507325979 06/08/2022

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7372902

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	05/24/2022

RECEIVING PARTY DATA

Name:	UCL BUSINESS LTD	
Street Address:	UNIVERSITY COLLEGE LONDON	
City:	LONDON	
State/Country:	UNITED KINGDOM	
Postal Code:	WC1E 6BT	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17272268

CORRESPONDENCE DATA

Fax Number: (615)313-3972

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 615-244-5200

Email: francine.vanaelst@stites.com
Correspondent Name: STITES & HARBISON PLLC
Address Line 1: 401 COMMERCE STREET

Address Line 2: SUITE 800

Address Line 4: NASHVILLE, TENNESSEE 37219

ATTORNEY DOCKET NUMBER:	19020N/7878812
NAME OF SUBMITTER:	FRANCINE M. VANAELST
SIGNATURE:	/Francine VanAelst/
DATE SIGNED:	06/08/2022

Total Attachments: 12

source=Fish 268 Assignment Oxford to UCLB#page1.tif source=Fish 268 Assignment Oxford to UCLB#page2.tif source=Fish 268 Assignment Oxford to UCLB#page3.tif source=Fish 268 Assignment Oxford to UCLB#page4.tif

PATENT 507325979 REEL: 060142 FRAME: 0919

source=Fish 268 Assignment Oxford to UCLB#page5.tif	
source=Fish 268 Assignment Oxford to UCLB#page6.tif	
source=Fish 268 Assignment Oxford to UCLB#page7.tif	
source=Fish 268 Assignment Oxford to UCLB#page8.tif	
source=Fish 268 Assignment Oxford to UCLB#page9.tif	
source=Fish 268 Assignment Oxford to UCLB#page10.tif	
source=Fish 268 Assignment Oxford to UCLB#page11.tif	
source=Fish 268 Assignment Oxford to UCLB#page12.tif	



97-245-02

ASSIGNMENT AGREEMENT

between

UCL Business Ltd

and

The Chancellor Masters and Scholars of the University of Oxford

Dated: 19/05/2022

INDEX

1.	Assignment	1
2.	Warranties, Representations and Undertakings	3
3.	Reservation of Rights	4
4.	Limitations of Liability	4
5.	Notices and Addresses for Service	4
6.	Force Majeure	5
7.	General	5
Schedu	le 1 General Description of the Results	8
Schedu	le 2 Specific Items of Intellectual Property or Other Property	9

THIS AGREEMENT is made the 19th day of May 2022

BETWEEN:

(1) **UCL BUSINESS LTD**, whose registered office is University College London, Gower Street, London, WC1E 6BT ("UCLB");

and

(2) THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD, whose registered office is at University Offices, Wellington Square, Oxford, OX1 2JD, England (the "Institution").

UCLB and the Institution are hereinafter individually referred to as a "Party" and collectively as the "Parties".

WHEREAS:

- A. Edith Yvonne Jones, Yuguang Zhao, Luca Vecchia and Reinis Reinholds Ruza (the "Institutional Inventors") were the full-time employees/students of the Institution, and engaged by the Institution to carry out research when they developed certain inventions/technology, materials and/or know-how relating to small molecule inhibitors of Notum as a treatment for Alzheimer's disease (as described further in Schedule 1, the "Results") jointly with Paul Fish (an academic/employee of University College London) and Jean Paul Vincent (an academic/employee of The Francis Crick Institute Limited).
- B. The Results include the specific items of intellectual property described in Schedule 2 (the "Technology").
- C. The Institutional Inventors have assigned all of his or her right, title and interest in the Technology to the Institution.
- D. UCLB and the Institution have agreed the terms of a revenue sharing agreement to be entered into by UCLB and the Institution on the same date as this Agreement and relating to the exploitation of the Technology (the "Revenue Sharing Agreement").
- E. The Institution now wishes to assign to UCLB all of its right, title and interest in the Technology, and UCLB wishes to take an assignment of such rights, title and interest in the Technology, subject to and in accordance with the provisions of this Agreement.

NOW IT IS AGREED as follows:

1. ASSIGNMENT

1.1 In consideration of UCLB executing the Revenue Sharing Agreement and the sum of £1 (one pound sterling) now paid by UCLB to the Institution (receipt and sufficiency of which is hereby

acknowledged by the Institution) the Institution hereby assigns and transfers to UCLB absolutely all of its right, title and interest in and to the Technology, including:

- 1.1.1 in respect of each and any invention disclosed or comprised within the Technology, the right to file patent applications for such invention in or in respect of any country or territory in the world;
- 1.1.2 in respect of any and each patent application comprised within the Technology and any patent applications filed for inventions disclosed or comprised within the Technology (the "Patent Applications"):
 - (i) the right to claim priority from, and to prosecute and obtain grant of patent on, such Patent Application; and
 - (ii) the right to file divisional applications based thereon and to prosecute and obtain grant of patent on each and any such divisional application;
 - (iii) the right to extend to or register in, or in respect of, any country or territory in the world each and any of the Patent Applications, and any patents granted on any such Patent Applications or any divisionals thereof;
 - (iv) the right to extend the term of any patents granted on any Patent Applications or any divisionals thereof;
 - (v) the absolute entitlement to any patents granted pursuant to any of the Patent Applications or any divisionals thereof; and
 - (vi) the right to elect to reject or submit to the competence of the Unitary Patent Court in respect of any patent granted pursuant to any Patent Application pursuant to Article 83(3) of the Agreement on a Unified Patent Court (2013/C 175/01) or to validate any such patent as a patent that has unitary effect by virtue of Regulation (EU) No 1257/2012;
- 1.1.3 all rights to bring or defend any claims, actions or proceedings (and to retain any damages recovered), and/or to appeal any award or judgements issued, in respect of any infringement or challenge to validity or entitlement, or any other cause of action arising from ownership, of the Patent Applications or any patents granted pursuant to such Patent Applications or any divisionals thereof, whether occurring before on or after the date of this Agreement.
- 1.2 The Institution shall provide, and ensure that the Institutional Inventors provide, to UCLB (promptly on UCLB's request) all information and documentation and give such assistance (including executing and delivering documents) as UCLB may require at the expense of UCLB for the purpose of giving full effect to this Agreement, including:

- 1.2.1 to secure the vesting in UCLB of all rights in the Technology;
- 1.2.2 to uphold UCLB's rights in the Technology; and
- 1.2.3 to bring, make, oppose or defend any claims, actions or challenge to the entitlement, validity or ownership of, and to resolve any questions concerning, the Technology.

2. WARRANTIES, REPRESENTATIONS AND UNDERTAKINGS

- 2.1 The Institution hereby warrants and represents to UCLB that:
 - 2.1.1 to the best of the Institution's knowledge, having made due enquiry, prior to the assignment in Clause 1, it is the sole legal and beneficial owner of, and owns all the rights and interests in, the Technology developed by the Institutional Inventors and is entitled to assign all right, title and interest in and to the Technology to UCLB pursuant to this Agreement;
 - 2.1.2 the Institution and the Institutional Inventors have not by any act or omission jeopardised the registration or enforceability or application for registration of any registerable intellectual property comprised within the Technology.
 - 2.1.3 so far as it is aware (having made appropriate enquiries of the Institutional Inventors but not of any third parties or conducted any freedom to operate searches), use and exploitation of the Technology will not infringe the intellectual property rights of any third party;
 - 2.1.4 so far as the Institution is aware (having made appropriate enquiries of the Institutional Inventors but not of any third parties), the Technology is not subject to any claims, proceedings, challenges or litigation (whether actual, pending or threatened) relating to ownership or validity and is not subject to any third party rights or encumbrances except for revenue sharing obligations to the Institution funder, Cancer Research UK;
 - 2.1.5 to the best of Institution's knowledge (having made due enquiry), the Institution has not granted any options or licences to, or entered into any agreement or other arrangements with, any third party in relation to the Technology; or created any encumbrances on or in respect of the Technology, except for the encumbrance noted in Clause 2.1.4 above which would in any manner be inconsistent with the provisions of this Agreement.
- 2.2 The Institution represents and confirms to UCLB that it has disclosed to UCLB in writing the names of all persons of whom it is aware (having made its normal enquiries of the Institutional Inventors) who might have rights in the Technology, including any other persons who were involved in developing the Technology, and any organisations that funded such development of the Technology.

3. **RESERVATION OF RIGHTS**

3.1 The Institution and the Institutional Inventors, shall have the perpetual, non-exclusive, irrevocable, worldwide, royalty-free right to use the Technology for the Institution's own non-commercially funded research, publication and teaching. This grant includes the right for the Institution to license the Technology to any of its collaborators in connection with and solely for the purposes of the Institution's academic and research purposes; but it does not include the right to grant any licence to commercially exploit the Technology.

4. LIMITATIONS OF LIABILITY

- 4.1 To the extent that either Party has any liability in contract, tort, or otherwise under or in connection with this Agreement or the subject matter hereof, including any liability for breach of warranty, its liability shall be limited in accordance with the following provisions of this Clause 4.
- 4.2 UCLB undertakes to make no claim in connection with this agreement or its subject matter against any employee, student, agent or appointee of the Institution (apart from claims based on fraud or breach of this Agreement). This undertaking is intended to give protection to individuals: it does not prejudice any right which UCLB might have to claim against the Institution. The benefit conferred by this sub-clause is intended to be enforceable by the persons referred to in it.
- 4.3 The aggregate liability of either Party shall be limited to one hundred thousand pounds sterling (£100,000).
- In no circumstances shall either Party be liable for any loss, damage, costs or expenses of any nature that is (a) of an indirect, special or consequential nature or (b) any loss of profits (whether direct or indirect), revenue, business opportunity or goodwill, which arises directly or indirectly from that Party's breach or non-performance of this Agreement, or negligence in the performance of this Agreement or from any liability arising in any other way out of the subject matter of this Agreement even if the Party bringing the claim has advised the other Party of the possibility of those losses arising, or if such losses were within the contemplation of the Parties.
- 4.5 Nothing in this Agreement excludes either Party's liability to the extent that it may not be so excluded under applicable law, including any such liability for death or personal injury caused by that Party's negligence, or liability for fraud or fraudulent misrepresentation.

5. NOTICES AND ADDRESSES FOR SERVICE

5.1 Any notice to be given under this Agreement shall be in English, in writing and shall be delivered by first class recorded delivery mail (if sent to an inland address) or by international courier (if

sent to an address outside of the United Kingdom), or by email (confirmed by first class recorded delivery mail or international courier, as appropriate) to the address of the relevant Party set out at the head of this Agreement or to the relevant email address set out below, or such other address or email address as that Party may from time to time notify to the other Party in accordance with this Clause 5.1.

The email addresses/addresses of the Parties are as follows:

UCLB - legal@uclb.com

The Chancellor Masters and Scholars of the University of Oxford:

The Director of Research Services - Oxford Ref R70488

University Offices

Wellington Square

Oxford OX1 2JD, England

Email: iprm@admin.ox,ac,uk

Notices sent as above shall be deemed to have been received one (1) working day after the day of posting in the case of delivery inland first class recorded delivery mail, or three (3) working days after the date of collection by the international courier, or in the case of email notifications, on the date the confirmation copy was deemed to have been received.

6. FORCE MAJEURE

Any delays in or failure of performance by either Party under this Agreement will not be considered a breach of this Agreement if and to the extent that such delay or failure is caused by occurrences beyond the reasonable control of that Party including acts of God; acts, regulations and laws of any government; strikes or other concerted acts of workers; fire; floods; explosions; riots; wars; rebellion; and sabotage; and any time for performance hereunder will be extended by the actual time of delay caused by any such occurrence.

7. **GENERAL**

7.1 Amendment.

This Agreement may only be amended in writing signed by duly authorised representatives of UCLB and the Institution.

7.2 Assignment.

Neither party shall assign, mortgage, charge or otherwise transfer or deal with any rights or obligations under this Agreement without the prior written consent of the other party.

7.3 Waiver.

Any waiver given under or in relation to this Agreement shall be in writing and signed by or on behalf of the relevant party. No failure or delay on the part of any party to exercise any right or

remedy under this Agreement shall be construed or operate as a waiver thereof, nor shall any single or partial exercise of any right or remedy preclude the further exercise of such right or remedy.

7.4 Invalid Clauses.

If any provision or part of this Agreement is held to be invalid, amendments to this Agreement may be made by the addition or deletion of wording as appropriate to remove the invalid part or provision but otherwise retain the provision and the other provisions of this Agreement to the maximum extent permissible under applicable law.

7.5 No Agency or Partnership.

Neither Party shall act or describe itself as the agent of the other Party, nor shall any Party make or represent that it has authority to make any commitments on the other Party's behalf. Nothing in this Agreement shall be deemed to constitute or evidence any partnership or joint venture between the Parties.

7.6 Interpretation.

In this Agreement:

- 7.6.1 the headings are used for convenience only and shall not affect its interpretation;
- 7.6.2 references to persons shall include incorporated and unincorporated persons; references to the singular include the plural and vice versa; and references to the masculine include the feminine;
- 7.6.3 references to Clauses and Schedules mean clauses of, and schedules to, this Agreement;
- 7.6.4 where the word "including" is used it shall be understood as meaning "including without limitation";
- 7.6.5 any reference to any English law term for any action, remedy, method or judicial proceeding, legal document, legal status, court, official or any legal concept or thing shall in respect of any jurisdiction other than England be deemed to include what most nearly approximates in that jurisdiction to the English law term; and
- 7.6.6 the Institution will use all reasonable endeavours to ensure that it complies with the performance of its obligations in a timely manner.

7.7 Entire Agreement.

The Parties acknowledge that they are not relying on any representation, agreement, term or condition which is not set out in this Agreement. This Agreement, including its Schedules, sets

out the entire agreement between the parties relating to its subject matter and supersedes all prior oral or written agreements, arrangements or understandings between them relating to such subject matter. Nothing in this Agreement will, however, operate to limit or exclude any liability for fraudulent misrepresentations.

7.8 Third parties.

This Agreement does not create any right enforceable by any person who is not a party to it ("Third Party") under the Contracts (Rights of Third Parties) Act 1999, but this Clause does not affect any right or remedy of a Third Party which exists or is available apart from that Act.

7.9 Announcements.

Neither Party shall make any press or other public announcement concerning any aspect of this Agreement without the prior, express written consent of the other Party.

7.10 Law and Jurisdiction.

The validity, construction and performance of this Agreement, and any contractual and non-contractual claims arising hereunder, shall be governed by English law and shall be subject to the exclusive jurisdiction of the English courts to which the Parties hereby submit.

REST OF PAGE LEFT INTENTIONALLY BLANK

SCHEDULE 1 GENERAL DESCRIPTION OF THE RESULTS

97-245- Small Molecule Inhibitors of Notum as a Treatment for Alzheimer's Disease

The dentate gyrus of the hippocampus is one of two main sites of neurogenesis in the adult mammalian brain, including that of humans. Adult-born neurons in the dentate gyrus contribute to spatial learning and memory. Neuronal production in the hippocampus declines with age in both rodents and humans, and this age-related decrease has been associated with the reduced performance of older rodents in cognitive and affective behavioural assays. Crucially for this proposal, reduced hippocampal neurogenesis is also seen in aging humans, likely contributing to cognitive decline. Stem cells and amplifying progenitors are located in the subgranular zone of the dentate gyrus where they are exposed to several signalling proteins, including Wnts that stimulate their self-renewal and proliferation. Indeed inhibition of Wnt signalling reduces neurogenesis in the developing hippocampus and, conversely, tissue-specific removal of Dkk, a Wnt antagonist, leads to enhanced self-renewal and increased generation of immature neurons in both young and old animals. Importantly, such Wnt-induced neurogenesis was associated with improved cognitive functions. These results highlight an important role for Wnt signalling in adult neurogenesis and suggest that boosting Wnt signalling could help alleviate the symptoms of age-related neurogenesis decline and neurodegeneration in humans.

Notum, a protein that normally dampens Wnt signalling is extracellular enzyme and recent work uncovering its mode of action suggests that it is amenable to inhibition by small molecules. Wnt proteins were previously shown to bear a palmitoleate moiety that is essential for signalling activity and Notum removes this palmitoleate group. Notum acts as a feedback inhibitor of this pathway by deacylating Wnt proteins in the extracellular space.

E.Y.Jones and Y.Zhao (University of Oxford) performed a xray-crystallographic fragment screen and identified a number of hits, which were shown to bind in the active site of Notum. The chemical structures and their Notum bound structures of these 60 hits were shared with UCL. UCL resupplied the compounds through purchase and/or custom synthesis and assessed their Notum inhibitory activity (IC₅₀) in a biochemical assay. One of these hits (Fragment #77) was selected by UCL for optimisation and, through an interactive cycle of medicinal chemistry design-synthesis-screen at UCL supported by further structure determinations by Oxford, produced the genus of compounds described in this patent application including the lead compound ARUK3001185.

SCHEDULE 2 SPECIFIC ITEMS OF INTELLECTUAL PROPERTY OR OTHER PROPERTY

The following patent applications and patents:

Title	Application Number	Country	Filing Date
Wnt agonists in treatment of Alzheimer's Disease	1814151.5	UK	31/08/2018
Wnt agonists in treatment of Alzheimer's Disease	PCT/EP2019/073177	PCT	30/07/2019

WIPO 2020043866. Publication date 5th March 2020.

Any patent applications, continuations, continuations-in-part (to the extent of any originally filed and claimed inventions in it), extensions, reissues, divisions, and any patents, supplementary protection certifications and similar rights that are based on or derive priority from the above patent applications and patents.

RECORDED: 06/08/2022

This Agreement has been executed and takes effect on the date stated at the beginning of it.

For and on behalf of UCL Business Ltd	For and on behalf of The Chancellor Masters and Scholars of the University of Oxford		
Dr Anne Lane 7F7B16FD62E4414	DocuSigned by:		
Signed	Signed		
Dr Anne Lane	Lucy Booth		
Print name	Print name		
CEO	Head of Intellectual Propert		
Title	Title		
24 May 2022	24 May 2022		
Date	 Date		