

PATENT COOPERATION TREATY

Reference No.	Application No.	Filed Date	Publication No.	Publication Date
BLUE-097.PC2	PCT/US2020/065352	2020-12-16	WO/2021/127007	2021-06-24
BLUE-116.PC	PCT/US2020/024016	2020-03-20	WO/2020/191358	2020-09-24
BLUE-118.PC	PCT/US2020/026300	2020-04-02	WO/2020/206061	2020-10-08
BLUE-119.PC	PCT/US2020/031780	2020-05-07	WO/2020/227474	2020-11-12
BLUE-120.PC	PCT/US2020/031781	2020-05-07	WO/2020/227475	2020-11-12
BLUE-121.PC	PCT/US2020/031794	2020-05-07	WO/2020/227481	2020-11-12
BLUE-122.PC	PCT/US2020/031796	2020-05-07	WO/2020/227483	2020-11-12
BLUE-123.PC	PCT/US2020/037145	2020-06-11	WO/2020/252110	2020-12-17
BLUE-126.PC	PCT/US2020/053388	2020-09-30	WO/2021/067347	2021-08-04
BLUE-127.PC	PCT/US2021/027648	2021-04-16		
BLUE-128.PC	PCT/US2021/036840	2021-06-10		
BLUE-129.PC	PCT/US2021/026597	2021-04-09		
BLUE-130.PC	PCT/US2021/024370	2021-03-26		
BLUE-131.PC	PCT/US2021/047290	2021-08-24		

Transmittal Date: 08 September 2021

Via ePCT

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

REQUEST FOR RECORDAL OF CHANGE UNDER PCT Rule 92bis

Dear Sir or Madam:

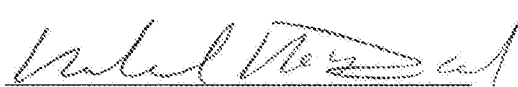
As evidenced in the attached Assignment, bluebird bio, Inc. has assigned all worldwide rights to the above referenced PCT applications to 2Seventy bio, Inc. Accordingly, we respectfully request that 2Seventy bio, Inc. replace bluebird bio, Inc. as the Applicant for All Designated states as follows:

Applicant Only (for all Designated States)

2SEVENTY BIO, INC.
60 Binney Street
Cambridge, MA 02142 US
State of Nationality: US
State of Residence: US

In view of the imminent conversion deadline for some of these applications, urgent attention to this request is greatly appreciated, so please contact the undersigned if you have any questions or need additional information. Otherwise, please forward recordal confirmations of the requested change via Form PCT/IB/306 in each applicable matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael McDonald", written over a horizontal line.

Michael McDonald, Reg. No. 62581

Attachment: Assignment (31 pages)

bluebird bio, Inc.
60 Binney Street
Cambridge, MA 02142 USA
Email: IPDocketing@bluebirdbio.com

ASSIGNMENT OF PATENT RIGHTS
(Company to Company)

bluebird bio, Inc., having its principal place of business at 60 Binney Street, Cambridge, MA 02142 (herein referred to as "Assignor") owns the entire right, title and interest in any Letters Patent(s) ("said patent(s)") and any Patent application(s) ("said application(s)") identified on Schedule A attached hereto, as well as any invention(s) ("said invention(s)") disclosed in said application(s) and said patent(s).

WHEREAS, 2seventy bio, Inc., having its principal place of business at 60 Binney Street, Cambridge, MA 02142 (the "Assignee"), its successors, legal representatives and assigns, is desirous of acquiring the Assignor's entire right, title, and interest in and to said invention(s), said application(s), and said patent(s); the right to file applications for patent and/or registered design of the United States or other countries on said invention(s); the entire right, title and interest in and to any application(s) and patent(s); the right to recover any and all past, present, and future damages, including provisional or other royalties, for any and all past, present, and future infringements of said application(s) for patent and/or registered design and said patent(s); and the entire right, title, and interest in and to any and all Letters Patent or Patents and/or registered design(s), United States or foreign, to be obtained for said invention(s) and said application(s);

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns Assignor's right, title, and interest in and to:

- (a) said invention(s);
- (b) said application(s) for patent;
- (c) said patent(s);
- (d) the right to file applications for patent and/or registered design of the United States or other countries on said invention(s), including all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property, and under the Patent Cooperation Treaty, and all rights of claiming priority in any country of the world;
- (e) any application(s) and/or registered design for patent of the United States or other countries claiming the invention(s);
- (f) any application(s) for patent and/or registered design of the United States or other countries claiming priority to, and/or the benefit of, at least one of the application(s) for patent and/or registered design identified above or any application(s) for patent claiming the invention(s), including any priority

application(s), substitute application(s), division(s), continuation(s), and continuation(s)-in-part;

(g) the right to recover any and all past, present, and future damages, including provisional or other royalties, for any and all past, present, and future infringements of said application(s) for patent and/or registered design and said patent(s) identified in the preceding paragraphs (b)-(f) and of any and all patent(s) and/or registered design(s) granted based thereon in the United States and in all other countries; and

(h) any and all Letters Patent or Patents and/or registered design(s), United States or foreign, to be obtained for said invention(s), said application(s), and said patent(s), including any reissue(s), reexamination(s), revival(s), renewal(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of Assignor's entire right, title and interest in and to said invention(s), said application(s), and said patent(s), and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor also hereby represents that the Assignor has not previously sold, transferred, or encumbered any part of Assignor's right, title, and interest in the Invention(s);

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said invention(s), said application(s), said registered design(s), said patent(s), any application claiming priority to said application(s), any reissue or extension of said patent(s), and any United States or foreign Letters Patent or Patents for said invention(s) or said application(s), including interference and derivation proceedings, and any post-grant proceedings (e.g., opposition proceedings, post-grant reviews, *Inter partes* reviews, supplemental examinations, etc.), is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent or Patents for said invention(s), without charge to the Assignee,

its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignor hereby requests the Commissioner of Patents to issue any and all aforementioned patent(s) of the United States to the Assignee, as the Assignee of said invention(s) and the Letters Patent to be issued thereon for the use and behalf of the Assignee, its successors, legal representatives, and assigns.

Assignor(s) and Assignee(s) understand that electronic signatures are acceptable and that, by signing electronically, signatories agree to the use of electronic signatures.

The Assignor hereby authorizes and requests the attorneys of COOLEY LLP to insert hereon any further identification information necessary or desirable for recordation of this document, including the application serial number, filing date, attorney docket number, assignment recordation date, and Reel/Frame No(s). of the Patent Application(s) and/or Letters Patent(s) identified herein when known.

Date: Sept. 7, 2021

By: Jason F. Cole
Name: **Jason F. Cole**
Title: **Chief Operating & Legal Officer**
Company: **bluebird bio, Inc.**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of Massachusetts)
County of Middlesex) ss.

On September 7 2021, before me, Michelle Raddi, Notary Public, personally appeared Jason F. Cole, who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Michelle Raddi
Signature of Notary Public

Place Notary Seal Above

My Commission Expires:  **MICHELLE RADDI**
Notary Public
Commonwealth of Massachusetts
My Commission Expires
March 17, 2028

For and on behalf of ASSIGNEE:

Date: Sept 7, 2021

By: [Signature]
Name: Michael McDonald
Title: VP, Chief IP Counsel
Company: 2seventy bio, Inc.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of Massachusetts)
County of Middlesex) ss.

On September 7, 2021, before me, Michelle Raddi, Notary Public, personally appeared Michael McDonald, who proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[Signature: Michelle Raddi]

Signature of Notary Public

Place Notary Seal Above

My Commission Expires:



MICHELLE RADDI
Notary Public
Commonwealth of Massachusetts
My Commission Expires
March 17, 2028

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority/Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS		2014-04-25	61/984,561			
United States of America	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2020-08-07	16/987,768	US 20210032658		
United States of America	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15/306,724	US 20170051308	2020-09-15	10,774,343
Patent Cooperation Treaty	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	PCT/US2015/027339	WO2015164759		
Albania	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Austria	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Australia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2015249390	2015249390	2019-11-28	2015249390
Australia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2019261783			
Belgium	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Bulgaria	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Brazil	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	BR1120160244818			
Canada	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2,946,585			
Switzerland	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
China	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	201580031860.4	CN 106536549 A	2020-01-17	ZL201580031860.4
China	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	201911324554.6			
Cyprus (Republic of)	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Czechia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Germany	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Denmark	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Estonia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
European Patent Office	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
European Patent Office	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	19218258.2	3689899		

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Spain	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Finland	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
France	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
United Kingdom	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Greece	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Hong Kong	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	17107607.1	1234075A	2020-10-16	HK1234075
Hong Kong	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	42021024343.2	40034106		
Croatia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Hungary	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Indonesia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	P00201607523	2017/08271		
Indonesia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24				
Ireland (Republic of)	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Israel	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	248348			
Israel	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	283828			
India	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	201617037042			
Iceland	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Italy	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Japan	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2016-564004	2017-517249	2019-06-14	6538716
Japan	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2018-39423	2018-86030	2019-10-25	6606210
Korea, Republic of (KR)	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	10-2016-7032984	10-2016-0147929	2019-09-09	10-2021982
Korea, Republic of (KR)	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	10-2019-7026360	10-2019-0105677	2020-07-10	10-2135006
Lithuania	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Luxembourg	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Latvia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Monaco	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
North Macedonia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Malta	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Mexico	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	MX/A/2016/013964	MX/A/2016/013964	2021-05-13	
Mexico	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	MX/A/2021/005490			
Netherlands	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Norway	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
New Zealand	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	725169	725169	2018-05-24	725169
Poland	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Portugal	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Romania	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Serbia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Russian Federation	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2016145958		2019-12-05	2708311
Russian Federation	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2019134212			
Sweden	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Singapore	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	112016087545			
Singapore	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	10201809379U	10201809379U		
Slovenia	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
Slovak Republic	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
San Marino	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to 2seventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Thailand	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	1601006432	181828		
Turkey	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	15782739.5	3134432	2019-12-25	3134432
South Africa	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2016/07174		2019-05-29	2016/07174
South Africa	MND PROMOTER CHIMERIC ANTIGEN RECEPTORS	2014-04-25	2015-04-24	2019/00944		2020-10-28	
United States of America	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES		2014-04-25	61/984,558			
United States of America	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	15/306,729	US 20170051252		
Patent Cooperation Treaty	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	PCT/US2015/027518	WO2015164745		
Albania	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Austria	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Australia	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	2015249376	2015249376	2018-06-21	2015249376
Australia	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	2018203687		2019-09-05	2018203687
Belgium	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Bulgaria	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Brazil	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	BR1120160249577			
Canada	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	2,946,552			
Switzerland	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
China	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	201580033084.1	106456670A	2020-01-07	ZL201580033084.1
China	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	201911200096.5	CN110819595A		
Cyprus (Republic of)	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Czechia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Germany	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Denmark	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Estonia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
European Patent Office	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3	3134095	2020-04-22	3134095
European Patent Office	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL	2014-04-25	2015-04-24	20170239.6	3738597		
Spain	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Finland	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
France	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
United Kingdom	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Greece	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Hong Kong	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	17107613.3	1233928A	2021-01-08	HK1233928
Hong Kong	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL	2014-04-25	2015-04-24	20170239.6	40042407		
Croatia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Hungary	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Indonesia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	P00201607525	2017/07897	2019-11-14	IDP000064529
Indonesia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	P00201902861			
Ireland (Republic of)	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Israel	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	248349		2020-12-01	248349
Israel	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL	2014-04-25	2015-04-24	276593			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
India	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	201617035529	09/2017	2020-12-03	352941
Iceland	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Italy	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Japan	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	2016-564075	2017-513891	2020-12-28	6817069
Japan	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	2018-41688	2018-87254		
Japan	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	2019-199637	2020-15767		
Korea, Republic of (KR)	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	10-2016-7032997	10-2016-0141865		
Korea, Republic of (KR)	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	10-2018-7026618	10-2018-0105733	2019-06-05	10-1988614
Korea, Republic of (KR)	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	10-2019-7016321		2020-09-24	10-2161927
Lithuania	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Luxembourg	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Latvia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Monaco	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
North Macedonia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Malta	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Mexico	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	MX/A/2016/013963		2019-11-28	370018
Mexico	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	MX/A/2019/014009		2021-04-29	
Netherlands	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Norway	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
New Zealand	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	725201		2018-08-28	725201
New Zealand	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	742136			
Poland	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Portugal	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Romania	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Serbia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Russian Federation	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	2016145968		2021-01-29	2741899
Sweden	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Singapore	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	11201608744V		2020-05-28	11201608744V
Singapore	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	10201808258S			
Slovenia	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Slovak Republic	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
San Marino	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
Thailand	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	1601006431	1601006431A		
Turkey	METHODS FOR MANUFACTURING ADOPTIVE T CELL THERAPIES	2014-04-25	2015-04-24	15783117.3		2020-04-22	3134095
South Africa	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	2016/07175			
South Africa	IMPROVED METHODS FOR MANUFACTURING ADOPTIVE CELL THERAPIES	2014-04-25	2015-04-24	2019/02286			
United States of America	IMPROVED T CELL COMPOSITIONS		2014-06-06	62/008,957			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	METHODS OF MAKING T CELL COMPOSITIONS	2014-06-06	2015-06-05	15/316,792	US 20170218337	2019-11-19	10,479,975
United States of America	METHODS OF MAKING T CELL COMPOSITIONS	2014-06-06	2015-12-07	16/060,184	US 20190194615		
United States of America	METHODS OF MAKING T CELL COMPOSITIONS	2014-06-06	2019-10-09	16/597,471	US 20200109365 A1		
Patent Cooperation Treaty	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	PCT/US2015/034515	WO2015188119		
Patent Cooperation Treaty	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-12-07	PCT/US2015/064270	WO2017099712		
Albania	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Austria	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Australia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2015269197	2015269197	2019-01-17	2015269197
Australia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2018274888		2020-03-19	2018274888
Australia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2020201489			
Belgium	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Bulgaria	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Brazil	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	BR1120160286448	Journal # 2510	2019-12-03	BR1120160286448
Brazil	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	BR1220190123101			
Canada	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2,951,044			
Switzerland	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
China	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	201580041781.1	CN 106793780 A	2020-05-26	Z120158004178 1.1
China	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	202010278804.3	CN111394317A		
Cyprus (Republic of)	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Czechia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Germany	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Denmark	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Estonia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
European Patent Office	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
European Patent Office	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	20205511.7	3828265		
Spain	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Finland	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
France	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
United Kingdom	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Greece	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Hong Kong	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	17107604.4	1233855A	2021-03-19	HK1233855
Croatia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Hungary	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Indonesia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	P00201609119	2017/12371	2019-11-14	IDP000064532
Indonesia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	P00201906437			
Ireland (Republic of)	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Israel	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	249313			
India	A METHOD FOR MANUFACTURING T CELLS	2014-06-06	2015-06-05	201617042706	12/2017	2021-04-16	364783

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
India	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Iceland	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Italy	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	2016-571002	2020-02-18	6663359
Japan	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2020-23407	2020-72756	2021-04-15	6869390
Japan	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	10-2017-7000417	10-2017-0007527		
Korea, Republic of (KR)	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Lithuania	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Luxembourg	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Latvia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Monaco	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
North Macedonia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Malta	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Mexico	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	MX/a/2016/016076		2021-03-12	380612
Mexico	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	MX/a/2021/002877			
Netherlands	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Norway	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
New Zealand	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	726989		2020-12-01	726989
Poland	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Portugal	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Romania	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Serbia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Russian Federation	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2017100003		2020-04-16	2719030
Russian Federation	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2020111566			
Sweden	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Singapore	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	112016101705		2021-05-19	112016101705
Singapore	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	10201810723V	234		
Singapore	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	10202108458X			
Slovenia	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Slovak Republic	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
San Marino	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
Thailand	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	1601007280	1601007280A		
Turkey	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	15802488.5	3151672	2020-11-04	3151672
South Africa	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2016/08378		2019-06-26	2016/08378
South Africa	IMPROVED T CELL COMPOSITIONS	2014-06-06	2015-06-05	2019/01336			
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF		2013-07-29	61/859,697			
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF		2014-01-31	61/934,092			
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	14/908,734	US 20160311901	2019-02-05	10,196,444

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to 2seventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2015-01-28	14/608,098	US 20150266973	2019-10-01	10,428,142
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2018-12-13	16/219,640	US 20190112372	2019-10-29	10,457,731
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2019-08-14	16/540,673	US 20200071399		
United States of America	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2019-09-17	16/573,254	US 20200071401		
Patent Cooperation Treaty	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	PCT/US2014/047852	WO2015017214		
Australia	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	2014296626	2014296626	2019-06-20	2014296626
Australia	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	2019203955	2019203955	2021-06-10	2019203955
Canada	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	2,956,667			
European Patent Office	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	14832043.5	3027204		
European Patent Office	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	21162954.8			
Hong Kong	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	16112493.9	HK1224194		
Japan	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	2016-531761	2016531567	2019-06-21	6543626
Japan	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	2019-112035	2019-146598		
Japan	MULTIPARTITE SIGNALING PROTEINS AND USES THEREOF	2013-07-29	2014-07-23	2020-92158	2020-178690	2020-08-12	6748796
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS		2014-07-24	62/028,664			
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS		2014-08-29	62/044,103			
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS		2015-04-24	62/152,575			
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15/328,278	US 20170226216		
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2019-07-18	16/515,870	US 20200079864		
Patent Cooperation Treaty	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	PCT/US2015/041722	WO2016014789		
Australia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	2015292590	2015292590	2020-04-30	2015292590
Brazil	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	BR1120170014980			
Canada	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	2,956,002			
China	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	201580050638.9	CN 106795217 A		
Germany	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15824299.0		2021-05-05	3172231
European Patent Office	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15824299.0	3172231	2021-05-05	3172231
Spain	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15824299.0		2021-05-05	3172231
France	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15824299.0		2021-05-05	3172231

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United Kingdom	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15824299.0		2021-05-05	3172231
Hong Kong	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	17112607.1	HK1243083A		
Indonesia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	P00201701153	2018/02615	2020-10-05	IDP000071913
Israel	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	250202		2020-12-31	250202
India	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	201717005130			
Italy	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	15824299.0		2021-05-05	3172231
Japan	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	2017-503918	2017-522882	2020-05-19	6706244
Korea, Republic of (KR)	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	10-2017-7005065	10-2017-0036021		
Mexico	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	MX/A/2017/001079			
New Zealand	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	728555			
Russian Federation	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	2017106025	25	2021-05-05	2747457
Singapore	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	112017004925			
Singapore	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	10201900455Y	10201900455Y		
Thailand	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	1701000338			
South Africa	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-07-24	2015-07-23	2017/00730		2021-06-30	
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS		2014-12-12	62/091,419			
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS		2015-08-03	62/200,505			
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15/535,365	US 20180085444	2019-08-20	10,383,929
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2019-07-03	16/502,966	US 20190388525	2020-05-05	10,639,358
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2019-07-03	16/502,972	US 20190388526	2020-04-21	10,624,960
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2019-07-08	16/504,853	US 20190388527	2020-05-05	10,639,359
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2019-07-08	16/504,859	US 20190388528	2020-05-12	10,646,558
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2020-04-01	16/837,610	US 20200330572		
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2020-10-23	17/078,950	US 20210038705		
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2020-10-23	17/079,006	US 20210077603		
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2020-10-23	17/079,037	US 20210052711		
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2020-10-23	17/079,072	US 20210077604	2021-06-01	11,020,466
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	PCT/US2015/064269	WO2016094304		
Patent Cooperation Treaty	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Austria	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	2015360845		2021-03-11	2015360845
Australia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	2021201147			
Australia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Belgium	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Bulgaria	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Brazil	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	BR1120170125021	2510	2020-09-15	BR1120170125021
Canada	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	2,970,466			
Switzerland	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Chile	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	201701515	1335138		
Chile	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	201801556			
China	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	201580073309.6	CN107207598A	2020-12-08	ZL201580073309.6
China	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	202011266755.8	CN112358551A		

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Colombia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	NC2017/0006808	814	2019-12-09	36686
Cyprus (Republic of)	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Czechia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Germany	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Denmark	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Eurasian Patent Convention	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	201791310		2020-11-02	036379
Eurasian Patent Convention	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	202091686			
Ecuador	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	EC IEP-2017-44494			
Estonia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
European Patent Office	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
European Patent Office	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	19193858.8	3628687	2021-07-28	3628687
European Patent Office	BCMA CHIMERIC ANTIGEN RECEPTORS FOR USE IN THE TREATMENT OF A HEMATOLOGICAL MALIGNANCY	2014-12-12	2015-12-07	19210785.2	3640262		
European Patent Office	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	21187802.0			
Spain	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Finland	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
France	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
United Kingdom	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Greece	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Hong Kong	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	18104137.6	1245801	2020-05-15	HK1245801
Hong Kong	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	42020015237.9	40024953		
Hong Kong	BCMA CHIMERIC ANTIGEN RECEPTORS FOR USE IN THE TREATMENT OF A HEMATOLOGICAL MALIGNANCY	2014-12-12	2015-12-07	42020017437.3	40027843		
Croatia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Hungary	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Indonesia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	PID201704395	2018/04038		
Indonesia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	P00202101576			
Ireland (Republic of)	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Israel	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	252783			
Israel	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	281484			
India	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	201717022409			
Iceland	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Italy	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Japan	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	2017-531301	2017-538710	2020-03-05	6671370
Japan	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	2020-35520	2020-92707		
Korea, Republic of (KR)	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	10-2017-7019116	10-2017-0090501		
Lithuania	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Luxembourg	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Latvia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Monaco	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Malta	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Mexico	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	MX/A/2017/007575		2021-06-14	
Mexico	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	MX/A/2021/007011			
Netherlands	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Norway	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
New Zealand	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	733025			
New Zealand	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	770737			
Poland	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Portugal	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Romania	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Serbia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0		2019-08-28	3230321
Sweden	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Singapore	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	11201704727W		2021-05-28	11201704727W
Singapore	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	10202013144U			
Slovenia	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Slovak Republic	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
Thailand	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	1701003268			
Turkey	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	15868392.0	3230321	2019-08-28	3230321
South Africa	BCMA CHIMERIC ANTIGEN RECEPTORS	2014-12-12	2015-12-07	2017/04059		2021-08-25	
United States of America	GENOME EDITED IMMUNE EFFECTOR CELLS		2016-03-11	62/307,245			
United States of America	GENOME EDITED IMMUNE EFFECTOR CELLS		2016-04-14	62/322,604			
United States of America	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	16/083,727	US 20190241910		
Patent Cooperation Treaty	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	PCT/US2017/021951	WO2017156484		
Australia	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	2017230011			
Brazil	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	BR1120180683540			
Canada	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	3,017,213			
China	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	201780027741.0	CN109311984A		
European Patent Office	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	17764250.1	3426690		
Israel	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	261621			
India	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	201817038232	01/2019		
Japan	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	2018-547876	2019-509738		
Korea, Republic of (KR)	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	10-2018-7029089	10-2018-0122405		
Mexico	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	MX/a/2018/010924			
New Zealand	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	746098			
Russian Federation	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	2018135819			
Singapore	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	11201807820P			
South Africa	GENOME EDITED IMMUNE EFFECTOR CELLS	2016-03-11	2017-03-10	2018/06021			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS		2016-04-07	62/319,703			
United States of America	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS		2016-04-14	62/322,547			
United States of America	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	16/092,146	US 20190161530		
Patent Cooperation Treaty	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	PCT/US2017/026602	WO201717137		
Australia	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	2017248259			
Canada	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	3,020,330			
China	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	201780031902.3	CN109415687A		
European Patent Office	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	17779910.3	3440191		
Hong Kong	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	19127889.4	40004398		
Japan	CHIMERIC ANTIGEN RECEPTOR T CELL COMPOSITIONS	2016-04-07	2017-04-07	2018-552793	2019-510503		
United States of America	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS		2016-04-14	62/322,634			
United States of America	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS		2016-06-29	62/356,335			
United States of America	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	16/092,946			
Patent Cooperation Treaty	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	PCT/US2017/027606	WO2017180993		
Australia	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	2017250773			
Canada	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	3,020,993			
China	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	201780034987.0	CN109311963A		
European Patent Office	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	17783220.1	3443002		
Japan	SALVAGE CHIMERIC ANTIGEN RECEPTOR SYSTEMS	2016-04-14	2017-04-14	2018-554036	2019-518425		
United States of America	IL-10 RECEPTOR ALPHA HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-08-16	62/375,751			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	IL-10 RECEPTOR ALPHA HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-21	62/411,154			
United States of America	IL-10 RECEPTOR ALPHA HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-16	2017-08-15	16/324,357	US 20190309274		
Patent Cooperation Treaty	IL-10 RECEPTOR ALPHA HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-16	2017-08-15	PCT/US2017/046989	WO2018035141		
Canada	IL-10 RECEPTOR ALPHA HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-16	2017-08-15	3,034,094			
European Patent Office	IL-10 RECEPTOR ALPHA HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-16	2017-08-15	17842000.6	3500696		
United States of America	GENOME EDITING ENHANCERS		2016-08-19	62/377,357			
United States of America	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	16/325,013	US 20190169597		
Patent Cooperation Treaty	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	PCT/US2017/047535	WO2018035423		
Australia	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	2017312132			
Canada	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	3,034,101			
China	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	201780057367.9	CN109715171A		
European Patent Office	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	17842186.3	3500271		
Hong Kong	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	19132655.2	HK40009366		
Japan	GENOME EDITING ENHANCERS	2016-08-19	2017-08-18	2019-509523	2019-528691		
United States of America	TM3 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-08-23	62/378,622			
United States of America	TM3 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-21	62/411,167			
United States of America	TM3 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-23	2017-08-23	16/327,700	US 20190262398		
Patent Cooperation Treaty	TM3 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-23	2017-08-23	PCT/US2017/048197	WO2018039333		
Canada	TM3 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-23	2017-08-23	3,034,782			
European Patent Office	TM3 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-08-23	2017-08-23	17844339.6	3504335		
United States of America	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-09-08	62/385,079			
United States of America	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-28	62/414,279			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	16/330,039	US 20210040165		
Patent Cooperation Treaty	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	PCT/US2017/050774	WO2018049226		
Australia	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	2017323629			
Brazil	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	BR1120190046291			
Canada	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	3,035,455			
China	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	201780065641.7	CN109923211A		
European Patent Office	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	17849655.0	3510157		
Hong Kong	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	19128724.2	40005329		
Indonesia	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	PID201902924	2019/07655		
Israel	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	265045			
India	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	201917013007	201917013007		
Japan	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	2019-512872	2019-526268		
Korea, Republic of (KR)	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	10-2019-7009497			
Mexico	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	MX/a/2019/002725	MX/a/2019/002725		
New Zealand	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	751189			
Russian Federation	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	2019110065			
Singapore	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	11201901757Y			
South Africa	PD-1 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-09-08	2017-09-08	2019/01384			
United States of America	TCRa HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-11	62/406,689			
United States of America	TCRa HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-28	62/414,266			
United States of America	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2019-04-08	16/340,257			
Patent Cooperation Treaty	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	PCT/US2017/056178	WO2018071565		
Australia	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	2017342273			
Canada	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	3,039,812			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
China	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	201780074992.4	CN110036107A		
European Patent Office	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	17859441.2	3534916		
Hong Kong	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	62020002320.3	40012926		
Israel	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	265895			
Japan	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	2019-540313	2019-532674		
Korea, Republic of (KR)	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	10-2019-7013234			
Mexico	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	MX/a/2019/004156	MX/a/2019/004156		
New Zealand	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	752704			
Russian Federation	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	2019114035			
Singapore	TCRa HOMING ENDONUCLEASE VARIANTS	2016-10-11	2017-10-11	11201903230Q			
United States of America	TGFR2 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-17	62/409,163			
United States of America	TGFR2 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2016-10-28	62/414,260			
United States of America	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	16/341,228	US 20200123515		
Patent Cooperation Treaty	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	PCT/US2017/057014	WO2018075541		
Australia	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	2017346683			
Canada	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	3,040,157			
China	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	201780076229.5	CN110050066A		
European Patent Office	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	17861537.3	3526334		
Japan	TGFR2 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2016-10-17	2017-10-17	2019-520527	2019-535240		
United States of America	ANTI-BCMA CAR T CELL COMPOSITIONS		2016-11-04	62/417,840			
United States of America	ANTI-BCMA CAR T CELL COMPOSITIONS		2017-06-02	62/514,401			
United States of America	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	16/346,393	US 20200261501		
Patent Cooperation Treaty	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	PCT/US2017/059989	WO2018085690		
Australia	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	2017355504			
Brazil	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	BR1120190090991			
Canada	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	3,042,424			
Chile	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	201901224			
China	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	201780074688.X	CN110022906A		
Colombia	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	NC2019/0004630	NC2019/0004630		
Eurasian Patent Convention	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	201991100			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Ecuador	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	SENAD-2019/31545	SENAD-2019/31545		
European Patent Office	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	17867273.9	3534968		
Hong Kong	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	19132126.4	40008870		
Indonesia	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	PID201904612			
Israel	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	266316			
India	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	201917020390	201917020390		
Japan	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	2019-523634	2020-502048		
Korea, Republic of (KR)	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	10-2019-7014739			
Mexico	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	MX/A/2019/005277			
New Zealand	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	753088			
Singapore	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	11201903987X			
Thailand	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	1901002743			
South Africa	ANTI-BCMA CAR T CELL COMPOSITIONS	2016-11-04	2017-11-03	2019/02800			
United States of America	TGFB SIGNAL CONVERTOR		2016-11-17	62/423,565			
United States of America	TGFB SIGNAL CONVERTOR		2017-03-06	62/467,496			
United States of America	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	16/348,450	US-20190350974		
Patent Cooperation Treaty	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	PCT/US2017/062358	WO2018094244		
Australia	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	2017362484			
Brazil	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	BR1120190099042			
Canada	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	3,043,888			
China	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	201780077533.1	CN110072885A		
Eurasian Patent Convention	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	201991186			
European Patent Office	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	17872043.9	3541833		
Hong Kong	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	19130700.8	40007184		
Israel	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	266628			
India	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	201917022415	201917022415		
Japan	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	2019-526305	2019-535275		
Korea, Republic of (KR)	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	10-2019-7017172			
Mexico	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	MX/a/2019/005724			
New Zealand	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	753521			
Singapore	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	112019043535			
South Africa	TGFB SIGNAL CONVERTOR	2016-11-17	2017-11-17	2019/03076			
United States of America	VCN ENHANCER COMPOSITIONS AND METHODS OF USING THE SAME		2017-02-10	62/457,504			
United States of America	VCN ENHANCER COMPOSITIONS AND METHODS OF USING THE SAME	2017-02-10	2018-02-09	16/485,048	US 20190365814		
Patent Cooperation Treaty	VCN ENHANCER COMPOSITIONS AND METHODS OF USING THE SAME	2017-02-10	2018-02-09	PCT/US2018/017557	WO2018148502		
European Patent office	VCN ENHANCER COMPOSITIONS AND METHODS OF USING THE SAME	2017-02-10	2018-02-09	18751122.5	3580344		

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING		2017-02-15	62/459,203			
United States of America	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	16/485,345	US 20190390189		
Patent Cooperation Treaty	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	PCT/US2018/018370	WO2018152325		
Australia	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	2018221730			
Canada	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	3,053,499			
China	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	201880020639.2	CN110446781A		
European Patent Office	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	18755081.9	3583203		
Japan	DONOR REPAIR TEMPLATES MULTIPLEX GENOME EDITING	2017-02-15	2018-02-15	2019-564394	2020-507342		
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2017-05-25	62/511,194			
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2017-10-03	62/567,417			
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	16/616,713	US 20210147818		
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2018-10-04	2018-10-04	16/694,810	US 20200109385	2020-10-06	10,793,843
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	16/694,815	US 20200087653	2021-02-23	10,927,367
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2021-01-15	17/150,293	US 20210214714		
United States of America	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2018-10-04	2021-01-15	17/150,533	US 20210214700		
Patent Cooperation Treaty	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	PCT/US2018/034726	WO20180218194		
Patent Cooperation Treaty	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-10-04	PCT/US2018/054347	WO2020072059		
Australia	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	2018273979			
Canada	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	3,064,014			
China	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	201880042211.8	CN110799644A		
European Patent Office	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	18806825.8	3630962		

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Hong Kong	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	62020015146.7	40025/461		
Israel	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	270776	WO 2018/0218194		
Japan	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	2019-564937	2020-521456		
Korea, Republic of (KR)	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	10-2019-7036681			
Mexico	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	MX/A/2019/014100			
New Zealand	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	759382			
Russian Federation	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	2019141853			
Singapore	CB1B ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-05-25	2018-05-25	11201910796Y			
United States of America	PCSK9 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2017-10-04	62/568,020			
United States of America	PCSK9 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2018-05-15	62/671,762			
United States of America	PCSK9 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-10-04	2018-10-04	16/753,117	US 20200376140		
Patent Cooperation Treaty	PCSK9 ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-10-04	2018-10-04	PCT/US2018/054365	WO2019070974		
United States of America	NGK2D DARIC RECEPTORS		2017-12-14	62/598,902			
United States of America	NGK2D DARIC RECEPTORS		2018-09-13	62/730,926			
United States of America	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	16/771,027	US 20210236546		
Patent Cooperation Treaty	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	PCT/US2018/065770	WO2019188885		
Australia	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	2018385694			
Brazil	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	BR1120200118982			
Canada	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	3,085,210			
China	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	201880087514.1	CN111655720A		
European Patent Office	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	18888892.9	3724220		
Hong Kong	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	62021028405.0	40039208		
Israel	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	275139			
India	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	202017026697	40/2020		
Japan	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	2020-532687	2021-506262		
Korea, Republic of (KR)	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	10-2020-7020229			
New Zealand	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	765262			
Russian Federation	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	2020122708			
Singapore	NGK2D DARIC RECEPTORS	2017-12-14	2018-12-14	11202005307R			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	DARIC INTERLEUKIN RECEPTORS		2017-12-14	62/598,923			
United States of America	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	16/771,402	US 20200392204		
Patent Cooperation Treaty	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	PCT/US2018/065786	WO2019118895		
Australia	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	2018385699			
Canada	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	3,084,551			
China	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	201880086118.7	CN111565737A		
European Patent Office	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	18888801.0	3723787		
Hong Kong	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2021-03-29	62021028403.5	40038635		
Israel	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	275079			
Japan	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	2020-532804	2021-506271		
Korea, Republic of (KR)	DARIC INTERLEUKIN RECEPTORS	2017-12-14	2018-12-14	10-2020-7020228			
United States of America	CTLA4 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE		2017-12-20	62/608,397			
United States of America	CTLA4 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-12-20	2018-12-20	16/955,241	US20210002621		
Patent Cooperation Treaty	CTLA4 HOMING ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE	2017-12-20	2018-12-20	PCT/US2018/066891	WO 2019126555		
United States of America	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR		2017-12-22	62/609,847			
United States of America	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR	2017-12-22	2018-12-21	16/956,107			
Patent Cooperation Treaty	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR	2017-12-22	2018-12-21	PCT/US2018/067243	WO2019126724		
Australia	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR	2017-12-22	2018-12-21	2018392080			
Canada	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR	2017-12-22	2018-12-14	3,084,553			
European Patent Office	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR	2017-12-22	2018-12-21	18892274.4	3732205		
Japan	MULTIVALENT CHIMERIC ANTIGEN RECEPTOR	2017-12-22	2018-12-21	2020-534226	2021-506305		
United States of America	ANTI-BCMA CAR ANTIBODIES, CONJUGATES, AND METHODS OF USE		2018-06-14	62/685,043			
United States of America	ANTI-BCMA CAR ANTIBODIES, CONJUGATES, AND METHODS OF USE		2019-12-16	62/948,488			
United States of America	ANTI-BCMA CAR ANTIBODIES, CONJUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	16/973,877			
Patent Cooperation Treaty	ANTI-BCMA CAR ANTIBODIES, CONJUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	PCT/US2019/037274	WO2019241686		

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Patent Cooperation Treaty	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2019-12-16	2020-12-16	PCT/US2020/065352	WO2021127007		
China	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	201980038615.4	CN112243381A		
European Patent Office	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	19820088.3	3813878		
Hong Kong	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2018-06-14					
Israel	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	279309			
Japan	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	2020-569177			
Korea, Republic of (KR)	ANTI-BCMA CAR ANTIBODIES, CONUGATES, AND METHODS OF USE	2018-06-14	2019-06-14	10-2020-7035627			
United States of America	ADOPTIVE CELLULAR THERAPY		2018-04-13	62/657,388			
United States of America	ADOPTIVE CELLULAR THERAPY	2018-04-13	2019-04-20	17/046,466			
Patent Cooperation Treaty	ADOPTIVE CELLULAR THERAPY	2018-04-13	2019-04-12	PCT/US2019/027317	WO2019200316		
European Patent Office	ADOPTIVE CELLULAR THERAPY	2018-04-13	2019-04-12	19784626.4	3781188		
United States of America	CD79A CHIMERIC ANTIGEN RECEPTORS		2018-06-14	62/685,078			
United States of America	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	16/973,879			
Patent Cooperation Treaty	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	PCT/US2019/037270	WO2019241685		
Australia	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	2019287720			
Brazil	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	BR112020025439-8			
Canada	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	3,110,836			
China	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	201980045873.5	CN112368021A		
European Patent Office	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	19819809.5	3806903		
Israel	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	279310			
Japan	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	2020-569179			
Korea, Republic of (KR)	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	10-2021-7000376			
New Zealand	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	771249			
Singapore	CD79A CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	11202012155R			
United States of America	CD79B CHIMERIC ANTIGEN RECEPTORS		2018-06-14	62/685,084			
United States of America	CD79B CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	16/973,884			
Patent Cooperation Treaty	CD79B CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	PCT/US2019/037277	WO2019241688 A1		
European Patent	CD79B CHIMERIC ANTIGEN RECEPTORS	2018-06-14	2019-06-14	19820094.1	3806857		
United States of America	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS		2019-01-22	62/795,513			
United States of America	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS	2019-01-22	2020-01-22	17/425,309			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Patent Cooperation Treaty	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS	2019-01-22	2020-01-22	PCT/US2020/014668	WO2020154445		
Australia	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS	2019-01-22	2020-01-22	2020211990			
China	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS	2019-01-22	2020-01-22				
European Patent	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS	2019-01-22	2020-01-22				
Japan	METHODS AND SYSTEMS FOR MANUFACTURING VIRAL VECTORS	2019-01-22	2020-01-22	2021-543160			
United States of America	CELL THERAPY VESSELS		2018-11-07	62/756,816			
United States of America	CELL THERAPY VESSELS	2018-11-07	2019-11-06	17/291,323			
Patent Cooperation Treaty	CELL THERAPY VESSELS	2018-11-07	2019-11-06	PCT/US2019/059991	WO2020097157		
European Patent Office	CELL THERAPY VESSELS	2018-11-07	2019-11-06	19882392.4			
United States of America	PDCCD-1 HOMING ENDONUCLEASE VARIANTS		2018-12-10	62/777,471			
United States of America	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-10	17/311,455			
Patent Cooperation Treaty	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	PCT/US2019/065223	WO2020123375		
Australia	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	2019395334			
Canada	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	3,122,094			
China	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	201980090012.9			
European Patent Office	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	19897267.1			
Hong Kong	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10					
Israel	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	283724			
Japan	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	2021-532869			
Korea, Republic of (KR)	PDCCD-1 HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	10-2021-7020809			
United States of America	HOMING ENDONUCLEASE VARIANTS		2018-12-10	62/777,476			
United States of America	HOMING ENDONUCLEASE VARIANTS	2019-12-09	2019-12-09	17/311,464			
Patent Cooperation Treaty	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	PCT/US2019/065211	WO2020123371		
Australia	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	2019397364			
Canada	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	3,122,278			
China	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	201980090016.7			
European Patent Office	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	19895111.3			
Israel	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	283720			
Japan	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	2021-532870			
Korea, Republic of (KR)	HOMING ENDONUCLEASE VARIANTS	2018-12-10	2019-12-09	10-2021-7020863			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2018-12-14	62/779,882			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	17/311,767			
Patent Cooperation Treaty	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	PCT/US2019/066216	WO2020123933		
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2018-12-14	62/779,889			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2019-04-18	62/835,658			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	17/311,776			
Patent Cooperation Treaty	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	PCT/US2019/066219	WO2020123936		
Australia	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	2019397152			
Canada	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	3,121,942			
China	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13				
European Patent Office	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	19896079.1			
Japan	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	2021-533529			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2018-12-14	62/779,971			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2019-04-18	62/835,659			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	17/312,120			
Patent Cooperation Treaty	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	PCT/US2019/066223	WO2020123938		
Australia	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	2019396553			
Canada	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	3,123,084			
China	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13				
European Patent Office	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	19896568.3			
Israel	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	283897			
Japan	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	2021-533530			

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
Korea, Republic of (KR)	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	10-2021-7021631			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2018-12-14	62/779,953			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2019-04-18	62/835,662			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	17/312,116			
Patent Cooperation Treaty	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2018-12-14	2019-12-13	PCT/US2019/066241	WO2020123947		
European Patent	MAGE-A4 TCRs		2019-03-27	19165387.2	3714941		
Patent Cooperation Treaty	MAGE A4 T CELL RECEPTORS	2019-03-27	2020-03-27	PCT/EP2020/058779	WO2020193767		
United States of America	ADAPTIVE CELL THERAPY		2019-03-20	62/821,419			
Patent Cooperation Treaty	ADAPTIVE CELL THERAPY	2019-03-20	2020-03-20	PCT/US2020/024016	WO2020191358		
United States of America	MANUFACTURING ANTI-BCMA CAR T CELLS		2019-04-05	62/830,004			
United States of America	MANUFACTURING ANTI-BCMA CAR T CELLS		2019-12-06	62/944,485			
Patent Cooperation Treaty	MANUFACTURING ANTI-BCMA CAR T CELLS	2019-04-05	2020-04-02	PCT/US2020/026300	WO2020206061		
United States of America	CD33 TARGETED IMMUNOTHERAPIES		2019-05-08	62/845,304			
United States of America	CD33 TARGETED IMMUNOTHERAPIES		2019-09-10	62/898,392			
Patent Cooperation Treaty	CD33 TARGETED IMMUNOTHERAPIES	2019-05-08	2020-05-07	PCT/US2020/031780	WO2020227474		
United States of America	CD33 TARGETED IMMUNOTHERAPIES		2019-05-08	62/845,306			
Patent Cooperation Treaty	CD33 TARGETED IMMUNOTHERAPIES	2019-05-08	2020-05-07	PCT/US2020/031781	WO2020227475		
United States of America	CD123 TARGETED IMMUNOTHERAPIES		2019-05-08	62/845,307			
Patent Cooperation Treaty	CD123 TARGETED IMMUNOTHERAPIES	2019-05-08	2020-05-07	PCT/US2020/031794	WO2020227481		
United States of America	ENGINEERED T CELLS		2019-05-08	62/845,311			
Patent Cooperation Treaty	ENGINEERED T CELLS	2019-05-08	2020-05-07	PCT/US2020/031796	WO2020227483		
United States of America	COMPOSITIONS AND METHODS FOR TREATING CANCER		2019-06-14	62/861,838			
United States of America	COMPOSITIONS AND METHODS FOR TREATING CANCER	2019-06-14	2020-03-18	62/991,314			
Patent Cooperation Treaty	COMPOSITIONS AND METHODS FOR TREATING CANCER	2019-06-14	2020-06-11	PCT/US2020/037145	WO2020252110		

Schedule A: Assignment of Patent Rights from bluebird bio, Inc. to Zseventy bio, Inc.

Country	Patent Application Title	Priority Date	Filed Date	Application Number	Publication Number	Grant Date	Patent No.
United States of America	CELL CULTURE MEDIUM		2019-10-25	62/925,800			
United States of America	CELL CULTURE MEDIUM	2019-10-25	2020-10-22	17/077,134			
United States of America	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES		2019-09-30	62/908,082			
Patent Cooperation Treaty	DIMERIZING AGENT REGULATED IMMUNORECEPTOR COMPLEXES	2019-09-30	2020-09-30	PCT/US2020/053388	WO2021067347		
United States of America	MODIFIED CCR POLYPEPTIDES AND USES THEREOF		2020-04-17	63/011,494			
Patent Cooperation Treaty	MODIFIED CCR POLYPEPTIDES AND USES THEREOF	2020-04-17	2021-04-16	PCT/US2021/027648			
United States of America	METHODS FOR MANUFACTURING VIRAL VECTORS		2020-06-11	63/037,777			
Patent Cooperation Treaty	METHODS FOR MANUFACTURING VIRAL VECTORS	2020-06-11	2021-06-10	PCT/US2021/036840			
United States of America	FRB Antibodies		2020-04-10	63/007,990			
Patent Cooperation Treaty	FRB ANTIBODIES	2020-04-10	2021-04-09	PCT/US2021/026597			
United States of America	T CELL RECEPTORS		2020-03-27	63/000,800			
Patent Cooperation Treaty	T CELL RECEPTORS	2020-03-27	2021-03-26	PCT/US2021/024370			
United States of America	BCMA CHIMERIC ANTIGEN RECEPTORS		2020-08-25	63/069,784			
Patent Cooperation Treaty	BCMA CHIMERIC ANTIGEN RECEPTORS	2020-08-25	2021-08-24	PCT/US2021/047290			
United States of America	COMPOSITIONS AND METHODS FOR SITE-DIRECTED MUTAGENESIS		2020-12-21	63/128,391			
United States of America	AML TARGETED IMMUNOTHERAPIES		2020-11-09	63/111,255			
United States of America	AML TARGETED IMMUNOTHERAPIES		2020-11-10	63/112,023			
United States of America	CD33 TARGETED IMMUNOTHERAPIES		2020-11-09	63/111,280			
United States of America	T CELL RECEPTORS		2021-07-14	63/221,819			