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Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

DIVISIÓN DE NUEVAS CREACIONES

E. _____ S. _____

COMERCIO
NUEVAS CREACIONES
REGISTRACIONAL II

Expediente No. 07-080.266

Solicitud de Patente de Invención titulada: "USO DE COLORANTES DE CIANINA PARA EL DIAGNOSTICO DE ENFERMEDADES PROLIFERATIVAS"

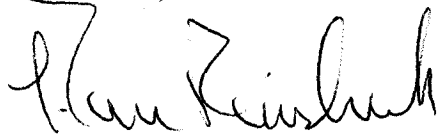
Solicitante: BAYER SCHERING PHARMA AKTIENGESELLSCHAFT

RESPUESTA AL OFICIO N°. 12529 NOTIFICADO
POR FIJACION EN LISTA No. 374 DE FECHA 5 DE OCTUBRE DE 2007,
(EXAMEN DE FORMA)

J. IAN RAISBECK, mayor de edad y vecino de Bogotá, identificado tal como aparece al pie de mi firma, en mi carácter de apoderado de la sociedad solicitante, me permito manifestar lo siguiente ante el auto emanado de ese Despacho, dentro del plazo legal previsto en el artículo 39 de la Decisión 486, en los siguientes términos:

1. En respuesta a la primera observación del Examinador, me permito aportar junto al presente memorial, el documento de cesión debidamente legalizado, junto con su correspondiente traducción, según lo previsto en el Art. 26- k de la Decisión 486.
2. En respuesta a la segunda observación del Examinador, me permito aclarar al despacho que ~~ante solicitud de Patente Nacional~~ y no Capítulo II como inicialmente se presentó. Para tal efecto, adjunto copia del Reporte Preliminar Internacional de Patentabilidad, el cual, valga aclarar, no contiene anexos.

Atentamente,



J. IAN RAISBECK

C. C. N° 79.376.996 de Bogotá

T.P. 135.799 CSJ

Anexo: Reporte Preliminar Internacional de Patentabilidad
Documento de Cesión

Protocolo No. R 450/2007

He explicado la prohibición de intervención según § 3 párrafo 1 No. 7 Ley de Documentación. A mi pregunta, si existe alguna versión previa en sentido de la norma, se contesto de forma negativa.

Yo certifico las firmas rendidas ante mi persona:

Del señor Martin P e s s e l,
Nacido el 17 de mayo de 1968
Identificado con Cedula alemana vigente No. 235676364

Del señor Dr. Malte B a h n e r,
Nacido el 23 de abril de 1963
Identificada con Cedula alemana vigente No. 2538199346

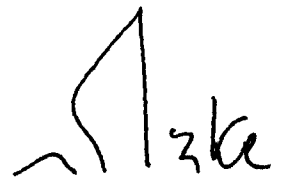
Del señor Dr. Kai L i c h a,
Nacido el 18 de mayo de 1966
Identificado con presentacion del pasaporte No. C 0813880 7

Todos con domicilio de negocios en 13353 Berlín, Müllerstrasse 178.

Berlín, 25 de julio de 2007

Firma

Representante Notario



Adolf Watzke

Traductor oficial

Res. 2433 Min. Justicia

Calculo de gastos según §§ 141, 154 reglamento de costos

Valor comercial: 12.000,00 Euros

Tarifa de legalización §§ 32,45 1	15,00 Euro
Tarifa de gestión § 58	15,00 Euro
Gastos papelería §§ 136, 152	2,00 Euro
Gastos correo §§ 137, 152	<u>1,45 Euro</u>
	33,45 Euro
19 % IVA	<u>6,36 Euro</u>
	39,81 Euro

Berlín, 25 de julio de 2007

Firma

Representante Notario



Adolf Watzke

Traductor oficial

Res. 2433 Min. Justicia

100
100
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Protocolo No. R 610/2007

101
101
A

He explicado la prohibición de intervención según § 3 párrafo 1 No. 7 Ley de Documentación. A mi pregunta, si existe alguna versión previa en sentido de la norma, se contesto de forma negativa.

Yo certifico la firma rendida ante mi persona:

Del señor Michael S c h i r n e r,

Nacido el 24 de marzo de 1962

- conocido en persona -

con domicilio de negocios en 13353 Berlín, Müllerstrasse 178.

Berlín, 4 de octubre de 2007

Firma

Notario

Calculo de gastos según §§ 141, 154 reglamento de costos

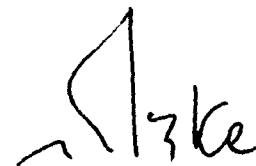
Valor comercial: 12.000,00 Euros

Tarifa de legalización §§ 32,45 1	15,00 Euro
Tarifa de gestión § 58	15,00 Euro
Gastos correo §§ 137, 152	<u>4,35 Euro</u>
	21,35 Euro
19 % IVA	<u>4,05 Euro</u>
	25,40 Euro

Berlín, 4 de octubre de 2007

Firma

Notario



Adolf Watzke

Traductor oficial

Res. 2433 Min. Justicia

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102
B

APOSTILLA

(Convención de la Haya del 5 de octubre de 1961)

1. País: República Federal de Alemania

Este documento publico

2. está firmado por a) Abogado Stefan R ö h n i s c h y
b) Dimitri Rempen

3. a) en su calidad de Representante nombrado oficialmente del
Notario en Berlin Dimitri Rempen _____

b) en su calidad de Notario en Berlin _____

4. está proveída a) y b) con el sello
del Notario _____

confirmado

5. en Berlín

6. el 9 de octubre de 2007

7. por el presidente de la audiencia provincial en Berlín

8. bajo el número. 9101 a E-F 6115/07

9. Sello

10. Firma

p.o. (por order)

Firma

Dittrich



Adolf Watzke

Traductor oficial

Res. 2433 Min. Justicia

 Industria y Comercio SUPERINTENDENCIA		PLANILLA DE RADICACIÓN - DIGITALIZACIÓN DIARIA RELACIÓN DE ANEXOS	
Dependencia: Propiedad Industrial		Fecha: 2007 11 / 23 / AAAA MM DD	
		Recorrido: 10:33:55	
Tipo de Radicación: Entrada: ☐ Salida: ☐ Traslado: ☐ Convenio: ☐			
Radicator:		Planilla:	

ID	No. Radicación	Consecutivo	Item
1	080266	103	6
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Item	Unidad de Conservación
1	Bolsa
2	Caja
3	Libro
4	Sobre
5	Tomo
6	Otro
Item	Soporte Documental
7	CD
8	Disquete
9	DVD
10	Folleto
11	Foto
12	Periódico
13	Plano
14	Publicación Periódica
15	USB
16	Otro

Observaciones:

4 folios amarrados con un cordón Blanco con
rojo con sello contramarcado blanco pegado
en el folio N° 2

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference S30905PCT	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2006/000058	International filing date (<i>day/month/year</i>) 05 January 2006 (05.01.2006)	Priority date (<i>day/month/year</i>) 07 January 2005 (07.01.2005)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant BAYER SCHERING PHARMA AKTIENGESELLSCHAFT			

1. This international preliminary report on patentability (~~Chapter I~~) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 12 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|--|---|
| ☒ Box No. I | Basis of the report |
| ☒ Box No. II | Priority |
| ☒ Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| ☐ Box No. IV | Lack of unity of invention |
| ☒ Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| ☐ Box No. VI | Certain documents cited |
| ☐ Box No. VII | Certain defects in the international application |
| ☒ Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Date of issuance of this report 10 July 2007 (10.07.2007)
	Authorized officer Agnes Wittmann-Regis e-mail: pt06.pct@wipo.int

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105
REC'D 11 APR 2006

PCT WIPO PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2006/000058

International filing date (day/month/year)
05.01.2006

Priority date (day/month/year)
07.01.2005

International Patent Classification (IPC) or both national classification and IPC
INV. A61K49/00

Applicant
SCHERING AG

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaag 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Villard, A-L

Telephone No. +31 70 340-2533



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No. **106**
PCT/EP2006/000058 **107**

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

see separate sheet

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No. ¹⁰⁷
PCT/EP2006/000058 ~~110~~

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

☐ the entire international application

☒ claims Nos. 1-15 partially

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international search (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☒ the claims, or said claims Nos. 1-15 are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

see separate sheet

☒ no international search report has been established for the whole application or for said claims Nos. 1-15 (partially)

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13 *ter*.1(a) or (b).

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2006/000058

108

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-7,9-15
	No: Claims	8

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re II

Priority

The priority of the present application has been found valid.

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

III.1 Present claims 1-15 relate to an extremely large number of possible proliferative diseases detected by using the compound SF64. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very limited number of those proliferative diseases mentioned in the claims. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Moreover, present claims 2-4 relate to an extremely large number of possible conjugates of SF64. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only one example of the conjugates claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the use of the compound SF64 and the conjugate thereof with an antibody targeting ED-BF, for the detection of the proliferative diseases specifically mentioned in the examples.

Since a search report has been established only for parts of the claims 1-15, only those parts will be discussed with regard to novelty, inventive step and industrial applicability.

III.2 Claim 8 relates to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of this claim (Article 34(4)(a)(I) PCT).

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: WO 00/16810 A (SCHERING AKTIENGESELLSCHAFT; FUJI PHOTO FILM CO., LTD; MIWA, NAOTO; IN) 30 March 2000 (2000-03-30)
- D2: NTZIACHRISTOS V ET AL: "CONCURRENT MRI AND DIFFUSE OPTICAL TOMOGRAPHY OF BREAST AFTER INDOCYANINE GREEN ENHANCEMENT" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, WASHINGTON, DC, US, vol. 97, no. 6, 14 March 2000 (2000-03-14), pages 2767-2772, XP001168698 ISSN: 0027-8424 cited in the application
- D3: BECKER A ET AL: "RECEPTOR-TARGETED OPTICAL IMAGING OF TUMORS WITH NEAR-INFRARED FLUORESCENT LIGANDS" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, vol. 19, April 2001 (2001-04), pages 327-331, XP001168699 ISSN: 1087-0156
- D4: WO 2004/065491 A (SCHERING AG) 5 August 2004 (2004-08-05)
- D5: WO 01/23005 A (SCHERING AKTIENGESELLSCHAFT; SCHIRNER, MICHAEL; LICHA, KAI; DINKELBORG) 5 April 2001 (2001-04-05)
- D6: WO 00/61194 A (INSTITUT FUER DIAGNOSTIKFORSCHUNG GMBH AN DER FREIEN UNIVERSITAET BERL) 19 October 2000 (2000-10-19)
- D7: SCHEUERMANN JÖRG: "Isolation of binding molecules to the EDB domain of fibronectin, a marker of angiogenesis" DISSERTATION SUBMITTED TO THE SWISS FEDERAL INSTITUTE OF TECHNOLOGY ZURICH FOR THE DEGREE OF DOCTOR OF NATURAL SCIENCES, December 2002 (2002-12), XP002314651 cited in the application

V.1 Novelty

The subject-matter of independent claim 1 relates to the use of the compound SF64 for the preparation of a diagnostic composition for the detection of a proliferative disease, wherein the diagnostic composition comprises an amount of the compound SF64 allowing the administration of less than 0.5 mg/kg body weight and more than 0.001 mg/kg body weight of SF64 per diagnostic application. Independent claim 15 relates to a diagnostic kit comprising SF64 to prepare the same diagnostic composition.

The document D1 is regarded as being the closest prior art to the subject matter of independent claims 1 and 15. D1 discloses the use of the cyanine dye SF64 (cf. compound 31) as near infrared fluorescent contrast agent and its administration in an amount of 5 mg/kg body weight for the detection of a tumour of 8 mm of diameter (cf. experimental example 2). D1 mentions also that the dose of near-contrast agent to be used for the detection of the site to be ultimately diagnosed is comprised between 0.1 and 100 mg/kg body weight and preferably between 0.5 and 20 mg/kg body weight (cf. page 63, paragraph 3).

The subject matter of claims 1 and 15 differs from D1 in that a lower amount of the compound SF64 is used for the detection of a proliferative disease, and is therefore new (Article 33(2) PCT). Consequently, the subject-matter of dependent claims 2-14 is also new (Article 33(2) PCT).

V.2 Inventive step

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-15 does not involve an inventive step in the sense of Article 33(3) PCT.

V.2.1 The technical problem underlying the present application is the detection of small proliferative lesions with low doses of fluorescent dye. In that respect, the application shows that SF64 administrated in an amount of 0.1 mg/kg body weight provides a fluorescent signal allowing the detection of a breast tumour of approximately 1 cm of diameter. The application shows also that the conjugate between SF64 and the antibody AP39, administrated in an amount of 0.05 μ mol/kg body weight allows to detect micrometastasis in the range of 0.5 to 2 mm in the mesenterium, as well as micro-lesions of the skin smaller than 1 mm.

However, it is already known from D2 and D3 that administration of low doses of fluorescent dye or a conjugate thereof can provide a fluorescent signal with the specificity and the sensitivity required for detecting small proliferative lesions: D2 shows that ICG administered in an amount of 0.25 mg/kg body weight allows the detection of an infiltrating ductal carcinoma of the same size as the breast cancer shown in the first example and the figure 1 of the present application; D3 shows that a conjugate of ICG targeting the somastatin receptor administered at a dose of 0.02 μ mol/kg body weight allows detection of tumours of 3-8 mm. Thus, in view of D2 or D3, the person skilled in the art will most certainly choose to administer the same doses of fluorescent dye as disclosed in these documents to detect proliferative lesions as small as in figure 1 of the present application, and will expect to obtain the results shown in figure 1 of the present application. Moreover, the skilled person can choose as fluorescent dye, ICG as disclosed in D2 or D3, or a compound equivalent to ICG, and in particular the compound SF64 disclosed in D1. By doing so, the skilled person will arrive to the solution of claims 1 and 15, without the exercise of inventive skill.

In addition to the above reasoning, the doses of SF64 used in the examples of the present application are very close to the doses used in D2 and D3 to provide similar results. Thus, the technical teaching of the present application does not seem to go beyond the teaching of the document D1 combined with D2 or D3. Furthermore, no example has been provided in the present application showing that doses of the fluorescent dye SF64 lower than 0.01 mg/kg body weight can provide a fluorescent signal with the intensity and the sensitivity required for diagnosing small proliferative lesions.

For all the reasons mentioned above, an inventive step must be denied for claims 1 and 15 (Article 33(3) PCT).

V.2.2 Part of the subject-matter of claims 5-8, relating to the detection of a colon carcinoma and an invasive ductal carcinoma, is already disclosed respectively in D1 and D2, dependent claims 5-8 cannot be therefore be considered as inventive (Article 33(3) PCT). Dependent claims 13, 14 do also not contain any features which, in combination with the features of any claims to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, since the technical features of these claims are already mentioned in D1, D2 or D3.

V.2.3 The application as filed only refers to one specific example (page 21; figure 1) related to the use of the cyanine dye SF64 (not as a conjugate) in a amount of 0.1 mg/kg body weight for the detection of a proliferative disease, namely invasive breast cancer. It is not however plausible that the technical effect, which is disclosed as the detection of a proliferative disease, with a signal with sufficient specificity and sensitivity, by using SF64 in an amount falling in the range mentioned in claim 1, is achieved for all claimed proliferative diseases (127 different diseases or syndromes) and for all the doses mentioned. Moreover, it is not at all plausible that all the conjugates claimed can target specifically all the proliferative diseases claimed. An inventive step cannot therefore be acknowledged for dependent claims 5-12.

V.2.4 The subject-matter of claim 2 differs from D1 in that the compound used to prepare the diagnostic composition for the detection of a proliferative disease is a conjugate of SF64 with a targeting moiety, and is used in an amount lower than in D1. The technical effect of these difference results in the specific localization of the fluorescent signal in a tumour allowing its detection. The problem to be solved by the present invention may therefore be regarded as providing a diagnostic composition for the detection of a proliferative disease comprising a compound derived from the cyanine dye SF64, that targets specifically proliferating cells or tissues and allows the use of a small amount of SF64. The proposed solution is to use a conjugate of the compound SF64 with a targeting compound, which binds specifically to tumour markers, cells or tissues. This solution cannot however be considered as involving an inventive step for the following reasons:

The use of a conjugate comprising a fluorescent dye linked to a targeting moiety that specifically targets proliferating cells or tissues to detect a tumour, is part of the general knowledge that the person skilled in the art would use to solve the objective problem mentioned above.

Moreover, document D4 discloses the use of a bioconjugate comprising a cyanine dye, which differs from SF64 only in the substituent in the *meso*-position of the C7-polymethine chain, and which is coupled, through a linking moiety attached at the *meso*-position of the C7-polymethine chain, to a ED-BF specific binding agent, namely the antibody AP39 or E8. This bioconjugate is used in a method of manufacturing a diagnostic kit for the diagnosis of several small proliferative lesions such as primary tumours or endometriosis, before, during or after

treatment (cf. page 4, line 1 - page 17, line 30; examples 22-24; claims 1, 2, 6-17, 22, 23, 27-34).

Document D5 discloses also the use of a bioconjugate comprising a cyanine dye coupled to a ED-BF specific binding moiety, namely the antibody L19, in a method of manufacturing a diagnostic kit for the diagnosis of several proliferative lesions such as primary tumours or endometriosis, before, during or after treatment (cf. page 8, line 11 - page 12, line 26; page 15, lines 5-33; claims 5, 6, 14).

In addition, document D6 discloses the use of conjugates of dyes, derived from the vasoactive peptide, from somastatin or from neurotensin (cf. abstract) for the detection of tumours (cf. example 41). The cyanine dye can in particular be selected from the compounds of general formula XIII (cf. pages 9-10; claim 5).

Finally, D7 discloses that a "small molecule" such as 2,2-diphenylethylamine can be used as specific binding moiety to target ED-BF.

Therefore, by considering the teaching of D4, D5, D6 or D7, the person skilled in the art would most certainly choose to link the cyanine dye S64 to one of the targeting moieties disclosed in one of these documents to provide conjugates of the fluorescent dye SF64. Starting also from one of the documents D4, D5 or D6, the person skilled in the art would have considered to replace the cyanine dye disclosed in one of these documents by an alternative cyanine dye, which has been used for detecting tumours, like the compound SF64 disclosed in D1. Moreover, knowing the method of coupling of the cyanine dye to the targeting moiety, which is disclosed in D4, D5 or D6, the person skilled in the art would provide alternative cyanine dye conjugates without the exercise of inventive skill. In view of the low dose range used in D2 and more particularly in D3, the skilled person will also know that a conjugate of a fluorescent dye provides a fluorescent signal with sufficient sensitivity to detect the targeted tumour.

Consequently, by combining the teaching of D1 with one of the documents D4 to D7, and being aware of the dose range disclosed in D2 and D3, the person skilled in the art will arrive to the solution of claim 2 without the exercise of inventive skill.

The same reasoning applies to dependent claims 3 and 4.

V.3 For the assessment of the present claim 8 on the question whether it is industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

Re Item VIII

Certain observations on the international application

Claims 1 and 15 do not meet the requirements of Article 6 PCT because they are not clear. These claims define the quantities of SF64 mentioned by reference to doses used per diagnostic application, without indicating the quantity of compound SF64 used to prepare the diagnostic composition. The diagnostic composition as defined in claims 1 and 15 can therefore contain any amounts of SF64, whereas only a specific amount of SF64 as mentioned in claims 1 and 15 will be administrated. It is therefore be considered that claims 1 and 15 attempt to define the subject-matter in terms of a result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result, namely the quantity of SF64 used to prepare the diagnostic composition.

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

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Bogotá D.C.,

Doctor(a)
RAISBECK J. IAN
Apoderado(a) y/o Representante de
BAYER SCHERING PHARMA AKTIENGESELLSCHAFT

REFERENCIA	Radicación No.	07 80266
	Solicitud internacional	PCT/EP2006/000058
	Fecha inicio fase nacional	07/08/2007
	Trámite	11
	Evento	379
	Actuación	416
	Oficio No.	6476
	Folios	1

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en la Decisión 486 de la Comisión de la Comunidad Andina, el Tratado de Cooperación en Materia de Patentes (PCT), el Reglamento y la Circular Única de la Superintendencia de Industria y Comercio, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial.

Cúmplase
Dado en Bogotá DC,

24 JUL 2008

ALIX CARMENZA CESPEDES DE VERGEL
Jefe de la división de Nuevas Creaciones

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