# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4299974

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SUAAD AHMED	02/02/2017
AMY BETH HOLT	02/02/2017
IMKE ELISABETH MULDER	02/02/2017
SEANIN MARIE MCCLUSKEY	02/10/2017

# **RECEIVING PARTY DATA**

Name:	4D PHARMA RESEARCH LIMITED
Street Address:	LIFE SCIENCES INNOVATION BUILDING
Internal Address:	CORNHILL ROAD
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304-1050

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15357936

## **CORRESPONDENCE DATA**

(650)493-6811 Fax Number:

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**Correspondent Name:** WILSON SONSINI GOODRICH & ROSATI

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ATTORNEY DOCKET NUMBER:	45499-710.201
NAME OF SUBMITTER:	DAVID MATA
SIGNATURE:	/David Mata/
DATE SIGNED:	03/02/2017

**Total Attachments: 10** 

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**PATENT** REEL: 041443 FRAME: 0617

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PATENT REEL: 041443 FRAME: 0618

PATENT ASSIGNMENT		Docket Number 49455-710.201
WHEREAS, the undersigned:		
Inke Elisabeth MULDER     Aberdeen, United Kingdom     Aberdeen, United Kingdom     Aberdeen, United Kingdom	<ol> <li>Seanin Marie MCCLUS Aberdeen, United Kingo</li> </ol>	
5. Suaad AHMED Aberdeen, United Kingdom		
(hereinafter "Inventor(s))," have invented certain new and useful improvement	ents in	
COMPOSITIONS COMPR	ISING BACTERIAL STRA	INS
for which a United States patent application is executed on even date herewith;  for which application serial number 15/357,936 was filed on November 21, 2016 in the United States Patent and Trademark Office; for which application serial number was filed on patent of the Patent Cooperation Treaty; for which application serial number was filed on patent Office; and/or for which an application was filed upon which a United States Patent issued on substitution, as U.S. Patent No.  (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 company of Scotland, having a place of business at Life Sciences Innovation Building, Cornhill Road,  Aberdeen AB25 2ZS United Kingdon, (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 (hereinafter "Patent(s)").		
NOW, THEREFORE, in consideration of good and valuable constaid Assignee:	ideration acknowledged by sa	id Inventor(s) to have been received in full from
Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) 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).		
2. Said Inventor(s) hereby covenant 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 petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any plications covering said Inventions; (c) for filing 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 therefor 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 inure to the benefit of said Assignee, 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 herewith.		
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 State of California, 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 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 de	nvered this instrument to said	Assignee as of the dates written below:
Date: Imke Elisabeth MULDER	Date:	Amy Beth HOLT
Date: Seanin Marie MCCLUSKEY	Date:	Grainne Clare LENNON

PATENT ASSIGNMENT	Docket Number 49455-710.201
Date: 2/2/2017 Suaad AHMED	
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Pharma Research Limit	ed
Date: Signature: Name: Alex Stevenson Title: Director, Chief Scientific Office	г

PATENT ASSIGNMENT	Docket Number 49455-710.201	
WHEREAS, the undersigned:		
Imke Elisabeth MULDER     Aberdeen, United Kingdom     Aberdeen, United Kingdom	Seanin Marie MCCLUSKEY     Aberdeen, United Kingdom     Aberdeen, United Kingdom	
5. Suaad AHMED Aberdeen, United Kingdom		
(hereinafter "Inventor(s))," have invented certain new and useful improvement	nts in	
COMPOSITIONS COMPR	ISING BACTERIAL STRAINS	
☐ for which a United States patent application is executed on even date herewith; ☐ for which application serial number 15/357,936 was filed on November 21, 2016 in the United States Patent and Trademark Office; ☐ for which application serial number was filed on in the U.S. Receiving Office of the Patent Cooperation Treaty; ☐ for which application serial number was filed on in the Patent Office; and/or ☐ for which an application was filed upon which a United States Patent issued on, as U.S. Patent No (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 company of Scotland, having a place of business at Life Sciences Innovation Building, Cornhill Road, Aberdeen AB25 2ZS United Kingdon, (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 (hereinafter "Patent(s)").		
NOW, THEREFORE, in consideration of good and valuable constaid Assignee:	deration acknowledged by said Inventor(s) to have been received in full from	
1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) 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).		
2. Said Inventor(s) hereby covenant 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 petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed 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 substitute, divisional, continuing or additional applications covering said Inventions; (d) for filing 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 therefor 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 inure to the benefit of said Assignee, 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 herewith.		
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 State of California, 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 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 de	ivered this instrument to said Assignee as of the dates written below:	
Date: Imke Elisabeth MULDER	Date: 2/2/17 Amy Beth HOLT	
Date: Seanin Marie MCCLUSKEY	Date: Grainne Clare LENNON	

PATENT ASSIGNMENT	Docket Number 49455-710.201
Date: Suaad AHMED	
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Pharma Research Lim	ted
Date: Signature: Name: Alex Stevenson Title: Director, Chief Scientific Office	ег

PATENT ASSIGNMENT	Docket Number 49455-710.201	
WHEREAS, the undersigned:		
1. Imke Elisabeth MULDER 2. Amy Beth HOLT 3. Seanin Marie MCCLUSKEY 4. Grainne Clare LENNON Aberdeen, United Kingdom Aberdeen, United Kingdom Aberdeen, United Kingdom		
5. Suaad AHMED Aberdeen, United Kingdom		
(hereinafter "Inventor(s))," have invented certain new and useful improvem	ents in	
COMPOSITIONS COMPR	ISING BACTERIAL STRAINS	
for which a United States patent application is executed on even date herewith;  for which application serial number 15/357.936 was filed on November 21, 2016 in the United States Patent and Trademark Office;  for which application serial number was filed on in the U.S. Receiving Office of the Patent Cooperation Treaty;  for which application serial number was filed on in the Patent Office; and/or  for which an application was filed upon which a United States Patent issued on as U.S. Patent No.  (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 company of Scotland, having a place of business at Life Sciences Innovation Building. Cornhill Road,  Aberdeen AB25 2ZS United Kingdon, (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 (hereinafter "Patent(s)").		
NOW, THEREFORE, in consideration of good and valuable consaid Assignee:	sideration acknowledged by said Inventor(s) to have been received in full from	
1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) 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).		
2. Said Inventor(s) hereby covenant 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 petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed 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 substitute, divisional, continuing or additional applications covering said Inventions; (d) for filing 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 therefor 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 inure to the benefit of said Assignee, 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 herewith.		
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 State of California, 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 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 de	livered this instrument to said Assignee as of the dates written below:	
Date: 02-02-17	Date: Amy Beth HOLT	
Date: Seanin Marie MCCLUSKEY	Date: Grainne Clare LENNON	

PATENT ASSIGNMENT	Docket Number 49455-710.201
Date:Suaad AHMED	
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Pharma Research Lim	ited
Date: Signature: Name: Alex Stevenson Title: Director, Chief Scientific Office	er

PATENT ASSIGNMENT		Docket Number 49455-710.201	
WHEREAS, the undersigned:			
1. Imke Elisabeth MULDER Aberdeen, United Kingdom 2. Amy Beth HOLT Aberdeen, United Kingdom	Seanin Marie MCCLUS     Aberdeen, United Kingd		
5. Suaad AHMED Aberdeen, United Kingdom			
(hereinafter "Inventor(s))," have invented certain new and useful improvement	ents in		
COMPOSITIONS COMPRI	ISING BACTERIAL STRAI	INS	
for which a United States patent application is executed on even date herewith;  for which application serial number 15/357,936 was filed on November 21, 2016 in the United States Patent and Trademark Office; for which application serial number was filed on in the U.S. Receiving Office of the Patent Cooperation Treaty; for which application serial number was filed on in the Patent Office; and/or for which an application was filed upon which a United States Patent issued on as U.S. Patent No. (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 company of Scotland, having a place of business at Life Sciences Innovation Building, Cornhill Road, Aberdeen AB25 2ZS United Kingdon, (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 (hereinafter "Patent(s)").			
NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignee:			
1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) 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).			
2. Said Inventor(s) hereby covenant 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 petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed 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 substitute, divisional, continuing or additional applications covering said Inventions; (d) for filing and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said Inventions and any applications therefor 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 inure to the benefit of said Assignee, 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 herewith.			
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 State of California, 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 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: Imke Elisabeth MULDER	Date:	Amy Beth HOLT	
Date: 10-2-17 Seanin Marie MCCLUSKEY	Date:	Grainne Clare LENNON	

PATENT ASSIGNMENT	Docket Number 49455-710.201
Date: Suaad AHMED	
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Pharma Research Lir	nited
Date: Signature: Name: Alex Stevenson Title: Director, Chief Scientific Offi	сет

PATENT ASSIGNMENT	Docket Number 49455-710.201		
WHEREAS, the undersigned:			
Imke Elisabeth MULDER     Aberdeen, United Kingdom     Aberdeen, United Kingdom	Seanin Marie MCCLUSKEY     Aberdeen, United Kingdom     Aberdeen, United Kingdom		
5. Suaad AHMED Aberdeen, United Kingdom			
(hereinafter "Inventor(s))," have invented certain new and useful improveme	nts in		
COMPOSITIONS COMPRI	SING BACTERIAL STRAINS		
for which a United States patent application is executed on even date herewith;  for which application serial number 15/357,936 was filed on November 21, 2016 in the United States Patent and Trademark Office;  for which application serial number was filed on in the U.S. Receiving Office of the Patent Cooperation Treaty;  for which application serial number was filed on in the Patent Office; and/or  for which an application was filed upon which a United States Patent issued on as U.S. Patent No.  (hereinafter, "Application(s)"). The term "Application(s)" also includes all patent applications that share or claim priority to or from the above application(s).			
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NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor(s) to have been received in full from said Assignee:			
1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) 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).			
2. Said Inventor(s) hereby covenant 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 petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed 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 substitute, divisional, continuing or additional applications covering said Inventions; (d) for filing and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said Inventions and any applications therefor 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.			
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Date:Seanin Marie MCCLUSKEY	Date: Grainne Clare LENNON		

PATENT ASSIGNMENT	Docket Number 49455-710.201
Date:Suaad AHMED	
RECEIVED AND AGREED TO BY ASSIGNEE: 4D Pharma Research Lin	nited
Date: Signature: Alex Stevenson Title: Director, Chief Scientific Off	cer