505076675 09/04/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5123432

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
4SC AG	01/15/2018

RECEIVING PARTY DATA

Name:	BIONTECH AG
Street Address:	AN DER GOLDGRUBE 12
City:	MAINZ
State/Country:	GERMANY
Postal Code:	55131

PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	9073913

CORRESPONDENCE DATA

Fax Number: (703)243-6410

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

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Phone: 703-243-6333 Email: mail@mwzb.com

Correspondent Name: MILLEN, WHITE, ZELANO & BRANIGAN, P.C.

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Address Line 2: PAM RICHARDSON

Address Line 4: ARLINGTON, VIRGINIA 22201

ATTORNEY DOCKET NUMBER:	BOEHMERP-0092
NAME OF SUBMITTER:	PAMELA D. RICHARDSON
SIGNATURE:	/Pamela D. Richardson/
DATE SIGNED:	09/04/2018

Total Attachments: 8

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PATENT REEL: 046780 FRAME: 0072 505076675

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> PATENT REEL: 046780 FRAME: 0073

ASSIGNMENT OF TLR-PATENTS AND -INVENTIONS

AND

THIRD AMENDMENT TO THE LICENSE AGREEMENT DATED AS OF 17 DECEMBER 2012

as of January 15, 2018 (the Effective Date)

between

4SC AG, a company incorporated under German law and having its place of business at Fraunhoferstraße 22, 82152 Planegg-Martinsried, Germany, successor-in-title to 4SC DISCOVERY GmbH (both hereinafter 4SC)

and

BIONTECH AG, a company incorporated under German law and having its place of business at An der Goldgrube 12, 55131 Mainz, Germany (hereinafter BIONTECH), hereinafter individually referred to as Party and collectively as Parties.

WHEREAS:

- A. The Parties are parties to a license agreement dated as of 17 December 2012 (the License Agreement) under which 4SC has granted to BIONTECH an exclusive license to use 4SC's proprietary patent rights listed in Annex 1 (the TLR-Patents) and know-how relating to certain Toll-Like Receptor (TLR) agonists.
- B. 4SC has undertaken research to provide improved TLR agonists pertaining to the same general structural class as the compounds under the TLR-Patents, as shown in Annex 2 and has made inventions regarding such improved TLR agonists (the TLR-Inventions).
- C. 4SC now wishes to assign, and BIONTECH wishes to receive an assignment of. all rights owned by 4SC in the TLR-Patents and in the TLR-Inventions in accordance with the following terms and conditions.
- D. The Parties wish to uphold the general conditions including but not limited to rights and obligations under the License Agreement and continue their business

relationship in the spirit thereof, and therefore wish to amend the License Agreement insofar as necessary to reflect the Assignment under the present Assignment.

THEREFORE, IT IS AGREED:

PART I - ASSIGNMENT AND TRANSFER

1. ASSIGNMENT AND REGISTRATION

- 4SC hereby assigns all of its rights and title in and to the TLR-Patents and TLRa. Inventions to BIONTECH and BIONTECH hereby accepts the assignment. For the avoidance of doubt, this shall include the entitlement of BIONTECH to apply for protective rights for the TLR-Inventions in its own name.
- b. BIONTECH shall apply for the recordal of the change of ownership and/or the registration of the assignment of the TLR-Patents hereunder in its own name with the competent patent offices where the TLR-Patents are registered or where the respective applications are pending.
- ٥. 4SC shall execute all documents, give all declarations and reasonably cooperate with BIONTECH to the extent required to vest the entire property, right, title and interest in and to the TLR-Patents and TLR-Inventions in BIONTECH, including but not limited to registration of BIONTECH's title as proprietor at the relevant patent offices, and to assist in the resolution of any question concerning the ownership of the TLR-Patents.
- d. 4SC shall, upon request of BIONTECH, further provide BIONTECH with such assistance, as BIONTECH may reasonably require to enable BIONTECH (i) to prosecute and maintain the TLR-Patents during the period until the assignment of the TLR-Patents to BIONTECH is being registered at the relevant patent offices and (ii) subsequently, to defend and enforce the TLR-Patents, by executing all necessary documents, forms and authorizations, and, by providing expert opinions of its employees to the extent reasonably required.
- Any costs, including but not limited to patent office fees, and any associated e. third party costs such as patent attorney fees, incurred in the registration of the assignment and/or the recordal of ownership will be borne by BIONTECH. For the avoidance of doubt, any costs incurred in the prosecution, maintenance, defense and enforcement of the TLR-Patents and/or rights in the TLR-Inventions after the Effective Date will be borne by BIONTECH. BIONTECH shall compensate 4SC DSICOVERY for any expenses and working hours of its employees spent in providing assistance under above subsection (e).



2. FILES

- a. 4SC hereby assigns to BIONTECH title to the entire official documentation and relevant non-privileged attorney-client correspondence relating to the TLR-Patents, including but not limited to the original filing documents and any original documents issued by the competent patent offices or any other competent authority as well as all correspondence with the patent offices or other parties in relation to the prosecution and/or maintenance of the TLR-Patents (Patent Files).
- b. Within thirty (30) days of the Effective Date, 4SC shall, at BIONTECH's cost, provide to BIONTECH all Patent Files, insofar as physically available to 4SC, and shall provide to BIONTECH electronic copies of all Patent Files. In addition, 4SC shall instruct its patent agents that all records and correspondence with the patent offices, 4SC or any patent agent relating to the TLR-Patents, are, from the Effective Date, to be held to the order of BIONTECH. 4SC shall be entitled to maintain an electronic copy of the Patent Files.
- c. No physical copies of laboratory journal entries shall be transferred to BIONTECH, insofar as these are made available to BIONTECH in electronic Form. However, 4SC shall:
 - store, or have stored, the originals of the paper laboratory journals relating
 to the TLR-Patents and/or relating to the TLR-Inventions (the *Paper Laboratory Journals*) at least until expiry of the last valid claim of a TLR-Patent, or of a patent granted under a TLR-Invention, respectively, said term including but not limited to any extension or term of said patents,
 - 2) at BIONTECH's cost, provide the originals, or certified copies, of Paper Laboratory Journals to BIONTECH or its successor in title, as necessary, for the use in court proceedings or regulatory approval procedures, the latter including but not limited to audits by regulatory authorities,
 - 3) in case it intends to destroy or otherwise discontinue to store of have stored the originals of Paper Laboratory Journals before the expiration of the term under 1), at BIONTECH's cost, transfer such Paper Laboratory Journals to BIONTECH.

3. NO REPRESENTATIONS AND WARRANTIES

The above assignments are made "as is" without any warranties of any kind.

4. COSTS

Except as otherwise provided in this agreement, 4SC and BIONTECH shall each be responsible for their respective costs, charges and other expenses incurred in connection with this agreement.



PART II - CONTINUATION OF LICENSE AGREEMENT

5. AMENDMENTS TO THE LICENSE AGREEMENT

- a. The License under Section 2.1 shall be replaced by the Assignment under the present Amendment. Accordingly, references to the license granted to BIONTECH in the License Agreement, including but not limited to the terms "LICENSED PRODUCT", "LICENSED TECHNOLOGY", shall be understood to read, mutatis mutandis, on said Assignment, while keeping their originally intended purpose otherwise unchanged.
- b. The term "4SC DISCOVERY KNOW-HOW" shall extend to know-how relating to the TLR-Patents and TLR-Inventions.
- c. The term "4SC DISCOVERY PATENT RIGHTS" shall extend to PATENT RIGHTS necessary or useful to develop and/or commercialize compounds relating to the TLR-Patents and TLR-Inventions.
- d. The term "TLR-COMPOUNDS" shall extend to compounds relating to the TLR-Patents and TLR-Inventions.
- e. The term "MOST RELEVANT JURISDICTIONS" shall mean any of Germany, France, Japan, the United Kingdom, the United States of America (USA), Canada, Mexico, China including Hong Kong, Korea, Brazil, Spain, Italy, and Switzerland.
- f. Section 5 of the License Agreement shall be replaced in its entirety by the following paragraph:

In the event that BIONTECH elects not to continue prosecuting, defending or maintaining any of the 4SC DISCOVERY PATENT RIGHTS in the MOST RELEVANT JURISDICTIONS, BIONTECH shall give to 4SC DISCOVERY. if possible, thirty (30) days, but in any event no less than fifteen (15) days, written notice before any relevant deadline relating to or any public disclosure of the relevant PATENT RIGHTS. Upon receipt of a notice from BIONTECH indicating that it intends to cease prosecuting, defending or maintaining any of these PATENT RIGHTS, 4SC DISCOVERY shall have the right to continue. at its own expense, prosecution, defense or maintenance (as the case may be of the relevant PATENT RIGHTS and BIONTECH shall at the request and cost of 4SC DISCOVERY, but at no charge from BIONTECH other than for reasonably necessary out-of-pocket expenses, do all such acts and execute all such documents as may be necessary to (i) transfer title to the relevant PATENT RIGHTS to 4SC DISCOVERY and (ii) assist 4SC DISCOVERY with the prosecution and maintenance of the relevant PATENT RIGHTS until such times as 4SC DISCOVERY's title as proprietor of the relevant PATENT RIGHTS has been registered at all of the appropriate patent offices.

Sections 6 and 9.1 (i) of the License Agreement shall no longer apply.



h. Upon Termination by BIONTECH for Convenience or by 4SC DISCOVERY for BIONTECH's Breach, according to Section 11.6, upon exercise of 4SC DISCOVERY's option to transfer REGULATORY approvals according to Section 11.6, BIONTECH shall in addition at the cost of 4SC DISCOVERY, but at no charge from BIONTECH other than for reasonably necessary out-ofpocket expenses, do all such acts and execute all such documents as may be necessary to (i) transfer title to the 4SC DISCOVERY PATENT RIGHTS and 4SC DISCOVERY KNOW-HOW to 4SC DISCOVERY and (ii) assist 4SC DISCOVERY with the prosecution and maintenance of the 4SC DISCOVERY PATENT RIGHTS until such times as 4SC DISCOVERY's title as proprietor of the 4SC DISCOVERY PATENT RIGHTS has been registered with all of the concerned patent authorities.

6. CONTINUED OBLIGATIONS UNDER THE LICENSE AGREEMENT

- Except as otherwise provided in Section 1 above, the License Agreement shall a. remain unaffected by this agreement. For the avoidance of doubt, in particular, the diligence and payment obligations of BIONTECH pursuant to Section 3 and 4 of the License Agreement shall continue to apply.
- b. For the avoidance of doubt, the obligation of BIONTECH to make an up-front payment under Section 4.1 of the License Agreement shall be considered fulfilled.

PART III - MISCELLANEOUS

- Each of the provisions of this agreement is severable. If any such provision is a. held to be or becomes invalid or unenforceable in any respect under the law of any jurisdiction, it shall have no effect in that respect and the Parties shall use all reasonable efforts to replace it in that respect with a valid and enforceable substitute provision the effect of which is as close to its intended effect as possible.
- b. No amendment to this agreement shall be valid unless it is in writing and duly executed by or on behalf of all of the Parties to it.
- c, This agreement and any non-contractual obligations arising out of or in connection with the agreement shall be governed by, and interpreted in accordance with, German law.

Exhibits: ANNEX 1, ANNEX 2



This agreement is signed by duly authorized representatives of the Parties:

4SC AG	M ichain
Place/ Date:	Maenyseiro, 18-1-2-18
Signature:	_grx Loce
Name:	JASZY LOVEKIOGE
Capacity:	CEO.
BIONTECH	
Place/ Date:	<u>Maure, 26.01.2018</u>
Signature: _	
Name:	Dr. Sierk Poetting
Canacity:	Managing Director

ANNEX 1 - TRANSFERRED TLR-PATENTS

Country	Status	Application No.	Patent No.
IN	priority - abandoned	614/MUM/2008	n.a.
WO	PCT - abandoned	PCT/EP2009/053399	n.a.
AU	granted	2009228769	2009228769
AU	granted	2014210573	2014210573
BR	pending	P10909317-6	n.a.
CA	notice of allowance	2,719,544	n.a.
CN	granted	200980111136.7	ZL200980111136.7
CN	divisional - granted	201310241620.X	ZL201310241620.X
EA*	granted	201001356	023556
EA	divisional - pending	201590628	n.a.
EP**	granted	09 724 784.5	2 276 486
EP	divisional, decision to grant	11 175 040.2	n.a.
HK	granted	11106344.7	1152238
IL	granted	208,220	208220
IN	pending, in appeal	1987/MUMNP/2010	n.a.
JP	granted	2011-501192	5670876
JP	divisional - granted	2013-240978	5837549
JP	divisional - abandoned	2014-157662	n.a.
KR	granted	10-2010-7023633	10-1606219
MX	granted	MX/a/2010/010511	304591
MX	divisional - granted	MX/a/2012/005484	344330
NZ	granted	588183	588183
NZ	divisional - granted	599446	599446
SG	granted	201006934-2	164965
SG	divisional - pending	201302064-9	n.a.
UA	granted	A 2010 12523	105764
US	granted	12/934,228	9,073,913
US	con granted	14/729,698	9,446,040
US	con notice of allowance	15/269,363	n.a.
ZA	granted	2010/06770	2010/06770
WO	priority (with fees)	PCT/EP2017/072352	11,a,
WO	priority	PCT/EP2017/072353	n.a.

^{*} upheld in AM, BY, KZ, MD, RU



PATENT REEL: 046780 FRAME: 0080

^{**} validated in AL, AT, BA, BE, BG, CH/LI, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, TR

ANNEX 2 - TRANSFERRED TLR-INVENTIONS

Novel compounds with the general structure

wherein A is alkyl

R1 is e.g. optionally substituted alkyl, alkoxyalkyl, alkylaminoalkyl,

R2 is e.g. H, CO-alkyl, CO-cycloalkyl, CO-aryl, CO-heteroaryl, CO-haloalkyl, COOalkyl or CO-amino,

R3 is e.g. optionally substituted alky, heterocyclyl heteroaryl, aryl or cycloalkyl;

and in particular the following compounds:

SC 00097133	SC 00098447	SC 00099411	SC 00100745	SC 00106087
SC 00097609	SC 00098569	SC 00099456	SC 00100774	SC 00106169
SC 00097712	SC 00098695	SC 00099496	SC 00101218	SC 00106170
SC 00097719	SC 00098710	SC 00099497	SC 00101628	SC 00106171
SC 00097735	SC 00098756	SC 00099498	SC 00101904	SC 00106172
SC 00097741	SC 00098758	SC 00099512	SC 00102066	SC 00106173
SC 00097742	SC 00098759	SC 00099519	SC 00102806	SC 00106174
SC 00097749	SC 00098761	SC 00099522	SC 00102929	SC 00106175
SC 00097757	SC 00098791	SC 00099531	SC 00102930	SC 00092075
SC 00097758	SC 00098810	SC 00099532	SC 00102964	SC 00099390
SC 00097766	SC 00098823	SC 00099533	SC 00102965	SC 00099388
SC 00097767	SC 00098828	SC 00099558	SC 00103285	SC 00092120
SC 00097796	SC 00098831	SC 00099559	SC 00105506	SC 00099392
SC 00097799	SC 00098841	SC 00099589	SC 00105631	SC 00100403
SC 00097804	SC 00098842	SC 00099590	SC 00105644	SC 00099551
SC 00097812	SC 00098851	SC 00099592	SC 00105661	SC 00099591
SC 00097820	SC 00098852	SC 00099597	SC 00105738	SC 00091171
SC 00097821	SC 00098853	SC 00099598	SC 00105747	SC 00100404
SC 00097822	SC 00098854	SC 00099599	SC 00105751	SC 00091180
SC 00097823	SC 00098855	SC 00099609	SC 00105775	SC 00097130
SC 00097824	SC 00098872	SC 00100111	SC 00105793	SC 00099488
SC 00097848	SC 00098880	SC 00100201	SC 00105803	SC 00099471
SC 00097871	SC 00098881	SC 00100205	SC 00105822	SC 00099546
SC 00097872	SC 00098899	SC 00100221	SC 00105853	SC 00099545
SC 00098375	SC 00098907	SC 00100230	SC 00105856	SC 00099560
SC 00098376	SC 00098925	SC 00100231	SC 00105857	SC 00099386
SC 00098377	SC 00098926	SC 00100332	SC 00105864	SC 00099405
SC 00098393	SC 00099282	SC 00100439	SC 00105901	SC 00099550
SC 00098394	SC 00099305	SC 00100724	SC 00105902	SC 00095885
SC 00098395	SC 00099366	SC 00100725	SC 00106004	
SC 00098446	SC 00099410	SC 00100744	SC 00106025	