## 506366970 11/21/2020

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6413726

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
IMKE ELISABETH MULDER	02/12/2020
ANNA ETTORRE	03/25/2020
SUAAD AHMED	02/12/2020
PARTHENA FOTIADOU	02/12/2020
SAMANTHA YUILLE	02/12/2020
HELENE SAVIGNAC	05/02/2020

### **RECEIVING PARTY DATA**

Name:	4D PHARMA RESEARCH LIMITED
Street Address:	LIFE SCIENCES INNOVATION BUILDING
Internal Address:	CORNHILL ROAD
City:	ABERDEEN
State/Country:	UNITED KINGDOM
Postal Code:	AB25 2ZS

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16713969

### **CORRESPONDENCE DATA**

**Fax Number:** (650)493-6811

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: 6504939300
Email: rrsmith@wsgr.com

Correspondent Name: WILSON SONSINI GOODRICH & ROSATI

Address Line 1: 650 PAGE MILL ROAD

Address Line 4: PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	56708-728.301
NAME OF SUBMITTER:	MOONKYOUNG UM
SIGNATURE:	/Moonkyoung Um/
DATE SIGNED:	11/21/2020

PATENT REEL: 054438 FRAME: 0628

506366970

### **Total Attachments: 6**

source=56708-728.301 - Executed Assignment (all inventors)#page1.tif

source=56708-728.301 - Executed Assignment (all inventors)#page2.tif

source=56708-728.301 - Executed Assignment (all inventors)#page3.tif

source=56708-728.301 - Executed Assignment (all inventors)#page4.tif

source=56708-728.301 - Executed Assignment (all inventors)#page5.tif

source=56708-728.301 - Executed Assignment (all inventors)#page6.tif

PATENT REEL: 054438 FRAME: 0629

PATENT ASSIGNMENT	Docket Number 56708-728,301
WHEREAS, the undersigned:	
Imke Elisabeth MULDER c/o 4D Pharma Research Limited Life Sciences Innovation Building, Combill Road Aberdeen, GB AB25 228	Anna ETTORRE     o/o AD Pharma Research Limited     Life Sciences Innovation Building, Combill Road     Aberdeen, GB AB25 2ZS
3. Suand AHMED c/o 4D Pharma Research Limited Life Sciences Innovation Building, Combili Road Aberdeen, GB AB25 22S	4. Parthena POTTADOU  c/o 4D Pharma Research Limited  Life Sciences Innovation Building, Combill Road  Aberdeen, GB AB25 22.8
5. Samantha YUILLE 27 Auchmill Terrace, Bucksburn Aberdeen, GB AB21 9 LF	Heiene SAVIGNAC     c/o 4D Pharma Research Limited     Life Sciences Innovation Building, Cornhill Road     Aberdeen, GB AB25 2ZS
(hereinafter "Inventor(s)"), have invented certain new and useful improvements in	
COMPOSITIONS COMPRISING	BACTERIAL STRAINS
☐ for which a United States patent application is executed on even date  ☐ for which application serial number 16/713,969 was filed on Decemb ☐ for which a PCT application serial number was filed on in the ☐ for which application serial number was filed on in the ☐ for which an application was filed upon which a United States Patent ☐ for which a PCT application will be filed on or before [insert 12-mon which will claim priority to [].	ber 13, 2019 in the United States Patent and Trademark Office; _in the [ ] Receiving Office of the Patent Cooperation Treaty; Patent Office; tissued on as U.S. Parent Mo or
(hereinafter, "Application(s)"). The term "Application(s)" also includes all patent at application(s).	pplications that share or claim priority to or from the above
WHEREAS, 4D Pharma Research Limited, a corporation incorporated under the la Sciences Innovation Building, Combill Road, Aberdeen, GB AB25 2ZS, (hereinafte in and to said Application(s), and the inventions disclosed therein, and in and to all discovered, whether jointly or severally, by said Inventor(s) (hereinafter collectively certificates and other forms of protection thereon granted in the United States, foreign treaty, including those filled under the Paris Convention for the Protection of Indu "Patent(s)").	er "Assignee"), is desirous of acquiring the entire rigit, title and interest embodiments of the inventions, heretofore conceived, made or y referred to as "inventions"), and in and to any and all paterits, inventor's an equinities or under any international convention are reconstituted.
NOW, THEREFORE, in consideration of good and valuable considerations aid Assignee:	m acknowledged by said inventor(s) to have been received in full from
<ol> <li>Said Inventor(s) do hereby sell, assign, transfer and convey unt Inventions; (b) in and to said Applications, including the right to claim priority to an is a divisional, substitution, continuation, or continuation-in-part of any of said Appl or reissuing from any of the foregoing; (e) in and to each and every reissue, reexami- and to each and every patent and application filed outside the United States and com- present and future infringement of the Patent(s), including all rights to sue for and to lost profits, royalties, and damages of whatever nature recoverable from an infringen</li> </ol>	lication(s); (d) in and to said Patent(s) and each and every patent issuing ination, renewal or extension of any kind of any of the foregoing, (i) in responding to any of the foregoing, and (g) in and to all claims for past, or receive and recover for Assigned's compare all rest retains of past, or receive and recover for Assigned's compare all rest.
2. Said Inventor(s) hereby covenant and agree to cooperate with a right, title and interest herein conveyed in the United States, foreign countries, or use cooperation by said Inventor(s) shall include prompt production of pertinent facts an specifications, declarations or other papers, and other assistance all to the extent deer Assignee the right, title and interest herein conveyed; (b) for prosecuting any applicativisional, continuing or additional applications covering said Inventions; (d) for filling (e) for interference or other priority proceedings involving said Inventions; and (f) for therefor and any Patent(s) granted thereon, including without limitation reissues and priority contests, public use proceedings, infringement actions and court actions; proproviding such cooperation shall be paid for by said Assignee.	ad documents, giving of testimony, execution of petitions, oaths, and necessary or desirable by said Assignce (a) for perfecting in said ations covering said Inventions; (c) for filing and prosecuting substitute, ing and prosecuting applications for reissuance of any said Patent(s); or legal proceedings involving said Inventions and any applications (reesaminations covering in proceedings in the said Inventions are called to proceedings in the said inventions are called to proceedings.
<ol> <li>The terms and covenants of this assignment shall inure to the be representatives, and shall be binding upon said inventor(s), their respective beirs, leg</li> </ol>	enefit of said Assigner, its successors, assigns and other legal gal representatives and assigns.
<ol> <li>Said Inventor(s) hereby warrant, represent and covenant that sai contract, or understanding in conflict herewith.</li> </ol>	id Inventor(s) have not entered and will not enter into any assignment,
<ol> <li>Said inventor(s) hereby request that any Patent(s) issuing in the agreement, protocol, or treaty, be issued in the name of the Assignee, or its successor representatives and assigns.</li> </ol>	t United States, foreign countries, or under any international convention, as and assigns, for the sole use of said Assignee, its successors, legal

Page 1 of 2

**PATENT** REEL: 054438 FRAME: 0630

PATENT ASSIGNMENT		Docket Number 56708-728.301
the greatest extent permitted by law. This instrument may be executed in constitute one and the same agreement.	counterparts, each of which is	s deemed an original, but all of which together
IN WITNESS WHEREOF, said inventor(s) have executed and	delivered this instrument to s	aid Assignee as of the dates written below:
Date: 12 Feb 2020 Thilds Imke Elisabeth MULDER	Date:	
Date: 12P02c2c Suad AHMED	Date: <u>12022</u> 0	Anna ETTORRE PEtadu Parthens FOTIADOU
Date: 12 Fe DZ 20 Strill C Samartha VOILLE	(12 FESKUA RY 2020) Date:	Relene SAVIGNAC
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Pharma Research Li		
Date:    FESCURE   1020 Signature:   Name ALCANS CE STEVES STILL:   NECES STEVES STILL:   NECES STEVES STEVES STATES   NECES STEVES STATES   NECES STEVES STATES	SSA STATE DEFICE	

#### PATENT ASSIGNMENT

Docket Number | \$6708-728.301

WHEREAS, the undersigned:

- Imke Elisabeth MULDER
  c/o 4D Pharma Research Limited
  Life Sciences Innovation Building, Cornhill Road
  Abordeen, GB AB25 2Z8
- Snaad AHMED
   c/o 4D Pharma Research Limited
   Life Sciences Innovation Building, Combitt Road
   Aberdeen, GB AB25 2ZS
- Simmiha YUILLE 27 Auchmill Terrace, Bucksburn Aberdeen, GB AB21 9 LF

- Anna ETTORRE
  c/o 4D Phurma Research Limited
  Life Sciences Innovation Building, Combill Road.
  Aberdoon, GB AB25 2ZS
- Parthena FOTTADOU
   c/o 4D Pharma Research Limited
   Life Sciences Impovation Building, Cornhill Road
   Aberdeen, GB AB25 2Z8
- Helene SAVIGNAC c/o 4D Pharma Research Limited Life Sciences Innovation Building, Combill Road Aberdoon, GB AB25 2ZS

(hereinafter "Inventor(s)"), have invented certain new and useful improvements in

#### COMPOSITIONS COMPRISING BACTERIAL STRAINS

for which a United States patent application is executed on even date herewith:	
for which application serial muniber 16/713,969 was filed on December 13, 2019 in the United States Patent and Trademark Offic	a.
for which a PCT application serial number was filed on in the [ ] Receiving Office of the Patent Cooperation Treaty	
for which application serial numberwas filed on in the Patent Office;	,
for which an application was filed upon which a United States Patent issued on, as U.S. Patent No; or	
for which a PCT application will be filed on or before finsen 12-month date in the [ ] Receiving Office of the Patent Cooperation	Tressu
which will claim priority to [ ]	, caract
than is the "And but or but of the face "Aveliant of the plant of the	

(hereinafter, "Application(s)"). The term "Application(s)" also includes all patent applications that share or claim priority to or from the above application(s).

WHEREAS, 4D Pharma Research Limited, a corporation incorporated under the laws of the country of Great Britain, having a place of business at Life Sciences Innovation Building, Combill Road, Aberdeen, GB AB25 2ZS, (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said Application(s), and the inventions disclosed therein, and in and to all embodiments of the inventions, heretofore conceived, made or discovered, whether jointly or severally, by said inventor(s) (hereinafter collectively referred to as "Inventions"), and in and to any and all patents, inventor's certificates and other forms of protection thereon granted in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, including those filed under the Paris Convention for the Protection of Industrial Property, The Patent Cooperation Treaty or otherwise (bereinafter "Patent(s)").

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignce:

- i. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (s) in and to said Inventions; (b) in and to said Applications, including the right to claim priority to and from said Application(s); (c) in and to each and every application that is a divisional, substitution, continuation, or continuation-in-part of any of said Application(s); (d) in and to said Patent(s) and each and every patent issuing or reissuing from any of the foregoing; (e) in and to each and every reissue, reexamination, renewal or extension of any kind of any of the foregoing; (f) in and to each and every patent and application filed outside the United States and corresponding to any of the foregoing; and (g) in and to all claims for past, present and future infringement of the Patent(s), including all rights to sue for and to receive and recover for Assignee's own use all past, present, and future lost profits, royalties, and damages of whatever nature recoverable from an infringement of the Patent(s).
- Said Inventor(s) hereby coverant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of pertitions, oaths, specifications, declarations or other papers, and other assistance all to the extent decreed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any applications covering said Inventions; (c) for filing and prosecuting and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said Inventions; and (f) for legal proceedings involving said Inventions and any applications therefore and any Patent(s) granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that reasonable expenses incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this assignment shall inner to the benefit of said Assignce, its successors, assigns and other legal representatives, and shall be binding upon said Inventor(s), their respective heirs, legal representatives and assigns.
- 4. Said Inventor(s) hereby warrant, represent and covenant that said Inventor(s) have not entered and will not enter into any assignment, contract, or understanding in conflict berewith.
- 5. Said Inventor(s) hereby request that any Patent(s) issuing in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee, or its successors and assigns, for the sole use of said Assignee, its successors, legal representatives and assigns.
- 6. This instrument will be interpreted and construed in accordance with the laws of the country of Great Britain, without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to

56708-728.301 - Assignment for execution DOC

Page 1 of 2

Patent assignment		Docket Number 56708-728.301
the greatest extent permitted by law. This instrument may be executed in counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.		
IN WITNESS WHEREOF, said inventor(s) have executed and delivered this instrument to said Assignee as of the dates written below:		
Date:	Date: 25/03/2020	AMMETTORRE
Date: Sunad AFIMED	Date:	Partison POTIADOU
Date:Sumentha YUILLE	Date:	Helene SAVIONAC
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Phorms	s Research Limited	
Deste: 1 April 2020 Signature: Name: Alexander Steven Title: Director, Chief Sc		

PATENT ASSIGNMENT		Docket Number 56708-728.301
WHEREAS, the undersigned:	2. Anna ETTORRI	7
Imke Elisabeth MULDER     c/o 4D Pharma Research Limited     Life Sciences Innovation Building, Cornhill Road     Aberdeen, GB AB25 2ZS	c/o 4D Pharma F	Research Limited novation Building, Cornhill Road
3. Suaad AHMED c/o 4D Pharma Research Limited Life Sciences Innovation Building, Cornhill Road Aberdeen, GB AB25 2ZS		Research Limited novation Building, Cornhill Road
5. Samantha YUILLE 27 Auchmill Terrace, Bucksburn Aberdeen, GB AB21 9 LF		Research Limited nees Innovation Building, Cornhill Road
(hereinafter "Inventor(s)"), have invented certain new and useful improvements in		
COMPOSITIONS COMPRISING		AINS
☐ for which a United States patent application is executed on even date ☐ for which application serial number 16/713,969 was filed on Decemb ☐ for which a PCT application serial number was filed on in the ☐ for which application serial number was filed on in the ☐ for which an application was filed upon which a United States Patent ☐ for which a PCT application will be filed on or before [insert 12-mon which will claim priority to [].	er 13, 2019 in the Ur in the [ ] Receiving Patent Office; issued on as	Office of the Patent Cooperation Treaty; U.S. Patent No. ; or
(hereinafter, "Application(s)"). The term "Application(s)" also includes all patent apapplication(s).	pplications that share	or claim priority to or from the above
WHEREAS, 4D Pharma Research Limited, a corporation incorporated under the la Sciences Innovation Building, Cornhill Road, Aberdeen, GB AB25 2ZS, (hereinafte in and to said Application(s), and the inventions disclosed therein, and in and to all discovered, whether jointly or severally, by said Inventor(s) (hereinafter collectively certificates and other forms of protection thereon granted in the United States, foreign treaty, including those filed under the Paris Convention for the Protection of Indu "Patent(s)").	er "Assignee"), is des embodiments of the i referred to as "Inver gn countries, or under	irous of acquiring the entire right, title and interest nventions, heretofore conceived, made or ntions"), and in and to any and all patents, inventor's r any international convention, agreement, protocol,
NOW, THEREFORE, in consideration of good and valuable consideratio said Assignee;	n acknowledged by s	aid Inventor(s) to have been received in full from
I. Said Inventor(s) do hereby sell, assign, transfer and convey un Inventions; (b) in and to said Applications, including the right to claim priority to ar is a divisional, substitution, continuation, or continuation-in-part of any of said App or reissuing from any of the foregoing; (c) in and to each and every reissue, reexami and to each and every patent and application filed outside the United States and com- present and future infringement of the Patent(s), including all rights to sue for and to lost profits, royalties, and damages of whatever nature recoverable from an infringen	nd from said Applicat lication(s); (d) in and ination, renewal or ex responding to any of o receive and recover	tion(s); (c) in and to each and every application that to said Patent(s) and each and every patent issuing stension of any kind of any of the foregoing; (f) in the foregoing; and (g) in and to all claims for past, for Assignee's own use all past, present, and future
2. Said Inventor(s) hereby covenant and agree to cooperate with a right, title and interest herein conveyed in the United States, foreign countries, or un cooperation by said Inventor(s) shall include prompt production of pertinent facts as specifications, declarations or other papers, and other assistance all to the extent dee Assignee the right, title and interest herein conveyed; (b) for prosecuting any applic divisional, continuing or additional applications covering said Inventions; (d) for fill (e) for interference or other priority proceedings involving said Inventions; and (f) of therefor and any Patent(s) granted thereon, including without limitation reissues and priority contests, public use proceedings, infringement actions and court actions; proproviding such cooperation shall be paid for by said Assignee.	nder any international and documents, giving the documents, giving the decessary or detailed ations covering saiding and prosecuting after legal proceedings of reexaminations, opposited, however, that	convention, agreement, protocol, or treaty. Such of testimony, execution of petitions, oaths, sirable by said Assignee (a) for perfecting in said Inventions; (c) for filing and prosecuting substitute, applications for reissuance of any said Patent(s); involving said Inventions and any applications proceedings, cancellation proceedings, treasonable expenses incurred by said Inventor(s) in
<ol> <li>The terms and covenants of this assignment shall inure to the bear representatives, and shall be binding upon said Inventor(s), their respective heirs, leading to the control of the control of this assignment shall inure to the bear representatives.</li> </ol>		

56708-728.301 - Assignment for execution.DOC

contract, or understanding in conflict herewith.

representatives and assigns.

1. S. J. J.

of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to Page 1 of 2

5. Said Inventor(s) hereby request that any Patent(s) issuing in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee, or its successors and assigns, for the sole use of said Assignee, its successors, legal

Said Inventor(s) hereby warrant, represent and covenant that said Inventor(s) have not entered and will not enter into any assignment,

This instrument will be interpreted and construed in accordance with the laws of the country of Great Britain, without regard to conflict

which together
winch together
itten below;
noak
7

**RECORDED: 11/21/2020**