPORATION#722 A ISOM ROAD#SAN ANTONIO, TX 78216 (US) -TRANSFER TO- VIDACARE CORPORATION#722 A ISOM ROAD#SAN ANTONIO, TX 78216 (US)
EP1509139 B1	20120831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20100530
EP1509139 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

EP1509139 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSED DATE : 20100116 COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090715
EP1509139 B1	20150508	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1509139 B1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20150512 YEAR OF FEE PAYMENT : 13
EP1509139 B1	20150731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20150512 YEAR OF FEE PAYMENT : 13
EP1509139 B1	20160503	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC (N.D.GES.D. STAATES DELAWARE), RE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 60328386 COUNTRY OF REF DOCUMENT : DE OLD PARTY : FORMER OWNER: VIDACARE CORP., SAN ANTONIO, TEX., US
EP1509139 B1	20160506	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : FR OWNER : VIDACARE CORPORATION, US REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20160401
EP1509139 B1	20160530	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1509139 B1	20160630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 14
EP1509139 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 14
EP1509139 B1	20161230	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1509139 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP1509139 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP1509139 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160531

EP1509139 B1	20170525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1509139 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170525 YEAR OF FEE PAYMENT : 15
EP1509139 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 15
EP1509139 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 15
EP1509139 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 15
EP1509139 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170601
EP1509139 B1	20180525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1509139 B1	20180705	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20180705
EP1509139 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP1509139 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP1509139 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 16
EP1509139 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180525 YEAR OF FEE PAYMENT : 16
EP1509139 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP1509139 B1	20230530	PEXP		Calculated Patent Term Expiry	
EP1509140 A1	20050302	LSPB	+	published / reissued	
EP1509140 A1	20050302	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20041223
EP1509140 A1	20070124	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20061228
EP1509140 A1	20081015	LSRE	RTI1	TITLE (CORRECTION)	TEXT : APPARATUS TO ACCESS THE BONE MARROW
EP1509140 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP1509140 A1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT :

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	GB PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP1509140 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160530 YEAR OF FEE PAYMENT : 14
EP1509140 A1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160520 YEAR OF FEE PAYMENT : 14
EP1509140 B1	20090513	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1509140 B1	20090513	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1509140 B1	20090515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1509140 B1	20090610	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1509140 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090913
EP1509140 B1	20091117	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2328684 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1509140 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20091231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20090531
EP1509140 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY

				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090813
EP1509140 B1	20100421	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20100216
EP1509140 B1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20090530
EP1509140 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090814
EP1509140 B1	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20090530

EP1509140 B1	20110630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20091114
EP1509140 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20110930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090513
EP1509140 B1	20150508	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1509140 B1	20160503	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC (N.D.GES.D. STAATES DELAWARE), RE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 60327625 COUNTRY OF REF DOCUMENT : DE OLD PARTY : FORMER OWNER: VIDACARE CORP., SAN ANTONIO, TEX., US
EP1509140 B1	20160506	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : FR OWNER : VIDACARE CORPORATION, US REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20160401
EP1509140 B1	20160530	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1509140 B1	20160630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 14
EP1509140 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 14
EP1509140 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP1509140 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP1509140 B1	20170525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP1509140 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170525 YEAR OF FEE PAYMENT : 15
EP1509140 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT :

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	GB PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 15
EP1509140 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 15
EP1509140 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 15
EP1509140 B1	20171229	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1509140 B1	20180102	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP1509140 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP1509140 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP1509140 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP1509140 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170601
EP1509140 B1	20180525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1509140 B1	20180704	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20180704
EP1509140 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP1509140 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP1509140 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180525 YEAR OF FEE PAYMENT : 16
EP1509140 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 16
EP1509140 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP1509140 B1	20230530	PEXP		Calculated Patent Term Expiry	

EP1708621 A2	20061011	LSPB	+	published / reissued	
EP1708621 A2	20061011	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20060720
EP1708621 A2	20070328	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20070221
EP1708621 A2	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151223 YEAR OF FEE PAYMENT : 12
EP1708621 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160122 YEAR OF FEE PAYMENT : 12
EP1708621 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160119 YEAR OF FEE PAYMENT : 12
EP1708621 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 12
EP1708621 B1	20090318	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1708621 B1	20090318	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1708621 B1	20090331	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1708621 B1	20090429	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1708621 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090618

EP1708621 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20090901	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	REF COUNTRY CODE : EP
EP1708621 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090629
EP1708621 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090826
EP1708621 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PREScribed TIME-LIMIT LAPSED DATE : 20090718
EP1708621 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20090618
EP1708621 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20100224	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20091221
EP1708621 B1	20100831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20100131
EP1708621 B1	20100831	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1708621 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20100131
EP1708621 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20100131
EP1708621 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20090619
EP1708621 B1	20120831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20090919

EP1708621 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20100125
EP1708621 B1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20090318
EP1708621 B1	20151223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1708621 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160112 YEAR OF FEE PAYMENT : 12
EP1708621 B1	20160503	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC (N.D.GES.D. STAATES DELAWARE), RE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602005013355 COUNTRY OF REF DOCUMENT : DE OLD PARTY : FORMER OWNER: VIDACARE CORP., SAN ANTONIO, TEX., US
EP1708621 B1	20160506	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : FR OWNER : VIDACARE CORPORATION, US REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20160401
EP1708621 B1	20170223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1708621 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP1708621 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 13
EP1708621 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170127 YEAR OF FEE PAYMENT : 13
EP1708621 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP1708621 B1	20171101	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1708621 B1	20180125	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1708621 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170125

EP1708621 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP1708621 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP1708621 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180222 YEAR OF FEE PAYMENT : 14
EP1708621 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180125 YEAR OF FEE PAYMENT : 14
EP1708621 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 15
EP1708621 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 15
EP1708621 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190129 YEAR OF FEE PAYMENT : 15
EP1708621 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 15
EP1708621 B1	20250125	PEXP		Calculated Patent Term Expiry	
EP1919538 A2	20080514	LSPB	+	published / reissued	
EP1919538 A2	20080514	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080225
EP1919538 A2	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP1919538 A2	20160217	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20160118
EP1919538 A2	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP1919538 A2	20161228	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP1919538 A2	20170201	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170110
EP1919538 B1	20170614	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1919538 B1	20170614	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1919538 B1	20170615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 900366 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170615
EP1919538 B1	20170615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1919538 B1	20170627	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12

EP1919538 B1	20170712	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1919538 B1	20170727	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006052792 COUNTRY OF REF DOCUMENT : DE
EP1919538 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170627 YEAR OF FEE PAYMENT : 12
EP1919538 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170627 YEAR OF FEE PAYMENT : 12
EP1919538 B1	20171025	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP1919538 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170915
EP1919538 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170628 YEAR OF FEE PAYMENT : 12
EP1919538 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170728 YEAR OF FEE PAYMENT : 12
EP1919538 B1	20171115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 900366 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170614
EP1919538 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFAPSE : LAPSE BECAUSE OF FAILURE TO

				INFORMATION FROM NATIONAL OFFICE TO EPO]	SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170914
EP1919538 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180131	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1919538 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOF LAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171014
EP1919538 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180315	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006052792 COUNTRY OF REF DOCUMENT : DE
EP1919538 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180404	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1919538 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170630
EP1919538 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170630
EP1919538 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170627
EP1919538 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170627
EP1919538 B1	20180523	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180315
EP1919538 B1	20180626	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1919538 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170630

EP1919538 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170614
EP1919538 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180626 YEAR OF FEE PAYMENT : 13
EP1919538 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180627 YEAR OF FEE PAYMENT : 13
EP1919538 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180621 YEAR OF FEE PAYMENT : 13
EP1919538 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180627 YEAR OF FEE PAYMENT : 13
EP1919538 B1	20260627	PEXP		Calculated Patent Term Expiry	
EP1967142 A2	20080910	LSPB	+	published / reissued	
EP1967142 A2	20080910	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080620
EP1967142 A2	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151223 YEAR OF FEE PAYMENT : 12
EP1967142 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160119 YEAR OF FEE PAYMENT : 12
EP1967142 A2	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160122 YEAR OF FEE PAYMENT : 12
EP1967142 A2	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 12
EP1967142 A3	20090520	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20090421
EP1967142 A3	20090812	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : HU COUNTRY OF REF DOCUMENT : IE

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SK
COUNTRY OF REF DOCUMENT :
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EP1967142 B1	20100825	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1967142 B1	20100825	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1967142 B1	20100831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1967142 B1	20100915	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1967142 B1	20101020	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP1967142 B1	20101215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1967142 B1	20110125	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	REF COUNTRY CODE : EP EFFECTIVE DATE : 20100825
EP1967142 B1	20110131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110201	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A EFFECTIVE DATE : 20110120
EP1967142 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF

				NATIONAL OFFICE TO EPO]	THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101125
EP1967142 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101227
EP1967142 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101225
EP1967142 B1	20110228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20101126
EP1967142 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

EP1967142 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	PREScribed TIME-LIMIT Lapsed DATE : 20100825
EP1967142 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed DATE : 20100825
EP1967142 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed DATE : 20100825
EP1967142 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed DATE : 20100825
EP1967142 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed DATE : 20100825
EP1967142 B1	20110803	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20110526
EP1967142 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed DATE : 20110131
EP1967142 B1	20110831	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1967142 B1	20110915	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602005023228 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110526
EP1967142 B1	20111026	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1967142 B1	20111031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed DATE : 20110131
EP1967142 B1	20111031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed DATE : 20110131
EP1967142 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed DATE : 20110125
EP1967142 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : LU

EP1967142 B1	20130930	LSLE	-PG25	[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110125 COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20100825
EP1967142 B1	20151223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1967142 B1	20160331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160111 YEAR OF FEE PAYMENT : 12
EP1967142 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151230 YEAR OF FEE PAYMENT : 12
EP1967142 B1	20160503	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC (N.D.GES.D. STAATES DELAWARE), RE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602005023228 COUNTRY OF REF DOCUMENT : DE OLD PARTY : FORMER OWNER: VIDACARE CORP., SHAVANO PARK, TEX., US
EP1967142 B1	20160506	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : FR OWNER : VIDACARE CORPORATION, US REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20160401
EP1967142 B1	20170223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1967142 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP1967142 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 13
EP1967142 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170127 YEAR OF FEE PAYMENT : 13
EP1967142 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP1967142 B1	20171130	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170201
EP1967142 B1	20180125	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP1967142 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP1967142 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP1967142 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170126
EP1967142 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180222 YEAR OF FEE PAYMENT : 14
EP1967142 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180125 YEAR OF FEE PAYMENT : 14
EP1967142 B1	20181116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20181116
EP1967142 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 15
EP1967142 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190129 YEAR OF FEE PAYMENT : 15
EP1967142 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 15
EP1967142 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 15
EP1967142 B1	20250125	PEXP		Calculated Patent Term Expiry	
EP2039298 A2	20090325	LSPB	+	published / reissued	
EP2039298 A2	20090325	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090112
EP2039298 A3	20100825	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT :

					FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : HU COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : RO COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : SI COUNTRY OF REF DOCUMENT : SK COUNTRY OF REF DOCUMENT : TR
EP2039298 A3	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2039298 A3	20130724	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20130620
EP2039298 A3	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2039298 A3	20161228	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2039298 A3	20170607	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170515
EP2039298 B1	20171025	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2039298 B1	20171025	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2039298 B1	20171031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2039298 B1	20171115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 939127 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171115
EP2039298 B1	20171129	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2039298 B1	20171207	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60350724 COUNTRY OF REF DOCUMENT : DE
EP2039298 B1	20180315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 939127 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171025
EP2039298 B1	20180330	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP2039298 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180125
EP2039298 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180126
EP2039298 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180726	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60350724 COUNTRY OF REF DOCUMENT : DE
EP2039298 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : SK

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP2039298 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 16
EP2039298 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180525 YEAR OF FEE PAYMENT : 16
EP2039298 B1	20181003	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20180726
EP2039298 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP2039298 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20181214	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2039298 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY

				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171025
EP2039298 B1	20190220	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2039298 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20180531
EP2039298 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20180531
EP2039298 B1	20190329	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20180530
EP2039298 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20180530
EP2039298 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20180531
EP2039298 B1	20230530	PEXP		Calculated Patent Term Expiry	
EP2064997 A2	20090603	LSPB	+	published / reissued	
EP2064997 A2	20090603	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090313
EP2064997 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP2064997 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP2064997 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160520 YEAR OF FEE PAYMENT : 14
EP2064997 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160530 YEAR OF FEE PAYMENT : 14
EP2064997 A3	20090708	LSRE	RTI1	TITLE (CORRECTION)	TEXT : APPARATUSTO ACCESS THE BONE MARROW
EP2064997 A3	20091230	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20091125
EP2064997 A3	20100217	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE

					COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : HU COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : RO COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : SI COUNTRY OF REF DOCUMENT : SK COUNTRY OF REF DOCUMENT : TR
EP2064997 A3	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2064997 A3	20101110	LSRE	RTI1	TITLE (CORRECTION)	TEXT : APPARATUS TO ACCESS THE BONE MARROW
EP2064997 B1	20110427	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2064997 B1	20110427	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2064997 B1	20110429	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2064997 B1	20110525	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2064997 B1	20110609	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 60336939 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20110609
EP2064997 B1	20110706	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2362475 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20110706
EP2064997 B1	20110810	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2064997 B1	20111031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110829

EP2064997 B1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110728
EP2064997 B1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20111230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110531
EP2064997 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20120131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF

				NATIONAL OFFICE TO EPO]	THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20120229	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2064997 B1	20120404	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20120130
EP2064997 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110530
EP2064997 B1	20120524	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 60336939 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20120130
EP2064997 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110530
EP2064997 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110727
EP2064997 B1	20130930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20110427
EP2064997 B1	20150508	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP2064997 B1	20160503	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC (N.D.GES.D. STAATES DELAWARE), RE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 60336939 COUNTRY OF REF DOCUMENT : DE OLD PARTY : FORMER OWNER: VIDACARE CORP., SHAVANO PARK, TEX., US
EP2064997 B1	20160506	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTY TYPE : OWNER REF COUNTRY CODE : FR OWNER : VIDACARE CORPORATION, US REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20160401
EP2064997 B1	20160530	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14

EP2064997 B1	20160630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 14
EP2064997 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP2064997 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160526 YEAR OF FEE PAYMENT : 14
EP2064997 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 14
EP2064997 B1	20170525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 15
EP2064997 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 15
EP2064997 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170530 YEAR OF FEE PAYMENT : 15
EP2064997 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170525 YEAR OF FEE PAYMENT : 15
EP2064997 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 15
EP2064997 B1	20171229	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2064997 B1	20180102	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP2064997 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2064997 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2064997 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2064997 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170601
EP2064997 B1	20180525	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP2064997 B1	20180706	LSLE	REG	REFERENCE TO A	REF COUNTRY CODE : ES

				NATIONAL CODE	REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20180706
EP2064997 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP2064997 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180525 YEAR OF FEE PAYMENT : 16
EP2064997 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180522 YEAR OF FEE PAYMENT : 16
EP2064997 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170531
EP2064997 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 16
EP2064997 B1	20230530	PEXP		Calculated Patent Term Expiry	
EP2066389 A2	20090610	LSPB	+	published / reissued	
EP2066389 A2	20090610	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090409
EP2066389 A2	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2066389 A4	20110413	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20110316
EP2066389 A4	20120606	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120503
EP2066389 A4	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2066389 A4	20160727	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160629
EP2066389 B1	20161207	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2066389 B1	20161207	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2066389 B1	20161215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2066389 B1	20161215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 851204 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161215
EP2066389 B1	20161228	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2066389 B1	20161228	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2066389 B1	20170119	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007049079 COUNTRY OF REF DOCUMENT : DE

EP2066389 B1	20270911	PEXP		Calculated Patent Term Expiry	
EP2066389 B8	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170410	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2066389 B8	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170308
EP2066389 B8	20170515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 851204 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161207
EP2066389 B8	20170519	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2612955 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170519
EP2066389 B8	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE :

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170407
EP2066389 B8	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170407
EP2066389 B8	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170307
EP2066389 B8	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20170908	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007049079 COUNTRY OF REF DOCUMENT : DE

EP2066389 B8	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2066389 B8	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 11
EP2066389 B8	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 11
EP2066389 B8	20171115	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170908
EP2066389 B8	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 11
EP2066389 B8	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171024 YEAR OF FEE PAYMENT : 11
EP2066389 B8	20180430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2066389 B8	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161207
EP2066389 B8	20180627	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2066389 B8	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2066389 B8	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20171001
EP2066389 B8	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170930
EP2066389 B8	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE :

EP2066389 B8	20180731	LSLE	-PG25	POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170930 COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2066389 B8	20180925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP2066389 B8	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2066389 B8	20181024	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20181024
EP2066389 B8	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180925 YEAR OF FEE PAYMENT : 12
EP2066389 B8	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180920 YEAR OF FEE PAYMENT : 12
EP2066389 B8	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180927 YEAR OF FEE PAYMENT : 12
EP2066389 B8	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180927 YEAR OF FEE PAYMENT : 12
EP2066389 B8	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170912
EP2068725 A2	20090617	LSPB	+	published / reissued	
EP2068725 A2	20090617	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090409
EP2068725 A2	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2068725 A4	20110413	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20110316
EP2068725 A4	20120606	LSES	+17Q	FIRST EXAMINATION REPORT DESPACHED	EFFECTIVE DATE : 20120503
EP2068725 A4	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2068725 A4	20160629	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160603
EP2068725 B1	20161109	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2068725 B1	20161109	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2068725 B1	20161115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2068725 B1	20161115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER :

					843136 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161115
EP2068725 B1	20161130	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2068725 B1	20161207	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC, WAYNE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602007048697 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: VIDACARE LLC, SHAVANO PARK, TEX., US
EP2068725 B1	20161222	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007048697 COUNTRY OF REF DOCUMENT : DE
EP2068725 B1	20161228	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2068725 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170310	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2068725 B1	20170415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 843136 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161109
EP2068725 B1	20170425	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2609923 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170425
EP2068725 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	COUNTRY OF REF DOCUMENT : GR

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170210
EP2068725 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170309
EP2068725 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170309
EP2068725 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF

				NATIONAL OFFICE TO EPO]	THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170810	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007048697 COUNTRY OF REF DOCUMENT : DE
EP2068725 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170209
EP2068725 B1	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2068725 B1	20171018	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170810
EP2068725 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 11
EP2068725 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 11
EP2068725 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 11
EP2068725 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171024 YEAR OF FEE PAYMENT : 11
EP2068725 B1	20180430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2068725 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PREScribed TIME-LIMIT LAPSED DATE : 20161109
EP2068725 B1	20180627	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2068725 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2068725 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20171001
EP2068725 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170930
EP2068725 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2068725 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170930
EP2068725 B1	20180925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP2068725 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2068725 B1	20181024	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20181024
EP2068725 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180920 YEAR OF FEE PAYMENT : 12
EP2068725 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180927 YEAR OF FEE PAYMENT : 12
EP2068725 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180925 YEAR OF FEE PAYMENT : 12
EP2068725 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180927 YEAR OF FEE PAYMENT : 12
EP2068725 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170912
EP2068725 B1	20270911	PEXP		Calculated Patent Term Expiry	
EP2068743 A2	20090617	LSPB	+	published / reissued	

EP2068743 A2	20090617	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090409
EP2068743 A2	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2068743 A4	20110420	LSSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20110318
EP2068743 A4	20120530	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120430
EP2068743 A4	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 46/00 20160101ALI20160831BHEP
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 50/33 20160101ALI20160831BHEP
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 50/30 20160101ALI20160831BHEP
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 17/00 20060101ALI20160831BHEP
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 10/02 20060101AFI20160831BHEP
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 46/10 20160101ALI20160831BHEP
EP2068743 A4	20161005	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 90/00 20160101ALI20160831BHEP
EP2068743 A4	20161102	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20161005
EP2068743 A4	20161228	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2068743 B1	20170315	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2068743 B1	20170315	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2068743 B1	20170315	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2068743 B1	20170405	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2068743 B1	20170415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 874749 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170415
EP2068743 B1	20170427	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007050227 COUNTRY OF REF DOCUMENT :

					DE
EP2068743 B1	20170725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2068743 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170616
EP2068743 B1	20170815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 874749 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170315
EP2068743 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170615
EP2068743 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20170925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2068743 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315

EP2068743 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170925 YEAR OF FEE PAYMENT : 11
EP2068743 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 11
EP2068743 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170717
EP2068743 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170715
EP2068743 B1	20171130	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20171218	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602007050227 COUNTRY OF REF DOCUMENT : DE
EP2068743 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170927 YEAR OF FEE PAYMENT : 11
EP2068743 B1	20180221	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20171218
EP2068743 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20171024 YEAR OF FEE PAYMENT : 11
EP2068743 B1	20180430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2068743 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170315
EP2068743 B1	20180627	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2068743 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2068743 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170930
EP2068743 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2068743 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-

EP2068743 B1	20180831	LSLE	-PG25	INFORMATION FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	PAYMENT OF DUE FEES LAPSED DATE : 20170930 COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170930
EP2068743 B1	20180925	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP2068743 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170911
EP2068743 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180920 YEAR OF FEE PAYMENT : 12
EP2068743 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180925 YEAR OF FEE PAYMENT : 12
EP2068743 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180927 YEAR OF FEE PAYMENT : 12
EP2068743 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180927 YEAR OF FEE PAYMENT : 12
EP2068743 B1	20270911	PEXP		Calculated Patent Term Expiry	
EP2073728 A2	20090701	LSPB	+	published / reissued	
EP2073728 A2	20090701	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090409
EP2073728 A2	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2073728 A4	20110420	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20110317
EP2073728 A4	20120606	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20120503
EP2073728 A4	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2073728 A4	20161228	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2073728 A4	20180509	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180413
EP2073728 A4	20180725	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A.R.L.
EP2073728 B1	20181107	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2073728 B1	20181107	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2073728 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1061151 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) :

EFFECTIVE DATE : 20181115					
EP2073728 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2073728 B1	20181128	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2073728 B1	20181129	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007056764 COUNTRY OF REF DOCUMENT : DE
EP2073728 B1	20190325	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2073728 B1	20190415	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 1061151 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20181107
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190307
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107
EP2073728 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20181107

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20190207
EP2073728 B1	20270911	PEXP		Calculated Patent Term Expiry	
EP2098181 A2	20090909	LSPB	+	published / reissued	
EP2098181 A2	20090909	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090120
EP2098181 A3	20100728	LSFE	+AKX	DESIGNATION FEES PAID	COUNTRY OF REF DOCUMENT : AT COUNTRY OF REF DOCUMENT : BE COUNTRY OF REF DOCUMENT : BG COUNTRY OF REF DOCUMENT : CH COUNTRY OF REF DOCUMENT : CY COUNTRY OF REF DOCUMENT : CZ COUNTRY OF REF DOCUMENT : DE COUNTRY OF REF DOCUMENT : DK COUNTRY OF REF DOCUMENT : EE COUNTRY OF REF DOCUMENT : ES COUNTRY OF REF DOCUMENT : FI COUNTRY OF REF DOCUMENT : FR COUNTRY OF REF DOCUMENT : GB COUNTRY OF REF DOCUMENT : GR COUNTRY OF REF DOCUMENT : HU COUNTRY OF REF DOCUMENT : IE COUNTRY OF REF DOCUMENT : IS COUNTRY OF REF DOCUMENT : IT COUNTRY OF REF DOCUMENT : LI COUNTRY OF REF DOCUMENT : LT COUNTRY OF REF DOCUMENT : LU COUNTRY OF REF DOCUMENT : MC COUNTRY OF REF DOCUMENT : NL COUNTRY OF REF DOCUMENT : PL COUNTRY OF REF DOCUMENT : PT COUNTRY OF REF DOCUMENT : RO COUNTRY OF REF DOCUMENT : SE COUNTRY OF REF DOCUMENT : SI COUNTRY OF REF DOCUMENT : SK COUNTRY OF REF DOCUMENT : TR
EP2098181 A3	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2098181 A3	20110223	LSSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20110119
EP2098181 A3	20120111	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 17/34 20060101ALI20111206BHEP
EP2098181 A3	20120111	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 10/02 20060101AFI20111206BHEP
EP2098181 A3	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION	PARTYTYPE : OWNER OWNER : VIDACARE LLC

TRANSFERRED					
EP2098181 A3	20160608	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20160511
EP2098181 B1	20161019	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2098181 B1	20161019	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2098181 B1	20161031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2098181 B1	20161115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 837637 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161115
EP2098181 B1	20161116	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2098181 B1	20161201	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602005050501 COUNTRY OF REF DOCUMENT : DE
EP2098181 B1	20161228	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2098181 B1	20170131	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC, WAYNE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602005050501 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: VIDACARE LLC, SHAVANO PARK, TEX., US
EP2098181 B1	20170223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP2098181 B1	20170227	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2098181 B1	20170315	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 837637 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20161019
EP2098181 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019

EP2098181 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170120
EP2098181 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 13
EP2098181 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP2098181 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170219
EP2098181 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170220
EP2098181 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170127 YEAR OF FEE PAYMENT : 13
EP2098181 B1	20170720	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602005050501 COUNTRY OF REF DOCUMENT :

DE					
EP2098181 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170119
EP2098181 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP2098181 B1	20170831	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2098181 B1	20170927	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170720
EP2098181 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170131
EP2098181 B1	20171031	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170131
EP2098181 B1	20171101	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2098181 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161019
EP2098181 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170125
EP2098181 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170201
EP2098181 B1	20180125	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP2098181 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170125
EP2098181 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP2098181 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP2098181 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170126
EP2098181 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180125 YEAR OF FEE PAYMENT : 14
EP2098181 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180222 YEAR OF FEE PAYMENT : 14
EP2098181 B1	20180621	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20180621
EP2098181 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 15
EP2098181 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 15
EP2098181 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO	COUNTRY OF REF DOCUMENT :

EP2098181 B1	20190430	LSFE	+PGFP	NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 15 COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190129 YEAR OF FEE PAYMENT : 15
EP2098181 B1	20250125	PEXP		Calculated Patent Term Expiry	
EP2131751 A2	20091216	LSPB	+	published / reissued	
EP2131751 A2	20091216	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20091007
EP2131751 A2	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION
EP2131751 A4	20130619	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20130523
EP2131751 A4	20130619	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 17/88 20060101ALI20130516BHEP
EP2131751 A4	20130619	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 17/34 20060101ALI20130516BHEP
EP2131751 A4	20130619	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 17/16 20060101AFI20130516BHEP
EP2131751 A4	20140514	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140410
EP2131751 A4	20160120	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20151221
EP2131751 A4	20160518	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : VIDACARE LLC
EP2131751 B1	20160525	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2131751 B1	20160525	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2131751 B1	20160531	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2131751 B1	20160615	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2131751 B1	20160615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 801567 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160615
EP2131751 B1	20160707	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602008044438 COUNTRY OF REF DOCUMENT : DE
EP2131751 B1	20160923	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2584029 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20160923

EP2131751 B1	20160926	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2131751 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160825
EP2131751 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20161115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 801567 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160525
EP2131751 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160826
EP2131751 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY

				EPO]	THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160926
EP2131751 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 10
EP2131751 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170228	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097

REF DOCUMENT NUMBER :
602008044438
COUNTRY OF REF DOCUMENT :
DE

EP2131751 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 10
EP2131751 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 10
EP2131751 B1	20170503	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170228
EP2131751 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 10
EP2131751 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 10
EP2131751 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160525
EP2131751 B1	20170929	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2131751 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2131751 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170228
EP2131751 B1	20171129	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2131751 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170301
EP2131751 B1	20171229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170204
EP2131751 B1	20180227	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2131751 B1	20180228	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170204
EP2131751 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 11
EP2131751 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 11
EP2131751 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180222 YEAR OF FEE PAYMENT : 11
EP2131751 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180227 YEAR OF FEE PAYMENT : 11
EP2131751 B1	20180710	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20180710
EP2131751 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170204
EP2131751 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20170205
EP2131751 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190227 YEAR OF FEE PAYMENT : 12
EP2131751 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 12
EP2131751 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190227 YEAR OF FEE PAYMENT : 12
EP2131751 B1	20280204	PEXP		Calculated Patent Term Expiry	
EP2177171 A1	20100421	LSPB	+	published / reissued	
EP2177171 A1	20100922	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100812
EP2177171 A1	20101013	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20100908
EP2177171 A1	20101020	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTY TYPE : OWNER OWNER : VIDACARE CORPORATION
EP2177171 A1	20110525	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATION SCHEME : IPC CLASSIFICATION SYMBOL : A61B 17/34 20060101AFI20110415BHEP
EP2177171 A1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822

EP2177171 A1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121222
EP2177171 A1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 A1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 A1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151223 YEAR OF FEE PAYMENT : 12
EP2177171 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160119 YEAR OF FEE PAYMENT : 12
EP2177171 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160122 YEAR OF FEE PAYMENT : 12
EP2177171 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20120822	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2177171 B1	20120822	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2177171 B1	20120831	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2177171 B1	20120912	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2177171 B1	20120915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 571486 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120915
EP2177171 B1	20121018	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602005035827 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20121018
EP2177171 B1	20121212	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2177171 B1	20130115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER :

					571486 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20120822
EP2177171 B1	20130125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D EFFECTIVE DATE : 20120822
EP2177171 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121222
EP2177171 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20121231 YEAR OF FEE PAYMENT : 9
EP2177171 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121224
EP2177171 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121123
EP2177171 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130304	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2397077 COUNTRY OF REF DOCUMENT :

					ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130304
EP2177171 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20120822
EP2177171 B1	20130628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20121231 YEAR OF FEE PAYMENT : 9
EP2177171 B1	20130731	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20130523
EP2177171 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121122
EP2177171 B1	20130919	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602005035827 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130523
EP2177171 B1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140131
EP2177171 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE :

EP2177171 B1	20150731	LSLE	-PG25	POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20130125 COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20050125
EP2177171 B1	20151223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20151215 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160111 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160111 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20160111 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151230 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160112 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160503	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : VIDACARE LLC (N.D.GES.D. STAATES DELAWARE), RE, US REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602005035827 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: VIDACARE CORP., SHAVANO PARK, TEX., US
EP2177171 B1	20160506	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : VIDACARE CORPORATION, US REF LEGAL EVENT CODE : CD EFFECTIVE DATE : 20160401
EP2177171 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160112 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160127 YEAR OF FEE PAYMENT : 12
EP2177171 B1	20160930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY LAPSED DATE : 20120822

EP2177171 B1	20170223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP2177171 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170227 YEAR OF FEE PAYMENT : 13
EP2177171 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP2177171 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170131
EP2177171 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170127 YEAR OF FEE PAYMENT : 13
EP2177171 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170223 YEAR OF FEE PAYMENT : 13
EP2177171 B1	20170831	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2177171 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170131
EP2177171 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170131
EP2177171 B1	20171101	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2177171 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170201
EP2177171 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170126
EP2177171 B1	20180125	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 14
EP2177171 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170125
EP2177171 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP2177171 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20180129 YEAR OF FEE PAYMENT : 14
EP2177171 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170126
EP2177171 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180222 YEAR OF FEE PAYMENT : 14
EP2177171 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180125 YEAR OF FEE PAYMENT : 14
EP2177171 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170125
EP2177171 B1	20181116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20181116
EP2177171 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190128 YEAR OF FEE PAYMENT : 15
EP2177171 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190222 YEAR OF FEE PAYMENT : 15
EP2177171 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 15
EP2177171 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190129 YEAR OF FEE PAYMENT : 15
EP2177171 B1	20250125	PEXP		Calculated Patent Term Expiry	
EP3123944 A1	20170201	LSPB	+	published / reissued	
EP3123944 A1	20170906	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170731
EP3123944 A1	20180808	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L.
EP3123944 A1	20190313	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190207
EP3153116 A1	20170412	LSPB	+	published / reissued	
EP3153116 A1	20171122	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20171012
EP3153116 A1	20180808	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TITEFLEX MEDICAL DEVICES S.A.R.L.
EP3153116 A1	20190320	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20190219
EP3167813 A1	20170517	LSPB	+	published / reissued	
EP3167813 A1	20171227	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20171117
EP3167813 A1	20180808	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TITEFLEX MEDICAL DEVICES S.A.R.L.
EP3167813 A1	20190626	LSGT	+INTG	INTENTION TO GRANT	EFFECTIVE DATE : 20190528

EP3189787 A1	20170712	LSPB	+	ANNOUNCED published / reissued	
EP3189787 A1	20180221	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180111
EP3189787 A1	20180808	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TITEFLEX MEDICAL DEVICES S.A.R.L.
EP3189787 A1	20180822	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180724
EP3189787 B1	20190109	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3189787 B1	20190109	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP3189787 B1	20190115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3189787 B1	20190115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1086329 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20190115
EP3189787 B1	20190124	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007057418 COUNTRY OF REF DOCUMENT : DE
EP3189787 B1	20190206	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP3189787 B1	20190527	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP3189787 B1	20270911	PEXP		Calculated Patent Term Expiry	
EP3228344 A1	20171011	LSPB	+	published / reissued	
EP3228344 A1	20180516	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180410
EP3228344 A1	20180808	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L.
EP3292821 A1	20180314	LSPB	+	published / reissued	
EP3292821 A1	20181017	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20180425
ES2328129 T3	20091110	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2328129 T3	20230530	PEXP		Calculated Patent Term Expiry	
ES2328684 T3	20091117	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2328684 T3	20230530	PEXP		Calculated Patent Term Expiry	
ES2351177 T3	20110201	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2351177 T3	20250125	PEXP		Calculated Patent Term Expiry	
ES2362475 T3	20110706	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2362475 T3	20230530	PEXP		Calculated Patent Term Expiry	
ES2397077 T3	20130304	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2397077 T3	20250125	PEXP		Calculated Patent Term Expiry	

ES2584029 T3	20160923	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2584029 T3	20280204	PEXP		Calculated Patent Term Expiry	
ES2607206 T3	20170329	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2607206 T3	20250125	PEXP		Calculated Patent Term Expiry	
ES2609923 T3	20170425	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2609923 T3	20270911	PEXP		Calculated Patent Term Expiry	
ES2612955 T3	20170519	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2612955 T3	20270911	PEXP		Calculated Patent Term Expiry	
HK1176261 A1	20130726	LSPB	+	published / reissued	
HK1200686 A1	20150814	LSPB	+	published / reissued	
HK1200686 A1	20350206	PEXP		Calculated Patent Term Expiry	
JP2005527311 T2	20050915	LSPB	+	published / reissued	
JP2005527311 T2	20060512	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20060511
JP2005527311 T2	20090303	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090303
JP2005527311 T2	20090902	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090901
JP2005527311 T2	20100202	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2005527311 T2	20100209	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20100209
JP2005527311 T2	20100212	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2005527311 T2	20100408	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20100331
JP2005527311 T2	20100409	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2005527311 T2	20100409	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2005527312 T2	20050915	LSPB	+	published / reissued	
JP2005527312 T2	20060512	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20060511
JP2005527312 T2	20090421	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090421
JP2005527312 T2	20091022	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20091021
JP2005527312 T2	20091124	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20091124

JP2005527312 T2	20100408	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100407
JP2005527312 T2	20100831	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100831
JP2005527312 T2	20110301	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110228
JP2005527312 T2	20110531	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110531
JP2005527312 T2	20111001	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110930
JP2005527312 T2	20111121	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20111118
JP2005527312 T2	20120125	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2005527312 T2	20120131	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120131
JP2005527312 T2	20120202	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP2005527312 T2	20120301	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120224
JP2005527312 T2	20120302	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP2005527312 T2	20120302	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2010046504 A2	20100304	LSPB	+	published / reissued	
JP2010046504 A2	20111101	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20111101
JP2010046504 A2	20120502	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120501
JP2010046504 A2	20120904	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20120904
JP2010046504 A2	20130105	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130104
JP2010046504 A2	20130117	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130116
JP2010046504 A2	20130301	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20130228
JP2010046504 A2	20130507	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130507
JP2010046504 A2	20131108	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131107

JP2010046504 A2	20131224	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2010046504 A2	20140107	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140107
JP2010046504 A2	20140213	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140205
JP2010046504 A2	20140214	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP2013099552 A2	20130523	LSPB	+	published / reissued	
JP2013099552 A2	20140225	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140225
JP2013099552 A2	20140826	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140825
JP2013099552 A2	20150203	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20150203
JP2013099552 A2	20150603	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150603
JP2013099552 A2	20150819	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20150818
JP2013099552 A2	20151110	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20151110
JP2013099552 A2	20160404	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160404
JP2013099552 A2	20160426	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160426
JP2013099552 A2	20160516	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013099552 A2	20160518	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20160518
JP2013099552 A2	20160616	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20160613
JP2013099552 A2	20160617	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5953238 COUNTRY OF REF DOCUMENT : JP
JP4489583 B2	20100623	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4489583 B2	20100406	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20130328	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4489583 B2	20130409	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 4

JP4489583 B2	20140403	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20140408	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4489583 B2	20150402	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20150407	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4489583 B2	20151218	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533
JP4489583 B2	20160331	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20160405	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4489583 B2	20160419	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533
JP4489583 B2	20160427	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP4489583 B2	20170330	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20170404	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4489583 B2	20180329	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20180403	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4489583 B2	20190205	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP4489583 B2	20190214	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP4489583 B2	20190411	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4489583 B2	20190416	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4489583 B2	20230530	PEXP		Calculated Patent Term Expiry	
JP4938979 B2	20120523	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4938979 B2	20120228	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4938979 B2	20150305	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4938979 B2	20150310	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4938979 B2	20151218	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533
JP4938979 B2	20160104	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP4938979 B2	20160303	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4938979 B2	20160308	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4938979 B2	20170302	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4938979 B2	20170307	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250

JP4938979 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4938979 B2	20180306	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4938979 B2	20190205	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP4938979 B2	20190214	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP4938979 B2	20190328	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4938979 B2	20190402	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4938979 B2	20230530	PEXP		Calculated Patent Term Expiry	
JP5474484 B2	20140416	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5474484 B2	20140109	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5474484 B2	20140210	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5474484 B2	20140214	LSGT	+R150	特許証 (Patent certificate)	
JP5474484 B2	20151218	LSAS	S533	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF NAME	TEXT : JAPANESE INTERMEDIATE CODE: R313533
JP5474484 B2	20160104	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5474484 B2	20170216	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5474484 B2	20170221	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5474484 B2	20180301	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5474484 B2	20180306	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5474484 B2	20190205	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5474484 B2	20190214	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5474484 B2	20190214	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP5474484 B2	20190226	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5474484 B2	20291021	PEXP		Calculated Patent Term Expiry	
JP5953238 B2	20160720	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5953238 B2	20160526	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5953238 B2	20160614	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5953238 B2	20160617	LSGT	+R150	特許証 (Patent certificate)	
JP5953238 B2	20190205	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	TEXT : JAPANESE INTERMEDIATE CODE: R313113
JP5953238 B2	20190214	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF	TEXT : JAPANESE INTERMEDIATE CODE: R350

JP5953238 B2	20190620	LSFE	R20	TRANSFER 特許料納付書 (Patent fee payment form)	
JP5953238 B2	20330104	PEXP		Calculated Patent Term Expiry	
TW200518798 A	20050616	LSPB	+	published / reissued	
TW200526284 A	20050816	LSPB	+	published / reissued	
TW200835530 A	20080901	LSPB	+	published / reissued	
TWI341738 B	20110511	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI341738 B	20180211	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TWI341738 B	20250125	PEXP		Calculated Patent Term Expiry	
US10016217 BB	20180710	LSGT	+	granted / extensions (spc, cpc, pte)	
US10016217 BB	20160912	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:039993/0780 EFFECTIVE DATE : 20140327
US10016217 BB	20160912	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:039696/0592 EFFECTIVE DATE : 20060818
US10016217 BB	20180620	LSGT	PAT1	Patented Case	
US10016217 BB	20360912	PEXP		Calculated Patent Term Expiry	
US10052111 BB	20180821	LSGT	+	granted / extensions (spc, cpc, pte)	
US10052111 BB	20180801	LSGT	PAT1	Patented Case	
US10052111 BB	20331113	PEXP		Calculated Patent Term Expiry (PTA 429 days)	
US10166332 BB	20190101	LSGT	+	granted / extensions (spc, cpc, pte)	
US10166332 BB	20160310	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:038088/0248 EFFECTIVE DATE : 20140327
US10166332 BB	20160310	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:037941/0487
US10166332 BB	20181212	LSGT	PAT1	Patented Case	
US10166332 BB	20360913	PEXP		Calculated Patent Term Expiry (PTA 189 days and a terminal disclaimer has been filed)	
US10245010 BB	20190402	LSGT	+	granted / extensions (spc, cpc, pte)	
US10245010 BB	20190313	LSGT	PAT1	Patented Case	
US10245010 BB	20340219	PEXP		Calculated Patent Term Expiry	

US2003225344 AA	20031204	LSPB	+	published / reissued	
US2003225344 AA	20030530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:014144/0622 EFFECTIVE DATE : 20030529
US2003225344 AA	20060915	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2003225344 AA	20060915	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2003225411 AA	20031204	LSPB	+	published / reissued	
US2003225411 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2003225411 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2003225411 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2003225411 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2003225411 AA	20100331	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005131345 AA	20050616	LSPB	+	published / reissued	
US2005131345 AA	20050802	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTING ASSIGNMENT FILED AT REEL/FRAME 016003/0584; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:016834/0881 EFFECTIVE DATE : 20041111
US2005131345 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005131345 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY

US2005131345 AA	20090915	LSAS	AS	ASSIGNMENT	AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005131345 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005131345 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005131345 AA	20120307	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005148940 AA	20050707	LSPB	+	published / reissued	
US2005148940 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005148940 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005148940 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005148940 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005148940 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2005148940 AA	20160330	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005165403 AA	20050728	LSPB	+	published / reissued	
US2005165403 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544

US2005165403 AA	20071114	LSAS	AS	ASSIGNMENT	EFFECTIVE DATE : 20070321 PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005165403 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005165403 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005165403 AA	20100929	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005165404 AA	20050728	LSPB	+	published / reissued	
US2005165404 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005165404 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005165404 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005165404 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005165404 AA	20140115	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005171504 AA	20050804	LSPB	+	published / reissued	
US2005171504 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321

US2005171504 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005171504 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005171504 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005171504 AA	20100210	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2005261693 AA	20051124	LSPB	+	published / reissued	
US2005261693 AA	20060209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WILK, ROBERT A.; SCHWIMMER, CHARLES M.; BOLLETER, DAVID S.; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:017143/0800
US2005261693 AA	20060209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:WILK, ROBERT A.; SCHWIMMER, CHARLES M.; BOLLETER, DAVID S.; REEL/FRAME:017143/0800; SIGNING DATES FROM 20050725 TO 20051116
US2005261693 AA	20060329	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE CLERICAL ERROR OF LEAVING OUT INVENTOR LARRY J. MILLER PREVIOUSLY RECORDED ON REEL 017142 FRAME 0800. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:017380/0975 EFFECTIVE DATE : 20051116
US2005261693 AA	20060329	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE CLERICAL ERROR OF LEAVING OUT INVENTOR LARRY J. MILLER PREVIOUSLY RECORDED ON REEL 017142 FRAME 0800; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:017380/0975 EFFECTIVE DATE : 20051116
US2005261693 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY

					AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005261693 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2005261693 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005261693 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2005261693 AA	20100922	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006036212 AA	20060216	LSPB	+	published / reissued	
US2006036212 AA	20070109	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:018733/0861 EFFECTIVE DATE : 20030528
US2006036212 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006036212 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006036212 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006036212 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006036212 AA	20130724	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2006052790 AA	20060309	LSPB	+	published / reissued	
US2006052790 AA	20060416	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:017476/0876 EFFECTIVE DATE : 20030528
US2006052790 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006052790 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006052790 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006052790 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006052790 AA	20141015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2006167378 AA	20060727	LSPB	+	published / reissued	
US2006167378 AA	20060630	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:017863/0863 EFFECTIVE DATE : 20060323
US2006167378 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006167378 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006167378 AA	20080226	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

US2006167378 AA	20080226	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2006167378 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006167378 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006167379 AA	20060727	LSPB	+	published / reissued	
US2006167379 AA	20060630	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:017863/0851 EFFECTIVE DATE : 20060323
US2006167379 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006167379 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2006167379 AA	20080226	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2006167379 AA	20080226	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2006167379 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2006167379 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007016100 AA	20070118	LSPB	+	published / reissued	
US2007016100 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321

US2007016100 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2007016100 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007016100 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007016100 AA	20110511	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007049945 AA	20070301	LSPB	+	published / reissued	
US2007049945 AA	20061018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:018404/0914 EFFECTIVE DATE : 20060818
US2007049945 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2007049945 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2007049945 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007049945 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007049945 AA	20110211	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2007049945 AA	20110211	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

US2007084742 AA	20070419	LSPB	+	published / reissued	
US2007084742 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2007084742 AA	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US2007084742 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007084742 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007084742 AA	20150617	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007270775 AA	20071122	LSPB	+	published / reissued	
US2007270775 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007270775 AA	20090915	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:023234/0056 EFFECTIVE DATE : 20090910
US2007270775 AA	20150318	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008015467 AA	20080117	LSPB	+	published / reissued	
US2008015467 AA	20070723	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:019601/0294 EFFECTIVE DATE : 20070720
US2008015467 AA	20110722	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008015467 AA	20110722	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2008015468 AA	20080117	LSPB	+	published / reissued	
US2008015468 AA	20070723	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

OWNER : VIDACARE CORPORATION, TEXAS
 OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;
 ASSIGNOR:MILLER, LARRY J.;
 REEL/FRAME:019601/0291
 EFFECTIVE DATE : 20070720

US2008015468 AA	20110726	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008015468 AA	20110726	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2008045857 AA	20080221	LSPB	+	published / reissued	
US2008045857 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2008045857 AA	20161228	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008045860 AA	20080221	LSPB	+	published / reissued	
US2008045860 AA	20101123	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008045861 AA	20080221	LSPB	+	published / reissued	
US2008045861 AA	20140205	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008045965 AA	20080221	LSPB	+	published / reissued	
US2008045965 AA	20140219	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008215056 AA	20080904	LSPB	+	published / reissued	
US2008215056 AA	20090409	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; REEL/FRAME:022526/0459 EFFECTIVE DATE : 20080514
US2008215056 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2008215056 AA	20160907	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008221580 AA	20080911	LSPB	+	published / reissued	
US2008221580 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2008221580 AA	20161109	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009054808 AA	20090226	LSPB	+	published / reissued	
US2009054808 AA	20090424	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:022590/0811 EFFECTIVE DATE : 20060818
US2009054808 AA	20150624	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009093830 AA	20090409	LSPB	+	published / reissued	
US2009093830 AA	20140416	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009112168 AA	20090430	LSPB	+	published / reissued	
US2009112168 AA	20110928	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009194446 AA	20090806	LSPB	+	published / reissued	
US2009194446 AA	20150114	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009204024 AA	20090813	LSPB	+	published / reissued	
US2009204024 AA	20140319	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009326486 AA	20091231	LSPB	+	published / reissued	
US2009326486 AA	20121024	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010004626 AA	20100107	LSPB	+	published / reissued	
US2010004626 AA	20130327	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010137740 AA	20100603	LSPB	+	published / reissued	
US2010137740 AA	20100312	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:024073/0102 EFFECTIVE DATE : 20100126
US2010137740 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2010137740 AA	20160821	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2010137740 AA	20160821	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2010160867 AA	20100624	LSPB	+	published / reissued	
US2010160867 AA	20110114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE MIDDLE INITIAL OF THE FOURTH INVENTOR AND THE ASSIGNEE'S ADDRESS PREVIOUSLY RECORDED ON REEL 024037 FRAME 0600. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:025633/0953

US2010160867 AA	20130619	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010160868 AA	20100624	LSPB	+	published / reissued	
US2010160868 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2010160868 AA	20160309	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010298784 AA	20101125	LSPB	+	published / reissued	
US2010298784 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2010298784 AA	20160817	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011028976 AA	20110203	LSPB	+	published / reissued	
US2011028976 AA	20141008	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011082387 AA	20110407	LSPB	+	published / reissued	
US2011082387 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2011082387 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2011082387 AA	20170303	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2011082387 AA	20170607	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2011082387 AA	20170608	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2011082387 AA	20170620	LSFE	+AWA3	Awaiting TC Resp, Issue Fee Payment Verified	
US2011082387 AA	20170626	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2011082387 AA	20170712	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2011098604 AA	20110428	LSPB	+	published / reissued	
US2011098604 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2011098604 AA	20160824	LSGT	STCF	INFORMATION ON STATUS: PATENT	TEXT : PATENTED CASE

GRANT					
US2011118675 AA	20110519	LSPB	+	published / reissued	
US2011118675 AA	20140312	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2012109061 AA	20120503	LSPB	+	published / reissued	
US2012109061 AA	20131018	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:031431/0863 EFFECTIVE DATE : 20051116
US2012109061 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2012109061 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2012109061 AA	20170321	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2012109061 AA	20170405	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:041852/0845
US2012109061 AA	20170621	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2012109061 AA	20170624	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2012109061 AA	20170712	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013096561 AA	20130418	LSPB	+	published / reissued	
US2013096561 AA	20131021	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20080418 TO 20080514; REEL/FRAME:031442/0559
US2013096561 AA	20150821	LSES	NFA1	Non Final Action Mailed	
US2013096561 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2013096561 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL

DEVICES S.A R.L.,
LUXEMBOURG
OLDPARTY : ASSIGNMENT OF
ASSIGNORS INTEREST;
ASSIGNOR:VIDACARE LLC;
REEL/FRAME:041784/0700
EFFECTIVE DATE : 20170213

US2013096561 AA	20170612	LSES	NFA1	Non Final Action Mailed	
US2013096561 AA	20180416	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2013096561 AA	20180717	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2013096561 AA	20180718	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2013096561 AA	20180801	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014142577 AA	20140522	LSPB	+	published / reissued	
US2014142577 AA	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US2014142577 AA	20160330	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014188001 AA	20140703	LSPB	+	published / reissued	
US2014188001 AA	20151120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037151/0232 EFFECTIVE DATE : 20140327
US2014188001 AA	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20071101 TO 20071107; REEL/FRAME:037238/0191
US2014188001 AA	20161116	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014288499 AA	20140925	LSPB	+	published / reissued	
US2014288499 AA	20150128	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:034833/0075 EFFECTIVE DATE : 20030529
US2014288499 AA	20150311	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014343454 AA	20141120	LSPB	+	published / reissued	
US2014343454 AA	20151120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037151/0232 EFFECTIVE DATE : 20140327

US2014343454 AA	20151203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20071101 TO 20071107; REEL/FRAME:037202/0803
US2014343454 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2014343454 AA	20170427	LSES	NFA1	Non Final Action Mailed	
US2014343454 AA	20180411	LSES	NFA1	Non Final Action Mailed	
US2014343454 AA	20181114	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014343454 AA	20190219	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014343454 AA	20190313	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2015127006 AA	20150507	LSPB	+	published / reissued	
US2015127006 AA	20151120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037151/0232 EFFECTIVE DATE : 20140327
US2015127006 AA	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:COMERICA BANK; REEL/FRAME:037244/0112 EFFECTIVE DATE : 20090910
US2015127006 AA	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:037238/0259 EFFECTIVE DATE : 20030528
US2015127006 AA	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037238/0301 EFFECTIVE DATE : 20070321
US2015127006 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2015127006 AA	20170404	LSES	NFA1	Non Final Action Mailed	
US2015127006 AA	20180220	LSES	NFA1	Non Final Action Mailed	

US2015127006 AA	20190221	LSSES	NFA1	Non Final Action Mailed	
US2015127006 AA	20190620	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015129456 AA	20150514	LSPB	+	published / reissued	
US2015129456 AA	20151120	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037151/0232 EFFECTIVE DATE : 20140327
US2015129456 AA	20151203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; EISBRENNER, ERIC W.; SIGNING DATES FROM 20090313 TO 20090317; REEL/FRAME:037200/0633
US2015129456 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2015129456 AA	20170720	LSSES	ADV1	Advisory Action Mailed	
US2015129456 AA	20170914	LSSES	NFA1	Non Final Action Mailed	
US2015129456 AA	20190107	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2015129456 AA	20190107	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2015366569 AA	20151224	LSPB	+	published / reissued	
US2015366569 AA	20160629	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016058432 AA	20160303	LSPB	+	published / reissued	
US2016058432 AA	20150714	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:036077/0593 EFFECTIVE DATE : 20060818
US2016058432 AA	20151123	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037151/0857 EFFECTIVE DATE : 20140327
US2016058432 AA	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:037238/0091 EFFECTIVE DATE : 20060818
US2016058432 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

US2016058432 AA	20171228	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016058432 AA	20180102	LSES	NFA1	Non Final Action Mailed	
US2016058432 AA	20180524	LSES	NFA1	Non Final Action Mailed	
US2016058432 AA	20190322	LSES	ADV1	Advisory Action Mailed	
US2016058432 AA	20190506	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016066954 AA	20160310	LSPB	+	published / reissued	
US2016066954 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2016066954 AA	20170306	LSES	NFA1	Non Final Action Mailed	
US2016066954 AA	20170621	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016066954 AA	20170908	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016066954 AA	20171212	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016066954 AA	20171213	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016066954 AA	20180103	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016183974 AA	20160630	LSPB	+	published / reissued	
US2016183974 AA	20160309	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:037935/0281 EFFECTIVE DATE : 20030528
US2016183974 AA	20160311	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE NAME PREVIOUSLY RECORDED AT REEL: 037935 FRAME: 0281. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:038066/0625 EFFECTIVE DATE : 20030528
US2016183974 AA	20160323	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:038237/0800 EFFECTIVE DATE : 20140327
US2016183974 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF

ASSIGNORS INTEREST;
ASSIGNOR:VIDACARE LLC;
REEL/FRAME:041784/0700
EFFECTIVE DATE : 20170213

US2016183974 AA	20171127	LSSES	NFA1	Non Final Action Mailed	
US2016183974 AA	20180430	LSSES	NFA1	Non Final Action Mailed	
US2016183974 AA	20190219	LSSES	NFA1	Non Final Action Mailed	
US2016184509 AA	20160630	LSPB	+	published / reissued	
US2016184509 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2016184509 AA	20171113	LSSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016184509 AA	20171115	LSSES	NFA1	Non Final Action Mailed	
US2016184509 AA	20181212	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2016206346 AA	20160721	LSPB	+	published / reissued	
US2016206346 AA	20160909	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : SECURITY INTEREST; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:039683/0977 EFFECTIVE DATE : 20070321
US2016206346 AA	20160909	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:039980/0854 EFFECTIVE DATE : 20140327
US2016206346 AA	20160909	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:COMERICA BANK; REEL/FRAME:039980/0819 EFFECTIVE DATE : 20090910
US2016206346 AA	20160909	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:039683/0913 EFFECTIVE DATE : 20041209
US2016206346 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2016206346 AA	20171225	LSSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2016206346 AA	20171227	LSSES	NFA1	Non Final Action Mailed	
US2016206346 AA	20180804	LSSES	-NFA2	Non Final Action Counted, Not Yet	

Mailed					
US2016206346 AA	20180807	LSES	NFA1	Non Final Action Mailed	
US2016206346 AA	20181228	LSES	NFA1	Non Final Action Mailed	
US2016367288 AA	20161222	LSPB	+	published / reissued	
US2016367288 AA	20160908	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:039669/0516 EFFECTIVE DATE : 20100723
US2016367288 AA	20160909	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:039980/0854 EFFECTIVE DATE : 20140327
US2016367288 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2016367288 AA	20180123	LSES	NFA1	Non Final Action Mailed	
US2016367288 AA	20180618	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016367288 AA	20190329	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016367288 AA	20190404	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2016367288 AA	20190405	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016374722 AA	20161229	LSPB	+	published / reissued	
US2016374722 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2016374722 AA	20170731	LSES	NFA1	Non Final Action Mailed	
US2016374722 AA	20171011	LSES	NFA1	Non Final Action Mailed	
US2016374722 AA	20180317	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016374722 AA	20180324	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016374722 AA	20180612	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US2016374722 AA	20180613	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2016374722 AA	20180620	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2017007271 AA	20170112	LSPB	+	published / reissued	
US2017007271 AA	20160922	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; REEL/FRAME:039827/0812 EFFECTIVE DATE : 20080514
US2017007271 AA	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US2017007271 AA	20180629	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2017007271 AA	20190418	LSES	NFA1	Non Final Action Mailed	
US2017340401 AA	20171130	LSPB	+	published / reissued	
US2017340401 AA	20170612	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:042675/0084 EFFECTIVE DATE : 20170213
US2017340401 AA	20170612	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20070407 TO 20071107; REEL/FRAME:042675/0046
US2017340401 AA	20170612	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:042675/0070 EFFECTIVE DATE : 20140327
US2017340401 AA	20190327	LSES	NFA1	Non Final Action Mailed	
US2018132894 AA	20180517	LSPB	+	published / reissued	
US2018132894 AA	20171226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20060424 TO 20060426; REEL/FRAME:044486/0374
US2018132894 AA	20171226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:044975/0427 EFFECTIVE DATE : 20140327
US2018132894 AA	20171226	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L.,

					LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:044486/0397 EFFECTIVE DATE : 20170213
US2018317963 AA	20181108	LSPB	+	published / reissued	
US2018317963 AA	20180725	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:046457/0653 EFFECTIVE DATE : 20060818
US2018317963 AA	20180725	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:046457/0706 EFFECTIVE DATE : 20170213
US2018317963 AA	20180725	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, PENNSYLVANIA OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:046626/0336 EFFECTIVE DATE : 20140327
US2018353191 AA	20181213	LSPB	+	published / reissued	
US2019105122 AA	20190411	LSPB	+	published / reissued	
US2019105122 AA	20190418	LSES	NFA1	Non Final Action Mailed	
US2019134301 AA	20190509	LSPB	+	published / reissued	
US7670328 BB	20100302	LSGT	+	granted / extensions (spc, cpc, pte)	
US7670328 BB	20030530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:014144/0325 EFFECTIVE DATE : 20030529
US7670328 BB	20030530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:014144/0325 EFFECTIVE DATE : 20030529
US7670328 BB	20100210	LSGT	PAT1	Patented Case	
US7670328 BB	20130807	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7670328 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US7670328 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US7670328 BB	20170905	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US7670328 BB	20260902	PEXP		Calculated Patent Term Expiry (PTA 1191 days)	
US7699850 BB	20100420	LSGT	+	granted / extensions (spc, cpc, pte)	
US7699850 BB	20030530	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:014143/0323 EFFECTIVE DATE : 20030528
US7699850 BB	20100331	LSGT	PAT1	Patented Case	
US7699850 BB	20130918	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7699850 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US7699850 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US7699850 BB	20171020	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7699850 BB	20241020	PEXP		Calculated Patent Term Expiry (PTA 509 days)	
US7811260 BB	20101012	LSGT	+	granted / extensions (spc, cpc, pte)	
US7811260 BB	20050923	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:016575/0760 EFFECTIVE DATE : 20030529
US7811260 BB	20100922	LSGT	PAT1	Patented Case	
US7811260 BB	20140312	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7811260 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US7811260 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US7811260 BB	20180412	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7811260 BB	20270414	PEXP		Calculated Patent Term Expiry (PTA 626 days)	
US7815642 BB	20101019	LSGT	+	granted / extensions (spc, cpc, pte)	
US7815642 BB	20050422	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST;

ASSIGNOR:MILLER, LARRY J.;
REEL/FRAME:015932/0830
EFFECTIVE DATE : 20050222

US7815642 BB	20100929	LSGT	PAT1	Patented Case	
US7815642 BB	20140319	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7815642 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US7815642 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US7815642 BB	20180419	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7815642 BB	20280131	PEXP		Calculated Patent Term Expiry (PTA 1072 days)	
US7850620 BB	20101214	LSGT	+	granted / extensions (spc, cpc, pte)	
US7850620 BB	20071116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID; TITKEMEYER, ROBERT W.; AND OTHERS; REEL/FRAME:020128/0625; SIGNING DATES FROM 20070407 TO 20071107
US7850620 BB	20071116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20070407 TO 20071107; REEL/FRAME:020128/0625
US7850620 BB	20101123	LSGT	PAT1	Patented Case	
US7850620 BB	20140514	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7850620 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US7850620 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US7850620 BB	20180614	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7850620 BB	20270911	PEXP		Calculated Patent Term Expiry	
US7951089 BB	20110531	LSGT	+	granted / extensions	

(spc, cpc, pte)					
US7951089 BB	20060914	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:018253/0714 EFFECTIVE DATE : 20060818
US7951089 BB	20110511	LSGT	PAT1	Patented Case	
US7951089 BB	20141029	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7951089 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US7951089 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US7951089 BB	20181130	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7951089 BB	20260629	PEXP		Calculated Patent Term Expiry	
US8038664 BB	20111018	LSGT	+	granted / extensions (spc, cpc, pte)	
US8038664 BB	20090220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:022291/0792
US8038664 BB	20090220	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; REEL/FRAME:022291/0792; SIGNING DATES FROM 20050725 TO 20051116
US8038664 BB	20110928	LSGT	PAT1	Patented Case	
US8038664 BB	20150401	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8038664 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8038664 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8038664 BB	20190418	LSFE	+MAFP	MAINTENANCE FEE	YEAR OF FEE PAYMENT : 8

PAYMENT					
US8038664 BB	20290416	PEXP		Calculated Patent Term Expiry (PTA 106 days)	
US8142365 BB	20120327	LSGT	+	granted / extensions (spc, cpc, pte)	
US8142365 BB	20041112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:016003/0584 EFFECTIVE DATE : 20040226
US8142365 BB	20120307	LSGT	PAT1	Patented Case	
US8142365 BB	20150909	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8142365 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8142365 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8142365 BB	20280427	PEXP		Calculated Patent Term Expiry (PTA 1262 days)	
US8308693 BB	20121113	LSGT	+	granted / extensions (spc, cpc, pte)	
US8308693 BB	20090904	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; REEL/FRAME:023198/0263; SIGNING DATES FROM 20050725 TO 20051116
US8308693 BB	20090904	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:023198/0263
US8308693 BB	20121024	LSGT	PAT1	Patented Case	
US8308693 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8308693 BB	20160513	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8308693 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213

US8308693 BB	20300106	PEXP		Calculated Patent Term Expiry (PTA 124 days)	
US8419683 BB	20130416	LSGT	+	granted / extensions (spc, cpc, pte)	
US8419683 BB	20090904	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; TITKEMEYER, ROBERT W.; BOLLETER, DAVID S.; AND OTHERS; SIGNING DATES FROM 20061222 TO 20061228; REEL/FRAME:023198/0113
US8419683 BB	20090904	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; TITKEMEYER, ROBERT W.; BOLLETER, DAVID S.; AND OTHERS; REEL/FRAME:023198/0113; SIGNING DATES FROM 20061222 TO 20061228
US8419683 BB	20130327	LSGT	PAT1	Patented Case	
US8419683 BB	20141216	LSRE	CC	CERTIFICATE OF CORRECTION	
US8419683 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8419683 BB	20170209	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8419683 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8419683 BB	20301011	PEXP		Calculated Patent Term Expiry (PTA 402 days)	
US8480632 BB	20130709	LSGT	+	granted / extensions (spc, cpc, pte)	
US8480632 BB	20100305	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:024037/0600
US8480632 BB	20100305	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:024037/0600
US8480632 BB	20130619	LSGT	PAT1	Patented Case	
US8480632 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

					OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8480632 BB	20170109	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8480632 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8480632 BB	20300305	PEXP		Calculated Patent Term Expiry	
US8506568 BB	20130813	LSGT	+	granted / extensions (spc, cpc, pte)	
US8506568 BB	20130724	LSGT	PAT1	Patented Case	
US8506568 BB	20150217	LSRE	CC	CERTIFICATE OF CORRECTION	
US8506568 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8506568 BB	20170213	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8506568 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8506568 BB	20320310	PEXP		Calculated Patent Term Expiry (PTA 2334 days)	
US8641715 BB	20140204	LSGT	+	granted / extensions (spc, cpc, pte)	
US8641715 BB	20050331	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:015846/0683 EFFECTIVE DATE : 20050318
US8641715 BB	20140115	LSGT	PAT1	Patented Case	
US8641715 BB	20140506	LSRE	CC	CERTIFICATE OF CORRECTION	
US8641715 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8641715 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8641715 BB	20170804	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US8641715 BB	20300704	PEXP		Calculated Patent Term Expiry (PTA 1986 days)	
US8656929 BB	20140225	LSGT	+	granted / extensions (spc, cpc, pte)	
US8656929 BB	20071116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; REEL/FRAME:020128/0152; SIGNING DATES FROM 20071101 TO 20071107
US8656929 BB	20071116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20071101 TO 20071107; REEL/FRAME:020128/0152
US8656929 BB	20140205	LSGT	PAT1	Patented Case	
US8656929 BB	20150505	LSRE	CC	CERTIFICATE OF CORRECTION	
US8656929 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8656929 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8656929 BB	20170825	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8656929 BB	20320825	PEXP		Calculated Patent Term Expiry (PTA 1810 days)	
US8668698 BB	20140311	LSGT	+	granted / extensions (spc, cpc, pte)	
US8668698 BB	20071113	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20071101 TO 20071107; REEL/FRAME:020104/0562
US8668698 BB	20071113	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; REEL/FRAME:020104/0562; SIGNING DATES FROM 20071101 TO 20071107
US8668698 BB	20140219	LSGT	PAT1	Patented Case	
US8668698 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER

US8668698 BB	20170223	LSAS	AS	ASSIGNMENT	OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8668698 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8668698 BB	20170911	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8668698 BB	20301130	PEXP		Calculated Patent Term Expiry (PTA 1176 days)	
US8684978 BB	20140401	LSGT	+	granted / extensions (spc, cpc, pte)	
US8684978 BB	20101007	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; REEL/FRAME:025106/0369 EFFECTIVE DATE : 20051116
US8684978 BB	20101007	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SCHWIMMER, CHARLES M.; WILK, ROBERT A.; SIGNING DATES FROM 20050725 TO 20050727; REEL/FRAME:025106/0314
US8684978 BB	20140312	LSGT	PAT1	Patented Case	
US8684978 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8684978 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8684978 BB	20171002	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8684978 BB	20301011	PEXP		Calculated Patent Term Expiry (PTA 4 days)	
US8690791 BB	20140408	LSGT	+	granted / extensions (spc, cpc, pte)	
US8690791 BB	20090424	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:022590/0717 EFFECTIVE DATE : 20060818
US8690791 BB	20140319	LSGT	PAT1	Patented Case	
US8690791 BB	20140722	LSRE	CC	CERTIFICATE OF CORRECTION	
US8690791 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS

					OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8690791 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8690791 BB	20171009	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8690791 BB	20310913	PEXP		Calculated Patent Term Expiry (PTA 875 days)	
US8715287 BB	20140506	LSGT	+	granted / extensions (spc, cpc, pte)	
US8715287 BB	20081212	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:021973/0799 EFFECTIVE DATE : 20081209
US8715287 BB	20140416	LSGT	PAT1	Patented Case	
US8715287 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8715287 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8715287 BB	20171106	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8715287 BB	20321008	PEXP		Calculated Patent Term Expiry (PTA 1398 days)	
US8870872 BB	20141028	LSGT	+	granted / extensions (spc, cpc, pte)	
US8870872 BB	20101015	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:025147/0911 EFFECTIVE DATE : 20050222
US8870872 BB	20141008	LSGT	PAT1	Patented Case	
US8870872 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8870872 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213

US8870872 BB	20180430	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8870872 BB	20310923	PEXP		Calculated Patent Term Expiry (PTA 343 days)	
US8876826 BB	20141104	LSGT	+	granted / extensions (spc, cpc, pte)	
US8876826 BB	20141015	LSGT	PAT1	Patented Case	
US8876826 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8876826 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8876826 BB	20180504	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8876826 BB	20310124	PEXP		Calculated Patent Term Expiry (PTA 1923 days)	
US8944069 BB	20150203	LSGT	+	granted / extensions (spc, cpc, pte)	
US8944069 BB	20090319	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; EISBRENNER, ERIC W.; REEL/FRAME:022423/0245; SIGNING DATES FROM 20090313 TO 20090317
US8944069 BB	20090319	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; EISBRENNER, ERIC W.; SIGNING DATES FROM 20090313 TO 20090317; REEL/FRAME:022423/0245
US8944069 BB	20150114	LSGT	PAT1	Patented Case	
US8944069 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8944069 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8944069 BB	20180803	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8944069 BB	20310819	PEXP		Calculated Patent Term Expiry (PTA 883 days)	
US8992535 BB	20150331	LSGT	+	granted / extensions (spc, cpc, pte)	
US8992535 BB	20150311	LSGT	PAT1	Patented Case	
US8992535 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC,

					TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8992535 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8992535 BB	20340506	PEXP		Calculated Patent Term Expiry	
US8998848 BB	20150407	LSGT	+	granted / extensions (spc, cpc, pte)	
US8998848 BB	20070119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; TITKEMEYER, ROBERT W.; BOLLETER, DAVID S.; AND OTHERS; REEL/FRAME:018782/0118; SIGNING DATES FROM 20061222 TO 20061228
US8998848 BB	20070119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; TITKEMEYER, ROBERT W.; BOLLETER, DAVID S.; AND OTHERS; SIGNING DATES FROM 20061222 TO 20061228; REEL/FRAME:018782/0118
US8998848 BB	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK,CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US8998848 BB	20071114	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : COMERICA BANK, CALIFORNIA OLDPARTY : INTELLECTUAL PROPERTY SECURITY AGREEMENT; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:020105/0544 EFFECTIVE DATE : 20070321
US8998848 BB	20150318	LSGT	PAT1	Patented Case	
US8998848 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US8998848 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US8998848 BB	20330330	PEXP		Calculated Patent Term Expiry (PTA 2273 days)	

US9072543 BB	20150707	LSGT	+	granted / extensions (spc, cpc, pte)	
US9072543 BB	20060809	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:018081/0858 EFFECTIVE DATE : 20030529
US9072543 BB	20070209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE SERIAL NUMBER AND FILING DATE PREVIOUSLY RECORDED ON REEL 018694 FRAME 0863. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20060424 TO 20060426; REEL/FRAME:018878/0343
US9072543 BB	20070209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE SERIAL NUMBER AND FILING DATE PREVIOUSLY RECORDED ON REEL 018694 FRAME 0863; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; REEL/FRAME:018878/0343; SIGNING DATES FROM 20060424 TO 20060426
US9072543 BB	20150617	LSGT	PAT1	Patented Case	
US9072543 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US9072543 BB	20160126	LSRE	CC	CERTIFICATE OF CORRECTION	
US9072543 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9072543 BB	20190107	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9072543 BB	20300930	PEXP		Calculated Patent Term Expiry (PTA 1618 days)	
US9078637 BB	20150714	LSGT	+	granted / extensions (spc, cpc, pte)	
US9078637 BB	20150624	LSGT	PAT1	Patented Case	
US9078637 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037146/0642 EFFECTIVE DATE : 20140327
US9078637 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG

					OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9078637 BB	20190114	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9078637 BB	20290702	PEXP		Calculated Patent Term Expiry (PTA 247 days)	
US9295487 BB	20160329	LSGT	+	granted / extensions (spc, cpc, pte)	
US9295487 BB	20100305	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:024037/0526
US9295487 BB	20100305	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; SCHWIMMER, CHARLES M.; AND OTHERS; SIGNING DATES FROM 20050725 TO 20051116; REEL/FRAME:024037/0526
US9295487 BB	20151118	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9295487 BB	20160309	LSGT	PAT1	Patented Case	
US9295487 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9295487 BB	20300305	PEXP		Calculated Patent Term Expiry	
US9314228 BB	20160419	LSGT	+	granted / extensions (spc, cpc, pte)	
US9314228 BB	20041227	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:016138/0806 EFFECTIVE DATE : 20041209
US9314228 BB	20150923	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9314228 BB	20151210	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9314228 BB	20160314	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9314228 BB	20160330	LSGT	PAT1	Patented Case	
US9314228 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213

US9314228 BB	20300423	PEXP		Calculated Patent Term Expiry (PTA 1943 days)	
US9314270 BB	20160419	LSGT	+	granted / extensions (spc, cpc, pte)	
US9314270 BB	20131021	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:031441/0888 EFFECTIVE DATE : 20030528
US9314270 BB	20151204	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9314270 BB	20160330	LSGT	PAT1	Patented Case	
US9314270 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9314270 BB	20330813	PEXP		Calculated Patent Term Expiry	
US9393031 BB	20160719	LSGT	+	granted / extensions (spc, cpc, pte)	
US9393031 BB	20151209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037255/0801 EFFECTIVE DATE : 20140327
US9393031 BB	20151209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:037252/0033 EFFECTIVE DATE : 20030529
US9393031 BB	20160629	LSGT	PAT1	Patented Case	
US9393031 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9393031 BB	20350324	PEXP		Calculated Patent Term Expiry	
US9433400 BB	20160906	LSGT	+	granted / extensions (spc, cpc, pte)	
US9433400 BB	20100805	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:024795/0520 EFFECTIVE DATE : 20100723
US9433400 BB	20150813	LSSES	NFA1	Non Final Action Mailed	
US9433400 BB	20160817	LSGT	PAT1	Patented Case	
US9433400 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF

					ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9433400 BB	20330909	PEXP		Calculated Patent Term Expiry (PTA 1203 days)	
US9439667 BB	20160913	LSGT	+	granted / extensions (spc, cpc, pte)	
US9439667 BB	20110112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MILLER, LARRY J.; REEL/FRAME:025625/0282 EFFECTIVE DATE : 20060818
US9439667 BB	20160805	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9439667 BB	20160824	LSGT	PAT1	Patented Case	
US9439667 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9439667 BB	20310213	PEXP		Calculated Patent Term Expiry (PTA 89 days)	
US9451968 BB	20160927	LSGT	+	granted / extensions (spc, cpc, pte)	
US9451968 BB	20080520	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; REEL/FRAME:020973/0662 EFFECTIVE DATE : 20080514
US9451968 BB	20151130	LSES	NFA1	Non Final Action Mailed	
US9451968 BB	20160907	LSGT	PAT1	Patented Case	
US9451968 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9451968 BB	20340904	PEXP		Calculated Patent Term Expiry (PTA 2345 days)	
US9504477 BB	20161129	LSGT	+	granted / extensions (spc, cpc, pte)	
US9504477 BB	20080730	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; REEL/FRAME:021312/0602; SIGNING DATES FROM 20080418 TO 20080514
US9504477 BB	20080730	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20080418 TO

					20080514; REEL/FRAME:021312/0602
US9504477 BB	20161109	LSGT	PAT1	Patented Case	
US9504477 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9504477 BB	20300809	PEXP		Calculated Patent Term Expiry (PTA 917 days)	
US9510910 BB	20161206	LSGT	+	granted / extensions (spc, cpc, pte)	
US9510910 BB	20161116	LSGT	PAT1	Patented Case	
US9510910 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9510910 BB	20340623	PEXP		Calculated Patent Term Expiry (PTA 118 days)	
US9545243 BB	20170117	LSGT	+	granted / extensions (spc, cpc, pte)	
US9545243 BB	20071116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20071101 TO 20071107; REEL/FRAME:020128/0349
US9545243 BB	20071116	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; REEL/FRAME:020128/0349; SIGNING DATES FROM 20071101 TO 20071107
US9545243 BB	20161228	LSGT	PAT1	Patented Case	
US9545243 BB	20170223	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TELEFLEX MEDICAL DEVICES S.A R.L., LUXEMBOURG OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:VIDACARE LLC; REEL/FRAME:041784/0700 EFFECTIVE DATE : 20170213
US9545243 BB	20291125	PEXP		Calculated Patent Term Expiry (PTA 806 days)	
US9717564 BB	20170801	LSGT	+	granted / extensions (spc, cpc, pte)	
US9717564 BB	20101208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20070407 TO 20071107; REEL/FRAME:025468/0792

US9717564 BB	20170712	LSGT	PAT1	Patented Case	
US9717564 BB	20301208	PEXP		Calculated Patent Term Expiry	
US9717847 BB	20170801	LSGT	+	granted / extensions (spc, cpc, pte)	
US9717847 BB	20170712	LSGT	PAT1	Patented Case	
US9717847 BB	20340702	PEXP		Calculated Patent Term Expiry (PTA 989 days)	
US9872703 BB	20180123	LSGT	+	granted / extensions (spc, cpc, pte)	
US9872703 BB	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE CORPORATION, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MILLER, LARRY J.; BOLLETER, DAVID S.; TITKEMEYER, ROBERT W.; AND OTHERS; SIGNING DATES FROM 20060424 TO 20060426; REEL/FRAME:037241/0081
US9872703 BB	20151208	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIDACARE LLC, TEXAS OLDPARTY : CHANGE OF NAME; ASSIGNOR:VIDACARE CORPORATION; REEL/FRAME:037244/0843 EFFECTIVE DATE : 20140327
US9872703 BB	20180103	LSGT	PAT1	Patented Case	
US9872703 BB	20350901	PEXP		Calculated Patent Term Expiry (PTA 57 days)	
WO03101306 A1	20031211	LSPB	+	published / reissued	
WO03101306 A1	20041112	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2485904 COUNTRY OF REF DOCUMENT : CA
WO03101306 A1	20041122	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003756317 COUNTRY OF REF DOCUMENT : EP
WO03101306 A1	20041125	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003231939 COUNTRY OF REF DOCUMENT : AU
WO03101306 A1	20041129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004508669 COUNTRY OF REF DOCUMENT : JP
WO03101306 A1	20050302	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003756317 COUNTRY OF REF DOCUMENT : EP
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WO03101307 A1	20031211	LSPB	+	published / reissued	
WO03101307 A1	20041112	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2485910 COUNTRY OF REF DOCUMENT : CA

WO03101307 A1	20041122	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003731475 COUNTRY OF REF DOCUMENT : EP
WO03101307 A1	20041125	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003240970 COUNTRY OF REF DOCUMENT : AU
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WO03101307 A1	20050302	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003731475 COUNTRY OF REF DOCUMENT : EP
WO03101307 A1	20081209	LSNE	-ENPW	STARTED TO ENTER NATIONAL PHASE AND WAS WITHDRAWN OR FAILED FOR OTHER REASONS	TEXT : PEDIDO RETIRADO FACE A IMPOSSIBILIDADE DE ACEITACAO DA ENTRADA NA FASE NACIONAL POR TER SIDO INTEMPESTIVA. O PRAZO PARA ENTRADA NA FASE NACIONAL EXPIRAVA EM 31.01.2004 (20 MESES - BR DESIGNADO APENAS), ELEICAO NAO COMPROVADA, E A PRETENSA ENTRADA NA FASE NACIONAL SO OCORREU EM 30.11.2004. REF DOCUMENT NUMBER : PI0311520 COUNTRY OF REF DOCUMENT : BR
WO05046769 A2	20050526	LSPB	+	published / reissued	
WO05046769 A3	20061227	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO05072625 A2	20050811	LSPB	+	published / reissued	
WO05072625 A3	20060627	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2551724 COUNTRY OF REF DOCUMENT : CA
WO05072625 A3	20060720	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005712091 COUNTRY OF REF DOCUMENT : EP
WO05072625 A3	20060726	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200580003261.8 COUNTRY OF REF DOCUMENT : CN
WO05072625 A3	20060727	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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WO07018809 A2	20060627	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200680021872.X COUNTRY OF REF DOCUMENT : CN
WO07018809 A3	20071217	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2612483 COUNTRY OF REF DOCUMENT : CA
WO07018809 A3	20080129	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07018809 A3	20080225	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL	REF DOCUMENT NUMBER : 2006774203

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WO08002961 A2	20080103	LSPB	+	published / reissued	
WO08002961 A2	20070627	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780000590.6 COUNTRY OF REF DOCUMENT : CN
WO08002961 A3	20081230	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08002961 A3	20090129	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
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WO08016757 A2	20080207	LSPB	+	published / reissued	
WO08016757 A2	20070627	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780000588.9 COUNTRY OF REF DOCUMENT : CN
WO08016757 A3	20090203	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08016757 A3	20090302	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO08016757 A3	20090826	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 07812365 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO08033871 A2	20080320	LSPB	+	published / reissued	
WO08033871 A2	20070911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780001198.3 COUNTRY OF REF DOCUMENT : CN
WO08033871 A3	20090313	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08033871 A3	20090409	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007842284 COUNTRY OF REF DOCUMENT : EP
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WO08033872 A2	20070911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780001190.7 COUNTRY OF REF DOCUMENT : CN
WO08033872 A2	20090313	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08033872 A2	20090409	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007842285 COUNTRY OF REF DOCUMENT : EP
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WO08033873 A2	20070911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780001188.X COUNTRY OF REF DOCUMENT : CN
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WO08033873 A3	20090409	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007842286 COUNTRY OF REF DOCUMENT : EP
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WO08033874 A2	20070911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200780001196.4 COUNTRY OF REF DOCUMENT : CN
WO08033874 A3	20090313	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08033874 A3	20090409	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007842288 COUNTRY OF REF DOCUMENT : EP
WO08086258 A1	20080717	LSPB	+	published / reissued	
WO08086258 A1	20080107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200880000022.0 COUNTRY OF REF DOCUMENT : CN
WO08086258 A1	20090709	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08086258 A1	20100210	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08705722 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :
WO08124206 A2	20081016	LSPB	+	published / reissued	
WO08124206 A2	20080204	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 200880000182.5 COUNTRY OF REF DOCUMENT : CN
WO08124206 A3	20091006	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08124206 A3	20091007	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008799753 COUNTRY OF REF DOCUMENT : EP
WO08124463 A2	20081016	LSPB	+	published / reissued	
WO08124463 A2	20091006	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO08124463 A2	20100707	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 08744982 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

Title: FASTENERS HAVING COORDINATED SELF-SEEKING CONFORMING MEMBERS AND USES THEREOF

Abstract: Fasteners having coordinated self-seeking conforming members or implanting into a cavity such as a hole, tube, or hard tissue defect are provided. An actuator mechanism translates applied force to conform members of a plurality of members to the cavity. The fasteners may be used for implanting a prosthetic device into hard tissue of humans or animals, for anchoring a device while the device is being worked on, for centering a device in a hole or tube, such as in well technology. The mechanism operates expanding members so that they independently or dependently conform and apply controlled and known pressure to surrounding materials.

Classifications:

International (IPC 8-9): A61B17/16 A61B17/68 A61B17/78 A61B17/88

A61C8/00 A61F2/00 A61F2/30 A61F2/36 (Advanced/Invention);

A61B17/16 A61B17/78 A61F2/00 (Advanced/Non-invention);

A61B17/16 A61B17/68 A61B17/88 A61C8/00 A61F2/30

A61F2/36 (Core/Invention);

A61F2/00 (Core/Non-invention)

International (IPC 1-7): A61B17/56 A61B17/68

CPC: Y10S606/908 Y10S606/91 A61B17/1635 A61B17/68 A61B17/744

A61B17/88 A61C8/0033 A61F2/30749 A61F2/3099 A61F2/3662

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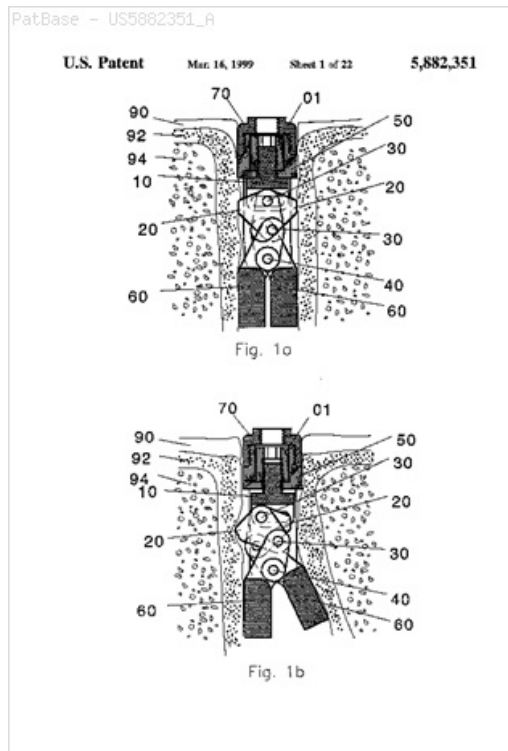
A61F2002/30991 A61F2002/3631 A61F2002/365 A61F2220/0008

A61F2220/0025 A61F2220/0041 A61F2220/0091 A61F2250/0081

European: A61B17/16G A61B17/68 A61B17/88 A61C8/00F7 A61F2/30Y1

A61F2/36D A61F2/36D4

US: 606/327 606/331 606/60 606/63 606/72 606/908 606/910



Family:

Publication number	Publication date	Application number	Application date
AU199673831 A1	19970417	AU19960073831	19960927
CA2232999 AA	19980324	CA19962232999	19960927
EP0955926 A1	19991117	EP19960936098	19960927
US5882351 A	19990316	US19970797591	19970207
US6287310 BA	20010911	US19990266287	19990311
WO9711651 A1	19970403	WO1996US15722	19960927

Priority:

US19950042914P 19950929 US19950536461 19950929 WO1996US15722 19960927
US19970797591 19970207 US19990266287 19990311

Probable Assignee: FOX WILLIAM CASEY DR

Assignee(s): (std): BIOMEDICAL ENTERPRISES INC ; BIOMEDICAL ENTPR INC ; FOX WILLIAM CASEY ; WILLIAM CASEY FOX

Assignee(s): FOX WILLIAM CASEY DR ; BIOMEDICAL ENTERPRISES ; CROSS ATLANTIC PARTNERS IV K S ADMINISTRATIVE AGEN ; CROSS ATLANTIC PARTNERS IV K S ADMINISTRATIVE AGENT AS ; CROSS ATLANTIC PARTNERS IV K S AS ADMINISTRATIVE A

Inventor(s): (std): FOX WILLIAM CASEY

Inventor(s): WILLIAM CASEY FOX

Agent(s): BERESKIN AND PARR

Designated states: AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IS IT JP KE KG KP KR KZ LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199673831 A1	19970417	LSPB	+	published / reissued	
CA2232999 AA	19980324	LSPB	+	published / reissued	

CA2232999 AA	20030929	LSLE	-FZDE	DEAD	
EP0955926 A1	19991117	LSPB	+	published / reissued	
EP0955926 A1	19991117	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19980414
EP0955926 A1	20031015	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20030401
US5882351 A	19990316	LSGT	+	granted / extensions (spc, cpc, pte)	
US5882351 A	19970207	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMEDICAL ENTERPRISES, TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FOX, W. CASEY; REEL/FRAME:008543/0780 EFFECTIVE DATE : 19970205
US5882351 A	19990208	LSGT	PAT1	Patented Case	
US5882351 A	19990208	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US5882351 A	19990921	LSRE	CC	CERTIFICATE OF CORRECTION	
US5882351 A	20020822	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5882351 A	20060809	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5882351 A	20090406	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CROSS ATLANTIC PARTNERS IV, K/S, AS ADMINISTRATIVE OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:BIOMEDICAL ENTERPRISES, INC.; REEL/FRAME:022510/0127 EFFECTIVE DATE : 20090406
US5882351 A	20090602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CROSS ATLANTIC PARTNERS IV, K/S AS ADMINISTRATIVE OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:BIOMEDICAL ENTERPRISES, INC.; REEL/FRAME:022764/0679 EFFECTIVE DATE : 20090406
US5882351 A	20090605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMEDICAL ENTERPRISES, INC., TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE IDENTITY OF THE ASSIGNOR AND THE ASSIGNEE. PREVIOUSLY RECORDED ON REEL 022764 FRAME 0679; ASSIGNOR:CROSS ATLANTIC PARTNERS IV, K/S; REEL/FRAME:022783/0734 EFFECTIVE DATE : 20090602
US5882351 A	20100525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOX, WILLIAM CASEY, DR.,TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOMEDICAL ENTERPRISES, INC.; REEL/FRAME:024434/0017 EFFECTIVE DATE : 20100519
US5882351 A	20110209	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5882351 A	20170207	PEXP		Calculated Patent Term Expiry	
US6287310 BA	20010911	LSGT	+	granted / extensions (spc, cpc, pte)	
US6287310 BA	20030325	LSRE	CC	CERTIFICATE OF CORRECTION	
US6287310 BA	20050912	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT	

CONFIRMED					
US6287310 BA	20051108	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20050911
US6287310 BA	20060503	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6287310 BA	20060911	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20060918
US6287310 BA	20060918	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	EFFECTIVE DATE : 20060918
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US6287310 BA	20090406	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CROSS ATLANTIC PARTNERS IV, K/S, AS ADMINISTRATIVE OLDPARTY : SECURITY AGREEMENT; ASSIGNOR:BIOMEDICAL ENTERPRISES, INC.; REEL/FRAME:022510/0127 EFFECTIVE DATE : 20090406
US6287310 BA	20090408	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6287310 BA	20090602	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CROSS ATLANTIC PARTNERS IV, K/S AS ADMINISTRATIVE OLDPARTY : RELEASE BY SECURED PARTY; ASSIGNOR:BIOMEDICAL ENTERPRISES, INC.; REEL/FRAME:022764/0679 EFFECTIVE DATE : 20090406
US6287310 BA	20090605	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : BIOMEDICAL ENTERPRISES, INC., TEXAS OLDPARTY : CORRECTIVE ASSIGNMENT TO CORRECT THE IDENTITY OF THE ASSIGNOR AND THE ASSIGNEE. PREVIOUSLY RECORDED ON REEL 022764 FRAME 0679; ASSIGNOR:CROSS ATLANTIC PARTNERS IV, K/S; REEL/FRAME:022783/0734 EFFECTIVE DATE : 20090602
US6287310 BA	20110902	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : FOX, WILLIAM CASEY, DR., TEXAS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:BIOMEDICAL ENTERPRISES, INC.; REEL/FRAME:026853/0350 EFFECTIVE DATE : 20110721
US6287310 BA	20130911	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6287310 BA	20131007	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6287310 BA	20131007	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6287310 BA	20131029	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20130911
US6287310 BA	20190311	PEXP		Calculated Patent Term Expiry	
WO9711651 A1	19970403	LSPB	+	published /	

reissued					
WO9711651 A1	19970207	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 08797591 COUNTRY OF REF DOCUMENT : US
WO9711651 A1	19980324	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2232999 COUNTRY OF REF DOCUMENT : CA
WO9711651 A1	19980324	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2232999 COUNTRY OF REF DOCUMENT : CA KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO9711651 A1	19980414	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1996936098 COUNTRY OF REF DOCUMENT : EP
WO9711651 A1	19980730	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9711651 A1	19991117	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996936098 COUNTRY OF REF DOCUMENT : EP
WO9711651 A1	20030401	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1996936098 COUNTRY OF REF DOCUMENT : EP

Title: Dental ramus implant

Abstract: A dental ramus implant consisting of a clamping device which can be used with little or no bone surgery in both a unilateral or bilateral fashion to secure either a fixed or removable prosthesis. The ramus clamp is semi-adjustable and attaches to an intermediate member or meso structure supported by two anterior **endosseous** fixtures. The overlying teeth are secured by conventional prosthodontic means. A method of designing this implant for several types of applications and a surgical method of use are outlined.

Classifications:

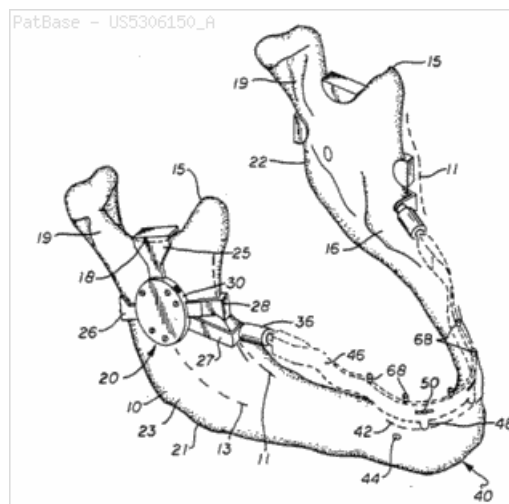
International (IPC 8-9): A61B17/64 A61C8/00 A61F2/28 A61F2/36 A61F2/46 (Advanced/Invention); A61B17/80 A61F2/00 A61F2/30 A61F2/32 (Advanced/Non-invention); A61B17/60 (Core/Invention); A61B17/68 (Core/Non-invention)

International (IPC 1-7): A61B17/58 A61C8/00

CPC: A61C8/00 A61C8/0027 A61F2/2803 A61F2/30767 A61F2/36 A61F2/3662 A61F2/4607 A61F2002/30332 A61F2002/30438 A61F2002/30439 A61F2002/30495 A61F2002/30579 A61F2002/30594 A61F2002/30726 A61F2002/30919 A61F2002/30922 A61F2002/3241 A61F2002/3611 A61F2002/365 A61F2002/3694 A61F2002/4619 A61F2220/0025 A61F2220/0033 A61F2220/0041 A61F2310/00089 A61F2310/00592 Y10S606/904 A61B17/6433 A61B17/8085

European: A61B17/64F A61C8/00 A61C8/00F3 A61F2/28B A61F2/36 A61F2/36D A61F2/46B4 K61B17/80P K61F2/00T1C K61F2/30A3T1C K61F2/30A3T33R K61F2/30A3T7N K61F2/30A3T7P K61F2/30A3W16 K61F2/30A3W24 K61F2/30B2G K61F2/30L K61F2/30L4S K61F2/30L6 K61F2/32R K61F2/36C1 K61F2/36C4 K61F2/36D8L K61F2/46B22 K61F220/00T K61F220/00T1 K61F220/00T7 K61F310/00A2R40 K61F310/00L6

US: 433/173 433/176 606/105 606/282 606/57 606/58 606/69 606/71 606/86B 606/904



Family:

Publication number	Publication date	Application number	Application date
US5306150 A	19940426	US19920924490	19920804
US5580247 A	19961203	US19940180237	19940112
US5885283 A	19990323	US19970893657	19970711

Priority:

US19920924490 19920804 US19940180237 19940112 US19960759790 19961203
US19970893657 19970711

Probable Assignee:

GITTLEMAN NEAL B

Assignee(s): (std):

GITTLEMAN NEAL B

Assignee(s):

GITTLEMAN NEAL

Inventor(s): (std):

GITTLEMAN NEAL ; GITTLEMAN NEAL B

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US5306150 A	19940426	LSGT	+	granted / extensions (spc, cpc, pte)	
US5306150 A	19940413	LSGT	PAT1	Patented Case	
US5306150 A	19980426	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5306150 A	19980915	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 19980426
US5306150 A	20180126	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5306150 A	20180126	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5306150 A	20120804	PEXP		Calculated Patent Term Expiry	
US5580247 A	19961203	LSGT	+	granted / extensions (spc, cpc, pte)	
US5580247 A	19961121	LSGT	PAT1	Patented Case	
US5580247 A	20001203	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5580247 A	20010206	LSLE	-FP	EXPIRED DUE TO FAILURE TO	EFFECTIVE DATE : 20001203

US5580247 A	20180126	LSLE	-PEX1	PAY MAINTENANCE FEE Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5580247 A	20180126	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5580247 A	20140112	PEXP		Calculated Patent Term Expiry	
US5885283 A	19990323	LSGT	+	granted / extensions (spc, cpc, pte)	
US5885283 A	19990216	LSGT	PAT1	Patented Case	
US5885283 A	20030324	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5885283 A	20030520	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20030323
US5885283 A	20180123	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5885283 A	20180123	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5885283 A	20170711	PEXP		Calculated Patent Term Expiry	

Title: **ENDOSSEOUS SCREW ASSEMBLY** AND INTERNAL FIXATION SYSTEM COMPRISING SAID **ENDOSSEOUS SCREW ASSEMBLY**

Abstract: An **endosseous screw assembly** (100) for an internal fixation system (SC; SP), whose connection to the rest of the system is unusually easy for the surgeon, comprising: a longitudinally extending rod (1) equipped with at least one threaded proximal portion (2); a connection sleeve (3), within which a portion of the rod (1) is slidably guided, said connection sleeve (3) being arranged to be inserted into a connection hole of an internal fixation member by snap-connecting within said connection hole up to reach a locking position; said rod (1) and said connection sleeve (3) comprising such mutual engagement means so as to form an axial constraint to the sliding of the rod (1) into the connection sleeve (3), so as to define, when the threaded proximal portion (2) advances into a bone site of the patient, a dragging of the connection sleeve (3) into the connection hole up to reach the locking position.

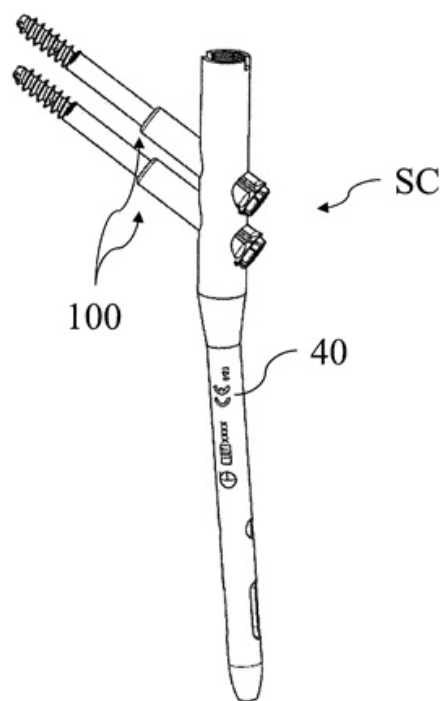
Classifications:

International (IPC 8-9): A61B17/00 A61B17/17 A61B17/70 A61B17/72 A61B17/74 A61B17/80 A61B17/86 A61B17/88 (Advanced/Invention); A61B17/80 (Advanced/Non-invention)

CPC: A61B17/725 A61B17/863 A61B17/8635 A61B17/8014 A61B17/746 A61B17/1721 A61B17/1728 A61B17/1742 A61B17/72 A61B17/744 A61B17/808 A61B17/8615 A61B17/864 A61B17/8685 A61B17/8897 A61B17/8038 A61B17/8057 A61B17/8066 A61B17/8625

US: 606/64

PatBase - US2016296260_AA



Family:

Publication number	Publication date	Application number	Application date
DE602014014916 D1	20171102	DE201460014916T	20141111
EP3068326 A2	20160921	EP20140816375	20141111
EP3068326 B1	20170920	EP20140816375	20141111
US2016296260 AA	20161013	US20140035956	20141111
US10028778 BB	20180724	US20140035956	20141111
WO15068027 A2	20150514	WO2014IB02413	20141111
WO15068027 A3	20150813	WO2014IB02413	20141111

Priority:

EP20130192344 20131111 EP20140816375 20141111 WO2014IB02413 20141111

Probable Assignee: ORTHOFIX SRL

Assignee(s): (std): ORTHOFIX SRL

Assignee(s): ORTHOFIX SRL BUSSOLENGO

Inventor(s): (std): LORENZINI DENIS ; VENTURINI DANIELE

Agent(s): HANNKE BITTNER AND PARTNER PATENT U RECHTSANWAELTE MBB; BOTTI MARIO; BAKER AND MCKENZIE LLP; BOTTI MARIO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent **Date recorded** **Event group** **Code** **Event** **Details**

EP3068326 A2	20160921	LSPB	+	published / reissued	
EP3068326 A2	20160921	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160516
EP3068326 A2	20170510	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20170413
EP3068326 B1	20170920	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3068326 B1	20170920	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP3068326 B1	20170929	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3068326 B1	20171015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 929541 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20171015
EP3068326 B1	20171018	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP3068326 B1	20171020	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 4
EP3068326 B1	20171102	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602014014916 COUNTRY OF REF DOCUMENT : DE
EP3068326 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP3068326 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP3068326 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
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EP3068326 B1	20180131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20171020 YEAR OF FEE PAYMENT : 4
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EP3068326 B1	20180215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 929541 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170920
EP3068326 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP3068326 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20171220
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EP3068326 B1	20180330	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
EP3068326 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20170920
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EP3068326 B1	20180621	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602014014916 COUNTRY OF REF DOCUMENT : DE
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EP3068326 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20171111
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EP3068326 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20170920
EP3068326 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20181023 YEAR OF FEE PAYMENT : 5
EP3068326 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20181023 YEAR OF FEE PAYMENT : 5
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EP3068326 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181024 YEAR OF FEE PAYMENT : 5
EP3068326 B1	20341111	PEXP		Calculated Patent Term Expiry	
US10028778 BB	20180724	LSGT	+	granted / extensions (spc, cpc, pte)	
US10028778 BB	20160525	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ORTHOFIX S.R.L., ITALY OLDPARTY : ASSIGNMENT OF ASSIGNNORS INTEREST; ASSIGNNORS:VENTURINI, DANIELE; LORENZINI, DENIS; REEL/FRA:038717/0585 EFFECTIVE DATE : 20160516
US10028778 BB	20180704	LSGT	PAT1	Patented Case	
US10028778 BB	20341111	PEXP		Calculated Patent Term	

				Expiry		
US2016296260 AA	20161013	LSPB	+	published / reissued		
US2016296260 AA	20170406	LSSES	NFA1	Non Final Action Mailed		
US2016296260 AA	20180111	LSSES	ADV2	Advisory Action Counted, Not Yet Mailed		
US2016296260 AA	20180323	LSSES	+ALW2	Allowed -- Notice of Allowance Not Yet Mailed		
US2016296260 AA	20180323	LSSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications		
US2016296260 AA	20180626	LSFE	+PPR1	Publications -- Issue Fee Payment Received		
US2016296260 AA	20180627	LSFE	+PPV1	Publications -- Issue Fee Payment Verified		
US2016296260 AA	20180704	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
WO15068027 A2	20150514	LSPB	+	published / reissued		
WO15068027 A3	20160511	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE	
WO15068027 A3	20160511	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 15035956 COUNTRY OF REF DOCUMENT : US	
WO15068027 A3	20160516	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2014816375 COUNTRY OF REF DOCUMENT : EP	

Title: ENHANCED BONDING LAYERS ON TITANIUM MATERIALS

Abstract: The present invention provides a dense-coverage, adherent phosphorous-based coating on the native oxide surface of a material. Disclosed phosphorous-based coatings include phosphate and organo-phosphonate coatings. The present invention also provides further derivatization of the phosphorous-based coatings to yield dense surface coverage of chemically reactive coatings and osetoblast adhesion-promoting and proliferation-promoting coatings on the native oxide surface of a titanium material.

Classifications:

International (IPC 8-9): A61B17/04 A61F2/02 A61F2/08 A61F2/28 A61F2/32 A61F2/38 A61F2/52 A61F2/958 A61F9/00 A61J1/10 A61K9/00 A61L27/06 A61L27/28 A61L27/32 A61L29/10 A61L31/08 A61L6/083 A61M1/00 A61M25/10 A61N1/05 A61N1/362 A61P31/00 B05D1/18 B05D1/28 B05D1/38 B05D3/00 B05D3/02 B05D5/00 B05D7/00 B05D7/24 B28B11/00 B32B15/00 B32B15/04 B32B15/09 B32B17/06 B32B18/00 B32B27/06 B32B27/36 B32B3/00 B32B9/00 B44C1/17 B44C1/175 B82Y30/00 B82Y40/00 C03C17/00 C03C17/23 C04B37/00 C08F2/00 C09D1/00 C09K17/02 C23C14/06 C23C22/02 C23C22/06 C23C22/48 (Advanced/Invention); A61L27/00 B05D7/00 B05D7/24 (Advanced/Non-invention); A61L27/00 B05D1/18 B05D3/02 B05D7/00 B05D7/24 B32B15/04 B32B18/00 C03C17/00 C03C17/23 C04B37/00 C23C14/06 C23C22/02 C23C22/05 (Core/Invention); A61L27/00 (Core/Non-invention); C08F (Subclass/Invention)

International (IPC 1-7): A61F2/02 A61F2/28 B05D3/02 B05D5/00 B32B15/00 B32B15/04 B32B15/18 B32B18/00 B32B19/04 B32B9/00 C08F **CPC:** B05D1/28 B05D3/02 B05D2201/00 B05D2202/35 B05D2350/63 Y10T428/261 Y10T428/268 Y10T428/12611 Y10T428/1266 Y10T428/12806 Y10T428/131 Y10T428/265 Y10T428/12556 Y10T428/1259 Y10T428/12569 A61L27/32 A61L29/106 A61L31/086 B05D1/185 B82Y30/00 B82Y40/00 C03C17/001 C03C17/23 C23C14/06 C23C22/02 C23C22/48 Y10T428/31786 Y10T428/31678 **European:** A61L27/32 A61L29/10R A61L31/08B4 B05D1/18C B82Y30/00 B82Y40/00 C03C17/00B C03C17/23 C04B37/00 C23C14/06 C23C22/02 C23C22/48 L05D1/28 L05D201/00 L05D202/35 L05D3/02 L05D350/63 L82T201/01 L82T201/01T

US: 106/287.29 106/287.290P 148/254 148/254S 156/230 156/230S 156/236 156/236S 424/400 424/400P 427/2.24 427/2.26 427/2.260P 427/2.27 427/2.270P 427/207.1 427/243 427/245 427/247 427/372.2 427/372.200S 427/386 427/402 427/430.1 427/430.100S 427/435 427/443.2 428/333 428/333P 428/336 428/336P 428/338 428/34.4 428/34.400P 428/428 428/428P 428/450 428/457 428/469 428/469P 428/470 428/472 428/472.1 428/472.100P 428/472.100S 428/472.2 428/472.200S 428/472.3 428/472.300S 428/480 428/624 428/626 428/629 428/632 428/632S 428/639 428/660 428/689 428/689S 428/701 428/702 428/702P 428/702S 428/704 428/704S 604/103.02 604/103.020S 604/408 604/408S 604/8 604/8S 606/231 606/231S 607/116 607/116S 607/9 607/9S 623/13.11 623/13.110S 623/16.11 623/20.14 623/20.140P 623/22.11 623/22.110S 623/23.76 623/7 623/7S **JP F-Term:** 3C082 4D075 4D075/AB24 4D075/BB23/Z 4D075/DA06 4D075/EB47 4C081 4C081/AB03 4C081/BA12 4C081/CE09 4C081/DC03 4D075/AC06 4D075/AC09 4D075/AC42 4D075/AC45 4D075/AC88 4D075/AC93 4D075/AE03 4D075/BB24 4D075/BB85 4D075/CA12 4D075/CA23 4D075/DB02 4D075/DB04 4D075/DB07 4D075/DB11 4D075/DB13 4D075/DB14 4D075/DB31 4D075/DC18 4D075/DC21 4D075/DC30 4D075/EA07 4D075/EA60 4D075/EB01 4D075/EB20 4D075/EB31 4D075/EC01 4D075/EC07 4F100 4F100/AA04 4F100/AA17 4F100/AA20 4F100/AA21 4F100/AB01 4F100/AB02 4F100/AB03 4F100/AB10 4F100/AB11 4F100/AB12 4F100/AB31 4F100/AD00 4F100/AG00 4F100/AH02 4F100/AH03 4F100/AH04 4F100/AK01 4F100/AK25 4F100/AK42 4F100/AT00 4F100/BA02 4F100/BA03 4F100/BA04 4F100/BA10 4F100/EH46 4F100/EH66 4F100/EJ42 4F100/EJ67 4F100/HB31 4F100/JG01 4F100/JL11 4F100/JN06 **JP F-Index:** B05D7/24/302/Z B82Y40/00 A61L27/00/M A61L27/04 A61L27/06 A61L27/10 A61L27/12 A61L27/16 A61L27/18 A61L27/30 A61L27/32 A61L27/42 A61L27/44 B05D7/00/C B32B17/06 B32B18/00/B B32B27/06 B32B9/00/A B32B9/00/Z

Family:

Publication number	Publication date	Application number	Application date
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PatBase - W004072120_A2

WD 2004072120 PCT/US2004/000000

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<110> Schwartz, Jeffrey
Ranson, Eric L.
Carroll, Michael D.
Dorshy, Michael F.
Schwartz, Josh E.
Widomsky, Kim S.

<120> SURFACE-BONDED, ORGANIC ACID-BASED MONO-LAYERS

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Priority:

US19960028949P	19961017	US19970035040P	19970113	US19970794833	19970204
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Assignee(s): NATIONAL SCIENCE FOU ; NATIONAL SCIENCE FOUNDATION ; THE TRUSTEES OF PRINCETON UNIVERSITY ; PRINCETON UNIV OF TRUSTEES A CORP OF NEW JERSEY ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALT ; NATIONAL INSTITUTES OF HEALTH (NIH) US DEPT OF HEALTH AND HUMAN SERVICES (DHHS) US GOVERNMENT ; NATIONAL INSTITUTES OF HEALTH NIH US DEPT OF HEALTH AND HUMAN SERVICES DHHS US GOVERNMENT ; TRUSTEES OF PRINCETON UNIV ; PRINCETON UNIV ; NATIONAL INST ; NATIONAL INSTITUTES OF HEALTH

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Inventor(s): SILVERMAN BRETT ; ALVATRONI MICHAEL

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AU2003287466 AA	20040906	LSPB	+	published / reissued	
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DANAHY, MICHAEL P.; AVALTRONI,
MICHAEL J.; AND OTHERS; SIGNING
DATES FROM 20020927 TO
20021003; REEL/FRAME:027121/0664

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US6146767 A	20020326	LSRE	CC	CERTIFICATE OF CORRECTION	
US6146767 A	20020712	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL SCIENCE FOUNDATION, VIRGINIA OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:013077/0133 EFFECTIVE DATE : 20010919
US6146767 A	20040730	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6146767 A	20080521	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6146767 A	20120501	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6146767 A	20170131	LSRE	CC	CERTIFICATE OF CORRECTION	
US6146767 A	20170204	PEXP		Calculated Patent Term Expiry	
US6645644 BA	20031111	LSGT	+	granted /	

				extensions (spc, cpc, pte)		
US6645644 BA	20001117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRUSTEES OF PRINCETON UNIVERSITY, THE, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: SCHWARTZ, JEFFREY; GAWALT, ELLEN; AVALTRONI, MICHAEL; REEL/FRAME:011294/0932 EFFECTIVE DATE : 20001107	
US6645644 BA	20031023	LSGT	PAT1	Patented Case		
US6645644 BA	20031023	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE	
US6645644 BA	20040727	LSRE	CC	CERTIFICATE OF CORRECTION		
US6645644 BA	20070404	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4	
US6645644 BA	20110505	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8	
US6645644 BA	20150511	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12	
US6645644 BA	20160906	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL SCIENCE FOUNDATION, VIRGINIA OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:039917/0922 EFFECTIVE DATE : 20160815	
US6645644 BA	20170124	LSRE	CC	CERTIFICATE OF CORRECTION		
US6645644 BA	20211016	PEXP		Calculated Patent Term Expiry (PTA 389 days)		
US7396594 BB	20080708	LSGT	+	granted / extensions (spc, cpc, pte)		
US7396594 BB	20080618	LSGT	PAT1	Patented Case		
US7396594 BB	20081223	LSRE	CC	CERTIFICATE OF CORRECTION		
US7396594 BB	20120109	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4	
US7396594 BB	20151117	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:037055/0660 EFFECTIVE DATE : 20151116	
US7396594 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:037083/0528 EFFECTIVE DATE : 20151116	
US7396594 BB	20160108	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8	
US7396594 BB	20250102	PEXP		Calculated Patent Term Expiry (PTA 193 days)		
US7507483 BB	20090324	LSGT	+	granted / extensions (spc, cpc, pte)		
US7507483 BB	20090304	LSGT	PAT1	Patented Case		
US7507483 BB	20100330	LSRE	CC	CERTIFICATE OF CORRECTION		
US7507483 BB	20100617	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON	

					UNIVERSITY; REEL/FRAME:024547/0453 EFFECTIVE DATE : 20090522
US7507483 BB	20120924	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7507483 BB	20160929	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7507483 BB	20170131	LSRE	CC	CERTIFICATE OF CORRECTION	
US7507483 BB	20240721	PEXP		Calculated Patent Term Expiry (PTA 477 days)	
US7569285 BB	20090804	LSGT	+	granted / extensions (spc, cpc, pte)	
US7569285 BB	20021015	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TRUSTEES OF PRINCETON UNIVERSITY, THE, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SCHWARTZ, JEFFREY; DANAHY, MICHAEL P.; AVALTRONI, MICHAEL J.; AND OTHERS; REEL/FRAME:013381/0702; SIGNING DATES FROM 20020927 TO 20021003
US7569285 BB	20090715	LSGT	PAT1	Patented Case	
US7569285 BB	20100420	LSRE	CC	CERTIFICATE OF CORRECTION	
US7569285 BB	20130204	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7569285 BB	20151119	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:037083/0506 EFFECTIVE DATE : 20151117
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US7569285 BB	20170904	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7569285 BB	20170904	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7569285 BB	20170926	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20170804
US7569285 BB	20230129	PEXP		Calculated Patent Term Expiry (PTA 219 days)	
US7815963 BB	20101019	LSGT	+	granted / extensions (spc, cpc, pte)	
US7815963 BB	20100929	LSGT	PAT1	Patented Case	
US7815963 BB	20111026	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE TRUSTEES OF PRINCETON UNIVERSITY, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SCHWARTZ, JEFFREY; DANAHY, MICHAEL P.; AVALTRONI, MICHAEL J.; AND OTHERS; SIGNING DATES FROM 20020927 TO 20021003; REEL/FRAME:027121/0805
US7815963 BB	20140421	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7815963 BB	20151204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON

					UNIVERSITY; REEL/FRAME:037215/0730 EFFECTIVE DATE : 20151201
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US7815963 BB	20181126	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7815963 BB	20181126	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7815963 BB	20181126	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7815963 BB	20181218	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20181019
US7815963 BB	20280505	PEXP		Calculated Patent Term Expiry	
US7879456 BB	20110201	LSGT	+	granted / extensions (spc, cpc, pte)	
US7879456 BB	20110112	LSGT	PAT1	Patented Case	
US7879456 BB	20110315	LSRE	CC	CERTIFICATE OF CORRECTION	
US7879456 BB	20110412	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:026108/0638 EFFECTIVE DATE : 20110407
US7879456 BB	20140723	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7879456 BB	20180924	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7879456 BB	20190311	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7879456 BB	20190311	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7879456 BB	20190311	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7879456 BB	20190402	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20190201
US7879456 BB	20280708	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US7931943 BB	20110426	LSGT	+	granted / extensions (spc, cpc, pte)	
US7931943 BB	20110406	LSGT	PAT1	Patented Case	
US7931943 BB	20141027	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7931943 BB	20160614	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF

					OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:038984/0490 EFFECTIVE DATE : 20160128
US7931943 BB	20170228	LSRE	CC	CERTIFICATE OF CORRECTION	
US7931943 BB	20181026	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7931943 BB	20270914	PEXP		Calculated Patent Term Expiry	
US8092585 BB	20120110	LSGT	+	granted / extensions (spc, cpc, pte)	
US8092585 BB	20111221	LSGT	PAT1	Patented Case	
US8092585 BB	20150710	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8092585 BB	20301019	PEXP		Calculated Patent Term Expiry	
US8758899 BB	20140624	LSGT	+	granted / extensions (spc, cpc, pte)	
US8758899 BB	20111115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE TRUSTEES OF PRINCETON UNIVERSITY, NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SCHWARTZ, JEFFREY; DANAHY, MICHAEL P.; AVALTRONI, MICHAEL J.; AND OTHERS; SIGNING DATES FROM 20020927 TO 20021003; REEL/FRAME:027225/0806
US8758899 BB	20111215	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:027390/0168 EFFECTIVE DATE : 20111213
US8758899 BB	20140604	LSGT	PAT1	Patented Case	
US8758899 BB	20151204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NATIONAL INSTITUTES OF HEALTH (NIH), U.S. DEPT. OF OLDPARTY : CONFIRMATORY LICENSE; ASSIGNOR:PRINCETON UNIVERSITY; REEL/FRAME:037215/0457 EFFECTIVE DATE : 20151201
US8758899 BB	20180205	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US8758899 BB	20180723	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	TEXT : PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US8758899 BB	20180723	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8758899 BB	20180723	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8758899 BB	20180814	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20180624
US8758899 BB	20310921	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8993117 BB	20150331	LSGT	+	granted / extensions (spc, cpc, pte)	
US8993117 BB	20150311	LSGT	PAT1	Patented Case	

US8993117 BB	20320112	PEXP		Calculated Patent Term Expiry	
WO04072120 A2	20040826	LSPB	+	published / reissued	
WO04072120 A2	20050802	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003781705 COUNTRY OF REF DOCUMENT : EP
WO04072120 A2	20050810	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2515653 COUNTRY OF REF DOCUMENT : CA
WO04072120 A2	20050811	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2005515724 COUNTRY OF REF DOCUMENT : JP
WO04072120 A2	20051207	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2003781705 COUNTRY OF REF DOCUMENT : EP
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WO05000575 A1	20051223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2530640 COUNTRY OF REF DOCUMENT : CA
WO05000575 A1	20060105	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004756014 COUNTRY OF REF DOCUMENT : EP
WO05000575 A1	20060322	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004756014 COUNTRY OF REF DOCUMENT : EP

Title: INTRA-BONE IMPLANT

Abstract: The invention discloses an intra-bone implant. This implant is characterised in that the basic body (5) forming the stem is made up, from the body centre to the periphery, of at least three superimposed layers, an internal layer (1) constituting the core of the said body, made of a metallic or composite material, the intermediate, continuous or discontinuous, elastically deformable, layer (2), to reconstitute the resilience of the superstructure of a natural organ in absorbing shocks and spreading functional stresses over the bone surface, an external metallic layer (3) forming an envelope capable of being integrated to the bone. The invention is useful to effect dental implants, and implants for knee, hip, shoulder and other joints.

Classifications:

International (IPC 8-9): A61C8/00 A61F2/00 A61F2/30 A61F2/36 A61F2/38 (Advanced/Invention);

A61F2/00 A61F2/36 A61F2/38 (Advanced/Non-invention);

A61C8/00 A61F2/30 (Core/Invention);

A61F2/00 A61F2/36 A61F2/38 (Core/Non-invention)

International (IPC 1-7): A61C8/00 A61F2/30

CPC: A61C8/0086 A61F2/30749 A61F2/30767 A61F2/3662 A61F2/389

A61F2002/30014 A61F2002/30136 A61F2002/30224 A61F2002/30563

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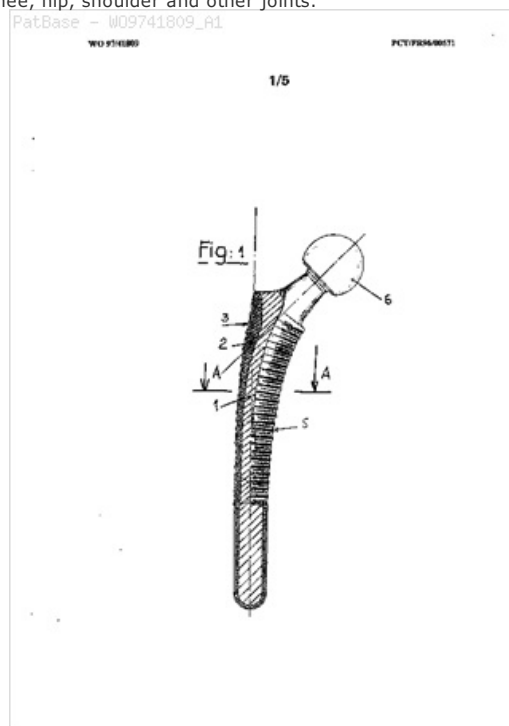
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K61F230/00K2 K61F230/00Y3 K61F250/00N2 K61F310/00A2E

K61F310/00L6E



Family:

Publication number	Publication date	Application number	Application date
AU199658241 A1	19971126	AU19960058241	19960503
WO9741809 A1	19971113	WO1996FR00671	19960503

Priority:

WO1996FR00671 19960503

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Inventor(s): (std): COENT FERNAND LE ; LE COENT FERNAND

Inventor(s): FERNAND LE COENT

Designated states: AT AU BE CA CH DE DK ES FI FR GB GR IE IT JP LU MC NL PT SE US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199658241 A1	19971126	LSPB	+	published / reissued	
WO9741809 A1	19971113	LSPB	+	published / reissued	
WO9741809 A1	19981204	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 97539574 COUNTRY OF REF DOCUMENT : JP
WO9741809 A1	19990103	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA
WO9741809 A1	19990804	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO

Title: STABLE AORTIC BLOOD PUMP IMPLANT

Abstract: An aortic blood pump is described that can be inflated and deflated in response to selective communication with a source of pressurized fluid or air. The pump includes a structure adapted to maintain implant stability in the face of mechanical and fluid forces to which it is exposed in situ. The pump may include a wall adapted to maintain implant stability by connection of the wall to a stiffening element, such as a stent, a brace, a stiffener or any combination of these. Additionally, the pump optionally includes a wall adapted to maintain implant stability by configuring the interior volume to generally follow the contour of the native human aorta.

Classifications:

International (IPC 8-9): A61B17/86 A61B5/00 A61B5/103 A61F13/00 A61F2/02 A61F2/06 A61K33/38 A61M1/00 A61M1/10 A61M1/12 A61M25/02 A61M27/00 A61M29/00 A61M37/00 A61M39/02 A61M39/04 A61M39/06 A61N1/30 A61N1/362 A61N5/00 B05D3/10 C12N5/071 (Advanced/Invention); A61M1/12 (Advanced/Non-invention); A61B5/00 A61B5/103 A61F2/06 A61K33/38 A61M1/10 A61M29/00 A61N1/30 A61N1/362 B05D3/10 (Core/Invention)

International (IPC 1-7): A61B5/103 A61M1/12

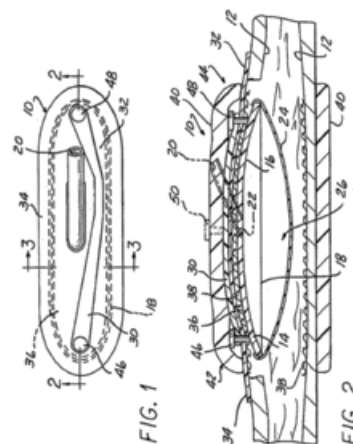
CPC: A61B5/4312 A61B5/0002 A61B5/0053 A61B5/681 A61B5/6843 A61B2560/045 A61B2562/0247 A61B2562/046 A61M25/1011 A61B17/866 A61M1/12 A61F2/022 A61M1/107 B33Y80/00 A61M1/1008 A61M1/106 A61M1/125 A61M1/127 A61M1/1037 A61M1/122 A61M1/1086 A61M2205/33 A61M2205/3303 A61B5/0215 A61B5/0422 A61N1/056 A61M1/1072 A61M2230/04

European: A61B5/00B A61B5/00M4 A61B5/43F2 A61B5/68B1H A61B5/68B5 A61F2/02B A61M1/10E51D K61B5/0215 K61B5/042D K61B560/04H2 K61B562/02H K61B562/04D K61M1/12C K61M230/04 K61M25/10D K61N1/05N

US: 1/1 216/56 424/423 424/423P 424/618 424/618S 424/93.7 427/2.24 427/2.240P 435/366 435/396 435/402 523/115 600/16 600/16S 600/18 600/18P 600/587 600/587P 604/174 604/175 604/20 604/20S 604/43 604/522 604/522P 604/907 604/914 604/96.01 606/301 623/1.11 623/1.110S 623/23.5 623/23.58 623/3.1 623/3.21 623/3.210P 977/931 977/931S

PatBase - US2004152945_AA

Patent Application Publication Aug. 5, 2004 Sheet 1 of 5 US 2004/0152945 A1

**Family:**

Publication number	Publication date	Application number	Application date
DE602011047162 D1	20180503	DE201160047162T	20110223
US2004152945 AA	20040805	US20040770269	20040202
US2004267165 AA	20041230	US20040866395	20040612
US2007026032 AA	20070201	US20060460339	20060727
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US2008281412 AA	20081113	US20080120457	20080514
US2009131741 AA	20090521	US20080154048	20080520
US2010143577 AA	20100610	US20100701784	20100208
US2012150149 AA	20120614	US20120372025	20120213
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US7704225 BB	20100427	US20060460339	20060727
US7976452 BB	20110712	US20080154091	20080520
US8226541 BB	20120724	US20080154048	20080520
US8383407 BB	20130226	US20120372025	20120213
US8540618 BB	20130924	US20040770269	20040202
US8721515 BB	20140513	US20080120457	20080514
US8877499 BB	20141104	US20130756276	20130131
US9433715 BB	20160906	US20130971852	20130821
US9694122 BB	20170704	US20140277031	20140513

Priority:

US20020436690P	20021227	US20030444077P	20030131	US20030477704P	20030611
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US20100406814P	20101026	US20100419491P	20101203	EP20110748019	20110223
WO2011US25958	20110223	US20120372025	20120213	US20120394239	20120305
US20130756276	20130131	US20130971852	20130821	US20140277031	20140513

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Inventor(s): (std): KANTROWITZ ADRIAN ; SMITH ROBERT MERRILL ; SARVAZYAN ARMEN P ; EGOROV VLADIMIR ; SON JAE S ; KANTROWSKI ADRIAN ; HELMUS MICHAEL N ; KANTROWITZ ALLEN B ; JEEVANANDAM VALLUVAN ; SMITH ROBERT M ; FREED PAUL S

Inventor(s): KANTROWITZ ALLEN ; MORTIS CHRIS ; WADSWORTH DANIEL C

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Designated states: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2004152945 AA	20040805	LSPB	+	published / reissued	
US2004152945 AA	20090710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KANTROWITZ, JEAN; SMITH, ROBERT M.; SIGNING DATES FROM 20090619 TO 20090623; REEL/FRAME:022938/0271
US2004152945 AA	20090710	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KANTROWITZ, JEAN; SMITH, ROBERT M.; REEL/FRAME:022938/0271; SIGNING DATES FROM 20090619 TO 20090623
US2004152945 AA	20130904	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2004267165 AA	20041230	LSPB	+	published / reissued	
US2004267165 AA	20041019	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEDICAL TACTILE, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SARVAZYAN, ARMEN P; EGOROV, VLADIMIR; SON, JAE S; REEL/FRAME:015264/0521; SIGNING DATES FROM 20040820 TO 20040827
US2004267165 AA	20041019	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ARTANN LABORATORIES, INC., NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SARVAZYAN, ARMEN P; EGOROV, VLADIMIR; SON, JAE S; REEL/FRAME:015264/0521; SIGNING DATES FROM 20040820 TO 20040827
US2004267165 AA	20060727	LSWD	-EAB1	Expressly Abandoned - - During Examination	
US2004267165 AA	20060727	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : EXPRESSLY ABANDONED -- DURING EXAMINATION
US2007026032 AA	20070201	LSPB	+	published / reissued	
US2007026032 AA	20100407	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2007038152 AA	20070215	LSPB	+	published / reissued	
US2007038152 AA	20090608	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

US2007038152 AA	20090608	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
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US2008281147 AA	20110603	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L.VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KANTROWITZ, ALLEN B.; REEL/FRAME:026383/0983 EFFECTIVE DATE : 20110601
US2008281147 AA	20110622	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2008281412 AA	20081113	LSPB	+	published / reissued	
US2008281412 AA	20140423	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2009131741 AA	20090521	LSPB	+	published / reissued	
US2009131741 AA	20110606	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : EBAY, INC., CALIFORNIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: PATEL, AMOL BHASKER; MENON, SURAJ SATHEESAN; REEL/FRAME:026396/0725 EFFECTIVE DATE : 20110602
US2009131741 AA	20120501	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L.VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KANTROWITZ, ALLEN B.; REEL/FRAME:028135/0225 EFFECTIVE DATE : 20120423
US2009131741 AA	20120704	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2010143577 AA	20100610	LSPB	+	published / reissued	
US2010143577 AA	20120229	LSWD	-ABD2	Abandoned -- Failure to Pay Issue Fee	
US2010143577 AA	20120229	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO PAY ISSUE FEE
US2012150149 AA	20120614	LSPB	+	published / reissued	
US2012150149 AA	20130206	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2013261676 AA	20131003	LSPB	+	published / reissued	
US2013261676 AA	20140606	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIADERM LLC, MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KANTROWITZ, ALLEN B.; HELMUS, MICHAEL N.; SIGNING DATES FROM 20140328 TO 20140605; REEL/FRAME:033043/0686
US2013261676 AA	20141015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US2014088340 AA	20140327	LSPB	+	published / reissued	
US2014088340 AA	20160714	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KANTROWITZ, JEAN; SMITH, ROBERT M; SIGNING DATES FROM 20090619 TO 20090623; REEL/FRAME:039151/0683
US2014088340 AA	20160817	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE

US2014364680 AA	20141211	LSPB	+	published / reissued	
US2014364680 AA	20160428	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SMITH, PH.D, ROBERT M; KANTROWITZ, M.D., ALLEN B; JEEVANANDAM, M.D., VALLUVAN; AND OTHERS; REEL/FRAME:038405/0942 EFFECTIVE DATE : 20080728
US2014364680 AA	20161201	LSWD	-ABD7	Abandonment for Failure to Correct Drawings/Oath/NonPub Request	
US2014364680 AA	20170531	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US2014364680 AA	20170614	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7374531 BA	20080520	LSGT	+	granted / extensions (spc, cpc, pte)	
US7374531 BA	20040611	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L. VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KANTROWITZ, ALLEN B; REEL/FRAME:015464/0963 EFFECTIVE DATE : 20040611
US7374531 BA	20080430	LSGT	PAT1	Patented Case	
US7374531 BA	20080430	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US7374531 BA	20151120	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7374531 BA	20250809	PEXP		Calculated Patent Term Expiry (PTA 424 days)	
US7468050 BA	20081223	LSGT	+	granted / extensions (spc, cpc, pte)	
US7468050 BA	20031224	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L. VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KANTROWITZ, ALLEN B.; REEL/FRAME:014858/0325 EFFECTIVE DATE : 20031222
US7468050 BA	20081203	LSGT	PAT1	Patented Case	
US7468050 BA	20081203	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
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US7468050 BA	20160623	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7468050 BA	20250726	PEXP		Calculated Patent Term Expiry (PTA 580 days)	
US7704225 BB	20100427	LSGT	+	granted / extensions (spc, cpc, pte)	
US7704225 BB	20100407	LSGT	PAT1	Patented Case	
US7704225 BB	20131008	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7704225 BB	20150306	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIADERM LLC, MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:L-VAD TECHNOLOGY, INC; REEL/FRAME:035107/0357 EFFECTIVE DATE : 20121203

US7704225 BB	20170908	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7704225 BB	20280823	PEXP		Calculated Patent Term Expiry (PTA 758 days)	
US7976452 BB	20110712	LSGT	+	granted / extensions (spc, cpc, pte)	
US7976452 BB	20110622	LSGT	PAT1	Patented Case	
US7976452 BB	20150112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7976452 BB	20190114	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7976452 BB	20291114	PEXP		Calculated Patent Term Expiry (PTA 543 days)	
US8226541 BB	20120724	LSGT	+	granted / extensions (spc, cpc, pte)	
US8226541 BB	20120704	LSGT	PAT1	Patented Case	
US8226541 BB	20160125	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8226541 BB	20310525	PEXP		Calculated Patent Term Expiry (PTA 1100 days)	
US8383407 BB	20130226	LSGT	+	granted / extensions (spc, cpc, pte)	
US8383407 BB	20120521	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:KANTROWITZ, ALLEN B.; REEL/FRAME:028241/0568 EFFECTIVE DATE : 20120424
US8383407 BB	20130206	LSGT	PAT1	Patented Case	
US8383407 BB	20150306	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VIADERM LLC, MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:L-VAD TECHNOLOGY, INC; REEL/FRAME:035107/0357 EFFECTIVE DATE : 20121203
US8383407 BB	20160726	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8383407 BB	20320213	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US8540618 BB	20130924	LSGT	+	granted / extensions (spc, cpc, pte)	
US8540618 BB	20130904	LSGT	PAT1	Patented Case	
US8540618 BB	20170105	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8540618 BB	20280129	PEXP		Calculated Patent Term Expiry (PTA 1457 days)	
US8721515 BB	20140513	LSGT	+	granted / extensions (spc, cpc, pte)	
US8721515 BB	20080728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KANTROWITZ, ALLEN B., M.D.; JEEVANANDUM, VALLUVAN, M.D.; KANTROWITZ, ADRIAN, M.D.; AND OTHERS; SIGNING DATES FROM 20080607 TO 20080725; REEL/FRAME:021297/0597
US8721515 BB	20080728	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : L-VAD TECHNOLOGY, INC., MICHIGAN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KANTROWITZ, ALLEN

B., M.D.; JEEVANANDUM,
VALLUVAN, M.D.; KANTROWITZ,
ADRIAN, M.D.; AND OTHERS;
REEL/FRAME:021297/0597;
SIGNING DATES FROM 20080607
TO 20080725

US8721515 BB	20140423	LSGT	PAT1	Patented Case	
US8721515 BB	20170908	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8721515 BB	20300913	PEXP		Calculated Patent Term Expiry (PTA 852 days)	
US8877499 BB	20141104	LSGT	+	granted / extensions (spc, cpc, pte)	
US8877499 BB	20141015	LSGT	PAT1	Patented Case	
US8877499 BB	20180206	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8877499 BB	20330131	PEXP		Calculated Patent Term Expiry	
US9433715 BB	20160906	LSGT	+	granted / extensions (spc, cpc, pte)	
US9433715 BB	20151113	LSES	NFA1	Non Final Action Mailed	
US9433715 BB	20160804	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9433715 BB	20160817	LSGT	PAT1	Patented Case	
US9433715 BB	20330821	PEXP		Calculated Patent Term Expiry	
US9694122 BB	20170704	LSGT	+	granted / extensions (spc, cpc, pte)	
US9694122 BB	20170614	LSGT	PAT1	Patented Case	
US9694122 BB	20340513	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	

Title: METHOD FOR MANUFACTURING OSTEOSYNTHESIS DEVICES, OSTEOSYNTHESIS DEVICES AND IMPLANTS MADE OF SEMI-SYNTHETIC HYBRID MATERIAL OBTAINED BY STRUCTURAL MODIFICATION OF THE COMPONENTS OF A NATURAL MARINE BIOMATERIAL

Abstract: The present invention relates to a semi-synthetic hybrid material which comprises an inorganic fraction and an organic fraction, having a pH of 7 to 7.4 and in which said organic fraction is crosslinked, to the process for manufacturing this material and to osteosynthesis devices or implants made of semi-synthetic hybrid material.

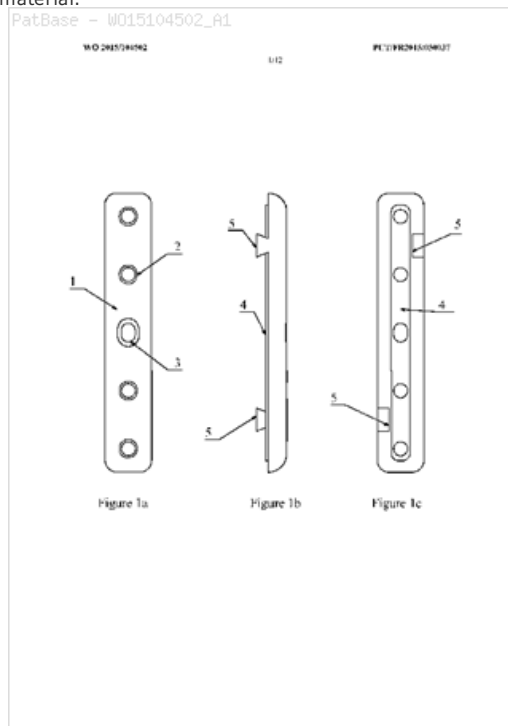
Classifications:

International (IPC 8-9): A61B17/58 A61B17/80 A61B17/86 A61C8/00 A61F2/08 A61F2/28 A61F2/30 A61F2/44 A61F5/01 A61K35/618 A61L A61L27/10 A61L27/36 A61L27/54 (Advanced/Invention); A61L27/10 (Core/Invention); A61L (Subclass/Invention)

CPC: A61L27/10 A61L27/36 A61L2400/18 A61L2430/02 A61L27/3625 A61B17/80 A61B17/86 A61C8/0012 A61F5/01 A61L27/54 A61K35/618

JP F-Term: 4C081 4C081/AB04 4C081/BA17 4C081/BB08 4C081/CC05 4C081/CD35 4C081/EA02 4C097 4C097/AA01 4C097/AA21 4C097/AA30 4C097/CC03 4C097/CC05 4C097/DD01 4C097/DD14 4C097/FF04 4C097/FF05 4C097/FF17 4C097/MM02 4C097/MM04 4C097/MM05

JP F-Index: A61F2/28 A61L27/36/110



Family:

Publication number	Publication date	Application number	Application date
AU2015205476 AA	20160721	AU20150205476	20150108
AU2015205476 BB	20171005	AU20150205476	20150108
BR112016015989 A2	20170808	BR20161115989	20150108
CA2936475 AA	20160708	CA20152936475	20150108
CN106132449 A	20161116	CN201580004180	20150108
DE602015013361 D1	20180809	DE201560013361T	20150108
DK3092014 T3	20181022	DK20150702540T	20150108
EP3092014 A1	20161116	EP20150702540	20150108
EP3092014 B1	20180711	EP20150702540	20150108
ES2690093 T3	20181119	ES20150702540T	20150108
FR3016293 A1	20150717	FR20140050204	20140110
HK1225658 A1	20170915	HK20160113938	20161207
HK1225658 B	20190531	HK20160113938	20161207
HR20181603 T1	20181130	HR20180001603	20181004
HU039518 T2	20190128	HU20150702540T	20150108
ID201711206 A	20171013	ID2016P0004541	20150108
IL246649 A0	20160831	IL20150246649	20150108
IN201617023632 A	20160831	IN201617023632	20160711
JP2017503627 T2	20170202	JP20160563268T	20150108
KR20160130221 A	20161110	KR20167021812	20150108
MX2016009028 A1	20170310	MX20160009028	20150108
PH2016501346 A	20170206	PH20160501346	20160707
PL3092014 T3	20190131	PL20150702540T	20150108
RU2016132785 A	20180214	RU20160132785	20150108
RU2016132785 A3	20180628	RU20160132785	20150108
RU2669926 C2	20181017	RU20160132785	20150108
TH177144 A	20180621	TH20161003997	20150108
TR201814588 T4	20181022	TR20180014588T	20150108
WO15104502 A1	20150716	WO2015FR50037	20150108

Priority:

FR20140050204 20140110 EP20150702540 20150108 WO2015FR50037 20150108
RU20160132785 20150108

Probable Assignee: JD INVEST

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

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Patent	Date recorded	Event group	Code	Event	Details
AU2015205476 AA	20160721	LSPB	+	published / reissued	
AU2015205476 BB	20171005	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2015205476 BB	20180201	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2015205476 BB	20350108	PEXP		Calculated Patent Term Expiry	
CA2936475 AA	20160708	LSPB	+	published / reissued	
CN106132449 A	20161116	LSPB	+	published / reissued	
CN106132449 A	20161116	LSPB	+C06	PUBLICATION	
DK3092014 T3	20181022	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP3092014 A1	20161116	LSPB	+	published / reissued	
EP3092014 A1	20161116	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160706
EP3092014 A1	20170628	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20170524
EP3092014 A1	20180516	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20180417
EP3092014 B1	20180711	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3092014 B1	20180711	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : NOT ENGLISH
EP3092014 B1	20180713	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP3092014 B1	20180715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 1016231 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180715
EP3092014 B1	20180808	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D TEXT : LANGUAGE OF EP DOCUMENT: FRENCH
EP3092014 B1	20180809	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602015013361 COUNTRY OF REF DOCUMENT : DE
EP3092014 B1	20181119	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2690093 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3

					DESIGNATED STATE(S) : EFFECTIVE DATE : 20181119
EP3092014 B1	20181126	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP3092014 B1	20190128	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E039518 COUNTRY OF REF DOCUMENT : HU
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EP3092014 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180711
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EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20181218 YEAR OF FEE PAYMENT : 5

EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20181218 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20181220 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20181212 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20181217 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20181227 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20181227 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180711
EP3092014 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20180711
EP3092014 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20181129 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20181214 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190314	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20180402849 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20190225
EP3092014 B1	20190412	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602015013361 COUNTRY OF REF DOCUMENT : DE
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				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	PAYMENT DATE : 20190220 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20190118 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20190114 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190114 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20180711
EP3092014 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20190116 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20190103 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20190125 YEAR OF FEE PAYMENT : 5
EP3092014 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20181215 YEAR OF FEE PAYMENT : 5
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EP3092014 B1	20350108	PEXP		Calculated Patent Term Expiry	
ES2690093 T3	20181119	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2690093 T3	20350108	PEXP		Calculated Patent Term Expiry	
FR3016293 A1	20150717	LSPB	+	published / reissued	
FR3016293 A1	20150129	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 2
FR3016293 A1	20160128	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 3
FR3016293 A1	20161221	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
FR3016293 A1	20170324	LSAS	TP	TRANSMISSION OF PROPERTY	PARTYTYPE : OWNER OWNER : MBP (MAURITIUS) LTD, MU EFFECTIVE DATE : 20170217
FR3016293 A1	20171128	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 5
FR3016293 A1	20181129	LSFE	PLFP	Fee Payment (FEE PAYMENT)	PAYMENT DATE : 20181129 YEAR OF FEE PAYMENT : 6
HK1225658 A1	20170915	LSPB	+	published / reissued	
HK1225658 B	20190531	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1225658 B	20361207	PEXP		Calculated Patent Term Expiry	

HR20181603 T1	20181130	LSPB	+	published / reissued	
HU039518 T2	20190128	LSPB	+	published / reissued	
ID201711206 A	20171013	LSPB	+	published / reissued	
IN201617023632 A	20160831	LSPB	+	published / reissued	
JP2017503627 T2	20170202	LSPB	+	published / reissued	
JP2017503627 T2	20171205	LSSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20171205
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KR20160130221 A	20161110	LSPB	+	published / reissued	
MX2016009028 A1	20170310	LSPB	+	published / reissued	
PH2016501346 A	20170206	LSPB	+	published / reissued	
PL3092014 T3	20190131	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2016132785 A	20180214	LSPB	+	published / reissued	
RU2669926 C2	20181017	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2669926 C2	20350108	PEXP		Calculated Patent Term Expiry	
TH177144 A	20180621	LSPB	+	published / reissued	
TR201814588 T4	20181022	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201814588 T4	20350108	PEXP		Calculated Patent Term Expiry	
WO15104502 A1	20150716	LSPB	+	published / reissued	
WO15104502 A1	20160706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2015702540 COUNTRY OF REF DOCUMENT : EP
WO15104502 A1	20160707	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 246649 COUNTRY OF REF DOCUMENT : IL
WO15104502 A1	20160707	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12016501346 COUNTRY OF REF DOCUMENT : PH
WO15104502 A1	20160708	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2936475 COUNTRY OF REF DOCUMENT : CA
WO15104502 A1	20160708	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016563268 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15104502 A1	20160708	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2016/009028 COUNTRY OF REF DOCUMENT : MX
WO15104502 A1	20160711	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15104502 A1	20160721	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015205476 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20150108 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

WO15104502 A1	20160809	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20167021812 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15104502 A1	20160810	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016132785 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15104502 A1	20170808	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112016015989 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20160708

Title: MESA CIRURGICA PARA ANIMAIS DE PEQUENO PORTE CIRURGICAL TABLE FOR SMALL ANIMALS (Machine translation)

Abstract: Source: BRPI1103967A [PT] MESA CIRURGICA PARA ANIMAIS DE PEQUENO PORTE. A materia tratada compreende uma mesa cirurgica com recursos especificos para a realizacao de procedimentos anatomicos, clinicos ou cirurgicos em animais de pequeno porte. Mais especificamente, o dispositivo compreende uma mesa cirurgica para procedimentos intraorais em animais de pequeno porte, aperfeicoando sua realizacao de forma padronizada, em menor tempo, despnesando-se a necessidade de operadores auxiliares. **Machine translation:** CIRURGICAL TABLE FOR SMALL ANIMALS. The treated material comprises a surgical table with resources for the achievement of specific anatomical procedures, clinical or surgical in small animals. More specifically, the device comprises a surgical table for intraoral procedures in small animals, perfecting their achievement in a standardized way, in less time, despnesando the necessity of auxiliary operators.

Classifications:

International (IPC 8-9): A61D99/00 A61G13/10 (Advanced/Invention)

PatBase - BRPI1103967_A2

1/24

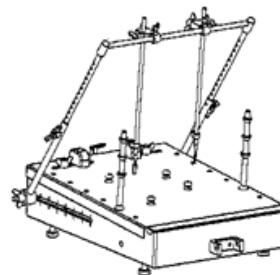


Figure 1

Family:

Publication number	Publication date	Application number	Application date
BRPI1103967 A2	20130730	BR2011PI03967	20110804

Priority:

BR2011PI03967 20110804

Probable Assignee: UNIV MINAS GERAIS

Assignee(s): (std): FUNDACAO FAPEMIG ; UNIV MINAS GERAIS

Assignee(s): UNIVERSIDADE FEDERAL DE MINAS GERAIS ; FUNDACAO DE AMPARO A PESQUISA DO ESTADO DE MINAS GERAIS FAPEMIG

Inventor(s): (std): ALVES JOSE BENTO ; BORGES SILVA GERLUZA APARECIDA ; DA COSTA LUIZ BERTOLDO JR ; MAUAD DE ABREU FERNANDO ANTONIO

Inventor(s): FERNANDO ANTONIO MAUAD DE ABREU ; GERLUZA APARECIDA BORGES SILVA ; JOSE BENTO ALVES ; LUIZ BERTOLDO DA COSTA JR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BRPI1103967 A2	20130730	LSPB	B03A	PUBLICATION OF AN APPLICATION: PUBLICATION OF A PATENT APPLICATION OR OF A CERTIFICATE OF ADDITION OF INVENTION	

Title: PORE-FORMING AGENTS FOR ORTHOPEDIC CEMENTS

Abstract: A bone precursor composition comprising a cement mixture and a pore-forming agent is provided for bone implant. Preferably, the pore-forming agent has a particle size of 20-500 μm . More preferably, the proportion of the pore-forming agent is 7-40 percent (w/w). The composition may further include a bioactive agent, preferably a bone morphogenic protein or nucleic acid encoding BMP encapsulated in the pore-forming agent. The moldability of the composition can be modulated by the addition of a binder. The invention provides a kit and implant device comprising the bone precursor composition. The invention also provides an implantable prosthetic device comprising a prosthetic implant having a surface region and a bone precursor material disposed on the surface region. The kit and devices may further comprise one or more additional components including a bioactive agent and a binder. Methods of inducing bone formation and delivering the bioactive agent are provided.

Classifications:

International (IPC 8-9): A01N43/04 A01N63/00 A61F13/00 A61F2/00 A61F2/30 A61L27/00 A61L27/02 A61L27/12 A61L27/18 A61L27/20 A61L27/22 A61L27/30 A61L27/54 A61L27/56 A61L27/58 C07K14/47 C08J9/26 C08J9/28 (Advanced/Invention); A61F2/02 C07K14/47 (Advanced/Non-invention); A01N43/02 A01N63/00 A61F13/00 A61F2/00 A61F2/30 A61L27/00 C07K14/435 C08J9/00 (Core/Invention); C07K14/435 (Core/Non-invention); A61B (Subclass/Invention)

International (IPC 1-7): A01N43/04 A01N63/00 A61B A61F13/00 A61F2/00 A61L27/00 C07K14/47 C08J9/26 C08J9/28

CPC: A61L27/12 A61L27/227 A61L27/56

European: A61L27/12 A61L27/22R A61L27/56

JP F-Term: 4C081 4C081/AB04 4C081/AC04 4C081/BA12 4C081/BA16 4C081/CA05 4C081/CA08 4C081/CA17 4C081/CA18 4C081/CA20 4C081/CA23 4C081/CA24 4C081/CA28 4C081/CC02 4C081/CD01 4C081/CD02 4C081/CD03 4C081/CD04 4C081/CD07 4C081/CD08 4C081/CD09 4C081/CD11 4C081/CD12 4C081/CD15 4C081/CD28 4C081/CF03 4C081/CF11 4C081/DA13 4C081/DB06 4C081/DC12 4H045 4H045/AA30 4H045/BA10 4H045/CA40 4H045/DA22 4H045/EA20 4H045/FA72 4H045/FA74

JP F-Index: A61L24/00/200 A61L24/00/210 A61L24/00/250 A61L24/00/260 A61L24/00/300 A61L24/02 A61L24/04/200 A61L24/06 A61L24/08 A61L24/10 A61L27/00/G A61L27/00/J A61L27/02 A61L27/10 A61L27/12 A61L27/16 A61L27/18 A61L27/20 A61L27/22 A61L27/24 A61L27/36/100 A61L27/36/311 A61L27/42 A61L27/50 A61L27/54 A61L27/56 A61L27/58 C07K14/47/ZNA

JP Facet: ZNA

PatBase - WO03024316_A2

WO03024316

PC1A802996

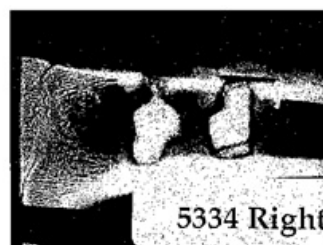
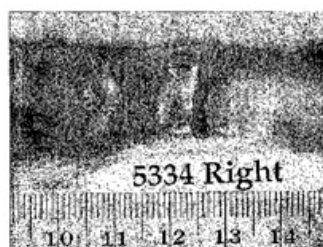


Figure 1

1/6

Family:

Publication number	Publication date	Application number	Application date
AU2002327007 AA	20030401	AU20020327007	20020920
AU2002327007 BB	20051020	AU20020327007	20020920
CA2460843 AA	20040319	CA20022460843	20020920
EP1446445 A2	20040818	EP20020761768	20020920
EP1446445 A4	20070404	EP20020761768	20020920
JP2005508217 T2	20050331	JP20030528218T	20020920
WO03024316 A2	20030327	WO2002US29966	20020920
WO03024316 A3	20031231	WO2002US29966	20020920

Priority:

US20010960421 20010921 WO2002US29966 20020920

Probable Assignee: STRYKER CORP

Assignee(s): (std): DALAL PARESH S ; KULKARNI SHAILESH C ; LANDERYOU TRACY J ; STRYKER CORP ; TOTH CAROL ANN

Inventor(s): (std): DALAL PARESH S ; KULKARNI SHAILESH C ; LANDERYOU TRACY J ; TOTH CAROL ANN

Inventor(s): TRACY J LANDERYOU ; SHAILESH C KULKARNI ; PARESH S DALAL ; CAROL ANN TOTH

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; SPRUSON AND FERGUSON; SMART AND BIGGAR

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2002327007 AA	20030401	LSPB	+	published / reissued	
AU2002327007 BB	20051020	LSGT	+	granted / extensions (spc, cpc, pte)	

AU2002327007 BB	20060216	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2002327007 BB	20100415	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2002327007 BB	20220920	PEXP		Calculated Patent Term Expiry	
CA2460843 AA	20040319	LSPB	+	published / reissued	
CA2460843 AA	20040618	LSES	+EEER	EXAMINATION REQUEST	
CA2460843 AA	20100823	LSLE	-FZDE	DEAD	
EP1446445 A2	20040818	LSPB	+	published / reissued	
EP1446445 A2	20040818	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20040421
EP1446445 A4	20070404	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	EFFECTIVE DATE : 20070305
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EP1446445 A4	20070404	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61L 27/30 20060101ALI20070227BHEP
EP1446445 A4	20070404	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A01N 63/00 20060101ALI20070227BHEP
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EP1446445 A4	20100922	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20100331
JP2005508217 T2	20050331	LSPB	+	published / reissued	
JP2005508217 T2	20080206	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20080205
JP2005508217 T2	20080806	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080805

JP2005508217 T2	20081111	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20081110
WO03024316 A2	20030327	LSPB	+	published / reissued	
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WO03024316 A3	20040319	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2460843 COUNTRY OF REF DOCUMENT : CA
WO03024316 A3	20040401	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002327007 COUNTRY OF REF DOCUMENT : AU
WO03024316 A3	20040421	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2002761768 COUNTRY OF REF DOCUMENT : EP
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WO03024316 A3	20060202	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2002327007 COUNTRY OF REF DOCUMENT : AU

Title: MEDICAL AND DENTAL IMPLANT DEVICES FOR CONTROLLED DRUG DELIVERY

Abstract: Implantable devices and methods for use in the treatment of osteonecrosis are provided. The device includes at least one implant device body adapted for insertion into one or more channels or voids in bone tissue; a plurality of discrete reservoirs, which may preferably be microreservoirs, located in the surface of the at least one implant device body; and at least one release system disposed in one or more of the plurality of reservoirs, wherein the release system includes at least one drug selected from the group consisting of bone growth promoters, angiogenesis promoters, analgesics, anesthetics, antibiotics, and combinations thereof. The device body may be formed of a bone graft material, a polymer, a metal, a ceramic, or a combination thereof. The device body may be a monolithic structure, such as one having a cylindrical shape, or it may be in the form of multiple units, such as a plurality of beads.

Classifications:**International (IPC 8-9):** A61F2/28 A61F2/30

A61M31/00 (Advanced/Invention);

A61F2/28 A61F2/30 A61M31/00 (Core/Invention)

CPC: A61L2430/02 A61C8/0012 A61C8/0016 A61C19/063

A61C2008/0046 A61F2/30744 A61F2/30756 A61F2/30767 A61F2/30771

A61F2/36 A61F2/3662 A61F2/3676 A61F2/38 A61F2/446 A61F2002/2817

A61F2002/2828 A61F2002/2832 A61F2002/2835 A61F2002/30004

A61F2002/30013 A61F2002/30062 A61F2002/30224 A61F2002/30261

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European: A61C19/06B A61C8/00E A61F2/30C A61F2/30L2 A61F2/44F2

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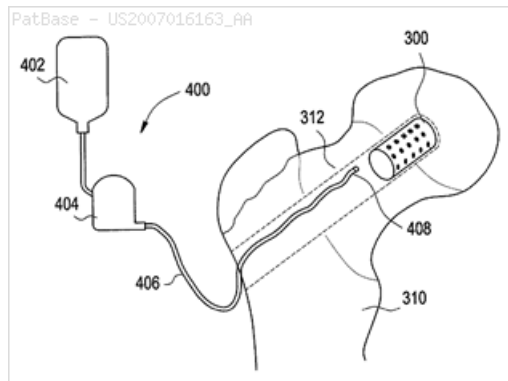
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K61L300/410 K61L300/414 K61L300/602

US: 424/422 424/422S 604/500 604/500P 604/890.1 604/890.100S 623/18.11 623/18.110S**Family:**

Publication number	Publication date	Application number	Application date
US2007016163 AA	20070118	US20060381646	20060504
WO07001624 A2	20070104	WO2006US17062	20060504
WO07001624 A3	20070412	WO2006US17062	20060504

Priority:

US20050695030P 20050628 US20050727323P 20051017 US20060763336P 20060130
 US20060381646 20060504

Probable Assignee: MICROCHIPS INC**Assignee(s):** (std): HUTCHINSON CHARLES E ; MICROCHIPS INC ; PROOS ELIZABETH REES ; SANTINI JOHN T JR**Assignee(s):** SANTINI JOHN T**Inventor(s):** (std): PROOS ELIZABETH REES ; SANTINI JOHN T JR ; HUTCHINSON CHARLES E ; PROOS ELIZABETH R**Inventor(s):** PROOS ELIZABETH ; SANTINI JOHN ; HUTCHINSON CHARLES ; SANTINI JOHN T ; SANTINI JOHN TJR**Agent(s):** SUTHERLAND ASBILL AND BRENNAN LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2007016163 AA	20070118	LSPB	+	published / reissued	
US2007016163 AA	20060626	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MICROCHIPS, INC., MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SANTINI, JR., JOHN T.; HUTCHINSON, CHARLES E.; PROOS, ELIZABETH R.; REEL/FRAME:017844/0625; SIGNING DATES FROM 20060517 TO 20060612
US2007016163 AA	20091207	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

US2007016163 AA	20091207	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO07001624 A2	20070104	LSPB	+	published / reissued	
WO07001624 A3	20071229	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO07001624 A3	20080730	LSNE	-122	EP: PCT APPLICATION NON- ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 06752184 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :

Title: PROCESS FOR THE PREPARATION OF NACRE MECHANO-STRUCTURED BY MECHANOSYNTHESIS, MECHANO-STRUCTURED NACRE THUS OBTAINED AND USES THEREOF

Abstract: The present invention relates to a method for the preparation of mechano-structured nacre by mechanosynthesis of micrometric nacre powder, characterized in that the temperature of the nacre is kept below 40 degrees centigrade. It also relates to the mechano-structured nacre and to uses thereof, in particular on implants and bone substitute pieces on which the mechano-structured nacre is deposited.

Classifications:

International (IPC 8-9): A61B17/56 A61C8/00 A61F2/28 A61K A61K35/56 A61K35/618 A61K8/19 A61K8/27 A61K8/73 A61K8/9706 A61K8/98 A61K9/14 A61L A61L27/00 A61L27/20 A61L27/28 A61L27/30 A61L27/34 A61L27/36 A61L27/40 A61P19/08 A61Q1/00 A61Q19/00 A61Q3/00 A61Q5/00 B02C17/00 C30B33/00 (Advanced/Invention); A61L (Subclass/Invention)

CPC: A61L27/3691 A61K35/618 A61L27/28 A61L27/3604 A61L27/365 A61L2430/02 A61L2430/12 A61L2430/40

European: A61K35/56 A61L27/28 A61L27/36B A61L27/36F2B A61L27/36H4 K61L430/02 K61L430/12 K61L430/40

US: 241/175 241/184 241/23 241/29 241/30 424/489 424/489S 424/547 424/547S 606/92 606/92P

JP F-Term: 4C081 4C081/AB02 4C081/AB04 4C081/AC03 4C081/BB04 4C081/CD09 4C081/CD31 4C081/CD34 4C081/CF21 4C081/CF22 4C081/CG07 4C081/DA11 4C081/DB07 4C081/DC03 4C081/EA02 4C081/EA06 4C081/EA12 4C083 4C083/AA07 4C083/AA11 4C083/AB19 4C083/AB21 4C083/AB35 4C083/AD32 4C083/CC11 4C083/DD02 4C083/FF01 4C081/AA01 4C083/CC01 4C097 4C097/AA01 4C097/BB01 4C097/CC03 4C097/DD14 4C097/MM04 4C159 4C159/AA24 4C159/AA30

JP F-Index: A61K8/98 A61L27/00/F A61L27/04 A61L27/20 A61L27/28 A61L27/36/311 A61L27/36/400 A61L27/50 A61C8/00/Z A61F2/28 A61K8/19 A61K8/27 A61K8/73 A61K8/9706 A61L27/30 A61L27/34 A61L27/36/100 A61L27/40 A61Q1/00

PatBase - US2011004218_AA

Patent Application Publication Jan. 6, 2011 Sheet 1 of 2 US 2011/0004218 A1

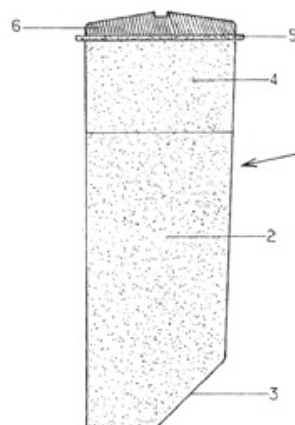


FIG.1.

Family:

Publication number	Publication date	Application number	Application date
AU2010261594 AA	20101223	AU20100261594	20100616
AU2010261594 BB	20131128	AU20100261594	20100616
BRPI1015555 A2	20160426	BR2010PI15555	20100616
BRPI1015555 B1	20180703	BR2010PI15555	20100616
CA2765930 AA	20111216	CA20102765930	20100616
CA2765930 C	20170905	CA20102765930	20100616
CN102802687 A	20121128	CN201080027074	20100616
CN102802687 B	20170815	CN201080027074	20100616
DE602010023798 D1	20150521	DE201060023798T	20100616
DK2442838 T3	20150706	DK20100734250T	20100616
EP2442838 A1	20120425	EP20100734250	20100616
EP2442838 B1	20150408	EP20100734250	20100616
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FR2946888 B1	20110729	FR20090054066	20090617
HK1176023 A1	20130719	HK20130103156	20130313
HK1176023 B	20180525	HK20130103156	20130313
HR20150685 T1	20150814	HR20150000685	20150626
HU026050 T2	20160530	HU20100734250T	20100616
IL216935 A0	20120229	IL20100216935	20100616
IL216935 A1	20150531	IL20100216935	20100616
IN09728CN2011 A	20130531	IN2011CN09728	20111223
JP2012529949 T2	20121129	JP20120515545T	20100616
JP2018038809 A2	20180315	JP20170158705	20170821
JP6246467 B2	20171213	JP20120515545T	20100616
KR101699914 B1	20170208	KR20127001368	20100616
KR20120089624 A	20120813	KR20127001368	20100616
MX2012000030 A1	20120419	MX20120000030	20100616
PT2442838 T	20150820	PT20100734250T	20100616
RU2012101418 A	20130727	RU20120101418	20100616
RU2555766 C2	20150710	RU20120101418	20100616
US2011004218 AA	20110106	US20100816624	20100616
US8485458 BB	20130716	US20100816624	20100616
WO10146308 A1	20101223	WO2010FR51201	20100616

Priority:

FR20090054066 20090617 EP20100734250 20100616 WO2010FR51201 20100616

Probable Assignee: MEGA BIO PHARMA

Assignee(s): (std): CAMPRASSE GEORGES ; CAMPRASSE SERGE ; DRAI JOEL ; GUILLOT JOSETTE ; MEGA BIO PHARMA ; JD INVEST ; ZHD INVEST ; MEGA BIOPHARMA ; MEGA IND

Assignee(s): MEGA INDUSTRIE

Inventor(s): (std): GUILLOT JOSETTE ; DRAI JOEL ; CAMPRASSE SERGE ; CAMPRASSE GEORGES ; JOSETTE GUILLOT ; JOEL DRAI ; KAMPRASS SERZH ; KAMPRASS ZHORZH ; SERGE CAMPRASSE ; GEORGES CAMPRASSE

Agent(s): SPRUSON AND FERGUSON; GOUDREAU GAGE DUBUC; LAVERY DE BILLY LLP; CABINET PLASSERAUD; VEIGA MIKEL; KING AND WOOD MALLESONS; KING AND WOOD MALLESONS IP LTD; REINHOLD COHN AND PARTNERS; YOUNG AND THOMPSON; TOUATI CATHERINE ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2010261594 AA	20101223	LSPB	+	published / reissued	
AU2010261594 AA	20140327	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2010261594 AA	20170105	LSAS	PC	ASSIGNMENT REGISTERED	PARTYTYPE : OWNER OWNER : MEGA BIO PHARMA OLDPARTY : FORMER OWNER(S): JD INVEST
AU2010261594 BB	20131128	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2010261594 BB	20300616	PEXP		Calculated Patent Term Expiry	
BRPI1015555 A2	20171010	LSAS	B25C	REQUIREMENT RELATED TO REQUESTED TRANSFER OF RIGHTS	PARTYTYPE : OWNER OWNER : JD INVEST (FR)
BRPI1015555 A2	20171212	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PARTYTYPE : OWNER OWNER : MEGA INDUSTRIE (FR)
BRPI1015555 A2	20180102	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PARTYTYPE : OWNER OWNER : MEGA BIO PHARMA (FR)
BRPI1015555 A2	20180515	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI1015555 A2	20180703	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	
BRPI1015555 B1	20300616	PEXP		Calculated Patent Term Expiry	
CA2765930 AA	20111216	LSPB	+	published / reissued	
CA2765930 AA	20150605	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150515
CA2765930 C	20170905	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2765930 C	20300616	PEXP		Calculated Patent Term Expiry	
CN102802687 A	20121128	LSPB	+	published / reissued	
CN102802687 A	20121128	LSPB	+C06	PUBLICATION	
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EP2442838 B1	20160111	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010023798 COUNTRY OF REF DOCUMENT : DE
EP2442838 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150616

EP2442838 B1	20160129	LSLE	-PG25	EPO] LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20160316	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160111
EP2442838 B1	20160429	LSRE	+PGRI	PATENT REINSTATED IN CONTRACTING STATE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT REINSTATED DATE : 20160412
EP2442838 B1	20160530	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E026050 COUNTRY OF REF DOCUMENT : HU
EP2442838 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20160629	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2442838 B1	20161115	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : UEP REF DOCUMENT NUMBER : 720031 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150408
EP2442838 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20170331	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : FR OWNER : MEGA BIO PHARMA, FR REF LEGAL EVENT CODE : TP EFFECTIVE DATE : 20170227
EP2442838 B1	20170426	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408

EP2442838 B1	20170612	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : DE OWNER : MEGA BIO PHARMA, FR REF LEGAL EVENT CODE : R081 REF DOCUMENT NUMBER : 602010023798 COUNTRY OF REF DOCUMENT : DE OLDPARTY : FORMER OWNER: JD INVEST, SAINT-MAUR-DES-FOSSES, FR
EP2442838 B1	20170615	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : CH OWNER : MEGA BIO PHARMA, FR REF LEGAL EVENT CODE : PUE OLDPARTY : FORMER OWNER: JD INVEST, FR
EP2442838 B1	20170630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20170515 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20170605 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20170518 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20170529 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170616 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20170614 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20170519 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170619 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170426 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20170522 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20170524 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20170522 YEAR OF FEE PAYMENT : 8

				NATIONAL OFFICE TO EPO]	
EP2442838 B1	20170831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20170516 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20170622 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20170627 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20170519 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20170620 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20170523 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20170522 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20170929	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20170515 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20171003	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : SK OWNER : MEGA BIO PHARMA, CROSNE, FR REF LEGAL EVENT CODE : PC4A REF DOCUMENT NUMBER : E 18965 COUNTRY OF REF DOCUMENT : SK OLD PARTY : FORMER OWNER: MEGA INDUSTRIE, BRUNOY, FR EFFECTIVE DATE : 20160317
EP2442838 B1	20171003	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : SK OWNER : MEGA INDUSTRIE, BRUNOY, FR REF LEGAL EVENT CODE : PC4A REF DOCUMENT NUMBER : E 18965 COUNTRY OF REF DOCUMENT : SK OLD PARTY : FORMER OWNER: JD INVEST, SAINT-MAUR- DES-FOSSES, FR EFFECTIVE DATE : 20160105
EP2442838 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20170707 YEAR OF FEE PAYMENT : 8
EP2442838 B1	20171229	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : ES OWNER : MEGA BIO PHARMA REF LEGAL EVENT CODE : PC2A

					EFFECTIVE DATE : 20171222
EP2442838 B1	20180427	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20180629	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20180516 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180614 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20180525 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PT PAYMENT DATE : 20180517 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MC PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20180523 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180607 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HR PAYMENT DATE : 20180518 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20180517 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180427 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20180613 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20180515 YEAR OF FEE PAYMENT : 9

EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20180629 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : RO PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20180529 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180915	LSAS	REG	REFERENCE TO A NATIONAL CODE	PARTYTYPE : OWNER REF COUNTRY CODE : AT OWNER : MEGA BIO PHARMA, FR REF LEGAL EVENT CODE : PC REF DOCUMENT NUMBER : 720031 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20180718
EP2442838 B1	20180928	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20180612 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20180928	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20180516 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : AL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150408
EP2442838 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20180725 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20180613 YEAR OF FEE PAYMENT : 9
EP2442838 B1	20300616	PEXP		Calculated Patent Term Expiry	
ES2540808 T3	20150713	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2540808 T3	20300616	PEXP		Calculated Patent Term Expiry	
FR2946888 A1	20101224	LSPB	+	published / reissued	
FR2946888 A1	20110624	LSAS	TP	TRANSMISSION OF PROPERTY	
FR2946888 A1	20150527	LSFE	+PLFP	FEE PAYMENT	YEAR OF FEE PAYMENT : 7
FR2946888 A1	20170331	LSLE	-ST	NOTIFICATION OF LAPSE	EFFECTIVE DATE : 20170228
FR2946888 B1	20110729	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2946888 B1	20290617	PEXP		Calculated Patent Term Expiry	
HK1176023 A1	20130719	LSPB	+	published / reissued	
HK1176023 B	20180525	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1176023 B	20330313	PEXP		Calculated Patent Term Expiry	
HR20150685 T1	20150814	LSPB	+	published / reissued	

HU026050 T2	20160530	LSPB	+	published / reissued	
IL216935 A0	20150924	LSGT	+FF	PATENT GRANTED	
IL216935 A0	20151029	LSFE	+KB	PATENT RENEWED	
IL216935 A0	20160630	LSFE	+KB	PATENT RENEWED	
IL216935 A1	20150531	LSPB	+	published / reissued	
IL216935 A1	20150924	LSGT	+FF	PATENT GRANTED	
IL216935 A1	20151029	LSFE	+KB	PATENT RENEWED	
IL216935 A1	20160630	LSFE	+KB	PATENT RENEWED	
IN09728CN2011 A	20130531	LSPB	+	published / reissued	
JP2012529949 T2	20121129	LSPB	+	published / reissued	
JP2012529949 T2	20130612	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130611
JP2012529949 T2	20140611	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140610
JP2012529949 T2	20141209	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141208
JP2012529949 T2	20150415	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20150414
JP2012529949 T2	20150902	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20150818
JP2012529949 T2	20170522	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20170522
JP2012529949 T2	20170606	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20170522
JP2012529949 T2	20170821	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20170821
JP2012529949 T2	20170920	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20170920
JP2012529949 T2	20171124	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20171115
JP2012529949 T2	20171124	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 6246467 COUNTRY OF REF DOCUMENT : JP
JP2018038809 A2	20180315	LSPB	+	published / reissued	
JP6246467 B2	20171213	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6246467 B2	20300616	PEXP		Calculated Patent Term Expiry	
KR101699914 B1	20170208	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101699914 B1	20300616	PEXP		Calculated Patent Term Expiry	
KR20120089624 A	20120813	LSPB	+	published / reissued	
KR20120089624 A	20150608	LSES	A201	REQUEST FOR EXAMINATION	
KR20120089624 A	20160817	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120089624 A	20161020	LSGT	+E701	DECISION TO GRANT	

OR REGISTRATION OF PATENT RIGHT					
KR20120089624 A	20170118	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
MX2012000030 A1	20120419	LSPB	+	published / reissued	
MX2012000030 A1	20140902	LSGT	+FG	GRANT OR REGISTRATION	
PT2442838 T	20150820	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2442838 T	20300616	PEXP		Calculated Patent Term Expiry	
RU2012101418 A	20130727	LSPB	+	published / reissued	
RU2555766 C2	20150710	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2555766 C2	20170710	LSLI	PC41	OFFICIAL REGISTRATION OF THE TRANSFER OF EXCLUSIVE RIGHT	EFFECTIVE DATE : 20170710
RU2555766 C2	20170711	LSLI	PC41	OFFICIAL REGISTRATION OF THE TRANSFER OF EXCLUSIVE RIGHT	EFFECTIVE DATE : 20170711
RU2555766 C2	20300616	PEXP		Calculated Patent Term Expiry	
US2011004218 AA	20110106	LSPB	+	published / reissued	
US2011004218 AA	20120131	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JD INVEST, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CAMPRASSE, SERGE; CAMPRASSE, GEORGES; REEL/FRAME:027621/0546 EFFECTIVE DATE : 20120109
US2011004218 AA	20130626	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US8485458 BB	20130716	LSGT	+	granted / extensions (spc, cpc, pte)	
US8485458 BB	20100916	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JD INVEST, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DRAI, JOEL; GUILLOT, JOSETTE; SIGNING DATES FROM 20100630 TO 20100702; REEL/FRAME:024997/0513
US8485458 BB	20130626	LSGT	PAT1	Patented Case	
US8485458 BB	20161024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEGA INDUSTRIE, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:JD INVEST; REEL/FRAME:040101/0823 EFFECTIVE DATE : 20160105
US8485458 BB	20161025	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEGA BIO PHARMA, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MEGA INDUSTRIE; REEL/FRAME:040118/0493 EFFECTIVE DATE : 20160317
US8485458 BB	20170113	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8485458 BB	20310826	PEXP		Calculated Patent Term Expiry (PTA 436 days)	
WO10146308 A1	20101223	LSPB	+	published / reissued	
WO10146308 A1	20100616	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201080027074.4 COUNTRY OF REF DOCUMENT : CN

WO10146308 A1	20111215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010261594 COUNTRY OF REF DOCUMENT : AU
WO10146308 A1	20111216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2765930 COUNTRY OF REF DOCUMENT : CA
WO10146308 A1	20111216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2012/000030 COUNTRY OF REF DOCUMENT : MX
WO10146308 A1	20111216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012515545 COUNTRY OF REF DOCUMENT : JP
WO10146308 A1	20111219	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10146308 A1	20111223	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 9728/CHENP/2011 COUNTRY OF REF DOCUMENT : IN
WO10146308 A1	20120103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010734250 COUNTRY OF REF DOCUMENT : EP
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WO10146308 A1	20120119	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2010261594 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20100616 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO10146308 A1	20160426	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : PI1015555 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20111216

Title: COMPOSITIONS AND METHODS INVOLVED IN BONE GROWTH

Abstract: Disclosed are compositions and methods related to osteoblasts, osteoclasts, and osteoclast lacunae.

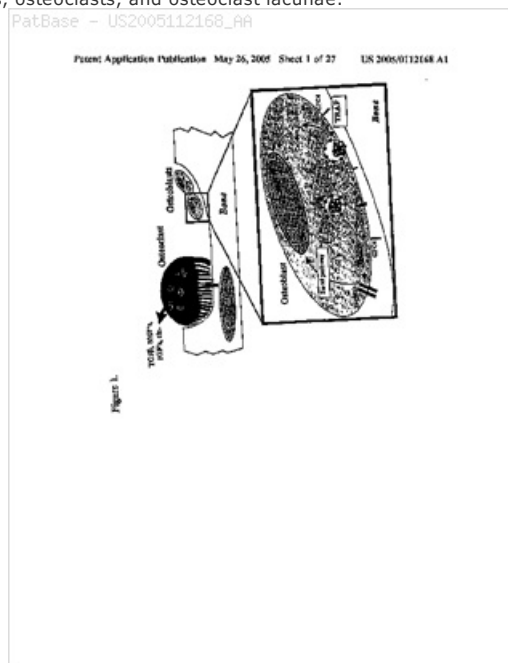
Classifications:

International (IPC 8-9): A61K6/00 A61K6/02 A61L27/22
C07K14/00 (Advanced/Invention)

International (IPC 1-7): A61K7/28 C07K14/00
CPC: C07K14/00 A61L27/227

European: A61K6/00 A61K6/02 A61L27/22R

US: 424/423 424/423P 424/50 424/50S 514/15.4 514/16.6 514/16.7
514/16.8 514/16.9 514/19.3 514/2 514/6.9 514/8.9 530/350 530/351



Family:

Publication number	Publication date	Application number	Application date
AU2002331890 AA	20030401	AU20020331890	20020920
US2005112168 AA	20050526	US20020490064	20020920
US7241732 BB	20070710	US20020490064	20020920
WO03024408 A2	20030327	WO2002US30093	20020920
WO03024408 A3	20031211	WO2002US30093	20020920
WO03024408 C1	20040527	WO2002US30093	20020920
WO03024408 C2	20040415	WO2002US30093	20020920

Priority:

US20010323987P 20010920 US20020490064 20020920 WO2002US30093 20020920
US20040490064 20040319

Probable Assignee: OF ROCHESTER UNIV

Assignee(s): (std): PUZAS J EDWARD ; UNIV ROCHESTER

Assignee(s): UNIVERSITY OF ROCHESTER ; ROCHESTER UNIV ; OF ROCHESTER UNIV ; PUZAS J ; PUZAS J E

Inventor(s): (std): PUZAS J E ; PUZAS J EDWARD

Inventor(s): PUZAS J ; J EDWARD PUZAS

Agent(s): NEEDLE AND ROSENBERG PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM
DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK
LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK
SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VV VN YU ZA ZM ZW

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Patent	Date recorded	Event group	Code	Event	Details
AU2002331890 AA	20030401	LSPB	+	published / reissued	
AU2002331890 AA	20040610	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
US2005112168 AA	20050526	LSPB	+	published / reissued	
US2005112168 AA	20070620	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US7241732 BB	20070710	LSGT	+	granted / extensions (spc, cpc, pte)	

US7241732 BB	20040811	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : UNIVERSITY OF ROCHESTER, NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:PUZAS, EDWARD; REEL/FRAME:015018/0608 EFFECTIVE DATE : 20040720
US7241732 BB	20070620	LSGT	PAT1	Patented Case	
US7241732 BB	20110110	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7241732 BB	20150112	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7241732 BB	20190225	LSFE	FEPP	FEE PAYMENT PROCEDURE	TEXT : MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7241732 BB	20221210	PEXP		Calculated Patent Term Expiry (PTA 81 days)	
WO03024408 A2	20030327	LSPB	+	published / reissued	
WO03024408 A3	20040319	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10490064 COUNTRY OF REF DOCUMENT : US
WO03024408 C1	20041103	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO03024408 C1	20060518	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP
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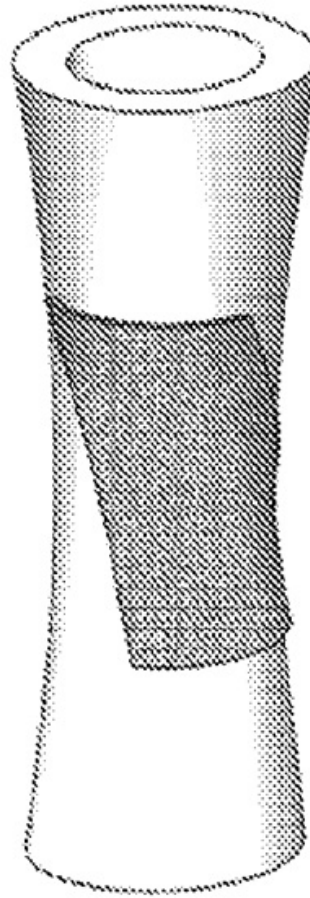
Title: DEVICES AND COMPOSITIONS AND METHODS OF USE THEREOF

Abstract: Embodiments of the disclosure relate to devices (e.g., patches, plugs, beams, plates, **screws**, rods, granules, spacers, cages, discs, tape devices, or other shape determined by the geometry or anatomy of the site of application) and methods of use thereof.

Classifications:

International (IPC 8-9): A61C5/00 A61F2/28 A61F2/30 A61F2/36 A61F2/44 A61K33/24 A61K33/42 A61L24/00 A61L27/42 A61L27/46 A61L31/12 (Advanced/Invention)
CPC: A61L15/58 A61L26/0095 A61K31/197 A61K45/06 A61K6/0643 A61K6/0835 A61B17/70 A61F2/442 A61L24/001 A61L24/0015 A61L24/06 A61L2300/102 A61L2300/404 A61L2300/41 A61L2300/442 A61L2300/802 A61F2310/00928 A61C5/00 A61F2/4405 A61F2002/30064 A61F2002/30909 A61F2310/00365 A61F2310/00976 A61F2310/00011 A61F2310/00395 A61F2310/00161 A61F2310/00329 A61F2310/00574 A61L24/0084 A61F2/2846 A61F2/30965 A61F2002/30072 A61F2002/3092 A61L27/46 A61L31/127

PatBase - US2019022273_AA



Family:

Publication number	Publication date	Application number	Application date
CN109219421 A	20190115	CN201780016948	20170112
EP3402443 A1	20181121	EP20170738974	20170112
EP3496729 A1	20190619	EP20170840165	20170808
US2019022273 AA	20190124	US20170069826	20170112
WO17123811 A1	20170720	WO2017US13256	20170112
WO18031586 A1	20180215	WO2017US45971	20170808

Priority:

US20160277828P 20160112	US20160371946P 20160808	US20160411391P 20161021
WO2017US13256 20170112	US20170069826 20170112	WO2017US45971 20170808

Probable Assignee: LAUNCHPAD MEDICAL INC

Assignee(s): (std): LAUNCHPAD MEDICAL INC ; LAUNCHPAD MEDICAL LLC

Inventor(s): (std): KOSH DAVID J ; HESS BRIAN J ; MARCHENKO ANDREY ; BROWN MICHAEL C ; KAY GEORGE W

Agent(s): STUDIO TORTA SPA; SMITH CRAIG R ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

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Patent	Date recorded	Event group	Code	Event	Details
CN109219421 A	20190115	LSPB	+	published / reissued	
CN109219421 A	20190115	LSPB	PB01	PUBLICATION	
EP3402443 A1	20181121	LSPB	+	published / reissued	
EP3402443 A1	20181121	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180809
EP3496729 A1	20190619	LSPB	+	published / reissued	
EP3496729 A1	20190619	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20190208
US2019022273 AA	20190124	LSPB	+	published / reissued	
US2019022273 AA	20190127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LAUNCHPAD MEDICAL, INC., MASSACHUSETTS OLDPARTY : CHANGE OF NAME; ASSIGNOR:LAUNCHPAD MEDICAL, LLC; REEL/FRAME:048148/0041 EFFECTIVE DATE : 20181221
US2019022273 AA	20190516	LSWD	-ABD5	Abandoned -- Incomplete Application (Pre-examination)	
US2019022273 AA	20190516	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- INCOMPLETE APPLICATION (PRE-EXAMINATION)
WO17123811 A1	20170720	LSPB	+	published / reissued	
WO17123811 A1	20180713	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO17123811 A1	20180813	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2017738974 COUNTRY OF REF DOCUMENT : EP
WO17123811 A1	20180831	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017738974 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20180813
WO18031586 A1	20180215	LSPB	+	published / reissued	
WO18031586 A1	20190209	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO18031586 A1	20190315	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017840165 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20190311

Title: IMPLANTABLE OBJECTS, GUIDING DEVICES, AND METHODS OF USE THEREOF

Abstract: Embodiments of the disclosure relate to implantable objects and guiding devices, as well as recipient site preparation instruments, bone-implantable materials, and methods of fabrication and use thereof.

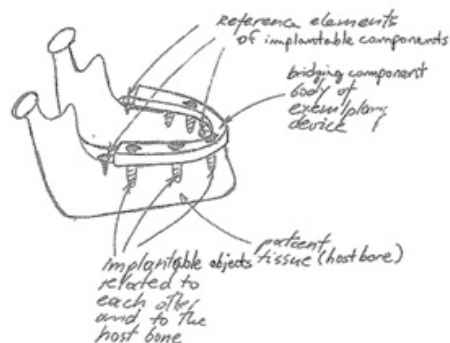
Classifications:

International (IPC 8-9): A61B17/16 A61B17/17 A61B17/32 A61B17/56 A61B17/58 A61B17/84 A61B17/86 A61B17/88 A61B17/90 A61B90/00 A61C1/07 A61C1/08 A61C13/225 A61C8/00 A61F2/44 A61F2/46 A61L24/04 (Advanced/Invention)

CPC: A61B17/32 A61B17/58 A61C8/00 A61C13/225 A61C8/0006 A61C8/0009 A61C8/0048 A61B17/7062 A61B2017/564 A61F2/447 A61B90/39 A61B17/84 A61F2002/30448 A61C8/0068 A61C1/07 A61B17/86 A61F2002/4687 A61F2/4611 A61L24/04 A61B17/17 A61B2090/3983 A61C1/084 A61F2002/30433 F16B11/00 A61C8/0036 A61C8/005 A61C2008/0046

US: 433/173

PatBase - US2018344894_AA

**Family:**

Publication number	Publication date	Application number	Application date
EP3380020 A1	20181003	EP20160869292	20161123
US2018344894 AA	20181206	US20160778520	20161123
WO17091748 A1	20170601	WO2016US63631	20161123
WO17091748 A8	20180816	WO2016US63631	20161123

Priority:

US20150258766P 20151123 US20160778520 20161123 WO2016US63631 20161123

Probable Assignee: LAUNCHPAD MEDICAL LLC

Assignee(s): (std): LAUNCHPAD MEDICAL LLC ; LAUNCHPAD MEDICAL LLC

Assignee(s): LAUNCHPAD MEDICAL INC

Inventor(s): (std): KAY GEORGE W ; HESS BRIAN J ; HESS BRIAN ; KAY GEORGE

Agent(s): STUDIO TORTA SPA; SMITH CRAIG R ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP3380020 A1	20181003	LSPB	+	published / reissued	
EP3380020 A1	20181003	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20180625
US2018344894 AA	20181206	LSPB	+	published / reissued	
US2018344894 AA	20181204	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LAUNCHPAD MEDICAL, LLC, MASSACHUSETTS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KAY, GEORGE; HESS, BRIAN; REEL/FRAME:047665/0588 EFFECTIVE DATE : 20161122
US2018344894 AA	20190127	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : LAUNCHPAD MEDICAL, INC., MASSACHUSETTS OLDPARTY : CHANGE OF NAME; ASSIGNOR:LAUNCHPAD MEDICAL, LLC; REEL/FRAME:048148/0041 EFFECTIVE DATE : 20181221
WO17091748 A1	20170601	LSPB	+	published / reissued	
WO17091748 A1	20180524	LSNE	NENP	NON-ENTRY	REF COUNTRY CODE : DE

				INTO THE NATIONAL PHASE IN:	
WO17091748 A1	20180625	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2016869292 COUNTRY OF REF DOCUMENT : EP
WO17091748 A1	20180720	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016869292 COUNTRY OF REF DOCUMENT : EP EFFECTIVE DATE : 20180625

Title: METHOD FOR DESIGNING AND/OR OPTIMIZING A SURGICAL DEVICE

Abstract: A method for designing and/or optimizing an implant that has one or more through holes with a central axis for receiving a bone fixation element. The method includes: providing a general collection of three-dimensional bone quality data obtained from a patient population; identifying in the patient population N>2 categories of patients with significantly different N>2 homologous sub-collections of bone quality data; and designing an implant or optimizing an existing implant for each of the N>2 sub-collections such that the at least one through hole is located at an optimal place and with an optimal direction of the central axis relative to the implant. The optimal position and direction is chosen based on each of the N>2 sub-collections of data so as to obtain an optimal anchorage of the bone fixation element in the bone when introduced through the through hole.

Classifications:

International (IPC 8-9): A61B17/17 A61B17/80 A61B19/00 A61B34/10 A61F2/30 G06F17/50 (Advanced/Invention);

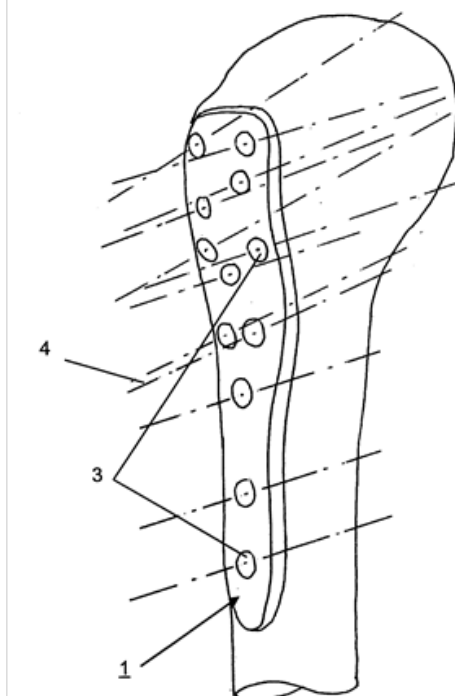
A61B17/17 A61B17/72 (Advanced/Non-invention)

CPC: A61B34/10 A61B17/1728 A61B17/72 A61B17/8052 A61B17/8061 A61B2034/108

European: A61B19/50 K61B17/17P K61B17/72 K61B17/80F K61B17/80H K61B19/50F

US: 606/286 703/1

PatBase - US2012323282_AA



Family:

Publication number	Publication date	Application number	Application date
DE602010033907 D1	20160714	DE201060033907T	20100225
EP2538884 A1	20130102	EP20100707429	20100225
EP2538884 B1	20160608	EP20100707429	20100225
US2012323282 AA	20121220	US20100581029	20100225
US9603670 BB	20170328	US20100581029	20100225
WO11103689 A1	20110901	WO2010CH00046	20100225

Priority:

EP20100707429 20100225 WO2010CH00046 20100225

Probable Assignee: AO TECHNOLOGY AG

Assignee(s): (std): AO TECH AG ; AO TECHNOLOGY AG ; BRIANZA STEFANO ; SCHIUMA DAMIANO ; TAMI ANDREA

Inventor(s): (std): SCHIUMA DAMIANO ; BRIANZA STEFANO ; TAMI ANDREA

Agent(s): SPARING ROEHL HENSELER; LUSUARDI WERTHER; RANKIN HILL AND CLARK LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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EP2538884 A1	20130102	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120802
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EP2538884 A1	20151223	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	EFFECTIVE DATE : 20151125
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NATIONAL CODE					REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 804664 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160608
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EP2538884 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160608
EP2538884 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161008
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EP2538884 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT LAPSED DATE : 20160608
EP2538884 B1	20170217	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
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EP2538884 B1	20170309	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010033907 COUNTRY OF REF DOCUMENT : DE
EP2538884 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20170106 YEAR OF FEE PAYMENT : 8
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EP2538884 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20170216 YEAR OF FEE PAYMENT : 8
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EP2538884 B1	20180223	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 9
EP2538884 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170225
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EP2538884 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20180219 YEAR OF FEE PAYMENT : 9
EP2538884 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20180112 YEAR OF FEE PAYMENT : 9
EP2538884 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20180223 YEAR OF FEE PAYMENT : 9
EP2538884 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170225
EP2538884 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20190218 YEAR OF FEE PAYMENT : 10
EP2538884 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20181231

EP2538884 B1	20190430	LSFE	+PGFP	[ANNOUNCED FROM NATIONAL OFFICE TO EPO] ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	YEAR OF FEE PAYMENT : 10 COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20190219 YEAR OF FEE PAYMENT : 10
EP2538884 B1	20300225	PEXP		Calculated Patent Term Expiry	
US2012323282 AA	20121220	LSPB	+	published / reissued	
US2012323282 AA	20170308	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US9603670 BB	20170328	LSGT	+	granted / extensions (spc, cpc, pte)	
US9603670 BB	20120907	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : AO TECHNOLOGY AG, SWITZERLAND OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: BRIANZA, STEFANO; SCHIUMA, DAMIANO; TAMI, ANDREA; REEL/FRA: 028915/0644 EFFECTIVE DATE : 20120806
US9603670 BB	20170308	LSGT	PAT1	Patented Case	
US9603670 BB	20310930	PEXP		Calculated Patent Term Expiry (PTA 582 days)	
WO11103689 A1	20110901	LSPB	+	published / reissued	
WO11103689 A1	20120802	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010707429 COUNTRY OF REF DOCUMENT : EP
WO11103689 A1	20120827	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11103689 A1	20120907	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 13581029 COUNTRY OF REF DOCUMENT : US

Title: SELF POWERED OSTEOGENESIS AND OSSEOINTEGRATION PROMOTION AND MAINTENANCE DEVICE FOR **ENDOSSEOUS** IMPLANTS

Abstract: Osteogenesis and osseointegration promotion and maintenance devices for osseous implants include an implant member having a first electrode, an inlaid second electrode positioned on the member so that it is electrically isolated from and substantially flush with the member surface, and an electrical stimulation mechanism preferably located at the member and operative to provide electrical stimulation signals to **endosseous** tissue surrounding the implant through the first and second electrodes. The first electrode may be the member itself or a second inlaid electrode. The implant is thus electrically functionalized for osteogenesis and osseointegration acceleration. The device is applicable to both non-dental and dental implants. In all embodiments, the use of inlaid electrode(s) enables the general appearance, external surface and mechanical integrity of the implant to be left essentially unchanged.

Classifications:

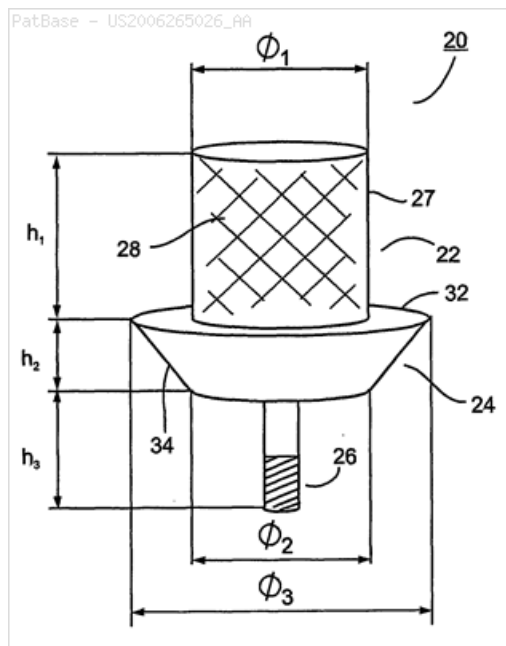
International (IPC 8-9): A61B17/17 A61C19/06 A61C7/36 A61C8/00 A61F A61F2/00 A61F2/30 A61F2/36 A61N1/00 A61N1/18 A61N1/32 (Advanced/Invention); A61F2/00 A61F2/28 A61F2/30 (Advanced/Non-invention); A61C7/00 A61C8/00 A61F2/36 A61N1/00 A61N1/32 (Core/Invention); A61F2/00 A61F2/28 A61F2/30 (Core/Non-invention); A61C (Subclass/Invention)

International (IPC 1-7): A61B17/17 A61C8/00 A61F A61N1/00

CPC: A61C8/0006 A61C8/0007 A61C8/005 A61C8/0068 A61F2/30767 A61F2/36 A61F2/3662 A61F2/3676 A61F2002/2821 A61F2002/30289 A61F2002/3082 A61F2002/30822 A61F2002/30827 A61F2002/30981 A61F2002/3611 A61F2002/3692 A61F2230/0091 A61F2310/00023 A61F2310/00149 A61F2310/00155 A61F2310/00616 A61N1/326 A61C8/0069 A61C8/0054

European: A61C8/00C1A A61C8/00C1A3 A61C8/00G1 A61C8/00G1T A61F2/36D A61N1/32P K61C8/00G1C K61C8/00G1S K61C8/00G1T K61F2/28E K61F2/30A2Y21 K61F2/30L K61F2/30L2G K61F2/30L2G2 K61F2/30L2G9 K61F2/30M13 K61F2/36 K61F2/36C1 K61F2/36D6 K61F2/36D8H K61F230/00Y21 K61F310/00A2E K61F310/00A2R78 K61F310/00A2R79 K61F310/00L6A22

US: 433/173 607/51 607/51P



Family:

Publication number	Publication date	Application number	Application date
CA2514389 AA	20050726	CA20042514389	20040129
EP1592352 A2	20051109	EP20040706266	20040129
EP2183017 A2	20100512	EP20080789746	20080805
EP2361589 A1	20110831	EP20100193146	20040129
IL154184 A0	20030731	IL20030154184	20030129
IL169907 A0	20070704	IL20040169907	20040129
IL203731 A0	20101031	IL20080203731	20080805
IN00213MN2010 A	20100813	IN2010MN00213	20100203
US2006265026 AA	20061123	US20040543595	20040129
US2011238132 AA	20110929	US20110031219	20110220
US2012276501 AA	20121101	US20080672086	20080805
US7917223 BB	20110329	US20040543595	20040129
WO04066851 A2	20040812	WO2004IL00092	20040129
WO04066851 A3	20041028	WO2004IL00092	20040129
WO09019688 A2	20090212	WO2008IL01070	20080805
WO09019688 A3	20100304	WO2008IL01070	20080805

Priority:

IL20030154184	20030129	EP20040706266	20040129	US20040543595	20040129
WO2004IL00092	20040129	IL20050169907	20050726	US20060543595	20060501
US20070954168P	20070806	WO2008IL01070	20080805	US20080672086	20080805
US20110031219	20110220				

Probable Assignee: CELLECTRIC MEDICAL LTD

Assignee(s): (std): CELLECTRIC MEDICAL LTD ; DAVID MADJAR ; EMANUEL PELED ; HANAN TERKEL ; MADJAR DAVID ; MENACHEM NATHAN ; RAMOT AT TEL AVIV UNIV L ; NATHAN MENACHEM ; PELED EMANUEL ; TERKEL HANAN ; UNIV RAMOT

Assignee(s): RAMOT AT TEL AVIV UNIV LTD ; RAMOT AT TEL AVIV UNIVERSITY LTD ; RAMOT AT TEL AVIV UNIV

Inventor(s): (std): MADJAR DAVID ; NATHAN MENACHEM ; PELED EMANUEL ; TERKEL HANAN

Inventor(s): MENACHEM NATHAN ; DAVID MADJAR ; EMANUEL PELED ; HANAN TERKEL

Agent(s): OGILVY RENAULT LLP SENCRL SRL; HARRISON GODDARD FOOTE; GREENWOOD JOHN DAVID; MARTIN MOYNIHAN, ANTHONY CASTORINA; MARTIN MOYNIHAN ANTHONY CASTORINA; SIMON; RECHES OREN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA2514389 AA	20050726	LSPB	+	published / reissued	
CA2514389 AA	20090129	LSES	+EEER	EXAMINATION REQUEST	
CA2514389 AA	20140429	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20140304
EP1592352 A2	20051109	LSPB	+	published / reissued	
EP1592352 A2	20051109	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20050825
EP1592352 A2	20080604	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20080502
EP1592352 A2	20110105	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : CELLECTRIC MEDICAL LTD
EP1592352 A2	20141231	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140801
EP2183017 A2	20100512	LSPB	+	published / reissued	
EP2183017 A2	20100512	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100305
EP2183017 A2	20101103	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PARTYTYPE : OWNER OWNER : CELLECTRIC MEDICAL LTD,
EP2183017 A2	20140730	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140301
EP2361589 A1	20110831	LSPB	+	published / reissued	
EP2361589 A1	20120229	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120119
EP2361589 A1	20140305	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	EFFECTIVE DATE : 20140129
EP2361589 A1	20141112	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140611
IN00213MN2010 A	20100813	LSPB	+	published / reissued	
US2006265026 AA	20061123	LSPB	+	published / reissued	
US2006265026 AA	20100628	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CELLECTRIC MEDICAL LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RAMOT AT TEL AVIV UNIVERSITY LTD.; REEL/FRAME:024598/0807 EFFECTIVE DATE : 20100224
US2006265026 AA	20100628	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CELLECTRIC MEDICAL LTD.,ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:RAMOT AT TEL AVIV UNIVERSITY LTD.; REEL/FRAME:024598/0807 EFFECTIVE DATE : 20100224
US2011238132 AA	20110929	LSPB	+	published / reissued	

US2011238132 AA	20130708	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011238132 AA	20130708	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2012276501 AA	20121101	LSPB	+	published / reissued	
US2012276501 AA	20100628	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CELLECTRIC MEDICAL LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MADJAR, DAVID, DR; TERKEL, HANAN, MR; REEL/FRAME:024598/0485 EFFECTIVE DATE : 20100302
US2012276501 AA	20141215	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012276501 AA	20141215	LSWD	-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	TEXT : ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US7917223 BB	20110329	LSGT	+	granted / extensions (spc, cpc, pte)	
US7917223 BB	20051129	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RAMOT AT TEL AVIV UNIVERSITY LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MADJAR, DAVID; NATHAN, MENACHEM; PELED, EMANUEL; AND OTHERS; SIGNING DATES FROM 20050724 TO 20050815; REEL/FRAME:017395/0991
US7917223 BB	20051129	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : RAMOT AT TEL AVIV UNIVERSITY LTD., ISRAEL OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MADJAR, DAVID; NATHAN, MENACHEM; PELED, EMANUEL; AND OTHERS; REEL/FRAME:017395/0991; SIGNING DATES FROM 20050724 TO 20050815
US7917223 BB	20150329	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US7917223 BB	20150427	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7917223 BB	20150427	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	TEXT : PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7917223 BB	20150519	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20150329
US7917223 BB	20270313	PEXP		Calculated Patent Term Expiry (PTA 1139 days)	
WO04066851 A2	20040812	LSPB	+	published / reissued	
WO04066851 A3	20050726	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 169907 COUNTRY OF REF DOCUMENT : IL
WO04066851 A3	20050726	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2514389 COUNTRY OF REF DOCUMENT : CA
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WO04066851 A3	20061123	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 10543595 COUNTRY OF REF DOCUMENT : US
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WO09019688 A2	20100203	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 213/MUMNP/2010 COUNTRY OF REF DOCUMENT : IN
WO09019688 A2	20100204	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 203731 COUNTRY OF REF DOCUMENT : IL
WO09019688 A2	20100209	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO09019688 A3	20100305	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2008789746 COUNTRY OF REF DOCUMENT : EP
WO09019688 A3	20110413	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 12672086 COUNTRY OF REF DOCUMENT : US

Title: METHODS, DEVICES, AND MANUFACTURE OF THE DEVICES FOR MUSCULOSKELETAL RECONSTRUCTIVE SURGERY

Abstract: A device used in conjunction with fixation hardware to provide a two-stage process to address the competing needs of immobilization and re-establishment of normal stress-strain trajectories in grafted bone. A method of determining a patient-specific stress/strain pattern that utilizes a model based on 3D CT data of the relevant structures and cross-sectional data of the three major chewing muscles. The forces on each of the chewing muscles are determined based on the model using predetermined bite forces such that a stiffness of cortical bone in the patient's mandible is determined. Based on the stiffness data, suitable implantation hardware can be designed for the patient by adjusting external topological and internal porous geometries that reduce the stiffness of biocompatible metals to thereby restore normal bite forces of the patient.

Classifications:

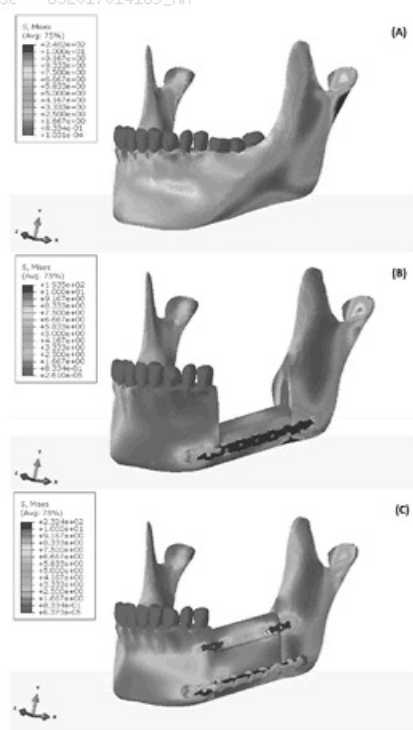
International (IPC 8-9): A61B17/80 A61B34/10 A61F2/28
A61F2/30 (Advanced/Invention)

CPC: A61F2002/30014 A61F2002/30962 A61B17/8071 A61B34/10
A61B2017/00004 A61B2034/104 A61B2034/105 A61B2034/108

A61F2/2803 A61F2/30942 A61F2002/30303 A61F2002/3092

US: 606/286

PatBase - US2017014169_AA



Family:

Publication number	Publication date	Application number	Application date
EP3137002 A1	20170308	EP20150761675	20150311
EP3137002 A4	20180620	EP20150761675	20150311
US2017014169 AA	20170119	US20150124660	20150311
WO15138657 A1	20150917	WO2015US20043	20150311

Priority:

US20140951028P 20140311 US20150110281P 20150130 WO2015US20043 20150311
US20150124660 20150311

Probable Assignee: OHIO STATE INNOVATION FOUNDATION

Assignee(s): (std): DEAN HOWARD DAVID ; ELAHINIA MOHAMMAD H ; HABERLAND CHRISTOPH ; MILLER MICHAEL J ; SKORACKI ROMAN ; SUTRADHAR ALOK ; MOGHADDAM NARGES SHAYESTEH ; OHIO STATE INNOVATION FOUNDATION ; UNIV TOLEDO ; OHIO STATE INNOVATION FOUND ; UNIV OF TOLEDO ; WALKER JASON M

Assignee(s): OF TOLEDO UNIV

Inventor(s): (std): HABERLAND CHRISTOPH ; ELAHINIA MOHAMMAD H ; SKORACKI ROMAN ; DEAN HOWARD DAVID ; SUTRADHAR ALOK ; MILLER MICHAEL J ; MOGHADDAM NARGES SHAYESTEH ; WALKER JASON M

Agent(s): DAUNCEY MARK PETER ; HAUT JULIE A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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EP3137002 A1	20170308	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20161215

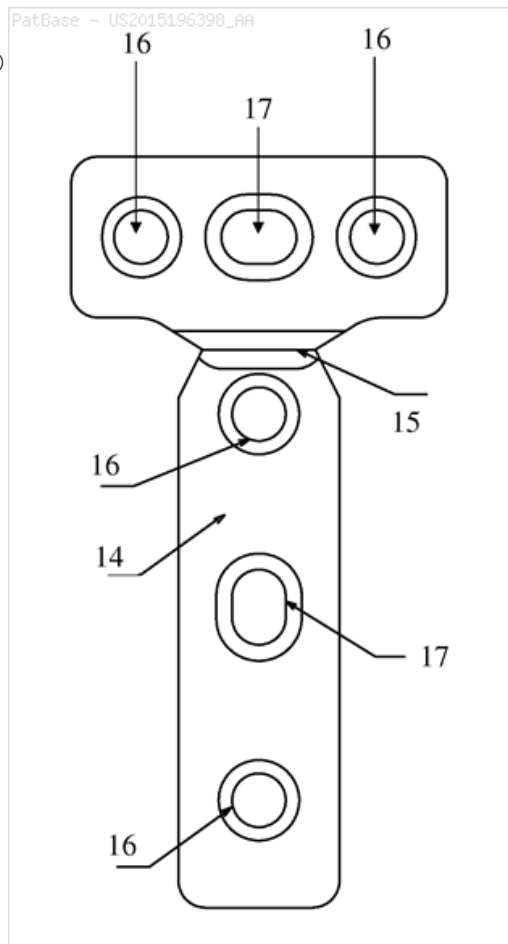
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US2017014169 AA	20170119	LSPB	+	published / reissued	
US2017014169 AA	20190115	LSES	NFA1	Non Final Action Mailed	
WO15138657 A1	20150917	LSPB	+	published / reissued	
WO15138657 A1	20160908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 15124660 COUNTRY OF REF DOCUMENT : US
WO15138657 A1	20160912	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15138657 A1	20161215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2015761675 COUNTRY OF REF DOCUMENT : EP

Title: METHOD FOR PRODUCING OSTEOSYNTHESIS DEVICES, OSTEOSYNTHESIS DEVICES AND IMPLANTS MADE OF SEMI-SYNTHETIC HYBRID MATERIAL OBTAINED BY STRUCTURAL MODIFICATION OF THE COMPONENTS OF A NATURAL MARINE BIOMATERIAL

Abstract: A semi-synthetic hybrid material having a pH from 7 to 7.4 includes an inorganic fraction and a cross-linked organic fraction. The method for producing this material, and osteosynthesis devices or implants made of semi-synthetic hybrid material are also described.

Classifications:

International (IPC 8-9): A61B17/72 A61B17/80 A61B17/86 A61C8/00 A61F2/08 A61F2/44 A61L31/00 A61L31/02 B29C71/04 (Advanced/Invention)
CPC: A61F2/442 A61B17/80 A61B17/86 A61L31/005 B29K2995/0056 B29L2031/753 A61F2/4455 A61F2002/30164 A61F2002/3027 A61F2002/30797 A61F2002/30971 A61F2002/4629 A61F2310/00347 A61B17/866 Y10T29/4998 Y10T29/49995 A61L27/3604 A61L27/365 A61L27/446 A61L31/128 A61L2430/02 A61B17/72 A61B17/8057 A61B17/8605 A61C8/0016 A61C8/0074 A61C8/008 A61B2090/037 A61F2/0811 A61F2002/0817
US: 106/287.21 29/527.1 29/557 433/174 451/38 606/232 606/298 606/301 606/331 606/62 623/17.16



Family:

Publication number	Publication date	Application number	Application date
US2015196398 AA	20150716	US20150592156	20150108

Priority:

US20140925753P 20140110 US20150592156 20150108

Probable Assignee: MBP MAURITIUS LTD

Assignee(s): (std): JD INVEST

Assignee(s): MBP MAURITIUS LTD ; MEGA INDUSTRIE

Inventor(s): (std): CAMPRASSE GEORGES ; CAMPRASSE SERGE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2015196398 AA	20150716	LSPB	+	published / reissued	
US2015196398 AA	20160210	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JD INVEST, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CAMPRASSE, GEORGES; CAMPRASSE, SERGE; REEL/FRAME:037693/0507 EFFECTIVE DATE : 20141217

US2015196398 AA	20161026	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MEGA INDUSTRIE, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:JD INVEST; REEL/FRAME:040491/0643 EFFECTIVE DATE : 20151130
US2015196398 AA	20161205	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : MBP (MAURITIUS) LTD, MAURITIUS OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MEGA INDUSTRIE; REEL/FRAME:040519/0313 EFFECTIVE DATE : 20160317
US2015196398 AA	20170315	LSES	NFA1	Non Final Action Mailed	
US2015196398 AA	20170819	LSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2015196398 AA	20170829	LSES	NFA1	Non Final Action Mailed	
US2015196398 AA	20171201	LSES	NFA1	Non Final Action Mailed	
US2015196398 AA	20181114	LSES	NFA1	Non Final Action Mailed	
US2015196398 AA	20190408	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015196398 AA	20190507	LSFE	-AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2015196398 AA	20190604	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	

Title: **ENDOSSEOUS SCREW ASSEMBLY** AND INTERNAL FIXATION SYSTEM COMPRISING SAID **ENDOSSEOUS SCREW ASSEMBLY**

Abstract: An **endosseous screw assembly** for an internal fixation system, comprising: a stem extending longitudinally and having at least one threaded distal portion for allowing anchoring to a bone site of a patient; a connection sleeve suitable for introduction inside a connection hole of a fixation member; and a ring nut rotatably mounted on the connection sleeve. The ring nut may be threadably mounted on the connection sleeve and may comprise a rim with teeth designed to cooperate with a step formed on the fixation member, in the vicinity of the connection hole, so as to prevent rotation of the ring nut with respect to the fixation member when the connection sleeve is introduced into the connection hole of the fixation member. The ring nut may further comprise multiple deformable interference fit components which lie along a conical portion of the connection sleeve.

Classifications:

International (IPC 8-9): A61B A61B17/17 A61B17/72 A61B17/74

A61B17/76 A61B17/88 (Advanced/Invention);

A61B17/17 (Advanced/Non-invention);

A61B (Subclass/Invention)

International (IPC 1-7): A61B17/17 A61B17/74 A61B17/88

CPC: A61B17/1721 A61B17/8875 A61B17/725 A61B17/8894 A61B17/744

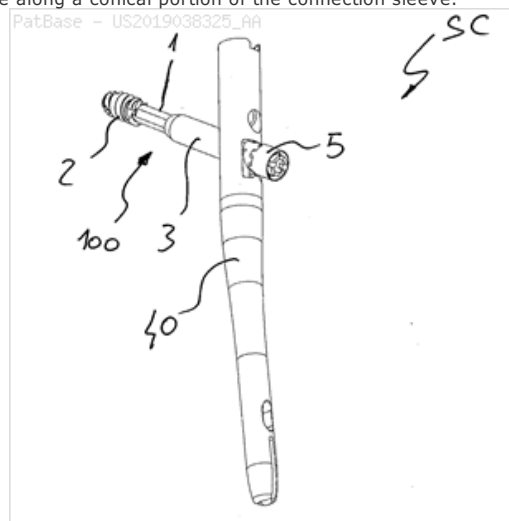
A61B17/8685

US: 606/64

JP F-Term: 4C160 4C160/LL27 4C160/LL31 4C160/LL43 4C160/LL56

4C160/LL57 4C160/LL58

JP F-Index: A61B17/72 A61B17/76 A61B17/88



Family:

Publication number	Publication date	Application number	Application date
AU2016333413 AA	20180412	AU20160333413	20160919
BR112018006378 A2	20181009	BR20181106378	20160919
CN108348284 A	20180731	CN201680056846	20160919
CO20180003241 A2	20180612	CO20180003241	20180323
EP3150153 A1	20170405	EP20150425073	20150929
IL258465 A0	20180628	IL20160258465	20160919
JP2018529436 T2	20181011	JP20180515850T	20160919
US2019038325 AA	20190207	US20160764866	20160919
WO17055117 A1	20170406	WO2016EP72100	20160919

Priority:

EP20150425073 20150929 WO2016EP72100 20160919

Probable Assignee: ORTHOFIX SRL

Assignee(s): (std): LORENZINI DENIS ; ORTHOFIX SRL ; VICENZI FEDERICO

Assignee(s): ORTHOFIX S R L

Inventor(s): (std): LORENZINI DENIS ; VICENZI FEDERICO ; DENIS LORENZINI ; FEDERICO VICENZI

Agent(s): K AND L GATES; MINTER ELLISON; HELENA CAMARGO WILLIAMSON; FERRECCIO RINALDO; IEIRI TAKESHI; BOTTI MARIO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2016333413 AA	20180412	LSPB	+	published / reissued	
CN108348284 A	20180731	LSPB	+	published / reissued	
CN108348284 A	20180731	LSPB	PB01	PUBLICATION	
CO20180003241 A2	20180612	LSPB	+	published / reissued	
EP3150153 A1	20170405	LSPB	+	published / reissued	

EP3150153 A1	20171108	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20171003
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JP2018529436 T2	20181011	LSPB	+	published / reissued	
US2019038325 AA	20190207	LSPB	+	published / reissued	
US2019038325 AA	20181206	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ORTHOFIX S.R.L., ITALY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LORENZINI, DENIS; VICENZI, FEDERICO; REEL/FRA:047694/0612 EFFECTIVE DATE : 20180426
WO17055117 A1	20170406	LSPB	+	published / reissued	
WO17055117 A1	20180326	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2018515850 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO17055117 A1	20180326	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2018515850 COUNTRY OF REF DOCUMENT : JP
WO17055117 A1	20180330	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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WO17055117 A1	20181009	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112018006378 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20180328
WO17055117 A1	20181024	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 16777924 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1 DESIGNATED STATE(S) :

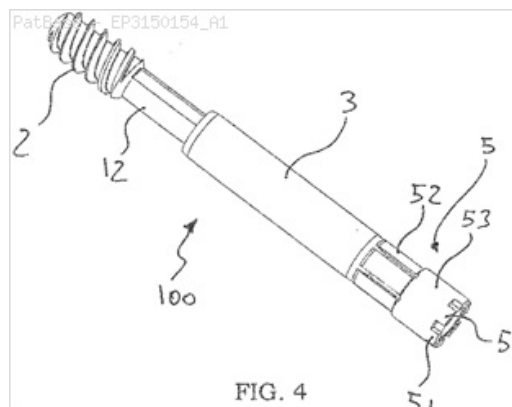
Title: **ENDOSSEOUS SCREW ASSEMBLY** AND INTERNAL FIXATION SYSTEM COMPRISING SAID **ENDOSSEOUS SCREW ASSEMBLY** ENSEMBLE VIS ENDO-OSSEUSES ET SYSTEME DE FIXATION INTERNE COMPRENANT LEDIT ENSEMBLE

Abstract: **Endosseous screw assembly** (100) for an internal fixation system (SC), comprising: a stem (1) extending longitudinally and having at least one threaded proximal portion (2) for allowing anchoring to a bone site of a patient; a connection sleeve (3) suitable for introduction inside a connection hole (42) of a fixation member (40); a ring nut (5) rotatably mounted on the connection sleeve (3) and designed to be arranged making contact against the connection hole (42) of the fixation member (40); where the ring nut (5) is mounted on the connection sleeve (3) by means of a threaded connection and comprises first engaging means (51) suitable for engagement with a first screwdriver (105) for **screwing** the ring nut (5) on said connection sleeve (3); said ring nut (5) further comprising a plurality of deformable interference means (52) which lie along a conical portion (31) of the connection sleeve (3); said conical portion (31) being designed to be seated inside the connection hole (42) when the connection sleeve (3) is introduced inside said connection hole (42) and being oriented so that relative sliding of the ring nut (5) and the connection sleeve (3), due to **screwing** of the ring nut (5) with respect to said connection sleeve (3), results in deformation of the deformable interference means (52) so as to obtain a contact force between the fixation member (40) and the ring nut (5) inside the connection hole (42) and lock the **endosseous screw assembly** (100) inside said connection hole (42) of the fixation member (40).

Classifications:

International (IPC 8-9): A61B17/74 A61B17/88 (Advanced/Invention)

CPC: A61B17/8872 A61B17/744 A61B17/746 A61B17/8888 A61B17/8685



Family:

Publication number	Publication date	Application number	Application date
EP3150154 A1	20170405	EP20150425074	20150929

Priority:

EP20150425074 20150929

Probable Assignee: ORTHOFIX SRL

Assignee(s): (std): ORTHOFIX SRL

Inventor(s): (std): LORENZINI DENIS ; VICENZI FEDERICO

Agent(s): FERRECCIO RINALDO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP3150154 A1	20170405	LSPB	+	published / reissued	
EP3150154 A1	20171108	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20171003
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EP3150154 A1	20190529	LSRE	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 17/88 20060101ALI20190424BHEP

Title: OSTEOGENIC IMPLANTS DERIVED FROM BONE

Abstract: An osteogenic osteoimplant in the form of a flexible sheet comprising a coherent mass of bone-derived particles, the osteoimplant having a void volume not greater than about 32 percent and a method of making an osteogenic osteoimplant having not greater than about 32 percent void volume, the method comprising: providing a coherent mass of bone-derived particles; and, mechanically shaping the coherent mass of bone-derived particles to form an osteogenic osteoimplant in the form of a flexible sheet.

Classifications:

International (IPC 8-9): A61F2/28 A61L27/00

A61L27/36 (Advanced/Invention);

A61F2/00 A61L27/00 (Advanced/Non-invention);

A61F2/28 A61L27/00 (Core/Invention);

A61F2/00 (Core/Non-invention)

International (IPC 1-7): A61F2/28 A61L27/00 A61L27/36 B29C43/02

B29C43/24 B29C43/52 B29C47/00

CPC: A61F2/28 A61F2002/30535 A61F2250/0058 A61L27/3608

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European: A61B17/80 A61B17/80H4 A61B17/80P A61F2/28

A61L27/36B2 A61L27/36F2 A61L27/36F2B A61L27/36H A61L27/36H4

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K61F2/28B K61F2/28D K61F2/28J K61F2/28R K61F2/28S3 K61F2/28T

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US: 156/244.11 156/245 156/296 264/109 264/175 264/175S 264/211 264/211.11 264/211.110S 264/211S 264/236 264/236S

264/32 264/320 264/320S 264/322 264/322S 435/372 62/32.361 62/32.363 623/23.51 623/23.510P 623/23.61 623/23.610S

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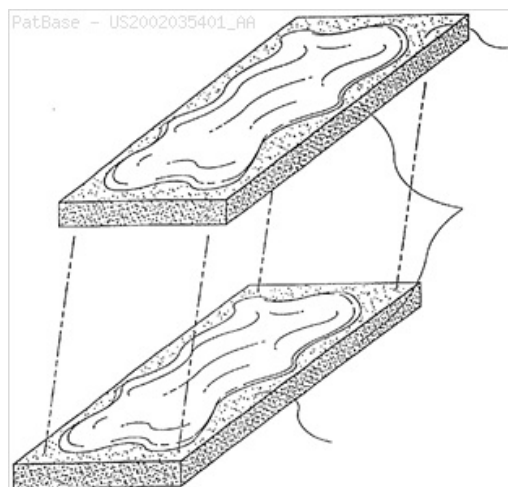
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A61L27/20 A61L27/22 A61L27/24 A61L27/36/110 A61L27/36/311 A61L27/36/400 A61L27/42 A61L27/50 A61L27/50/100

A61L27/54

**Family:**

Publication number	Publication date	Application number	Application date
AU2001270153 AA	20020114	AU20010270153	20010627
AU2001270153 BB	20060706	AU20010270153	20010627
AU200170153 A1	20020114	AU20010070153	20010627
AU200170153 A5	20020114	AU20010070153	20010627
CA2415061 AA	20030102	CA20012415061	20010627
CA2415061 C	20101102	CA20012415061	20010627
DE60101967 D1	20040311	DE20016001967	20010627
DE60101967 D1	20040311	DE20016001967T	20010627
DE60101967 T2	20040722	DE20016001967T	20010627
EP1296726 A2	20030402	EP20010948706	20010627
EP1296726 B1	20040204	EP20010948706	20010627
ES2215913 T3	20041016	ES20010948706T	20010627
JP2004501719 T2	20040122	JP20020506777T	20010627
KR20030027934 A	20030407	KR20037000036	20010627
NZ523867 A	20040227	NZ20010523867	20010627
TR200400527 T4	20040721	TR20040000527T	20010627
US2002035401 AA	20020321	US20010973597	20011009
US6808585 BB	20041026	US20010973597	20011009
US6863694 BA	20050308	US20000610026	20000703
WO0202156 A2	20020110	WO2001US20220	20010627
WO0202156 A3	20020523	WO2001US20220	20010627

Priority:

US20000610026 20000703

WO2001US20220 20010627

US20010973597 20011009

Probable Assignee: WARSAW ORTHOPEDIC INC

Assignee(s): (std): OSTEOTECH INC

Assignee(s): SCARBOROUGH NELSON L ; WARSAW ORTHOPEDIC INC ; BOYCE TODD M ; KAES DAVID

Inventor(s): (std): BOYCE M ; BOYCE TODD M ; KAES DAVID ; SCARBOROUGH L ; SCARBOROUGH NELSON L

Inventor(s): TODD M BOYCE ; NELSON L SCARBOROUGH ; DAVID KAES

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FPA PATENT ATTORNEYS PTY LTD; MCFADDEN FINCHAM; FUKAZAWA NORIHIRO; ONO SHINJIRO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; DILWORTH AND BARRESE LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2001270153 AA	20020114	LSPB	+	published / reissued	
AU2001270153 BB	20060706	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2001270153 BB	20061102	LSLE	-MK25	APPLICATION LAPSED REG. 22.2I(2) - FAILURE TO PAY ACCEPTANCE FEE	
AU2001270153 BB	20210627	PEXP		Calculated Patent Term Expiry	
AU200170153 A1	20020114	LSPB	+	published / reissued	
CA2415061 AA	20030102	LSPB	+	published / reissued	
CA2415061 AA	20060620	LSES	+EEER	EXAMINATION REQUEST	
CA2415061 C	20101102	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2415061 C	20180808	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20180627
CA2415061 C	20210627	PEXP		Calculated Patent Term Expiry	
DE60101967 D1	20050303	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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DE60101967 T2	20040722	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE60101967 T2	20210627	PEXP		Calculated Patent Term Expiry	
EP1296726 A2	20030402	LSPB	+	published / reissued	
EP1296726 A2	20030402	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20030113
EP1296726 B1	20040204	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1296726 B1	20040204	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1296726 B1	20040310	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1296726 B1	20040726	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	REF COUNTRY CODE : EP EFFECTIVE DATE : 20040204
EP1296726 B1	20041016	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2215913 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) :
EP1296726 B1	20050126	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20041105
EP1296726 B1	20050406	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1296726 B1	20080930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	COUNTRY OF REF DOCUMENT : TR PAYMENT DATE : 20080604 YEAR OF FEE PAYMENT : 8

EPO]					
EP1296726 B1	20130131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090627
EP1296726 B1	20160628	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 16
EP1296726 B1	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160627 YEAR OF FEE PAYMENT : 16
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EP1296726 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160628 YEAR OF FEE PAYMENT : 16
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EP1296726 B1	20180103	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 60101967 COUNTRY OF REF DOCUMENT : DE
EP1296726 B1	20180228	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20170627
EP1296726 B1	20180330	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20180228
EP1296726 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : GB NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170627
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EP1296726 B1	20181105	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20181105

EP1296726 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20170628
EP1296726 B1	20210627	PEXP		Calculated Patent Term Expiry	
ES2215913 T3	20041016	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2215913 T3	20210627	PEXP		Calculated Patent Term Expiry	
JP2004501719 T2	20040122	LSPB	+	published / reissued	
JP2004501719 T2	20080612	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20080611
JP2004501719 T2	20110630	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20110629
JP2004501719 T2	20110901	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110831
JP2004501719 T2	20120207	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20120206
KR20030027934 A	20030407	LSPB	+	published / reissued	
KR20030027934 A	20031224	LSES	A201	REQUEST FOR EXAMINATION	
KR20030027934 A	20050926	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20030027934 A	20060308	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20030027934 A	20060828	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20030027934 A	20061228	LSRV	-E601	DECISION TO REFUSE APPLICATION	
NZ523867 A	20040227	LSPB	+	published / reissued	
NZ523867 A	20040625	LSGT	+PSEA	PATENT SEALED	
NZ523867 A	20050729	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ523867 A	20080731	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ523867 A	20110729	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	
NZ523867 A	20150130	LSLE	-LAPS	PATENT LAPSED	
TR200400527 T4	20040721	LSGT	+	granted / extensions (spc, cpc, pte)	
TR200400527 T4	20210627	PEXP		Calculated Patent Term Expiry	
US2002035401 AA	20020321	LSPB	+	published / reissued	
US2002035401 AA	20041007	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6808585 BB	20041026	LSGT	+	granted / extensions (spc, cpc, pte)	
US6808585 BB	20041007	LSGT	PAT1	Patented Case	
US6808585 BB	20080411	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6808585 BB	20110428	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WARSAW ORTHOPEDIC, INC., INDIANA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: OSTEOTECH, INC.; REEL/FRA: 026196/0585 EFFECTIVE DATE : 20110415
US6808585 BB	20120426	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US6808585 BB	20160426	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6808585 BB	20220506	PEXP		Calculated Patent Term Expiry (PTA 209 days)	
US6863694 BA	20050308	LSGT	+	granted / extensions (spc, cpc, pte)	
US6863694 BA	20000703	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : OSTEOTECH, INC., NEW JERSEY OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BOYCE, TODD M.; KAES, DAVID; SCARBOROUGH, NELSON L.; REEL/FRAME:010948/0356 EFFECTIVE DATE : 20000620
US6863694 BA	20050216	LSGT	PAT1	Patented Case	
US6863694 BA	20050216	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	TEXT : PATENTED CASE
US6863694 BA	20080903	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6863694 BA	20110428	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : WARSAW ORTHOPEDIC, INC., INDIANA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OSTEOTECH, INC.; REEL/FRAME:026196/0585 EFFECTIVE DATE : 20110415
US6863694 BA	20120910	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6863694 BA	20160908	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6863694 BA	20200703	PEXP		Calculated Patent Term Expiry	
WO0202156 A2	20020110	LSPB	+	published / reissued	
WO0202156 A3	20021226	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2002 506777 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO0202156 A3	20030102	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2415061 COUNTRY OF REF DOCUMENT : CA
WO0202156 A3	20030102	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001270153 COUNTRY OF REF DOCUMENT : AU
WO0202156 A3	20030103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020037000036 COUNTRY OF REF DOCUMENT : KR
WO0202156 A3	20030113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2001948706 COUNTRY OF REF DOCUMENT : EP
WO0202156 A3	20030129	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 523867 COUNTRY OF REF DOCUMENT : NZ
WO0202156 A3	20030402	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001948706 COUNTRY OF REF DOCUMENT : EP
WO0202156 A3	20030407	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020037000036 COUNTRY OF REF DOCUMENT :

					KR
WO0202156 A3	20030515	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO0202156 A3	20040204	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2001948706 COUNTRY OF REF DOCUMENT : EP
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