



Registration of a Charge

Company Name: **4D PHARMA RESEARCH LIMITED**

Company Number: **SC336222**



Received for filing in Electronic Format on the: **11/08/2021**

XAAMVZZ4

Details of Charge

Date of creation: **29/07/2021**

Charge code: **SC33 6222 0003**

Persons entitled: **OXFORD FINANCE LUXEMBOURG S.A R.L. ACTING IN RESPECT OF ITS
COMPARTMENT 4 AS COLLATERAL AGENT**

Brief description:

Contains floating charge(s) .

Contains negative pledge.

Authentication of Form

This form was authorised by: **a person with an interest in the registration of the charge.**

Authentication of Instrument

Certification statement: **I CERTIFY THAT SAVE FOR MATERIAL REDACTED PURSUANT
TO S.859G OF THE COMPANIES ACT 2006 THE ELECTRONIC
COPY INSTRUMENT DELIVERED AS PART OF THIS APPLICATION
FOR REGISTRATION IS A CORRECT COPY OF THE ORIGINAL
INSTRUMENT.**

Certified by: **SHEPHERD AND WEDDERBURN LLP**



CERTIFICATE OF THE REGISTRATION OF A CHARGE

Company number: 336222

Charge code: SC33 6222 0003

The Registrar of Companies for Scotland hereby certifies that a charge dated 29th July 2021 and created by 4D PHARMA RESEARCH LIMITED was delivered pursuant to Chapter A1 Part 25 of the Companies Act 2006 on 11th August 2021 .

Given at Companies House, Edinburgh on 12th August 2021

The above information was communicated by electronic means and authenticated by the Registrar of Companies under section 1115 of the Companies Act 2006



Companies House



THE OFFICIAL SEAL OF THE
REGISTRAR OF COMPANIES



SHEPHERD WEDDERBURN

4D PHARMA RESEARCH LIMITED (as Chorgor)
and
OXFORD FINANCE LUXEMBOURG S.À R.L. acting in
respect of its Compartment 4 (as Collateral Agent)

SCOTTISH SECURITY AGREEMENT
(containing floating charges over Scottish assets & IP)

29 July 2021

CONTENTS

Clause	Page Number
1. Definitions and Interpretation	1
2. Payment of Secured Liabilities	7
3. Grant of Security	7
4. Representations and Warranties	9
5. Undertakings	9
6. People with Significant Control	9
7. Enforcement	9
8. Right of Appropriation	10
9. Appointment of Receiver	10
10. Appointment of Administrator	12
11. Application of Proceeds	12
12. Effectiveness of Security	13
13. Release of Security	15
14. Power of Attorney	15
15. Gross-Up and Payments	16
16. Costs and Expenses	16
17. Indemnity	17
18. Assignment and Transfers	17
19. Set-Off	17
20. Notices	17
21. Calculations and Certificates	18
22. Currency Conversion	18
23. Partial Invalidity	18
24. Remedies and Waivers	18
25. Amendments and Waivers	18
26. Counterparts, Delivery and Effective Date	18
27. Governing Law	18
28. Jurisdiction	19
Schedule	21
Part 1 – INTELLECTUAL PROPERTY Part 1A – Registered Intellectual Property	21
Part 1B – Unregistered Intellectual Property	78
Part 2 – SPECIFIED INVESTMENTS	79
Part 3 – REPRESENTATIONS AND WARRANTIES	79
Part 4 – UNDERTAKINGS	80
Part 4A – General Undertakings	80
Part 4B – Book Debts	81
Part 4C – Property Undertakings	81
Part 4D – Investment Undertakings	83
Part 4E – Equipment Undertakings	84
Part 4F – Intellectual Property Undertakings	84

SCOTTISH SECURITY AGREEMENT

By

- (1) **4D PHARMA RESEARCH LIMITED** a limited company registered in Scotland (company number SC336222) whose registered office is at Life Science Innovation Building, Cornhill Road, Aberdeen, AB25 2ZS (the "**Chargor**"); and
- (2) **OXFORD FINANCE LUXEMBOURG S.À R.L.**, a Luxembourg private limited liability company (société à responsabilité limitée) with registered office at 2, route d'Arlon, L-8008 Strassen, Grand Duchy of Luxembourg and registered with the Luxembourg Business Register under number B243395, acting in respect of its compartment 4, as security agent, collateral agent and trustee for the Secured Parties in terms of the English Security Trust (the "**Collateral Agent**").

BACKGROUND

- A. Pursuant to a Loan Agreement (as defined below) the Lender (as defined in the Loan Agreement, as defined below) has agreed to provide the Borrower (as defined below) with loan facilities on the terms of the Loan Agreement (as defined below).
- B. The provision of this Deed is a condition precedent to the obligations of the Lender under the Loan Agreement (as defined below).
- C. This Deed is given by the Chargor as continuing security for the Secured Liabilities (as defined below).

THIS DEED WITNESSES that:

1. Definitions and Interpretation

1.1 Definitions

In this Deed:

"Account"	has the meaning given to that term in the English Security Agreement.
"Administrator"	means any administrator appointed to manage the affairs, business and property of the Chargor under this Deed.
"Book Debts"	means all present and future book and other debts, revenue and monetary claims (and the proceeds of any debt, revenue or claim) now or in the future due, owing or payable to the Chargor and the benefit of all security, guarantees indemnities and other rights of any kind enjoyed or held by the Chargor in relation to any of them together with all Related Rights. In relation to the Chargor, "its Book Debts" means all Book Debts in which it has any rights.
"Borrower"	has the meaning provided for such term in the Loan Agreement.
"Charged Property"	means all the assets, property and undertaking for the time being subject to the security created by this Deed. Any reference to the Charged Property includes all or any part of it.
"Company"	means any company that is a subsidiary of the Chargor whose share capital includes or comprises Investments or which has issued any Investments.
"Default Rate"	has the meaning provided for such term in the Loan Agreement.
"Delegate"	means any delegate, agent, attorney or co-trustee appointed by the Collateral Agent.
"English Security Agreement"	means the debenture governed by English law dated on or around the date of delivery of this Deed between, <i>inter alios</i> , the Chargor and the Collateral Agent.

"English Security Trust"	means the trust referred to in clause 14 of the English Security Agreement.
"Environmental Authorisations"	means any Relevant Authority having judicial, regulatory or administrative authority under Environmental Laws.
"Environmental Law"	means any applicable laws, which relate to Environmental Matters.
"Environmental Matters"	means any matter concerning contamination or pollution of the Environment (as that term is defined in s1(2) Environmental Protection Act 1990) which has affected, or is likely to affect, the Charged Property in any respect which the Collateral Agent considers material.
"Equipment"	means all present and future equipment, plant, machinery, tools, vehicles, furniture, fittings, installations, apparatus and other tangible moveable property for the time being owned by the Chargor, including any part of it and all spare parts, replacements, modifications and additions and all Related Rights. In relation to the Chargor, "its Equipment" means all Equipment in which it has any rights.
"Excluded Agreements"	means the Strategic Collaboration Agreement between (i) The University of Texas M. D. Anderson Cancer Center; and (ii) the Parent, dated 10 November 2017; and the Research Collaboration and Option to Licence Agreement between (i) Merck Sharp & Dohme Corp; and (ii) the Parent, dated 7 October 2019.
"Event of Default"	has the meaning provided for such term in the Loan Agreement.
"Financial Collateral Regulations"	means the Financial Collateral Arrangements (No. 2) Regulations 2003.
"Fixtures"	means in relation to any Real Property all fixtures and fittings (including trade fixtures and fittings) and all fixed plant, machinery and apparatus and other items attached to the relevant Real Property being owned by the Chargor whether or not constituting a fixture at law.
"Indemnified Person"	has the meaning given to such term in clause 17.
"Insolvency"	of a person includes the dissolution, bankruptcy, insolvency, winding-up, sequestration liquidation, administration, examination, amalgamation, reconstruction, reorganisation, arrangement, adjustment, administrative or other receivership or dissolution of that person, the official management of all of its revenues or other assets or the seeking of protection or relief of debtors and any equivalent or analogous proceeding by whatever name known and in whatever jurisdiction.
"Insolvency Act"	means the Insolvency Act 1986.
"Instrument"	means any document (including any form of writing) under which any obligation is evidenced or undertaken or any Lien (or right in any Lien) is granted or perfected or purported to be granted or perfected.
"Insurance Policies"	means all contracts, policies of insurance and cover notes of any kind now or in the future taken out by or on behalf of the Chargor or (to the extent of its interest) in which it now or in the future has an interest and all Related Rights. In relation to the Chargor, "its Insurance Policies" means all Insurance Policies in which it has any rights (including as loss payee or additional insured).

"Insurance Proceeds"	means any monies which may from time to time be payable to or received by the Chargor (whether as an insured party, beneficiary or as loss payee) under any Insurance Policy and the proceeds of all claims made by the Chargor under any Insurance Policy.
"Intellectual Property"	means all intellectual property, including the intellectual property listed in part 1 of the Schedule, and including all present or future patents, trademarks, service marks, trade names, domain names, designs, copyrights, moral rights, inventions, topographical or similar rights, rights in databases, trade secrets, confidential information and know-how, and any interest in any of these rights in any part of the world, whether or not registered or registrable, including all applications and rights to apply for registration and all rights and forms of protection of a similar nature or having equivalent or similar effect to any of these anywhere in the world, and all fees, royalties and other rights derived from, or incidental to, these rights together with all Related Rights. In relation to the Chargor, "its Intellectual Property" means all Intellectual Property in which it has any rights or is held for its benefit.
"Investment" means:	<ul style="list-style-type: none"> a. any present and future stocks, shares (including the Specified Investments), disbursements, securities, certificates of deposit, commercial papers, and other securities and investments of any kind; b. all interests in collective investment schemes; c. all warrants, options and other rights to subscribe or acquire any of the investments described in (a) and (b); and d. all Related Rights in each case whether held directly by or by any agent, nominee(s), fiduciary or clearance system on its behalf and in each case now or in the future owned by it or (to the extent of its interest) in which it now or in the future has an interest.
"Lease"	means any lease, tenancy, licence, sub-lease or other occupational right.
"Legal Reservations"	<ul style="list-style-type: none"> (a) the principle that discretionary remedies may be granted or refused at the discretion of a court and the limitation of enforcement by laws relating to Insolvency, reorganisation and other laws generally affecting the rights of creditors; (b) the time barring of claims under the Limitation Acts, the possibility that an undertaking to assume liability for or indemnify a person against non-payment of UK stamp duty may be void and defences of set-off or counterclaim; (c) the principle that any provision for the payment of compensation or additional interest which is not a genuine pre-estimate of Loss may be unenforceable on the grounds that it is a penalty and thus void; (d) the principle that an English or Scottish court may refuse to give effect to a provision dealing with the cost of litigation brought before any court where the litigation is unsuccessful or the court itself has made an order for costs; (e) similar principles, rights and defences under the laws of any relevant jurisdiction; and

- (g) any other matters which are set out as qualifications or reservations as to matters of law of general application in the legal opinions delivered to the Collateral Agent with respect to the Chargor.

"Liability"	means any present or future obligation or liability for the payment of money, whether in respect of principal, interest or otherwise, whether actual or contingent, whether owned jointly or severally and whether a principal or surety or in any other capacity and including any amount which would constitute such a liability but for any discharge, non-probability, unenforceability or non-allowability of the same in any insolvency or other proceedings.
"Limitation Acts"	means the Limitation Act 1980, the Foreign Limitation Periods Act 1984 and the Prescription and Limitation (Scotland) Act 1973
"Lien"	has the meaning given to it in the Loan Agreement.
"Loan Agreement"	means the loan and security agreement dated on or around the date of this Deed and entered into between, amongst others, the Chargor and the Collateral Agent (as lender and collateral agent).
"Loan Documents"	has the meaning given to it in the Loan Agreement, and "Loan Document" shall mean any one of them.
"Loan Parties"	means a Borrower or any other borrower, chargor or any other party (other than a Secured Party) to a Loan Document from time to time, and "Loan Party" shall mean any one of them.
"Losses"	means all losses (including loss of profit), claims, demands, actions, proceedings, damages and other payments, costs, charges, expenses and other liabilities of any kind.
"Notice of Charge"	has the meaning given to that term in the English Security Agreement.
"Parent"	means 4D PHARMA PLC, a public limited company registered in England and Wales (company number 08840579) whose registered office is at 4D Pharma plc, 9 Bond Court, Leeds, England, LS1 2JZ.
"Party"	means a party to this Deed.
"Permitted Lien"	has the meaning given to it in the Loan Agreement.
"Planning Acts"	means the Planning (Scotland) Act 2019, the Town and Country Planning (Scotland) Act 1997, the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, the Planning (Hazardous Substances) Act 1990, Planning (Consequential Provisions) (Scotland) Act 1997, Town and Country Planning Act 1990, the Planning (Listed Buildings and Conservation Areas) Act 1990, the Planning (Hazardous Substances) Act 1990; the Planning (Consequential Provisions) Act 1990, the Planning and Compensation Act 1991, the Planning and Compulsory Purchase Act 2004, the Planning Act 2008, and/or any other legislation regulating the use or development of land which is in force and effect from time to time.
"Real Property"	means any heritable, leasehold or immovable property situated in Scotland from time to time (including without limitation all Fixtures from time to time thereon) together with all Related Rights.

"Receiver"	means a Scottish receiver, receiver, receiver and manager or administrative receiver of any or all of the Charged Property appointed by the Collateral Agent under this Deed whether solely, jointly, severally or jointly and severally with any other person and includes any substitute for any of them appointed from time to time.
"Related Rights"	means in relation to any asset: <ul style="list-style-type: none"> a. the proceeds of sale of any part of that asset; b. any income derived from, or monies or proceeds otherwise paid or payable in respect of, that asset (including any milestone payments) or similar; c. all rights under any licence, contract of insurance, agreement for sale or agreement for lease in respect of that asset; d. all rights, powers, benefits, claims, contracts, warranties, remedies, security, guarantees, indemnities or covenants for title in respect of that asset; and e. in relation to any Investment, any right against any clearance system and any rights against any institution or under any agreement.
"Relevant Authority"	means any government, government department or governmental, quasi-governmental, supranational, federal, statutory, administrative, regulatory, self-regulatory or investigative body, authority, court, tribunal, stock exchange, trade agency, professional association or institution in any jurisdiction, including the World Bank, European Bank of Reconstruction and Development and other similar international development banks or institutions.
"Restrictions Notice"	means a "restrictions notice" as defined in paragraph 1(2) of Schedule 1B of the Companies Act 2006.
"Secured Liabilities"	means all present and future Liabilities of the Loan Parties to the Secured Parties under or in relation to any one or more of the Loan Documents (including, without limitation, all Liabilities arising out of any extension, variation, modification, restatement or novation (however fundamental) but excluding any money, obligation or liability which would cause the undertaking set out in clause 2 or the security which would otherwise be constituted by this Deed to be unlawful or prohibited by any applicable law or regulation).
"Secured Parties"	means the Lenders, the Collateral Agent, a Receiver or any Delegate (and a "Secured Party" shall mean any one of them).
"Security Period"	means the period starting on the date of this Deed and ending on: <ul style="list-style-type: none"> a. the date on which all the Secured Liabilities have been unconditionally and irrevocably paid and discharged in full; and b. the date on which the Collateral Agent is satisfied (acting reasonably) that the Lenders (as defined in the Loan Agreement) has ceased to have any commitment, obligation or other liability (whether actual or contingent) to make any credit or provide any other financial accommodation to a Loan Party under any Loan Document or otherwise.
"Specified Investments"	means the shares identified in part 2 of the Schedule and all other shares in the issuing companies named in part 2 of the

	Schedule now or in the future owned by the Chargor and/or any nominee on its behalf.
"Unpaid Sum"	means any sum due and payable but unpaid by a Loan Party under the Loan Documents.
"VAT"	means the value added tax provided for in the Value Added Tax Act 1994 and any other Tax of a similar nature in any applicable jurisdiction.
"Warning Notice"	means a "warning notice" as defined in paragraph 1(2) of Schedule 1B of the Companies Act 2006.

1.2 Construction

1.2.1 Terms defined in the Loan Agreement but not in this Deed shall have the same meaning in this Deed as in the Loan Agreement.

1.2.2 In addition, in this Deed, any reference to:

- (i) "assets" includes present and future properties, undertakings, revenues, rights and benefits of every description (and any reference to a particular type or category of assets includes any present or future assets of that type or category);
- (ii) an "amendment" includes a supplement, restatement, variation, novation or re-enactment (and "amended" shall be construed accordingly);
- (iii) an "authorisation" includes an authorisation, consent, licence, approval, resolution, exemption, filing, registration and notarisation;
- (iv) "this Deed" includes the schedule of three parts which form part of this Deed for all purposes;
- (v) a "disposal" includes any lease, licence, transfer, sale or other disposal of any kind (with related words being construed accordingly);
- (vi) any Loan Document, other Instrument or other document is to that Loan Document, other Instrument or other document as supplemented, otherwise amended, replaced or novated from time to time (however fundamental that amendment, novation or replacement may be, even if it involves increased, now, additional and/or replacement facilities or an increase in any other amount or rate);
- (vii) one gender shall include a reference to the other genders and words in the singular shall include the plural (and vice versa);
- (viii) "including" means "including without limitation" (with related words being construed accordingly), "in particular" means "in particular but without limitation" and other general words shall not be given a restrictive interpretation by reason of their being preceded or followed by words indicating a particular class of assets, matters or things;
- (ix) a "Party" or other "particular person" includes its successors in title, permitted assignees and permitted transferees in accordance with their respective interests; and this Deed shall be enforceable notwithstanding any change in the constitution of the Collateral Agent, its absorption in or amalgamation with any other person or the acquisition of all or part of its undertaking by any other person;
- (x) "person" includes any individual, firm, company or other corporation, unincorporated body of persons, government, state or any agency of a person, any association, trust or partnership (whether or not having separate legal personality) or two or more of them;
- (xi) a "right" includes any title, estate, interest, claim, remedy, power, authority, discretion or other right of any kind, both present and future (and any reference to rights in a particular asset or type or category of assets includes any rights in the proceeds of any disposal of that asset or any assets within that type or category);
- (xii) "regulation" includes any regulation, rule, official directive, notice, request, code of practice, guideline, demand or decision (in each case whether or

not having the force of law) of any governmental, intergovernmental or supranational body, agency, department or regulatory, self-regulatory or other authority or organisation;

- (xiii) a "statute" or "statutory provision" includes a reference to any subordinate legislation made under that statute or statutory provision, to any modification, re-enactment or extension of that statute or statutory provision and any former statute or statutory provision which it consolidated or re-enacted before the date of this Deed;
- (xiv) "Tax" means any tax, levy, impost, duty or other charge or withholding of a similar nature (including any penalty or interest payable in connection with any failure to pay or any delay in paying any of the same);
- (xv) "this security" means the Lien constituted by or purported to be constituted by or pursuant to this Deed;
- (xvi) an Event of Default (as such term is defined in the Loan Agreement) is "continuing" if it has not been waived in writing by the Collateral Agent or remedied to the satisfaction of the Collateral Agent (acting in good faith); and
- (xvii) references to "USD", "\$" or "Dollars" shall be references to the lawful currency of the United States.

1.2.3 The index and clause, schedule and paragraph headings are for ease of reference only and shall not affect the interpretation of this Deed.

1.2.4 If there is any inconsistency between the terms of this Deed and those of the Loan Agreement, the terms of the Loan Agreement shall prevail.

1.3 Secured Liabilities not paid if avoided

If the Collateral Agent considers that an amount paid by the Chargor in respect of the Secured Liabilities is capable of being avoided, or otherwise set aside, on the Insolvency of the Chargor or otherwise, then that amount shall not be considered to have been irrevocably paid for the purposes of this Deed.

1.4 Trust

The Collateral Agent holds the benefit of this Deed and the obligations of the Chargor, including the security created or purported to be created and the rights granted in it to the Collateral Agent or any Secured Party, on trust for the Secured Parties on the terms set out in the English Security Trust.

1.5 Related Rights

For the avoidance of doubt, any Related Rights in respect of Excluded Agreements that are held by the Chargor and to which the Chargor is entitled shall, to the extent of the Chargor's entitlement and unless otherwise excluded pursuant to the provisions of this Deed, form part of the Charged Property for the purposes of this Deed.

1.6 Qualifying floating charge

Paragraph 14 of Schedule B1 to the Insolvency Act applies to the floating charge created by this Deed and the Collateral Agent may appoint an Administrator of the Chargor pursuant to that paragraph.

2. Payment of Secured Liabilities

2.1 Undertaking to pay

The Chargor covenants with and undertakes to the Collateral Agent to on demand, pay to the Collateral Agent and discharge the Secured Liabilities when they become due.

2.2 Interest

Any amount which is not paid under this Deed when due shall bear interest at the Default Rate (both before and after judgment and payable on demand) from its due date up to the date of a final payment, such interest to accrue at a daily basis.

3. Grant of Security

3.1 Floating charges

As a continuing security for the payment and discharge of the Secured Liabilities, the Chargor with absolute warrandice HEREBY grants:

- 3.1.1 a floating charge over, all of its undertaking, property, rights and assets both present and future located in Scotland or otherwise governed by Scots law; and
 - 3.1.2 a floating charge over its Intellectual Property
- but in each case subject to clause 3.3.

3.2 Non-Chargeable Rights

Subject to clause 3.3, the Chargor undertakes to the Collateral Agent that it shall to the extent that any right, title, interest or benefit in or in respect of any asset (or any Related Right in respect of such asset) described in clause 3.1 cannot be or is not effectively secured pursuant to this Deed for whatever reason, the Chargor shall:

- (i) promptly notify the Collateral Agent of the same and the reasons why such asset is not capable being secured (including the nature of any consent or permitted form of security required);
- (ii) hold the benefit of the same on trust for the Collateral Agent as security for the payment and discharge of the Secured Liabilities; and
- (iii) take such steps as the Collateral Agent may (acting reasonably) require to remove such impediment to such security,

and until such impediment has been removed such asset shall not (to the extent of such impediment) be deemed to be subject to the security referred to at clauses 3.1 (as applicable), but for the avoidance of doubt, any Related Rights which do not otherwise fall within the provisions of this clause 3.2 shall remain subject to the security created under this Deed.

3.3 Excluded Agreements

3.3.1 In respect of the Excluded Agreements, the Parties agree that

- (i) any Related Right falling within paragraphs (a) and (b) of that definition and any other Related Rights and/or any other asset of the Chargor (including any Intellectual Property) not otherwise precluded by the terms of that Excluded Agreement from being subject to the security created under this Deed, shall be subject to the security created under this Deed;
- (ii) the Chargor must take any steps required to remove an impediment referred to in clause 3.2 only if so requested by the Collateral Agent following an Event of Default which is continuing,

and until such impediment has been removed, any assets of the Chargor (including any Intellectual Property) which are precluded by the terms of such Excluded Agreement from being subject to the security created under this Deed, shall not form part of the security created under this Deed.

3.3.2 The Chargor must ensure that all income derived from, or monies or proceeds otherwise paid or payable in respect of, an Excluded Agreement (and for the avoidance of doubt, including any milestone payments) are paid into an Account which is subject to the security created under the English Security Agreement and in respect of which the Chargor has delivered a Notice of Charge in accordance with the terms of the English Security Agreement.

3.4 Further assurance

The Chargor shall promptly (and shall ensure that its nominee(s) shall), at the request of the Collateral Agent and at its own cost, do all acts and things and execute any Instrument or other documents (including any legal or other Security, charges or transfers) in favour of the Collateral Agent in such form as the Collateral Agent may require and otherwise do any acts and things, as the Collateral Agent requires from time to time:

- 3.4.1 for giving effect to, perfecting (including the priority of it), preserving or protecting the Collateral Agent's security over the Charged Property created (or intended to be created) by this Deed; or
- 3.4.2 to facilitate the realisation or enforcement of, or exercise any of the rights and powers conferred on of the Collateral Agent or any other Secured Party or any Receiver in relation to, the security over the Charged Property created (or intended to be created) by this Deed.

4. Representations and Warranties

The Chargor represents and warrants to the Collateral Agent in the terms set out in part 3 of the Schedule.

5. Undertakings

The Chargor undertakes to the Collateral Agent in the terms set out in part 4 of the Schedule.

6. People with Significant Control

- 6.1 The Chargor covenants and agrees with the Collateral Agent that until the end of the Security Period, it shall comply with any notice served on it pursuant to Part 21A of the Companies Act 2006 and within the timeframe specified in the notice.
- 6.2 The Chargor represents and warrants to the Collateral Agent on the date of this Deed that no Warning Notice or Restrictions Notice has been issued to that Chargor in respect of the Investments charged pursuant to this Deed.

7. Enforcement

- 7.1 This security shall become immediately enforceable if an Event of Default occurs and is continuing.
- 7.2 After the security has become enforceable, the Collateral Agent may in its absolute discretion enforce all or any of its rights under this Deed as it thinks fit. In particular, it may without further notice, exercise in relation to the Charged Property:
 - 7.2.1 the power of sale and all other powers conferred on a Scottish receiver or an administrative receiver by the Insolvency Act, in either case as extended or otherwise amended by this Deed;
 - 7.2.2 to the extent that clause 8 applies, the power to appropriate the Charged Property in or towards the payment and discharge of the Secured Liabilities in accordance with clause 8.2; and
 - 7.2.3 (without first appointing a Receiver) any or all of the rights which are conferred by this Deed (whether expressly or by implication) on a Receiver.

7.3 Protection of third parties

- 7.3.1 No purchaser, heritable creditors or other person dealing with a Receiver or the Collateral Agent shall be bound to enquire whether its right to exercise any of its rights has arisen or become exercisable, or be concerned as to the application of any money paid, raised or borrowed or as to the propriety or regularity of any sale by or other dealing with that Receiver or the Collateral Agent.
- 7.3.2 All of the protection to purchasers contained in s42(3) of the Insolvency Act shall apply to any person purchasing from or dealing with a Receiver or the Collateral Agent as if the Secured Liabilities had become due and the statutory powers of sale and the appointment of a Receiver in relation to the Charged Property had arisen on the date of this Deed.

7.4 Privileges

Each of the Collateral Agent and any Receiver is entitled to all the rights, powers privileges and immunities conferred by law or creditors and receivers duly appointed under any law.

7.5 Delegation

- 7.5.1 The Collateral Agent and a Receiver may delegate to any person or persons all or any of the rights which are exercisable by it under this Deed. A delegation under this clause may be made in any manner (including by power of attorney) and on any terms (including power to sub-delegate) which the Collateral Agent or Receiver may think fit.
- 7.5.2 A delegation under clause 7.5.1 shall not preclude the subsequent exercise of those rights by the Collateral Agent or Receiver itself nor preclude the Collateral Agent or Receiver from making a subsequent delegation of them to another person or from revoking that delegation.

- 7.5.3 Neither the Collateral Agent nor a Receiver shall be liable or responsible to the Chargor for any loss or damage arising from any act, default, omission or misconduct on the part of any delegate or sub-delegate.

7.6 No liability

None of the Collateral Agent, any Receiver, any delegate or any Administrator shall be liable as a creditor in possession or otherwise to account in relation to all or any part of the Charged Property for any loss on realisation or for any other action, default or omission for which it or they might be liable.

8. Right of Appropriation

8.1 Application of right of appropriation

This clause 8 applies to the extent the Charged Property constitute "financial collateral" and this Deed constitutes a "financial collateral arrangement" (within the meaning of the Financial Collateral Regulations).

8.2 Exercise of right of appropriation

If and to the extent that this clause 8 applies, the Collateral Agent may appropriate the Charged Property in or towards the Secured Liabilities. If the Collateral Agent exercises its right of appropriation then it shall for these purposes value:

8.2.1 any relevant bank account and the amount standing to the credit of that account, together with any accrued interest not credited to the account, at the time of the appropriation; and

8.2.2 any other relevant Charged Property by reference to an independent valuation or other procedure determined by the Collateral Agent at the time of the appropriation. The Chargor agrees that any method of valuation provided for in this clause 8.2 is commercially reasonable for the purposes of the Financial Collateral Regulations.

9. Appointment of Receiver

9.1 Appointment of Receiver

Without prejudice to any statutory or other powers of appointment of the Collateral Agent under the Insolvency Act as extended by this Deed or otherwise, at any time after this security has become enforceable or if the Chargor so requests in writing at any time the Collateral Agent may without further notice to the Chargor do any of the following:

9.1.1 appoint any one or more persons qualified to act as a Receiver to be a Receiver of all or any part of the Charged Property;

9.1.2 either at the time of appointment or any time after that appointment, fix his or their remuneration in accordance with the Insolvency (Scotland) (Company Voluntary Arrangements and Administration) Rules 2018; The Insolvency (Scotland) (Receivership and Winding Up) Rules 2018 and the Insolvency Act;

9.1.3 except as otherwise required by statute, remove any Receiver and may, whenever it thinks fit, appoint a new Receiver in the place of any Receiver whose appointment may for any reason have terminated; and

9.1.4 any restriction imposed by law on the right of a mortgagee to appoint a Receiver (including under section 109(1) of the Insolvency Act) does not apply to this Deed.

9.2 Powers of Receiver

Every Receiver shall have in relation to the Charged Property (every reference in this clause 9.2 to "Charged Property" being a reference only to all or any part of the Charged Property in respect of which that Receiver was appointed) the powers granted by the Insolvency Act to any administrative receiver and any Scottish receiver, all as varied and extended by this Deed. In addition, but without limiting the preceding sentence, every Receiver shall have power to do the following:

9.2.1 **Collection:** enter on, take possession of, collect and get in the Charged Property and collect and get in all rents and other income whether accrued before or after the date of his appointment and for those purposes make any demands and take any actions or other proceedings which may seem to him expedient;

- 9.2.2 **Compliance with Deed:** comply with and perform all or any of the acts, matters, omissions or things undertaken to be done or omitted by the Chargor under this Deed;
- 9.2.3 **Management of business:** carry on, manage, develop, reconstruct, amalgamate or diversify the business of the Chargor or any part of it in such manner as he shall in his discretion think fit;
- 9.2.4 **Dealing with Charged Property:** sell or otherwise dispose of the Charged Property, grant Leases, licences, servitudes, rights or options over or in respect of them and renounce, accept the renunciation or vary any Lease, agreement or arrangement relating to them or otherwise agree to any such dealing. Any disposal or other dealing under this clause 9.2.4 may be effected in the manner and on the terms which they think fit, for consideration consisting of cash, Deeds or other obligations, shares or other valuable consideration and this consideration may be payable in a lump sum or by instalments spread over a period as he may think fit;
- 9.2.5 **Severance of assets:** sever from the premises to which they are annexed and sell separately (in accordance with clause 9.2.4) any plant, machinery or fixtures;
- 9.2.6 **Upkeep of Charged Property:** repair, decorate, furnish, maintain, alter, improve, replace, renew or add to the Charged Property as they shall think fit and effect, maintain, renew or increase indemnity insurance and other insurances and obtain bonds;
- 9.2.7 **Dealing with third parties:** appoint or dismiss officers, employees, contractors or other agents and employ professional advisers and others on such terms (as to remuneration and otherwise) as they may think fit;
- 9.2.8 **Agreements:** perform, repudiate, terminate, amend or enter into any arrangement or compromise any contracts or agreements which he may consider expedient;
- 9.2.9 **Proceedings:** settle, arrange, compromise or submit to arbitration any accounts, claims, questions or disputes which may arise in connection with the business of the Chargor or the Charged Property and bring, prosecute, defend, enforce, compromise, submit to and discontinue any actions, suits, arbitrations or other proceedings;
- 9.2.10 **Uncalled capital:** make calls on the shareholders of the Chargor in respect of any of its uncalled capital;
- 9.2.11 **Rights in connection with Charged Property:** exercise or permit the Chargor or any nominee of the Chargor to exercise any rights incidental to the ownership of the Charged Property in such manner as they may think fit;
- 9.2.12 **Subsidiaries:** form a subsidiary or subsidiaries of the Chargor and transfer, lease or license to it or them or any other person the Charged Property on such terms as they may think fit;
- 9.2.13 **Assets and rights:** purchase, lease, hire or otherwise acquire any assets or rights of any description which he shall consider necessary or desirable for the carrying on, improvement or realisation of the Charged Property or the business of the Chargor or otherwise for the benefit of the Charged Property;
- 9.2.14 **Landlord and tenant powers:** exercise any rights conferred on a landlord or a tenant by any applicable law or regulation in relation to the Charged Property;
- 9.2.15 **Raising money:** in the exercise of any of the rights conferred on them by this Deed or for any other purpose to raise and borrow money either unsecured or secured and either in priority to, *pari passu* with or subsequent to this security and generally on such terms as they may think fit;
- 9.2.16 **Receipts and discharges:** give valid receipts for all monies and execute all discharges, assurances and other documents which may be proper for realising the Charged Property and redeem, discharge or compromise any Lien whether or not having priority to the security or any part of it;
- 9.2.17 **All other acts:** execute and do all such other acts, things and documents as they may consider necessary for the realisation or preservation of the Charged Property or incidental or conducive to any of the rights conferred on or vested in them under or by virtue of this Deed or otherwise and exercise and do in relation to the Charged Property, and at the cost of the Chargor, all the rights and things which they would be capable of exercising or doing if they were the owner of the same; and

9.2.18 Name of Chargor: use the name of the Chargor or its own name to exercise all or any of the rights conferred by this Deed.

9.3 Agent of the Chargor

Any Receiver appointed under this Deed whether acting solely or jointly shall be deemed to be the agent of the Chargor and to be in the same position as a receiver appointed under the Insolvency Act and the Chargor shall be solely responsible for their acts, omissions, defaults, losses and misconduct and for his remuneration and the Collateral Agent shall not be in any way liable or responsible either to the Chargor or to any other person for any Receiver.

9.4 Joint appointment

If at any time two or more persons have been appointed as Receivers of the same Charged Property, each one of those Receivers shall be entitled to exercise individually all of the rights conferred on Receivers under this Deed to the exclusion of the other or others in relation to any of the Charged Property in respect of which he has been appointed unless the Collateral Agent shall state otherwise in the document appointing him.

9.5 Relationship with Collateral Agent

To the fullest extent allowed by law, any right, power or discretion conferred by this Deed (either expressly or implicitly) or by law on a Receiver may after this security become enforceable be exercised by the Collateral Agent in relation to the Charged Property without first appointing a Receiver or notwithstanding the appointment of a Receiver.

9.6 Personnel

The Collateral Agent may (to the extent it is lawful) remove any Receiver appointed by it and may whenever it thinks fit, appoint a new Receiver in place of any Receiver whose appointment may for any reason have terminated.

10. Appointment of Administrator

10.1 Appointment of Administrator

10.1.1 The Collateral Agent may without notice appoint any one or more persons to be an administrator of the Chargor pursuant to Paragraph 14 of Schedule B1 to the Insolvency Act at any time after this security has become enforceable.

10.1.2 Clause 10.1.1 shall not apply to the Chargor if Paragraph 14 of Schedule B1 to the Insolvency Act does not permit an administrator of the Chargor to be appointed.

10.1.3 Any appointment under clause 10.1.1 shall be in writing signed by a duly authorised officer of the Collateral Agent.

10.2 Replacement of an Administrator

The Collateral Agent may (subject to any necessary approval from the court) end the appointment of any Administrator by notice in writing signed by a duly authorised officer and appoint under clause 10.1 a replacement for any Administrator whose appointment ends for any reason.

11. Application of Proceeds

11.1 Order of priority

Any monies received by the Collateral Agent or any Receiver under this Deed or under the rights conferred by this Deed shall, after the occurrence of an Event of Default which is continuing (subject to payment of any claims having priority to this security) be applied in the following order, but without prejudice to the right of the Collateral Agent to recover any shortfall from the Chargor:

11.1.1 where applicable, in payment of all Losses of and incidental to the appointment of the Receiver and the exercise of all or any of his powers;

11.1.2 where applicable, in payment of the Receiver's remuneration at such rate as may be agreed with the Collateral Agent;

11.1.3 in accordance with the Loan Agreement in or towards discharge of the Secured Liabilities; and

11.1.4 if the Chargor is not under any further actual or contingent liability under any Loan Document, in payment of the surplus (if any) to the person or persons entitled to it.

11.2 Insurance Proceeds

- 11.2.1 All monies received by the Chargor by virtue of any Insurance Policies on the Charged Property, whether or not effected under this Deed:
- (i) shall be deemed part of the Charged Property; and
 - (ii) shall, save with the prior written consent of the Collateral Agent, be paid to the Collateral Agent. This shall apply whether the event pursuant to which those monies became payable occurred before, on or after the date of this Deed.
- 11.2.2 Any monies so paid to the Collateral Agent or otherwise received by the Collateral Agent by virtue of any insurance on the Charged Property shall be applied at the discretion of the Collateral Agent either in reduction of the Secured Liabilities or in or towards making good the loss or damage in respect of which they became payable. The Chargor waives any right it may have to require that those monies be applied in or towards making good the loss or damage in respect of which they became payable.
- 11.2.3 Any monies received by the Chargor by virtue of any Insurance Policies on the Charged Property shall be held on trust for the Collateral Agent until those monies are paid to the Collateral Agent in accordance with this clause 11.2.

12. Effectiveness of Security

12.1 Continuing security

This Deed and the security constituted by this Deed shall be continuing security for the Secured Liabilities, despite any settlement of account or intermediate payment or discharge in whole or in part and shall extend to the ultimate balance due at any time from the Chargor to the Secured Parties under the Loan Documents.

12.2 Additional security

This Deed and the security constituted by or pursuant to this Deed shall be cumulative in addition to, and independent of every, and shall not be prejudiced by any, other Lien, guarantee, indemnity or suretyship which the Collateral Agent or any other Secured Party may, at any time, hold for any of the Secured Liabilities. No prior Lien held by the Collateral Agent or any other Secured Party over the whole or any part of the Charged Property shall, by virtue of the entry into this Deed, merge in the security created by this Deed.

12.3 Waiver of defences

The liabilities and obligations of the Chargor under this Deed in respect of any of the Secured Liabilities shall not be discharged, prejudiced or affected by any act, omission, matter or thing which, but for this clause 12.3, would reduce, release or prejudice any of its liabilities and obligations under this Deed, including (whether or not known to it or the Collateral Agent):

- 12.3.1 any time, waiver or consent granted to, or composition with, any Loan Party or any other person;
- 12.3.2 the release of any Loan Party or any other person under the terms of any composition or arrangement with any creditor of any Loan Party;
- 12.3.3 the taking, variation, compromise, exchange, renewal or release of, or refusal or neglect to perfect, take up or enforce, any rights against, or security over assets of, any Loan Party or other person or any non-presentation or non-observance of any formality or other requirement in respect of any instrument or any failure to realise the full value of any security;
- 12.3.4 any incapacity or lack of power, authority or legal personality of or dissolution or change in the members or status of any Loan Party or any other person;
- 12.3.5 any amendment, novation, supplement, variation, extension, restatement (however fundamental and whether or not more onerous) or replacement of any Loan Document or any other document or security including without limitation any change in the purpose of, any extension of or any increase in any facility or the addition of any new facility under any Loan Document or other document or security;
- 12.3.6 any unenforceability, illegality or invalidity of any obligation of any person under any Loan Document or any other document or security;
- 12.3.7 any act, omission or circumstance which but for this clause 12.3, might operate to discharge, release, reliance, extinguish, impair or otherwise affect any of the

obligations of the Chargor under this Deed or any of the rights and remedies of the Collateral Agent or any security; or

12.3.8 any Insolvency of any Loan Party.

12.4 Immediate Recourse

The Chargor waives any right it may have of first requiring the Collateral Agent or any other Secured Party to enforce any Lien or other rights or claim any payment from or otherwise proceed against any other person before enforcing this Deed against the Chargor. This waiver applies irrespective of any applicable law and regulation or any provision of any Loan Document to the contrary.

12.5 Discretion in enforcement

Until the expiry of the Security Period, the Collateral Agent or any Receiver may:

12.5.1 refrain from applying or enforcing any other monies, security or other rights held or received by it in respect of the Secured Liabilities or apply and enforce them in such manner and order as it sees fit (whether against the Secured Liabilities or otherwise) and the Chargor shall not be entitled to the benefit of the same; and

12.5.2 hold in a suspense account any monies received from the Chargor or on account of the Secured Liabilities.

12.6 Non-Competition

12.6.1 Unless:

(i) all amounts which may be or become payable by the Loan Parties under or in connection with the Loan Documents have been irrevocably paid in full; or

(ii) the Collateral Agent otherwise directs,

the Chargor shall not, after a claim has been made or by virtue of any payment or performance by it under this Deed:

(ii)(a) be subrogated to any rights, security or moneys held, received or receivable by any Secured Party (or any agent or agent on its behalf);

(ii)(b) be entitled to any right of contribution or indemnity in respect of any payment made or moneys received on account of the Chargor's liability under this clause;

(ii)(c) claim, rank, prove or vote as a creditor of any Borrower or any of its subsidiaries or its estate in competition with any Secured Party (or any agent or agent on its behalf); or

(ii)(d) receive, claim or have the benefit of any payment, distribution or security from or on account of any Loan Party, or exercise any right of set-off as against any Loan Party.

12.6.2 The Chargor must hold in trust for and must promptly pay or transfer to the Collateral Agent for the Secured Parties any payment or distribution or benefit of security received by it contrary to this clause or in accordance with any directions given by the Collateral Agent under this clause.

12.7 Subsequent Security

At any time following:

12.7.1 the Collateral Agent or any other Secured Party's receipt of notice (either actual or constructive) of any subsequent Lien affecting the Charged Property (other than a Permitted Lien);

12.7.2 the Insolvency of the Chargor; or

12.7.3 any disposal of all or any of the Charged Property in breach of paragraph 2 of Part 4 of the Schedule,

any Secured Party may open a new account or accounts in the name of the Chargor (whether or not it permits any existing account to continue). If a Secured Party does not open such a new account, it shall nevertheless be treated as if it had done so at the time when the notice was received or was deemed to have been received or, as the case may be, the Insolvency commenced or the assignment or transfer occurred and from that time all payments made by the relevant Chargor to, the Secured Party or received by the Secured Party for the account of

the relevant Chargor shall be credited or treated as having been credited to the new account and shall not operate to reduce the amount secured by this Deed at the time when the Secured Party received or was deemed to have received that notice or, as the case may be, the Insolvency commenced or the assignment or transfer occurred.

13. Release of Security

13.1 Release of Security

Subject to clause 13.2, following the expiry of the Security Period and at the request and cost of the Chargor, the Collateral Agent shall, as soon as reasonably practicable after receipt of that request, release and discharge this security and re-assign the assets assigned to the Collateral Agent under this Deed to the Chargor (or as it shall direct), at all times without recourse, representation or warranty and the rights of any person having prior rights over those assets. Any release or discharge of this security or re-assignment shall not release or discharge the Chargor from any liability to the Collateral Agent or any other Secured Party for the Secured Liabilities or any other monies which exists independently of this Deed.

13.2 Reinstatement

13.2.1 Any release, settlement, discharge, re-assignment or arrangement (in this clause 13 a "release") made by the Collateral Agent on the faith of any assurance, security or payment shall be conditional on that assurance, security or payment not being avoided, reduced, clawed back or ordered to be repaid under any law relating to Insolvency.

13.2.2 If any avoidance, reduction or clawback occurs or order is made as referred to in clause 13.2.1, then the release given by the Collateral Agent shall have no effect and shall not prejudice the right of the Collateral Agent to enforce this security in respect of the Secured Liabilities. As between the relevant Chargor and the Collateral Agent, this security shall (notwithstanding the release) be deemed to have remained at all times in effect and held by the Collateral Agent as security for the Secured Liabilities.

13.3 Redemption

The Collateral Agent may at any time:

13.3.1 redeem, or procure the transfer to itself of, any prior Lien over any Charged Property; or

13.3.2 settle and pass the accounts of the holder of any prior Lien. Any accounts so settled and passed shall be conclusive and binding on the Chargor.

13.4 Costs of redemption

All principal monies, interest, costs, expenses and other amounts incurred in and incidental to any redemption or transfer under clause 13.3 shall be paid by the Chargor to the Collateral Agent on demand, in each case together with interest calculated in the manner referred to in clause 16.

14. Power of Attorney

14.1 Appointment

The Chargor irrevocably appoints the Collateral Agent and any Receiver and every delegate referred to in clause 7.5 and each of them jointly and also severally to be its mandatory and attorney (with full powers of substitution and delegation) and in its name or otherwise and on its behalf and as its act and deed to execute, deliver and perfect all Instruments and other documents and do any other acts and things which may be required or which the attorney may consider to be required:

14.1.1 to carry out any obligation imposed on it by this Deed or any other agreement binding on the Chargor to which the Collateral Agent is a Party (including the execution and delivery of any mortgages, deeds, charges, assignments or other transfers of the Charged Property);

14.1.2 to carry into effect any disposal or other dealing by the Collateral Agent or any Receiver;

14.1.3 to convey or transfer any right in land or any other asset;

- 14.1.4 to register or renew registration of the existence of the security or the restrictions on dealing with the Charged Property under this Deed or any other Loan Document or by law or regulation;
- 14.1.5 to get in the Charged Property; and
- 14.1.6 to enable the Collateral Agent and any Receiver to exercise the respective rights, powers and authorities conferred on them by this Deed or by applicable law and regulation.

and the Chargor undertakes to ratify and confirm all acts and things done by an attorney in the exercise or purported exercise of its powers and all monies spent by an attorney shall be deemed to be expenses incurred by the Collateral Agent under this Deed.

14.2 Exercise

The Collateral Agent shall only be permitted to exercise the power of attorney conferred upon it under this Deed:

- 14.3 following an Event of Default which is continuing; or
- 14.4 following the Chargor's failure to do any acts or things required under:
 - (i) the Loan Documents following the expiry of any applicable grace period; or
 - (ii) clause 3.2 of this Deed.

15. Gross-Up and Payments

15.1 Grossing Up

Section 2.6 (*Taxes; Increased Costs*) of the Loan Agreement shall be deemed incorporated into this Deed as if it were set out in full here, *mutatis mutandis*, with reference to the Lenders being deemed to refer to the Collateral Agent and reference to Borrower being deemed to refer to the Chargor.

15.2 Payments without Set-Off

Any payment made by the Chargor under this Deed shall be made free and clear of and without any deduction for or on account of any set-off or counterclaim.

15.3 Manner of Payment

Each payment made by the Chargor under this Deed shall be paid in the manner required by the Collateral Agent.

16. Costs and Expenses

16.1 Costs and expenses

The Chargor shall promptly pay or reimburse to the Collateral Agent within three Business Days of demand, on a full indemnity basis, for all Losses incurred by the Collateral Agent in relation to:

- 16.1.1 the negotiation, preparation and execution of this Deed;
- 16.1.2 any actual or proposed amendment of or waiver or consent under or in connection with this Deed;
- 16.1.3 any discharge or release of this security;
- 16.1.4 the preservation or exercise (or attempted preservation or exercise) of any rights under or in connection with, and the enforcement (or attempted enforcement) of, this Deed and the perfection or enforcement of any other Lien for or guarantee in respect of the Secured Liabilities;
- 16.1.5 the taking or holding of this security or any proceedings in relation to it or to all or any of the Charged Property; and
- 16.1.6 any advice obtained in relation to any other matter or question arising out of or in connection with this Deed,

together with interest from the date it is incurred or becomes payable up to the date of receipt by the Collateral Agent (both before and after judgment), accruing on a daily basis under the terms of the Loan Agreement as if that amount were an Unpaid Sum.

16.2 Taxes

The Chargor shall pay all stamp, registration and other Taxes to which this Deed, this security or any judgment or order given in connection with this Deed may at any time be subject and shall on demand indemnify the Collateral Agent against any Losses resulting from any failure to pay or delay in paying the same.

16.3 Value Added Tax

The following provisions shall apply:

- 16.3.1 all amounts expressed to be payable under this Deed by the Chargor to a Secured Party shall be exclusive of any VAT;
- 16.3.2 if VAT is chargeable on any supply made by a Secured Party to the Chargor under this Deed (whether that supply is taxable pursuant to the exercise of an option or otherwise), that Chargor shall pay to that Secured Party (in addition to and at the same time as paying that consideration) an amount equal to the amount of the VAT as further consideration;
- 16.3.3 no payment or other consideration to be made or furnished to the Chargor pursuant to or in connection with this Deed may be increased or added to by reference to (or as a result of any increase in the rate of) any VAT which shall be or may become chargeable in respect of any taxable supply; and
- 16.3.4 where this Deed requires the Chargor to reimburse a Secured Party for any costs or expenses, that Chargor shall also pay any amount of those costs or expenses incurred referable to VAT charged thereon.

17. Indemnity

Section 12.2 (*Indemnification*) of the Loan Agreement shall be deemed incorporated into this Deed as if it were set out in full here, *mutatis mutandis*, save that a reference to the Borrower shall be a reference to the Chargor.

18. Assignment and Transfers

18.1 Collateral Agent

The Collateral Agent may assign any or all of its rights and transfer any or all of its obligations under this Deed without the consent of the Chargor being required.

18.2 Chargor

The Chargor may not assign any of its rights or transfer any of its rights or obligations under this Deed without the prior written consent of the Collateral Agent.

18.3 Disclosure of Information

The Collateral Agent may disclose any information about the Chargor which it shall consider appropriate to any affiliate, any of its professional advisers, any person to whom it is proposing to assign or transfer, or has assigned or transferred, any of its rights and obligations under this Deed or to any person to whom information may be required to be disclosed by any applicable law and regulation.

19. Set-Off

- 19.1 A Secured Party may set-off any matured obligation due from the Chargor under this Deed (to the extent beneficially owned by such Secured Party) against any obligation (whether or not matured) owed by that Secured Party to that Chargor, regardless of the place of payment, booking branch or currency of either obligation. If the obligations are in different currencies, the Secured Party may convert either obligation at a market rate of exchange in its usual course of business for the purpose of the set-off.

19.2 No Obligation

No Secured Party shall be obliged to examine any right given to it under clause 19.1.

20. Notices

The provisions of Section 10 (Notices) of the Loan Agreement shall be deemed incorporated herein as if set out in this Deed, *mutatis mutandis*, save that the addresses and details of the Chargor are as set out below its testing clause, or such other address as the Chargor may notify in writing to the Collateral Agent after the date of this Deed.

21. Calculations and Certificates

Any certificate or determination of the Collateral Agent as to any matter provided for in this Deed is, in the absence of manifest error, conclusive evidence of the matters to which it relates.

22. Currency Conversion

22.1 Purchase of sums in other currencies

In order to apply any sum held or received by the Collateral Agent or a Receiver in or towards payment of the Secured Liabilities, the Collateral Agent or such Receiver may purchase an amount in another currency and the rate of exchange to be used shall be that at which, at such time as it considers appropriate, the Collateral Agent or such Receiver is able to effect such purchase.

22.2 Currency Indemnity

If any sum due from the Chargor under this Deed or any order or decree or judgment given or made in relation to this Deed has to be converted from the currency (the "**first currency**") in which the same is payable under this Deed or under such order or judgment into another currency (the "**second currency**") for the purpose of (a) making or filing a claim or proof against the Chargor, (b) obtaining an order or judgment in any court or other tribunal or (c) enforcing any order or judgment given or made in relation to this Deed, the Chargor shall indemnify and hold harmless each Secured Party from and against any loss it suffers or incurs as a result of any discrepancy between (i) the rate of exchange used for such purpose to convert the sum in question from the first currency into the second currency; and (ii) the rate or rates of exchange at which such Secured Party may in the ordinary course of business purchase the first currency with the second currency upon receipt of a sum paid to it in satisfaction, in whole or in part, of any such order, decree, judgment, claim or proof.

23. Partial Invalidity

If, at any time, any provision of this Deed is or becomes illegal, invalid or unenforceable in any respect under any law of any jurisdiction, neither the legality, validity or enforceability of the remaining provisions nor the legality, validity or enforceability of that provision under the law of any other jurisdiction will in any way be affected or impaired.

24. Remedies and Waivers

No failure to exercise, nor any delay in exercising, on the part of the Collateral Agent, any remedy or other right under this Deed shall operate as a waiver, nor shall any single or partial exercise of any remedy or other right prevent any further or other exercise or the exercise of any other right. The remedies and other rights provided in this Deed are cumulative and not exclusive of any remedies and other rights provided by law.

25. Amendments and Waivers

Any term of this Deed may be amended or waived only with the written consent of the Collateral Agent and the Chargor and any such amendment or waiver will be binding on all Parties.

26. Counterparts, Delivery and Effective Date

26.1 This Deed may be executed in any number of counterparts and by each of the parties on separate counterparts.

26.2 Where executed in counterparts:

- 26.2.1 this Deed will not take effect until each of the counterparts has been delivered;
- 26.2.2 each counterpart will be held as undelivered until the parties agree a date on which the counterparts are to be treated as delivered;
- 26.2.3 the date of delivery may be inserted in the testing clause in the blank provided for the effective date of this Deed.

27. Governing Law

This Deed and any non-contractual obligations arising out of it are governed by, and construed in accordance with, Scots law.

28. Jurisdiction

- 28.1 The courts of Scotland have exclusive jurisdiction to settle any dispute arising out of or in connection with this Deed (including a dispute regarding the existence, validity or termination of this Deed) (a "Dispute").
- 28.2 The Parties agree that the courts of Scotland are the most appropriate and convenient courts to settle Disputes and accordingly neither Party will argue to the contrary.
- 28.3 This clause 28 is for the benefit of the Collateral Agent only. As a result, the Collateral Agent shall not be prevented from taking proceedings relating to a Dispute in any other courts with jurisdiction. To the extent allowed by law, the Collateral Agent may take concurrent proceedings in any number of jurisdictions.

IN WITNESS WHEREOF these presents consisting of this and the preceding 18 pages and the Schedule are executed in counterpart by the parties undernoted, with an effective date of

29/06/2021

SUBSCRIBED for and on behalf of the said
4D PHARMA RESEARCH LIMITED (as Chargor)

By

Duncan Peter

Director
(Print Full Name)

ALEX STEVENSON

Director
(Print Full Name)

at LEEDS
(place of signing)

[Redacted Signature]

Director
(Signature)

[Redacted Signature]

Director
(Signature)

on 23rd July 2021
(date of signing)

Before this witness:

A. moles

Witness
(Print Full Name)

[Redacted Address]

(address of witness)

[Redacted Address]

[Redacted Signature]

Witness
(Signature)

SUBSCRIBED for and on behalf of the said
OXFORD FINANCE LUXEMBOURG S.À R.L.
 acting in respect of its Compartment 4

By



Authorised signatory **Melanie Florsch**
 (Print Full Name) **Manager**



Authorised signatory **Caroline Kinyua**
 (Signature) **Manager**

Authorised signatory
 (Print Full Name)

2 route d'Arlon
 L-8008 Strassen
 at Luxembourg

(place of signing)

Authorised signatory
 (Signature)

2 route d'Arlon
 L-8008 Strassen
 on Luxembourg

(date of signing)

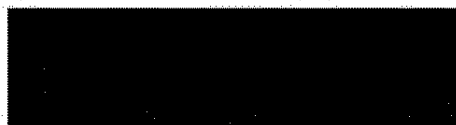
Before this witness:



Witness **Lu Huang**
 (Print Full Name)

2 route d'Arlon
 L-8008 Strassen
 Luxembourg

(address of witness)



Witness **Lu Huang**
 (Signature)

2 route d'Arlon
 L-8008 Strassen
 Luxembourg

This is the Schedule referred to in the foregoing Scottish Security Agreement between **4D PHARMA RESEARCH LIMITED** (as Chargor) and **OXFORD FINANCE LUXEMBOURG S.À R.L.**, acting in respect of its Compartment 4 (as Collateral Agent)

SCHEDULE

Part 1 – INTELLECTUAL PROPERTY Part 1A – Registered Intellectual Property

Priority Date	Filing Date	Territory	Application No.	Publication No.	Patent No.	Status	Current Expiry	Summary of Coverage
21-Nov-01	20-Nov-02	Australia	2002-343063	2002-343063	2002-343063	Granted, in force.	20-Nov-22	<i>Bacteroides thetaiotaomicron</i> in the treatment of inflammatory disease, including Crohn's Disease
21-Nov-01	20-Nov-02	Canada	2468082	2468082	2468082	Granted, in force.	20-Nov-22	
21-Nov-01	20-Nov-02	Europe	02779724.0	1448995	1448995	Granted, validated in Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and Switzerland, United Kingdom.	20-Nov-22	
21-Nov-01	20-Nov-02	Japan	2003-547968	2005-510733	5362940	Granted, in force.	20-Nov-22	
21-Nov-01	20-Nov-02	USA	10/285224	2003/133875	7998474	Granted, in force.	20-Nov-22	
14-Jul-11	13-Jul-12	Canada	2841576	2841576	N/A	Pending	13-Jul-32	Porcine lactic acid bacterial strains and the use thereof in intestinal disorders.
14-Jul-11	13-Jul-12	China	201280044674.0	104080903	104080903	Granted	13-Jul-32	
14-Jul-11	13-Jul-12	China	201810577085.8	109777746	N/A	Pending	13-Jul-32	

14-Jul-11	13-Jul-12	Europe	12737592.1	2732023	2732023	Granted, validated in Albania, Austria, Belgium, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	13-Jul-32	
14-Jul-11	13-Jul-12	Russia	2014105461	2014105461	2677890	Granted	13-Jul-32	
14-Jul-11	13-Jul-12	Russia	2019100532	N/A	N/A	Pending	13-Jul-32	
14-Jul-11	13-Jul-12	USA	14/232475	2015/050254	9539293	Granted	13-Jul-32	
14-Jul-11	13-Jul-12	USA	15/359144	2017/0173089	10183046	Granted	13-Jul-32	
14-Jul-11	13-Jul-12	USA	16/206250	2019/0216865	11013773	granted	13-Jul-32	
14-Jul-11	13-Jul-12	USA	17/232871	N/A	N/A	Pending	13-Jul-32	
07-Oct-11	08-Oct-12	Australia	2012-320255	2012-320255	2012-320255	Granted	08-Oct-32	Roseburia hominis in the treatment of inflammatory disease, including Crohn's Disease including ulcerative colitis
07-Oct-11	08-Oct-12	Australia	2017-202497	2017-202497	2017-202497	Granted	08-Oct-32	
07-Oct-11	08-Oct-12	Brazil	112014008044.5	112014008044.5	N/A	Pending	08-Oct-32	
07-Oct-11	08-Oct-12	Canada	2850000	2850000	2850000	Granted	08-Oct-32	

07-Oct-11	08-Oct-12	China	2012-80654515.9	103930117	103930117	Granted	08-Oct-32
07-Oct-11	08-Oct-12	China	201810653382.6	108913615	N/A	Pending	08-Oct-32
07-Oct-11	08-Oct-12	Europe	12775538.7	2763685	2763685	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	08-Oct-32
07-Oct-11	08-Oct-12	Europe	16166001.4	3097919	3097919	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta,	08-Oct-32

						Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom		
07- Oct-11	08-Oct-12	India	3582/DELNP/2014	3582/DELNP/2014	N/A	Pending	08-Oct-32	
07- Oct-11	08-Oct-12	Hong Kong	15100681.7	1200116	1200116	Granted	08-Oct-32	
07- Oct-11	08 Oct 12	Hong Kong	17103/11.3	1230077	1230077	Granted	08-Oct-32	
07- Oct-11	08-Oct-12	Japan	2014-533994	2014-534957	6290086	Granted	08-Oct-32	
07- Oct-11	08-Oct-12	Japan	2018-020250	2018-99126	6745827	Pending	08-Oct-32	
07- Oct-11	08-Oct-12	Mexico	a/2014/004220	2014/004220	350325	Granted	08-Oct-32	
07- Oct-11	08-Oct-12	Mexico	a/2017/011243	N/A	N/A	Pending	08-Oct-32	
07- Oct-11	08-Oct-12	Russia	2014118464	2014118464	2645466	Granted	08-Oct-32	
07- Oct-11	08-Oct-12	Russia	2018102079	N/A	N/A	Pending	08-Oct-32	
07- Oct-11	08-Oct-12	USA	14/349907	2015/0132264	9314489	Granted	08-Oct-32	
07- Oct-11	08-Oct-12	USA	15/070605	2016/279177	9937211	Granted	08-Oct-32	
07- Oct-11	08-Oct-12	USA	16/006988	2018/0271918	N/A	Pending	08-Oct-32	
10- Apr-13	10-Apr-14	Australia	2014-202021	2014-202021	2014-202021	Granted	10-Apr-34	Flagellin proteins obtained from organisms of the Roseburia genus
10- Apr-13	10-Apr-14	Australia	2019203688	N/A	2019203688	Granted	10-Apr-34	
10- Apr-13	10-Apr-14	Canada	2848725	2848725	N/A	Pending	10-Apr-34	
10- Apr-13	10-Apr-14	China	201480033216.6	105407908	N/A	Pending	10-Apr-34	

10-Apr-13	10-Apr-14	Europe	14717823.0	3010523	3010523	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	10-Apr-34
10-Apr-13	10-Apr-14	Europe	17204215.2	3318268	N/A	Pending	10-Apr-34
10-Apr-13	10-Apr-14	Hong Kong	16111589.6	1223289	1223289	Granted	10-Apr-34
10-Apr-13	10-Apr-14	Hong Kong	18106565.2	1247090	N/A	Pending	10-Apr-34
10-Apr-13	10-Apr-14	Japan	2016-507061	2016-517848	6641262	Granted	10-Apr-34
10-Apr-13	10-Apr-14	Japan	2019-238189	N/A	N/A	Pending	10-Apr-34
10-Apr-13	10-Apr-14	Mexico	2015/014281	MX/2015/014281	363015	Granted	10-Apr-34
10-Apr-13	10-Apr-14	Russia	2015147864	2015147864	2682651	Granted	10-Apr-34
10-Apr-13	10-Apr-14	Turkey	2014/04161	2014-G-129259	N/A	Granted	10-Apr-34
10-Apr-13	10-Apr-14	USA	14/249710	2015/071957	9796762	Granted	10-Apr-34
10-Apr-13	10-Apr-14	USA	15/704245	2018/0072778	N/A	Pending	10-Apr-34
10-Apr-13	10-Apr-14	USA	16/897064	N/A	N/A	Pending	10-Apr-34
10-Apr-13	10-Apr-14	Brazil	112015025854-9	N/A	N/A	Abandoned	10-Apr-34

10-Apr-13	10-Apr-14	India	9399/DELNP/2015	9399/DELNP/2015	N/A	Abandoned	10-Apr-14	
23-Dec-14	22-Dec-15	Australia	2015-370665	2015-370635	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Canada	2970234	2970234	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	China	2015800768343	107810008	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Eurasia	201791426	201791426	201791426	Granted	22-Dec-35	
23-Dec-14	22-Dec-15	Europe	15819853.1	3193901	3193901	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	22-Dec-35	Pirin-like protein derived from BT2013
23-Dec-14	22-Dec-15	Europe	18165424.5	3400953	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Hong Kong	17112777.5	1239513	1239513	Granted	22-Dec-35	
23-Dec-14	22-Dec-15	Hong Kong	19122250.4	1262268	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Israel	252812	252812	252812	Granted	22-Dec-35	
23-Dec-14	22-Dec-15	Japan	2017-531232	2018-501228	6427278	Granted	22-Dec-35	

23-Dec-14	22-Dec-15	Japan	2018-201967	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Korea	10-2017-7019419	20170091157	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Singapore	11201/04814S	11201704814S	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Singapore	1020210599GW	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	South Africa	2017/03894	2017/03894	2017/03894	Granted	22-Dec-35	
23-Dec-14	24-Dec-15	US	15/631952	2017/0326202	10456444	Granted	23-Dec-35	
23-Dec-14	24-Dec-15	US	16/560381	2020/0164027	10973872	Granted	23-Dec-35	
23-Dec-14	24-Dec-15	US	17/193348	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Argentina	20150104270	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Brazil	112017013274-5	112017013274-5	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Indonesia	P-00201605/83	2017/11688	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	India	2017/17022099	2017/17022099	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Malaysia	PI2017702242	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Mexico	a/2017/008449	2017008449	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	New Zealand	733139	733139	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Saudi Arabia	517381787	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	23-Dec-15	Taiwan	2015-0143467	TW2016-27319	N/A	Abandoned	23-Dec-35	
23-Dec-14	22-Dec-15	UAE	PE000769/2017	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Venezuela	2015001051	2015001051	N/A	Abandoned	22-Dec-35	
								BT 2013 and its use in treating GI conditions
24-Dec-14	23-Dec-15	ARIPO	P/2017/009971	N/A	N/A	Pending	23-Dec-35	
24-Dec-14	22-Dec-15	Australia	2015-370664	2015-370664	2015-370664	Granted	22-Dec-35	
24-Dec-14	22-Dec-15	Australia	2018-205072	2018-205072	2018-205072	Granted	22-Dec-35	
24-Dec-14	22-Dec-15	Brazil	112017012299-5	112017012299-5	N/A	Pending	22-Dec-35	
24-Dec-14	22-Dec-15	Canada	2971108	2971108	2971108	Granted	22-Dec-35	
24-Dec-14	22-Dec-15	Chile	2017-01464	2017-01464	N/A	Pending	22-Dec-35	
24-Dec-14	22-Dec-15	China	2015800768409	108138122	N/A	Pending	22-Dec-35	
24-Dec-14	22-Dec-15	Colombia	NC2017/0005626	NC2017/0005626	35086	Granted	22-Dec-35	
24-Dec-14	22-Dec-15	Eurasia	201791428	201791428	201791428	Granted	22-Dec-35	

24-Dec-14	22-Dec-15	Eurasia	202090948	202090948	N/A	Pending	22-Dec-35
23-Dec-14	22-Dec-15	Europe	15817513.3	3065748	3065748	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	22-Dec-35
23-Dec-14	22-Dec-15	Europe	17202898.7	3395351	N/A	Pending	22-Dec-35
23-Dec-14	22-Dec-15	Hong Kong	17101683.1	1227756	1227756	Granted	22-Dec-35
23-Dec-14	22-Dec-15	Hong Kong	19121073.1	1261189	N/A	Pending	22-Dec-35
23-Dec-14	22-Dec-15	India	2017/7022098	2017/7022098	N/A	Pending	22-Dec-35
23-Dec-14	22-Dec-15	Israel	252854	252854	252854	Granted	22-Dec-35
23-Dec-14	22-Dec-15	Israel	258184	258184	258184	Granted	22-Dec-35
23-Dec-14	22-Dec-15	Japan	2017-531150	2018-506959	6271093	Granted	22-Dec-35
23-Dec-14	22-Dec-15	Japan	2017-249971	2018-90591	6757309	Granted	22-Dec-35
23-Dec-14	22-Dec-15	Korea (South)	10-2017-7019418	20170099940	10-1942955	Granted	22-Dec-35
23-Dec-14	22-Dec-15	Korea (South)	10-2019-7002101	N/A	N/A	Pending	22-Dec-35
23-Dec-14	22-Dec-15	Mexico	a/2017/008247	a/2017/008247	362695	Granted	22-Dec-35

23-Dec-14	22-Dec-15	Mexico	a/2019/001390	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Nigeria	F/P/2017/388	2017/388	2017/388	Granted	22-Dec-35	
23-Dec-14	22-Dec-15	New Zealand	732667	732667	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	New Zealand	764713	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	OAPI	1201700235	1201700235	18349	Granted	22-Dec-35	
23-Dec-14	22-Dec-15	Saudi Arabia	517381819	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Singapore	11201704811Y	11201704811Y	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Singapore	10201913609P	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	South Africa	2017/03864	N/A	N/A	Pending	22-Dec-35	
15-Jun-16	15-Jun-16	Taiwan	105118853	201742920	1621708	Granted	15-Jun-36	
15-Jun-16	15-Jun-16	Taiwan	107108178	201818949	N/A	Pending	15-Jun-36	
23-Dec-14	22-Dec-15	UAE	P6000756/2017	N/A	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	US	15/631945	2017/0326184	10226489	Granted	22-Dec-35	
23-Dec-14	22-Dec-15	US	16/247834	2019/0134108	N/A	Pending	22-Dec-35	
23-Dec-14	22-Dec-15	Argentina	20150104271	103260	N/A	Abandoned	22-Dec-35	
24-Dec-14	22-Dec-15	Bahrain	109/2017	N/A	N/A	Abandoned	22-Dec-35	
24-Dec-14	22-Dec-15	Egypt	PCT988/2017	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Indonesia	P-00201605781	2018/03085	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Malaysia	PI2017/02277	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Malaysia	PI2018000894	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Oman	P/2017/00195	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Peru	1112-2017	11382017	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Qatar	201706/00259	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	23-Dec-15	Taiwan	2015-0143468	2016-32619	N/A	Abandoned	23-Dec-35	
23-Dec-14	22-Dec-15	Thailand	1701003530	N/A	N/A	Abandoned	22-Dec-35	
23-Dec-14	22-Dec-15	Venezuela	2015001050	2015001050	N/A	Abandoned	22-Dec-35	
								Roseburia including R. hominis in the treatment of autoimmune / inflammatory diseases and cancer. Data indicative of efficacy of MRX001 in
15-Jun-15	15-Jun-15	GB	GB1510468.0	N/A	N/A	Withdrawn	N/A	
15-Jun-15	19-Apr-16	GB	GB1606807.4	N/A	N/A	Withdrawn	N/A	
15-Jun-15	15-Jun-16	Australia	2016278070	2016278070	N/A	Pending	15-Jun-36	

15-Jun-15	15-Jun-16	Canada	2988693	N/A	N/A	Pending	15-Jun-36	neutrophilic asthma, allergic asthma, rheumatoid arthritis and multiple sclerosis included.
15-Jun-15	15-Jun-16	China	201680040091.9	107847529	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	16731642.1	3307288	3307288	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	19187872.7	3662917	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Hong Kong	18106290.4	1246675	1246675	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Hong Kong	42020019887.7	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Israel	256009	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Japan	2017-501379	2018-500270	6426264	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Japan	2018-200086	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Korea (South)	10-2018-7000115	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	OAPI	1201700489	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Singapore	10201912326Q	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	South Africa	2017/07970	N/A	N/A	Granted	15-Jun-36	

15-Jun-15	15-Jun-16	Taiwan	201716075	201716075	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	US	15/842635	2018/133265	10500237	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	16/597673	2020/0206276	N/A	Pending	15-Jun-36
15-Jun-15	14-Jun-16	Argentina	20160101763	104991	N/A	Abandoned	14-Jun-36
15-Jun-15	15-Jun-16	ARIPO	P/2018/010439	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Brazil	112017026786-1	112017026786-1	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Bahrain	230/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Chile	2017-03193	2017-03193	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Colombia	NC2017/0013287	NC2017/0013287	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Egypt	2038/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Eurasia	201890050	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	India	2018/17001125	2018/17001125	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Indonesia	P-00701605789	2017/11691	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Malaysia	PI2017704789	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Mexico	a/2017/016529	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	New Zealand	737769	737769	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Nigeria	F/P/2017/584	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Oman	P/2017/00374	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Peru	2716-2017	2716-2017	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Qatar	201712/00556	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Saudi Arabia	517390522	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	11201709807W	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	South Africa	2017/07970	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Thailand	1701007399	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	UAE	P6001544/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	14-Jun-16	Venezuela	2016000769	N/A	N/A	Abandoned	14-Jun-36
15-Jun-15	15-Jun-15	GB	1510470.6	N/A	N/A	Withdrawn	N/A
15-Jun-15	20-Nov-15	GB	1520510.7	N/A	N/A	Withdrawn	N/A
15-Jun-15	04-Mar-16	GB	1603786.3	N/A	N/A	Withdrawn	N/A

Bacteroides including MRX002 and B thetaiotamicron in the treatment of inflammatory diseases and cancer. Data indicative of efficacy of MRX002 in

15-Jun-15	15-Jun-16	Australia	2016278066	2016278066	N/A	Pending	15-Jun-36	neutrophilic asthma, allergic asthma, rheumatoid arthritis and multiple sclerosis included.
15-Jun-15	15-Jun-16	Canada	2988557	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	China	201680041407.6	108271355	201680041407.6	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	China	202011077125.6	112156114	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	16731639.7	3204024	N/A	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	19187822.2	3626248	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Hong Kong	18100308.7	1240831	1240831	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Hong Kong	42020013563	40023525	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Israel	255794	255794	255794	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Israel	276798	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Japan	2017-501360	2017-537871	6375051	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Japan	2018-136622	2018-203742	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Korea (South)	10-2018-7000113	N/A	N/A	Pending	15-Jun-36	

15-Jun-15	15-Jun-16	OAPI	1201700486	1201700486	18687	Granted	15-Jun-36
15-Jun-15	15-Jun-16	South Africa	2017/07854	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	10201912325W	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Taiwan	201716074	201716074	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	US	15/592178	2017/0319634	10058574	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	16/040356	2019/0015459	10391130	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	16/505098	2020/061128	10780134	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	16/845867	N/A	11040075	granted	15-Jun-36
15-Jun-15	15-Jun-16	US	17/318015		N/A	Pending	15-Jun-36
15-Jun-15	14-Jun-16	Argentina	20160101764	104992	N/A	Abandoned	14-Jun-36
15-Jun-15	15-Jun-16	ARIPO	P/2018/010438	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Bahrain	229/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Brazil	112017025004-7	112017025004-7	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Chile	2017-03192	2017-03192	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Colombia	NC2017/0013446	NC2017/0013446	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Eurasia	201890047	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Egypt	2062/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	India	201817001116	201817001116	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Indonesia	P-00201605786	2018/01909	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Malaysia	PI2017704790	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Mexico	a/2017/016525	a/2017/016525	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	New Zealand	737767	737767	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Nigeria	F/P/2017/583	F/P/2017/583	F/P/2017/583	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Oman	F/2017/00373	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Peru	2722-2017	2722-2017	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Qatar	201712/00553	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Saudi Arabia	517390523	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	11201705737Y	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Thailand	1701007397	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	UAE	P6001641/2017	N/A	N/A	Abandoned	15-Jun-36

15-Jun-15	14-Jun-16	Venezuela	2016000266	2016000266	N/A	Abandoned	14-Jun-36	
15-Jun-15	15-Jun-15	GB	1510467.2	N/A	N/A	Withdrawn	N/A	
15-Jun-15	20-Nov-15	GB	1520501.6	N/A	N/A	Withdrawn	N/A	
15-Jun-15	15-Jun-16	ARIPO	P/2018/010434	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Australia	2016278072	2016278072	2016278072	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Australia	2020244599	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Brazil	112017026564-8	112017026564-8	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Canada	2988695	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	China	201680033991.0	10B271353	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Eurasia	201890051	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Eurasia	201990051	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Eurasia	202191149	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	16731268.5	3206700	3206700	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden,	15-Jun-36	MRX004 and biotypes thereof in the treatment of autoimmune / inflammatory diseases and cancer. Data indicative of efficacy of MRX004 in neutrophilic asthma, allergic asthma, rheumatoid arthritis, multiple sclerosis and cancer included.

						Switzerland, Turkey, the United Kingdom		
15- Jun-15	15-Jun-16	Europe	18165143.1	3360559	3360559	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	15-Jun-36	
15- Jun-15	15-Jun-16	Europe	19196804.9	3355003	N/A	Pending	15-Jun-36	

15-Jun-15	15-Jun-16	Hong Kong	18100334.5	1240833	1240833	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Hong Kong	19100928.6	1258573	1258573	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Hong Kong	42020017850.7	40027894	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	India	2017/1/045181	2017/17045181	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Israel	255662	255662	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Japan	2017-501407	2017-533882	6439037	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Japan	2018-168991	2018-168991	6527280	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Japan	2019-089328	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Korea (South)	10-2017-7035051	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Mexico	a/2017/016398	a/2017/016398	378686	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Mexico	a/2021/000077	a/2021/000077	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	New Zealand	737752	737752	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Nigeria	F/P/2017/556	F/P/2017/556	F/P/2017/556	Granted	15-Jun-36
15-Jun-15	15-Jun-16	OAPI	1201700487	1201700487	18777	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Saudi Arabia	517390513	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	102019123195	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	102019123201	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	South Africa	2017/07745	2017/07745	2017/07745	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Taiwan	201709917	201709917	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	UAE	P6001645/2017	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	US	15/700007	2017/368110	10744167	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	16/219657	2019/099458	10736926	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	16/248857	2019/0247448	10864236	Granted	15-Jun-36
15-Jun-15	15-Jun-16	US	17/006356	N/A	N/A	Pending	15-Jun-36
15-Jun-15	14-Jun-16	Argentina	20160101762	104990	N/A	Abandoned	14-Jun-36
15-Jun-15	15-Jun-16	Bahrain	228/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Chile	2017-03142	2017-03142	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Colombia	NC2017/0012829	NC2017/0012829	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Egypt	2039/2017	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Indonesia	P-00201605784	2017/11927	N/A	Abandoned	15-Jun-36

15-Jun-15	15-Jun-16	Malaysia	PI2017704784	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Oman	P/2017/00366	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Peru	2541-2017	2422018	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Qatar	201712/00557	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	11201709437Q	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	15-Jun-16	Thailand	1701007401	N/A	N/A	Abandoned	15-Jun-36
15-Jun-15	14-Jun-16	Venezuela	2016000271	2016000271	N/A	Abandoned	14-Jun-36
15-Jun-15	15-Jun-15	GB	1510469.8	N/A	N/A	Withdrawn	N/A
15-Jun-15	23-Nov-15	GB	1520628.7	N/A	N/A	Withdrawn	N/A
15-Jun-15	17-Mar-16	GB	1604566.8	N/A	N/A	Withdrawn	N/A
15-Jun-15	15-Jun-16	Australia	2016278069	2016278069	2016278069	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Australia	2020241805	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Canada	2988686	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	China	201680040970.1	108738311	ZL201680040970.1	Granted	15-Jun-36
15-Jun-15	15-Jun-16	China	202011087743.9	112370468	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Europe	16731641.3	3204025	3204025	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal,	15-Jun-36

Parabacteroides including P distasonis in the treatment of autoimmune / inflammatory diseases and cancer. Data indicative of efficacy of MRX005 in neutrophilic asthma, allergic asthma, rheumatoid arthritis, multiple sclerosis and uveitis included.

Parabacteroides including *P. distasonis* in the treatment of autoimmune / inflammatory diseases and cancer. Data indicative of efficacy of MRX005 in neutrophilic asthma, allergic asthma, rheumatoid arthritis, multiple sclerosis and uveitis included.

						Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom		
15-Jun-15	15-Jun-16	Europe	18167277.5	3369425	3369425	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	16-Jun-16	

15-Jun-15	15-Jun-16	Europe	19170925.2	3549592	3549592	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	16-Jun-36
15-Jun-15	15-Jun-16	Europe	21153479.7	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Hong Kong	18100357.7	1240835	1240835	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Hong Kong	19119924.9	1260125	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Hong Kong	42020004439	40014436	40014436	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Israel	255783	255783	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Japan	2017-501359	2018-502551	6389950	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Japan	2018-153877	2018-199695	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Korea (South)	10-2018-7000111	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Macao	J/004684(187)	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	OAPI	1201700485	18660	18660	Granted	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	10201912322P	N/A	N/A	Pending	15-Jun-36
15-Jun-15	15-Jun-16	Singapore	10201912321R	N/A	N/A	Pending	15-Jun-36

15-Jun-15	15-Jun-16	South Africa	2017/07774	2017/07774	2017/07774	Granted	15-Jun-16	
15-Jun-15	15-Jun-16	Taiwan	201709918	201709918	N/A	Pending	15-Jun-16	
15-Jun-15	15-Jun-16	US	15/679857	2017/0354695	10493112	Granted	15-Jun-16	
15-Jun-15	15-Jun-16	US	16/100349	N/A	N/A	Pending	15-Jun-16	
15-Jun-15	15-Jun-16	US	16/598699	N/A	N/A	Pending	15-Jun-16	
15-Jun-15	15-Jun-16	ARIPO	P/2018/010437	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	14-Jun-16	Argentina	20160101/65	104993	N/A	Abandoned	14-Jun-16	
15-Jun-15	15-Jun-16	Bahrain	227/2017	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Brazil	112017025003-9	112017025003-9	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Chile	2017-03191	2017-03191	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Colombia	NC2017/0013231	NC2017/0013231	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Egypt	2061/2017	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Eurasia	201830049	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	India	201817001113	201817001113	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Indonesia	P-00201605/82	2017/11374	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Malaysia	PI2017704786	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Mexico	a/2017/016564	a/2017/016564	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	New Zealand	737588	737588	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Nigeria	F/P/2017/565	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Oman	P/2017/00372	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Peru	2715-2017	2715-2017	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Qatar	201712/00555	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Saudi Arabia	517390529	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Singapore	112017095810	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	Thailand	1701007398	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	15-Jun-16	UAE	P6001643/2017	N/A	N/A	Abandoned	15-Jun-16	
15-Jun-15	14-Jun-16	Venezuela	2016000268	N/A	N/A	Abandoned	14-Jun-16	
15-Jun-15	15-Jun-15	GB	1510466.4	N/A	N/A	Withdrawn	N/A	<i>Blautia</i> including <i>B. stercoris</i> , <i>B. wexlerae</i> , and <i>B. hydrogenotrophica</i> in the treatment of autoimmune /
15-Jun-15	20-Nov-15	GB	1520508.1	N/A	N/A	Withdrawn	N/A	
15-Jun-15	19-Apr-16	GB	1606810.8	N/A	N/A	Withdrawn	N/A	

								inflammatory diseases. Data indicative of efficacy of MRX006 and MRX008 in neutrophilic asthma, allergic asthma, rheumatoid arthritis, multiple sclerosis and uveitis is included.
15-Jun-15	15-Jun-16	Australia	2016278067	2016278067	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Canada	2988661	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	China	201680040548.6	108271354	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	16731640.5	3240554	3240554	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	15-Jun-36	
15-Jun-15	15-Jun-16	Europe	19189140.7	3636272	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Hong Kong	18103631.9	1241202	1241202	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Hong Kong	42020015460	40025556	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Israel	255757	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Japan	2017-501394	2017-535511	6426255	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	Japan	2018-200128	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Korea (South)	10-2018-7000112	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	OAPI	1201700488	1201700488	18810	Granted	15-Jun-36	

15-Jun-15	15-Jun-16	Singapore	10201912324X	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	South Africa	2017/07772	N/A	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	Taiwan	201710495	201710495	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	US	15/673270	2017/0360856	10322151	Granted	15-Jun-36	
15-Jun-15	15-Jun-16	US	16/265238	2019/0151380	N/A	Pending	15-Jun-36	
15-Jun-15	15-Jun-16	ARIPO	P/2018/010435	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	14-Jun-16	Argentina	20160101761	104989	N/A	Abandoned	14-Jun-36	
15-Jun-15	15-Jun-16	Bahrain	226/2017	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Brazil	112017025005-5	112017025005-5	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Chile	2017-03141	2017-03141	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Colombia	MC2017/0013443	MC2017/0013443	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Egypt	2041/2017	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Eurasia	201890048	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	India	201817001114	201817001114	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Indonesia	P-00201605792	2018/01909	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Malaysia	P/2017704808	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Mexico	a/2017/016560	a/2017/016560	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	New Zealand	737570	737570	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Nigeria	F/P/2017/982	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Oman	P/2017/00369	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Peru	2/01-2017	2432018	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Qatar	201712/00554	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Saudi Arabia	517390530	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Singapore	11201709582R	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	Thailand	1701007400	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	15-Jun-16	UAE	P6001642/2017	N/A	N/A	Abandoned	15-Jun-36	
15-Jun-15	14-Jun-16	Venezuela	2016000272	2016000272	N/A	Abandoned	14-Jun-36	
								Enterococcus Including E gallinarum in the treatment of cancer. Data indicative of
20-Nov-15	20-Nov-15	GB	1520502.4	N/A	N/A	Withdrawn	N/A	
20-Nov-15	23-Mar-16	GB	1604924.9	N/A	N/A	Withdrawn	N/A	

20-Nov-15	20-Nov-16	ARIPO	AP/P/2018/010688	N/A	N/A	Pending	20-Nov-36	efficacy of MRX518 in cancer is included.
20-Nov-15	20-Nov-16	Australia	2016357554	2016357554	2016357554	Granted	20-Nov-36	
20-Nov-15	20-Nov-16	Australia	2019204809	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Australia	2021200769	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Brazil	112018010089-7	112018010089-7	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Canada	3005781	3005781	3005781	Granted	20-Nov-36	
20-Nov-15	20-Nov-16	China	201680066772.2	108513545	201680066772.2	Granted	20-Nov-36	
20-Nov-15	20-Nov-16	China	202011080012.1	112569262	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Eurasia	201891200	201891200	34677	Granted	20-Nov-36	
20-Nov-15	20-Nov-16	Eurasia	202090107	202090107	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Europe	16801280.2	3209310	3209310	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Morocco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	20-Nov-36	
20-Nov-15	20-Nov-16	Europe	18153975.0	3363446	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Hong Kong	18113937.9	1254843	1254843	Granted	20-Nov-36	

20-Nov-15	20-Nov-16	Hong Kong	18113303.5	1254166	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Hong Kong	19101150.3	1258786	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Hong Kong	N/A	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	India	201817020256	201817020256	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Israel	259138	259138	259138	Granted	20-Nov-36
20-Nov-15	20-Nov-16	Israel	272343	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Japan	2017-501389	2018-500271	6312919	Granted	20-Nov-36
20-Nov-15	20-Nov-16	Japan	2018-052921	2018-126147	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Korea (South)	10-2018-7013236	10-2018-7013236	10-1914245	Granted	20-Nov-36
20-Nov-15	20-Nov-16	Korea (South)	10-2018-7031177	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Macao	J/004683(735)	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Mexico	a/2018/006240	a/2018/006240	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Mexico	a/2021/000710	a/2021/000710	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	New Zealand	742787	742787	742787	Granted	20-Nov-36
20-Nov-15	20-Nov-16	New Zealand	761322	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Nigeria	F/P/2018/153	F/P/2018/153	F/P/2018/153	Granted	20-Nov-36
20-Nov-15	20-Nov-16	OAPI	1201800177	18794	18794	Granted	20-Nov-36
20-Nov-15	20-Nov-16	Saudi Arabia	518391503	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Singapore	102019042945	102019042945	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	South Africa	2018/02866	2018/02866	2018/02866	Granted	20-Nov-36
20-Nov-15	20-Nov-16	Taiwan	105138159	201739462	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	IAF	P6000685/2018	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	UK	1809695.8	2561748	2561748	Granted	20-Nov-36
20-Nov-15	20-Nov-16	USA	15/357850	2017/0143772	9839655	Granted	20-Nov-36
20-Nov-15	20-Nov-16	USA	15/803721	2018/078585	10357520	Granted	20-Nov-36
20-Nov-15	20-Nov-16	USA	15/803723	2018/055892	9974815	Granted	20-Nov-36
20-Nov-15	20-Nov-16	USA	16/251462	2019-0134109	10610550	Granted	20-Nov-36
20-Nov-15	20-Nov-16	USA	16/703980	N/A	N/A	Pending	20-Nov-36
20-Nov-15	20-Nov-16	Argentina	20160103561	20160103561	N/A	Abandoned	20-Nov-36
20-Nov-15	20-Nov-16	Bahrain	81/2018	N/A	N/A	Abandoned	20-Nov-36

20-Nov-15	20-Nov-16	Chile	2018-01358	201801358	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Colombia	NC2018/0005217	NC2018/0005217	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Egypt	827/2018	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Indonesia	P-00201803414	2018/09055	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Malaysia	PI2018000752	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Oman	P/2018/00130	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Peru	761-2018	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Qatar	201805/00206	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Singapore	11201804161V	11201804161V	11201801161V	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Thailand	1801002936	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Venezuela	2016000536	2016000536	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-15	GB	1520497.7	N/A	N/A	Withdrawn	N/A	<i>Enterococcus faecium</i> in the treatment of autoimmune / inflammatory diseases. Data indicative of efficacy of MRX010 in uveitis Included.
20-Nov-15	21-Nov-16	Australia	2016357553	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Canada	3005518	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	China	201680056726.2	108513544	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Europe	16801036.1	3377082	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Hong Kong	19119984.3	1260158	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Israel	258967	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Japan	2017-501387	2018-537397	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Korea (South)	10-2018-7012468	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Nigeria	F/P/2018/152	FP/P/2018/152	FP/P/2018/152	Granted	20-Nov-36	
20-Nov-15	21-Nov-16	OAPI	1201800175	1201800175	18792	Granted	20-Nov-36	
20-Nov-15	21-Nov-16	Singapore	11201804118V	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Taiwan	105138158	201729822	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	Europe	16801036.1	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	21-Nov-16	USA	15/357936	2017/0143773	10046015	Granted	20-Nov-36	
20-Nov-15	21-Nov-16	USA	16/031024	2019/000892	10471108	Granted	20-Nov-36	
20-Nov-15	21-Nov-16	USA	16/572419	2020/0171098	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Argentina	20160103560	20160103560	N/A	Abandoned	20-Nov-36	

20-Nov-15	20-Nov-16	ARIPO	AP/P/2018/010687	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Bahrain	80/2018	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Brazil	112018009184-7	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Chile	2018-01349	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Colombia	NC2018/0005207	NC2018/0005207	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Egypt	826/2018	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Eurasia	201891199	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	India	201817020254	201817020254	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Indonesia	P-00201803407	P-00201803407	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Malaysia	PI2018701871	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Mexico	a/2018/006239	a/2018/006239	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	New Zealand	742651	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Oman	P/2018/00129	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Peru	626-2018	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Qatar	201805/00205	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Saudi Arabia	518391492	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	UAE	P6000684/2018	N/A	N/A	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	South Africa	2018/02748	2018/02748	2018/02748	Abandoned	20-Nov-36	
20-Nov-15	20-Nov-16	Thailand	1801002937	N/A	N/A	Pending	20-Nov-36	
20-Nov-15	20-Nov-16	Venezuela	2016000537	2016000537	N/A	Abandoned	20-Nov-36	
23-Nov-15	23-Nov-15	GB	1520631.1	N/A	N/A	Withdrawn	N/A	Erysipelatoclostridium including E. ramosum in the treatment of autoimmune / inflammatory diseases. Data indicative of efficacy of MRX027 in uveitis included.
23-Nov-15	23-Nov-16	Australia	2016358971	N/A	N/A	Pending	23-Nov-36	
23-Nov-15	23-Nov-16	Canada	3005513	N/A	N/A	Pending	23-Nov-36	
23-Nov-15	23-Nov-16	China	201680066791.5	108697783	N/A	Pending	23-Nov-36	

23-Nov-15	23-Nov-16	Europe	16804857.7	3209381	3209381	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	23-Nov-36
23-Nov-15	23-Nov-16	Europe	18202101.4	3456386	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	18113936	1254842	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	18114589.8	1255426	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	19127983.5	40004470	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Israel	259099	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Japan	2017-501390	2018-505842	6377835	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Japan	2018-139488	2018-197246	6701276	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Japan	2020-081459	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Korea (South)	10-2018-7012637	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Nigeria	F/P/2018/154	F/P/2018/154	F/P/2018/154	Granted	23-Nov-36
23-Nov-15	23-Nov-16	OAPI	1201800181	1201800181	18797	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Singapore	11201804162W	N/A	N/A	Pending	23-Nov-36

23-Nov-15	23-Nov-16	Singapore	10201913755W	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	South Africa	2018/02795	2018/02795	2018/02795	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Taiwan	105138526	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	UK	1809697.4	2561749	2561749	Granted	23-Nov-36
23-Nov-15	23-Nov-16	UK	2019501.2	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	UK	2019509.5	2588334	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	UK	2019507.9	2588333	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	UK	2019495.7	2587735	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	USA	15/359988	2017/0143775	9987311	Granted	23-Nov-36
23-Nov-15	23-Nov-16	USA	15/969543	2018/0250346	10744166	Granted	23-Nov-36
23-Nov-15	23-Nov-16	USA	16/908919	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Argentina	20160103592	20160103592	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	ARIPO	AP/P/2018/010693	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Bahrain	82/2018	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Brazil	112018009213-4	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Chile	2018-01367	201801367	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Colombia	NC2018/0005226	NC2018/0005226	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Egypt	825/2018	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Eurasia	201891201	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	India	201817020255	201817020255	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Indonesia	P-00201803415	2018/10074	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Malaysia	PI2018701957	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Mexico	a/2018/006399	a/2018/006399	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	New Zealand	/42549	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Oman	P/2018/00131	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Peru	705-2018	705-2018	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Qatar	701805/00207	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Saudi Arabia	518391491	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Thailand	1801002934	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	UAE	P6000697/2018	N/A	N/A	Abandoned	23-Nov-36

23-Nov-15	23-Nov-16	Venezuela	2016000570	2016000570	N/A	Abandoned	23-Nov-36	
23-Nov-15	23-Nov-15	GB	1520638.6	N/A	N/A	Withdrawn	N/A	
23-Nov-15	23-Nov-16	Australia	2016358972	2016358972	2016358972	Granted	23-Nov-36	
23-Nov-15	23-Nov-16	Australia	2018226438	N/A	N/A	Pending	23-Nov-36	
23-Nov-15	23-Nov-16	Canada	3005794	N/A	N/A	Pending	23-Nov-36	
23-Nov-15	23-Nov-16	China	201680065752.3	108495642	201680065752.3	Granted	23-Nov-36	
23-Nov-15	23-Nov-16	China	202011087742.4	112353821	N/A	Pending	23-Nov-36	
23-Nov-15	23-Nov-16	Eurasia	201891202	201891202	34911	Granted	23-Nov-36	
23-Nov-15	23-Nov-16	Europe	16304858.5	3209309	3209309	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	23-Nov-36	<i>Eubacterium</i> including <i>E. contortum</i> in the treatment of autoimmune / inflammatory diseases. Data indicative of efficacy of MRX050 in uveitis included.

23-Nov-15	23-Nov-16	Europe	18159098.5	3360558	3360558	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom	23-Nov-36
23-Nov-15	23-Nov-16	Europe	19204141.6	3659613	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	18111167.4	1251489	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	18112422.3	1253042	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	18159098.5	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	19100930.2	1258575	1258575	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	19204141.6	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Hong Kong	42020019889	40030609	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Israel	259024	259024	259024	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Israel	269508	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Japan	2017-501352	2018-501188	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Japan	2018-160285	2019-011333	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Korea (South)	10-2018-7012986	10-2018-7012986	10-1914248	Granted	23-Nov-36

23-Nov-15	23-Nov-16	Korea (South)	10-2018-7031183	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Nigeria	F/P/2018/155	FP/P/2018/155	FP/P/2018/155	Granted	23-Nov-36
23-Nov-15	23-Nov-16	OAPI	1201800179	1201800179	18795	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Singapore	11201804211Y	11201804211Y	11201804211Y	Granted	23-Nov-36
23-Nov-15	23-Nov-16	Singapore	10201904327S	N/A	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Taiwan	105138527	201729820	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	UK	1809729.5	2560139	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	USA	15/359,972	2017/0143774	10391128	Granted	23-Nov-36
23-Nov-15	23-Nov-16	USA	16/240644	2019/0175666	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	USA	16/504980	2020/0000858	N/A	Pending	23-Nov-36
23-Nov-15	23-Nov-16	Argentina	20160103593	20160103593	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	ARIPO	AP/P/2018/010691	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Bahrain	83/2018	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Brazil	112018009706-3	112018009706-3	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Chile	2018-01368	201801368	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Colombia	NC2018/0005198	NC2018/0005198	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Egypt	824/2018	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	India	201817021370	201817021370	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Indonesia	P-00201803416	2018/00056	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Malaysia	PI2018000806	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Mexico	a/2018/006398	a/2018/006398	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	New Zealand	742766	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Oman	P/2018/00133	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Peru	988-2018	988-2018	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Qatar	201805/00208	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Saudi Arabia	518391498	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	South Africa	2018/02794	2018/02794	2018/02794	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Thailand	1801002935	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	UAE	P6003695/2018	N/A	N/A	Abandoned	23-Nov-36
23-Nov-15	23-Nov-16	Venezuela	2016000571	2016000571	N/A	Abandoned	23-Nov-36

22-May-17	N/A	GB	1708176.1	N/A	N/A	Withdrawn	N/A	Blautia in the treatment of CNS disorders. Data included demonstrating the efficacy of MRX006, MRX008 and Blautix in autism and depression mouse models.
22-May-17	06-Sep-17	GB	1714298.5	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714305.8	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714309.0	N/A	N/A	Withdrawn	N/A	
22-May-17	09-Oct-17	GB	1716493.0	N/A	N/A	Withdrawn	N/A	
22-May-17	09-Nov-17	GB	1718551.3	N/A	N/A	Withdrawn	N/A	
22-May-17	22-May-18	Australia	2018272291	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Canada	3064171	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	China	201880046299.0	110913878	N/A	Pending	22-May-38	
22-May-17	22-May-18	Europe	18727411.3	3630137	N/A	Pending	22-May-38	
22-May-17	22-May-18	Hong Kong	62020015441	40025646	N/A	Pending	22-May-38	
22-May-17	22-May-18	Israel	270684	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Japan	2019-563398	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Korea	10-2019-7037538	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Singapore	11201910612V	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Taiwan	10711/439	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	US	16/692667	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Argentina	20180101357	N/A	N/A	Abandoned	22-May-38	MRX010 in the treatment of CNS disorders Data
22-May-17	22-May-18	Venezuela	2018024306	N/A	N/A	Abandoned	22-May-38	
22-May-17	N/A	GB	1708182.9	N/A	N/A	Withdrawn	N/A	

								demonstrative of the efficacy of MRX010 in animal models for ASD / depressive disorders included.
22-May-17	22-May-18	Europe	18727412.1	3630138	N/A	Pending	22-May-38	
22-May-17	22-May-18	Japan	2019-563621	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Taiwan	107117430	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	US	16/692734	2020/0121756	N/A	Pending	22-May-38	
22-May-17	22-May-18	Argentina	20180101359	N/A	N/A	Abandoned	22-May-38	
22-May-17	22-May-18	Venezuela	2018024310	N/A	N/A	Abandoned	22-May-38	
22-May-17	N/A	GB	1/08176.1	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714298.5	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714305.8	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714309.0	N/A	N/A	Withdrawn	N/A	
22-May-17	09-Oct-17	GB	1716493.0	N/A	N/A	Withdrawn	N/A	
22-May-17	09-Nov-17	GB	1718551.3	N/A	N/A	Withdrawn	N/A	
22-May-17	22-May-18	Europe	18727408.9	3630136	3630136	Granted	22-May-38	Blautia in the treatment of stroke. Data demonstrative of the efficacy of Blautia in the treatment of stroke included.
22-May-17	22-May-18	Hong Kong	62020015440	40025645	N/A	Pending	22-May-38	
22-May-17	22-May-18	Japan	2019-563457	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Taiwan	10711/436	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	US	16/691169	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Argentina	20180101358	N/A	N/A	Abandoned	22-May-38	
22-May-17	22-May-18	Venezuela	2018024308	N/A	N/A	Abandoned	22-May-38	

22-May-17	N/A	GB	1708175.1	N/A	N/A	Withdrawn	N/A	Blautix in the treatment of autoimmune / inflammatory neurological disorders. Data demonstrative of the efficacy of Blautix in the treatment of MS included.
22-May-17	06-Sep-17	GB	1714298.5	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714305.8	N/A	N/A	Withdrawn	N/A	
22-May-17	06-Sep-17	GB	1714309.0	N/A	N/A	Withdrawn	N/A	
22-May-17	09-Oct-17	GB	1716493.0	N/A	N/A	Withdrawn	N/A	
22-May-17	09-Nov-17	GB	1718551.3	N/A	N/A	Withdrawn	N/A	
22-May-17	22-May-18	Europe	18727413.9	3630139	N/A	Pending	22-May-38	
22-May-17	22-May-18	Hong Kong	62020015440	40025644	N/A	Pending	22-May-38	
22-May-17	22-May-18	Japan	2019-563363	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Taiwan	107117437	N/A	N/A	Pending	22-May-38	MRX554 in the treatment of cancer. Data included demonstrative of the efficacy of MRX554 in the treatment of cancer included.
22-May-17	22-May-18	US	16/691439	N/A	N/A	Pending	22-May-38	
22-May-17	22-May-18	Argentina	20180101350	N/A	N/A	Abandoned	22-May-38	
22-May-17	22-May-18	Venezuela	2018024312	N/A	N/A	Abandoned	22-May-38	
24-May-17	N/A	GB	1708312.2	N/A	N/A	Withdrawn	N/A	
24-May-17	14-Jul-17	GB	1/11369.7	N/A	N/A	Withdrawn	N/A	
24-May-17	24-May-18	Europe	18728719.8	3630942	N/A	Pending	24-May-38	
24-May-17	24-May-18	Japan	2019-561937	N/A	N/A	Pending	24-May-38	
24-May-17	24-May-18	Taiwan	107117782	N/A	N/A	Pending	24-May-38	
24-May-17	24-May-18	US	16/691136	N/A	10987387	Granted	24-May-38	
24-May-17	24-May-18	Argentina	20180101379	N/A	N/A	Abandoned	24-May-18	

24-May-17	22-May-18	Venezuela	N/A	N/A	N/A	Abandoned	22-May-38	
14-Jun-17	N/A	GB	1709465.7	N/A	N/A	Withdrawn	N/A	
14-Jun-17	15-Jun-17	GB	1709526.6	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805989.9	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805990.7	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805991.5	N/A	N/A	Withdrawn	N/A	
14-Jun-17	25-Apr-18	GB	1806779.3	N/A	N/A	Withdrawn	N/A	
14-Jun-17	25-Apr-18	GB	1806780.1	N/A	N/A	Withdrawn	N/A	
14-Jun-17	14-Jun-18	ARIPO	P/2019/012060	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Australia	2018285445	2018285445	2018285445	Granted	14-Jun-38	
14-Jun-17	14-Jun-18	Australia	2020204265	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Brazil	112019026477-9	112019026477-9	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Canada	3066189	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	China	201880039720.5	111107859	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Eurasia	201992647	201992647	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Europe	18731819.1	3600363	3600363	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal,	14-Jun-38	MRX005 in the Treatment / Prevention of Neurodegeneration

						Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, the United Kingdom		
14-Jun-17	14-Jun-18	Europe	20210763.7	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Hong Kong	62020011110	62020011110	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Israel	271152	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Japan	2019-567619	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Japan	2021-022774	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Korea	10-2019-7037443	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Mexico	a/2019/015217	a/2019/015217	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	New Zealand	760637	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	New Zealand	773318	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	OAPI	1201900488	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Saudi Arabia	519410804	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Singapore	11201912105P	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	South Africa	2019/08021	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Taiwan	107120603	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	UAE	P6001778/2019	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	USA	16/714023	2020/171102	N/A	Pending	14-Jun-38	
14-Jun-17	13-Jun-18	Argentina	20180101631	N/A	N/A	Abandoned	13-Jun-38	
14-Jun-17	14-Jun-18	Venezuela	2018029037	N/A	N/A	Abandoned	14-Jun-38	
14-Jun-17	N/A	GB	1709468.1	N/A	N/A	Withdrawn	N/A	MRX029 and its Use in the Treatment /

14-Jun-17	15-Jun-17	GB	1709534.0	N/A	N/A	Withdrawn	N/A	Prevention of Neurodegeneration
14-Jun-17	10-Aug-17	GB	1712851.3	N/A	N/A	Withdrawn	N/A	
14-Jun-17	09-Mar-18	GB	1803826.5	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805989.9	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805990.7	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805991.5	N/A	N/A	Withdrawn	N/A	
14-Jun-17	25-Apr-18	GB	1806779.3	N/A	N/A	Withdrawn	N/A	
14-Jun-17	25-Apr-18	GB	1806780.1	N/A	N/A	Withdrawn	N/A	
14-Jun-17	14-Jun-18	ARIPO	P/2019/012055	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Australia	2018285453	2018285453	2018285453	Granted	14-Jun-38	
14-Jun-17	14-Jun-18	Australia	2020204099	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Brasil	112019026667-4	112019026667-4	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Canada	3066561	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	China	201880039628.9	110913876	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Eurasia	201992648	201992648	201992648	Granted	14-Jun-38	
14-Jun-17	14-Jun-18	Eurasia	202092549	202092549	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Europe	18735196	3600364	3600364	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal,	14-Jun-38	

						Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, the United Kingdom	
14-Jun-17	14-Jun-18	Europe	20189452.4	3804737	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Hong Kong	62020010239	40020563	40020569	Granted	14-Jun-38
14-Jun-17	14-Jun-18	India	201917051889	201917051889	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Israel	271265	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Japan	2019-567545	2019-567545	6837581	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Japan	2021-18974	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Korea	10-2019-7037448	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Mexico	a/2019/015218	a/2019/015218	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Mexico	a/2021/006456	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	New Zealand	760654	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	New Zealand	773323	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	OAPI	1201900490	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Saudi Arabia	519410805	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Singapore	11201912153V	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	South Africa	2019/08022	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	Taiwan	107120441	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	UAE	P6001780/2019	N/A	N/A	Pending	14-Jun-38
14-Jun-17	14-Jun-18	USA	16/714092	2020/0206280	1100/233	Granted	14-Jun-38
14-Jun-17	14-Jun-18	USA	17/221011	N/A	N/A	Pending	14-Jun-38
14-Jun-17	13-Jun-18	Argentina	20180101629	N/A	N/A	Abandoned	13-Jun-38

14-Jun-17	14-Jun-18	Venezuela	2018029035	N/A	N/A	Abandoned	14-Jun-38	
14-Jun-17	N/A	GB	1709468.1	N/A	N/A	Withdrawn	N/A	
14-Jun-17	15-Jun-17	GB	1709534.0	N/A	N/A	Withdrawn	N/A	
14-Jun-17	10-Aug-17	GB	1712851.3	N/A	N/A	Withdrawn	N/A	
14-Jun-17	09-Mar-18	GB	1803826.5	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805989.9	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805990.7	N/A	N/A	Withdrawn	N/A	
14-Jun-17	11-Apr-18	GB	1805991.5	N/A	N/A	Withdrawn	N/A	
14-Jun-17	25-Apr-18	GB	1806779.3	N/A	N/A	Withdrawn	N/A	
14-Jun-17	25-Apr-18	GB	1806780.1	N/A	N/A	Withdrawn	N/A	
14-Jun-17	14-Jun-18	ARIPO	P/2019/012057	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Australia	2018283994	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Brasil	112019026677-1	112019026677-1	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Canada	3066557	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	China	201880038712.9	111032061	N/A	Pending	14-Jun-38	Organic acid producing bacteria in the treatment of CNS disorders
14-Jun-17	14-Jun-18	Eurasia	201992649	201992649	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Europe	18732044.5	3638273	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Hong Kong	62020015427	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	India	202017001089	202017001089	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Israel	271319	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Japan	2019-568002	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Korea	10-2019-7037450	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Mexico	a/2019/015219	a/2019/015219	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	New Zealand	760605	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	OAPI	1201900491	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Saudi Arabia	519410764	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Singapore	11201912156Q	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	South Africa	2019/08197	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Taiwan	107120503	N/A	N/A	Pending	14-Jun-38	

14-Jun-17	14-Jun-18	UAE	P6001781/2019	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	USA	16/713911	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	13-Jun-18	Argentina	20180101632	N/A	N/A	Abandoned	13-Jun-38	
14-Jun-17	14-Jun-18	Venezuela	N/A	N/A	N/A	Abandoned	14-Jun-38	
14-Jun-17	N/A	GB	1/09466.5	N/A	N/A	Withdrawn	N/A	
14-Jun-17	15-Jun-17	GB	1709533.2	N/A	N/A	Withdrawn	N/A	
14-Jun-17	15-Jun-18	Europe	18731444.8	3638271	3638271	Granted, validated in Albania, Austria, Bosnia & Herzegovina, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, the United Kingdom	14-Jun-38	MRX001 in the Treatment / Prevention of Neurodegeneration
14-Jun-17	15-Jun-18	Japan	2019-568210	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	Taiwan	107120604	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	14-Jun-18	USA	16/713969	N/A	N/A	Pending	14-Jun-38	
14-Jun-17	13-Jun-18	Argentina	20180101630	N/A	N/A	Abandoned	13-Jun-38	

14-Jun-17	14-Jun-18	Venezuela	2018029039	N/A	N/A	Abandoned	14-Jun-38	
10-Aug-17	N/A	GB	1717857.0	N/A	N/A	Withdrawn	N/A	
10-Aug-17	19-Jan-18	GB	1800866.4	N/A	N/A	Withdrawn	N/A	
10-Aug-17	16-Jul-18	Europe	18183542	N/A	N/A	Withdrawn	N/A	
10-Aug-17	10-Aug-18	ARIPO	P/2020/012249	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Australia	2018312955	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Brazil	112020002212-8	112020002212-8	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Canada	3072013	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	China	201880055/80.6	111246866	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Europe	18765808.3	3664824	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Eurasia	202090469	202090469	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Hong Kong	62020019886	40031043	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	India	2020170093/2	202017009372	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Israel	272491	N/A	N/A	Pending	10-Aug-38	MRXS18 in increasing the diversity / inducing stability of the microbiome
10-Aug-17	10-Aug-18	Japan	2020-505827	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Korea	10-2020-7006523	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Mexico	a/2020/001632	a/2020/001632	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	New Zealand	762454	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	OAPI	1202000071	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Saudi Arabia	520411270	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Singapore	11202001174X	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	South Africa	2020/00559	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Taiwan	107128096	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	UAE	P6000188/2020	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	USA	16/784958	N/A	N/A	Pending	10-Aug-38	
10-Aug-17	10-Aug-18	Argentina	20180102286	N/A	N/A	Abandoned	10-Aug-38	
10-Aug-17	10-Aug-18	Venezuela	2018035720	N/A	N/A	Abandoned	10-Aug-38	
07-Dec-17	N/A	GB	1720407.4	N/A	N/A	Abandoned	N/A	FAIM5 Processing Method

19-Jan-18	N/A	GB	1800977.4	N/A	N/A	Withdrawn	N/A	MRX518 in Combination with Pembrolizumab
19-Jan-18	30-Jan-18	GB	1801502.4	N/A	N/A	Withdrawn	N/A	
19-Jan-18	10-Apr-18	GB	1805941.0	N/A	N/A	Withdrawn	N/A	
19-Jan-18	23-Apr-18	GB	1806572.2	N/A	N/A	Withdrawn	N/A	
19-Jan-18	25-May-18	GB	1808628.0	N/A	N/A	Withdrawn	N/A	
19-Jan-18	18-Jan-19	ARIPO	P/2020/012538	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Australia	2019210007	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Brazil	112020014676-5	112020014676-5	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Canada	3068413	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Chile	01888-2020	01888-2020	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	China	201980009130.2	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Colombia	NC2020/0010013	NC2020/0010013	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Eurasia	202091636	202091636	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Europe	19701725.4	3740218	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Hong Kong	62021029418	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	India	207017031621	202017031621	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Israel	275949	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Japan	2020-538821	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Korea	10-2020-7021009	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Mexico	a/2020/007671	a/2020/007671	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	New Zealand	766483	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Nicaragua	2020-000052	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	OAPI	1702000253	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Philippines	1-2020-551080	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Saudi Arabia	520412447	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Singapore	11202006871Y	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	South Africa	2020/04235	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Taiwan	108101942	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	UAE	F6001048/2020	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	USA	16/932052	N/A	N/A	Pending	18-Jan-39	

19-Jan-18	18-Jan-19	Argentina	20190100112	N/A	N/A	Abandoned	18-Jan-39	
19-Jan-18	18-Jan-19	Venezuela	2019-017507	N/A	N/A	Abandoned	18-Jan-39	
19-Jan-18	N/A	GB	1800927.4	N/A	N/A	Withdrawn	N/A	MRXS18 in Combination with Specific PD-1 Inhibitors
19-Jan-18	30-Jan-18	GB	1801502.4	N/A	N/A	Withdrawn	N/A	
19-Jan-18	10-Apr-18	GB	1805941.0	N/A	N/A	Withdrawn	N/A	
19-Jan-18	23-Apr-18	GB	1806572.2	N/A	N/A	Withdrawn	N/A	
19-Jan-18	25-May-18	GB	1808631.4	N/A	N/A	Withdrawn	N/A	
19-Jan-18	18-Jan-19	ARIPO	P/2020/012536	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Australia	2019210004	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Brazil	112020014565-3	112020014565-3	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Canada	3088338	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	China	201980009087.X	111727047	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Eurasia	202091730	202091730	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Europe	19703179.2	3740220	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Hong Kong	62021029414	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	India	202017031434	202017031434	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Israel	276074	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Japan	2020-538852	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Korea	10-2020-7021007	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Mexico	a/2020/007664	a/2020/007664	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	New Zealand	766441	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	OAPI	1202000254	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Saudi Arabia	520412449	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Singapore	11202006873U	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	South Africa	2020/04737	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Taiwan	108101991	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	UAE	P6001050/2020	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	USA	16/931104	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Argentina	20190100115	N/A	N/A	Abandoned	18-Jan-39	

19-Jan-18	10-Jan-19	Venezuela	2019-017511	N/A	N/A	Abandoned	18-Jan-39	
19-Jan-18	N/A	GB	1800927.4	N/A	N/A	Withdrawn	N/A	
19-Jan-18	30-Jan-18	GB	1801502.4	N/A	N/A	Withdrawn	N/A	
19-Jan-18	10-Apr-18	GB	1805941.0	N/A	N/A	Withdrawn	N/A	
19-Jan-18	24-Apr-18	GB	1806572.2	N/A	N/A	Withdrawn	N/A	
19-Jan-18	25-May-18	GB	1808637.2	N/A	N/A	Withdrawn	N/A	
19-Jan-18	18-Jan-19	Australia	2019210005	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Brazil	112020014564-5	112020014564-5	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Canada	3088343	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	China	201980009092	111902153	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Eurasia	202091635	202091635	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Europe	19704381.3	3740221	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Hong Kong	62021029416	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	India	202017031620	202017031620	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Israel	276073	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Japan	2020-538811	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Korea	10-2020-7021008	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Mexico	a/2020/007665	a/2020/007665	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	New Zealand	766331	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	OAPI	1202000256	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Saudi Arabia	520412455	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Singapore	112020068745	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	South Africa	2020/04234	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Taiwan	108101943	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	UAE	P6001051/2020	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	USA	16/932048	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Argentina	20190100111	N/A	N/A	Abandoned	18-Jan-39	
19-Jan-18	18-Jan-19	Venezuela	2019-017505	N/A	N/A	Abandoned	18-Jan-39	

MRX518 in
Combination with PD-
L1 Checkpoint
Inhibitors

19-Jan-18	N/A	GB	1800927.4	N/A	N/A	Withdrawn	N/A	MRX518 in Combination with CTLA4 Checkpoint Inhibitors
19-Jan-18	30-Jan-18	GB	1801502.4	N/A	N/A	Withdrawn	N/A	
19-Jan-18	10-Apr-18	GB	1805941.0	N/A	N/A	Withdrawn	N/A	
19-Jan-18	23-Apr-18	GB	1806572.2	N/A	N/A	Withdrawn	N/A	
19-Jan-18	25-May-18	GB	1808636.3	N/A	N/A	Withdrawn	N/A	
19-Jan-18	18-Jan-19	ARIPO	P/2020/012535	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Australia	2019210003	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Brazil	1120200145955	1120200145955	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Canada	3088333	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	China	201980009131.7	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Eurasia	202091654	202091654	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Europe	19703178.4	3740219	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Hong Kong	62021029417	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	India	202017031433	202017031433	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Israel	275860	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Japan	2020-537606	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Korea	10-2020-7021004	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Mexico	a/2020/007681	a/2020/007681	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	New Zealand	766028	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	OAPI	1202000252	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Saudi Arabia	520412456	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	South Africa	2020/04066	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Singapore	11202006870X	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Taiwan	108101920	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	UAE	P6001049/2020	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	USA	15/931110	N/A	N/A	Pending	18-Jan-39	
19-Jan-18	18-Jan-19	Argentina	20190100113	N/A	N/A	Abandoned	18-Jan-39	
19-Jan-18	18-Jan-19	Venezuela	2019-017509	N/A	N/A	Abandoned	18-Jan-39	
19-Mar-18	N/A	GB	1804384.4	N/A	N/A	Withdrawn	N/A	MRX518 Flagellin

19-Mar-18	18-Jun-18	GB	1809953.1	N/A	N/A	Withdrawn	N/A
19-Mar-18	18-Jun-18	Europe	18178350.7	N/A	N/A	Withdrawn	N/A
19-Mar-19	20-Jul-18	GB	1811900.8	N/A	N/A	Withdrawn	N/A
19-Mar-19	30-Jul-18	GB	1812378.6	N/A	N/A	Withdrawn	N/A
19-Mar-19	17-Aug-18	GB	1813423.9	N/A	N/A	Withdrawn	N/A
19-Mar-18	17-Aug-18	GB	1813444.5	N/A	N/A	Withdrawn	N/A
19-Mar-18	16-Oct-18	GB	1816834.4	N/A	N/A	Withdrawn	N/A
19-Mar-19	29-Oct-18	GB	1817641.2	N/A	N/A	Withdrawn	N/A
19-Mar-19	29-Jan-19	GB	1901199.8	N/A	N/A	Withdrawn	N/A
19-Mar-19	29-Jan-19	GB	1901218.6	N/A	N/A	Withdrawn	N/A
19-Mar-19	13-Feb-19	GB	1901992.6	N/A	N/A	Withdrawn	N/A
19-Mar-19	13-Feb-19	GB	1901993.4	N/A	N/A	Withdrawn	N/A
19-Mar-18	19-Mar-19	ARIPO	P/2020/012718.	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Australia	2019239048	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Brazil	112020019008.0	112020019008.0	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Canada	3094139	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	China	201980020532.2	CN111886018A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Eurasia	202092204	202092204	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Europe	19714132.8	3768284	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	India	202017045285	202017045285	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Israel	277421	N/A	N/A	Pending	19-Mar-39

19-Mar-18	19-Mar-19	Japan	2020-550598	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	Korea	10-2020-7029431	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	Mexico	a/2020/009733	a/2020/009733	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	New Zealand	768856	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	OAPI	1202000352	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	Saudi Arabia	520420165	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	Singapore	11202009259V	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	South Africa	2020/05658	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	Taiwan	108109387	202003000	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	UAE	P5001311/2020	N/A	N/A	Pending	19-Mar-39	
19-Mar-18	19-Mar-19	USA	17/025705	US2021/0138058	N/A	Pending	19-Mar-39	
19-Mar-18	N/A	GB	1804384.4	N/A	N/A	Withdrawn	N/A	MRX518 as an immunostimulant
19-Mar-18	18-Jun-18	Europe	18178350.7	N/A	N/A	Withdrawn	N/A	
19-Mar-18	18-Jun-18	GB	1809953.1	N/A	N/A	Withdrawn	N/A	
19-Mar-18	20-Jul-18	GB	1811900.8	N/A	N/A	Withdrawn	N/A	
19-Mar-18	30-Jul-18	GB	1812378.6	N/A	N/A	Withdrawn	N/A	
19-Mar-18	17-Aug-18	GB	1813423.9	N/A	N/A	Withdrawn	N/A	
19-Mar-18	17-Aug-18	GB	1813444.9	N/A	N/A	Withdrawn	N/A	
19-Mar-18	16-Oct-18	GB	1816834.4	N/A	N/A	Withdrawn	N/A	
19-Mar-18	29-Oct-18	GB	1817641.2	N/A	N/A	Withdrawn	N/A	
19-Mar-18	29-Jan-19	GB	1901199.8	N/A	N/A	Withdrawn	N/A	

19-Mar-18	29-Jan-19	GB	1901218.6	N/A	N/A	Withdrawn	N/A
19-Mar-18	13-Feb-19	GB	1901992.6	N/A	N/A	Withdrawn	N/A
19-Mar-18	13-Feb-19	GB	1901993.4	N/A	N/A	Withdrawn	N/A
19-Mar-18	19-Mar-19	ARIPO	P/2020/012684	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Australia	2019238358	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Brazil	112020018818.2	112020018818.2	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Canada	3094297	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	China	201980026687.7	112004543	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Eurasia	202092149	202092149	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Europe	19714136.9	3768285	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	India	202017040590	2.02017E+11	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Israel	277422	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Japan	2020-550823	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Korea	10-2020-7028232	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Mexico	a/2020/009736	a/2020/009736	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	New Zealand	768093	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	OAPI	1202000353	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Saudi Arabia	520420163	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Singapore	112020092547	N/A	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	Taiwan	108109417	202003001	N/A	Pending	19-Mar-39
19-Mar-18	19-Mar-19	UAE	P6001297/2020	N/A	N/A	Pending	19-Mar-39

19-Mar-18	19-Mar-19	USA	17/D24628	N/A	N/A	Pending	19-Mar-39	
04-May-18	N/A	Europe	18170880.1	N/A	N/A	Withdrawn	N/A	
04-May-18	03-May-19	Australia	2019264214	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	Canada	3098968	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	China	201980034317.8	CN112154202A	N/A	Pending	03-May-39	
04-May-18	03-May-19	Europe	19722591.5	3788134	N/A	Pending	03-May-39	
04-May-18	03-May-19	Hong Kong	62021028946	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	Israel	278353	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	Japan	2020-561084	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	OAPI	1201700489	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	Singapore	11702010935V	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	Korea	10-2020-7033453	N/A	N/A	Pending	03-May-39	
04-May-18	03-May-19	USA	17/089370	N/A	N/A	Pending	03-May-39	
11-May-18	N/A	Europe	18171893.3	N/A	N/A	Withdrawn	N/A	
11-May-18	15-Jun-18	Europe	18178136.0	N/A	N/A	Withdrawn	N/A	
11-May-18	25-Jun-18	GB	1810386.1	N/A	N/A	Withdrawn	N/A	
11-May-18	17-Aug-18	GB	1813460.1	N/A	N/A	Withdrawn	N/A	
11-May-18	29-Oct-18	GB	1817642.0	N/A	N/A	Withdrawn	N/A	
11-May-18	12-Dec-18	GB	1820256.4	N/A	N/A	Withdrawn	N/A	
11-May-18	12-Dec-18	GB	1820264.8	N/A	N/A	Withdrawn	N/A	

Simulated Gastric Environment

MRX029 as an Immunostimulant and Cancer Therapy

11-May-18	13-May-19	ARIPO	P/2020/012829	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Australia	2019267171	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Brazil	112020022833-8	112020022833-8	N/A	Pending	13-May-39
11-May-18	13-May-19	Canada	3038971	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	China	201980031147.8	112601534	N/A	Pending	13-May-39
11-May-18	13-May-19	Eurasia	202092549	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Europe	19725068.1	3743086	N/A	Pending	13-May-39
11-May-18	13-May-19	Hong Kong	62021031059	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	India	202017050473	202017050473	N/A	Pending	13-May-39
11-May-18	13-May-19	Israel	2/84/1	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Japan	2020-545563	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Korea	10-2020-7035242	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Mexico	a/2020/012061	a/2020/012061	N/A	Pending	13-May-39
11-May-18	13-May-19	New Zealand	770870	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	OAPI	1202000411	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Saudi Arabia	520420522	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	South Africa	2020/06710	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Singapore	112020110285	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	Taiwan	108116449	202014513	N/A	Pending	13-May-39
11-May-18	13-May-19	UAE	P6001565/2020	N/A	N/A	Pending	13-May-39
11-May-18	13-May-19	USA	17/013026	N/A	N/A	Pending	13-May-39

11-May-18	N/A	Europe	18171893.3	N/A	N/A	Withdrawn	N/A	MRX0029 in the treatment of autoimmune / inflammatory disorders.
11-May-18	15-Jun-18	Europe	18178136	N/A	N/A	Withdrawn	N/A	
11-May-18	25-Jun-18	GB	1810386.1	N/A	N/A	Withdrawn	N/A	
11-May-18	17-Aug-18	GB	1813460.1	N/A	N/A	Withdrawn	N/A	
11-May-18	29-Oct-18	GB	1817642.0	N/A	N/A	Withdrawn	N/A	
11-May-18	12-Dec-18	GB	1820256.4	N/A	N/A	Withdrawn	N/A	
11-May-18	12-Dec-18	GB	11820264.8	N/A	N/A	Withdrawn	N/A	
11-May-18	13-May-19	Australia	2019267170	N/A	N/A	Pending	13-May-39	
11-May-18	13-May-19	Canada	3099209	N/A	N/A	Pending	13-May-39	
11-May-18	13-May-19	China	201980031512.5	112512539	N/A	Pending	13-May-39	
11-May-18	13-May-19	Europe	19725067.3	3790564	N/A	Pending	13-May-39	
11-May-18	13-May-19	Israel	278452	N/A	N/A	Pending	13-May-39	
11-May-18	13-May-19	Japan	2020-562128	N/A	N/A	Pending	13-May-39	
11-May-18	13-May-19	Korea	10-2020-7035244	N/A	N/A	Pending	13-May-39	
11-May-18	13-May-19	Singapore	11202011031U	N/A	N/A	Pending	13-May-39	
11-May-18	13-May-39	Taiwan	108116469	202011975	N/A	Pending	13-May-39	
11-May-18	13-May-39	USA	17/095427	N/A	N/A	Pending	13-May-39	
14-Jun-18	N/A	International	PCT/EP2018/065808	WO2018/229188	N/A	Pending	14-Jun-38	MRX0071 in the treatment of autoimmune / inflammatory disorders.
14-Jun-18	25-Jun-18	Europe	18179634.3	N/A	N/A	Withdrawn	N/A	
14-Jun-18	09-Apr-19	UK	1905014.5	N/A	N/A	Withdrawn	N/A	
14-Jun-18	14-Jun-19	Taiwan	108120803	202015711	N/A	Pending	14-Jun-39	

14-Jun-18	14-Jun-19	Australia	2019287370	N/A	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	Canada	3,099,880	N/A	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	China	201980038757.0	112351786	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	Europe	19730782.0	3806875	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	Hong Kong	62021029733	N/A	N/A	pending	14-Jun-39	
14-Jun-18	14-Jun-19	Israel	279339	N/A	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	Japan	2020-566881	N/A	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	Korea	10-2020-7036890	N/A	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	Singapore	11202010958Y	N/A	N/A	Pending	14-Jun-39	
14-Jun-18	14-Jun-19	USA	17/121009	N/A	N/A	Pending	14-Jun-39	
19-Jun-18	N/A	GB	1810061.0	N/A	N/A	Withdrawn	N/A	MRX518 Formulation
19-Jun-18	16-Nov-18	GB	1818740.1	N/A	N/A	Withdrawn	N/A	
19-Jun-18	19-Jun-19	ARIPO	P/2020/012855	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Australia	2019289190	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Brazil	112020025123-2	112020025123-2	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Canada	3103064	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	China	201980040742.8	112312896	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Eurasia	202190065	202190065	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Europe	19/34469	3810097	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	India	202017054087	202017054087	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Israel	779190	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Japan	2020-568341	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Korea	10-2020-7035391	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Mexico	a/2020/013282	a/2020/013282	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	New Zealand	770862	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	OAPI	1202800470	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Saudi Arabia	520420761	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	Singapore	11202012621V	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	South Africa	2020/07532	N/A	N/A	Pending	19-Jun-39	

19-Jun-18	19-Jun-19	Taiwan	108121385	202007400	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	UAE	P6001826/2020	N/A	N/A	Pending	19-Jun-39	
19-Jun-18	19-Jun-19	USA	17/120856	N/A	N/A	Pending	19-Jun-39	
25-Jun-18	N/A	Europe	18179641.8	N/A	N/A	Withdrawn	N/A	MRX1342/MRX1343 in the treatment of autoimmune / inflammatory disorders.
25-Jun-18	12-Sep-18	GB	1814836.1	N/A	N/A	Withdrawn	N/A	
25-Jun-18	09-Apr-19	GB	1905600.4	N/A	89328	Withdrawn	N/A	
25-Jun-18	25-Jun-19	Australia	2019294284	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Canada	3103161	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	China	201980051210.4	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Europe	19755806.7	3723777	3723777	Granted	25-Jun-39	
25-Jun-18	25-Jun-19	Europe	21165418.1	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Hong Kong	62021024261	40034401	n/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Israel	279724	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Japan	2020-540266	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Korea	10-2021-7002203	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Singapore	11202012221Y	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	Taiwan	108122216	N/A	N/A	Pending	25-Jun-39	
25-Jun-18	25-Jun-19	USA	17/062239	N/A	N/A	Pending	25-Jun-39	
16-Jul-18	N/A	Europe	18183619.8	N/A	N/A	Withdrawn	N/A	Blautix in the treatment of acute lung injury
16-Jul-18	16-Jul-19	PCI	PCI/EP2019/069162	WO2020/016252	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	Australia	2019303990	N/A	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	Canada	3106139	N/A	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	China	201980052231.8	112566648	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	Europe	19742028.4	3823649	N/A	Pending	15-Jul-39	
16-Jul-18	16-Jul-19	Hong Kong	N/A	N/A	N/A	not filed	16-Jul-39	
16-Jul-18	15-Jul-19	Israel	279963	N/A	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	Japan	2021-501030	N/A	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	Korea	10-2021-7003981	N/A	N/A	Pending	16-Jul-39	

16-Jul-18	16-Jul-19	Singapore	11202100228X	N/A	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	USA	17/149990	N/A	N/A	Pending	16-Jul-39	
16-Jul-18	16-Jul-19	Taiwan	108125137	N/A	N/A	Pending	16-Jul-39	
17-Aug-18	N/A	Europe	18189521.0	N/A	N/A	Withdrawn	N/A	
17-Aug-18	29-Oct-18	GB	1817648.7	N/A	N/A	Withdrawn	N/A	
17-Aug-18	10-Jan-19	GB	1900335.9	N/A	N/A	Withdrawn	N/A	
17-Aug-18	29-Jan-19	GB	1901203.8	N/A	N/A	Withdrawn	N/A	
17-Aug-18	19-Aug-19	PCT	PCT/EP2019/072181	WO2020/035623	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Australia	2019322090	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	ARIPO	P/2021/013036	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Brazil	112021002917-6	112021002917-6	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Canada	3108235	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	China	201980070558.8	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Eurasia	202190554	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Europe	197651/9.7	3836945	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	India	202117010374	N/A	N/A	Pending	19-Aug-39	MRX004 as an immunostimulant
17-Aug-18	19-Aug-19	Israel	280895	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Japan	2021-505956	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Korea	10-2021-7006605	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Mexico	a/2021/001888	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	OAPI	1202100063	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	New Zealand	774026	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Saudi Arabia	521421250	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	Singapore	11202101580T	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	South Africa	2021/00584	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	16-Aug-19	Taiwan	108129383	202023590	N/A	Pending	16-Aug-39	
17-Aug-18	19-Aug-19	UAE	6000229/2021	N/A	N/A	Pending	19-Aug-39	
17-Aug-18	19-Aug-19	USA	17/176791	N/A	N/A	Pending	19-Aug-39	
20-Sep-18	N/A	Europe	18195793.7	N/A	N/A	Withdrawn	N/A	MRx1417 in the treatment of

20-Sep-18	20-Sep-19	PCT	PCT/EP2019/075396	WO2020058499	N/A	Pending	20-Sep-39	autoimmune / inflammatory disorders
20-Sep-18	20-Sep-19	Europe	19769815.2	N/A	N/A	not filed	20-Sep-39	
20-Sep-18	20-Sep-19	Japan	2021-515197	N/A	N/A	pending	20-Sep-39	
20-Sep-18	20-Sep-19	USA	17204996	N/A	N/A	pending	20-Sep-39	
20-Sep-18	20-Sep-19	Taiwan	108134129	202023589	N/A	Pending	20-Sep-39	
19-Oct-18	N/A	Europe	18201603	N/A	N/A	Withdrawn	N/A	MRx0075 in the treatment of autoimmune / inflammatory disorders
19-Oct-18	21-Oct-19	PCT	PCT/EP2019/078598	WO2020/079282	N/A	Pending	21-Oct-39	
19-Oct-18	21-Oct-19	Europe	19801215.5	N/A	N/A	pending	21-Oct-39	
19-Oct-18	21-Oct-19	Japan	2021518945	N/A	N/A	pending	21-Oct-39	
19-Oct-18	21-Oct-19	USA	17231247	N/A	N/A	pending	21-Oct-39	
19-Oct-18	21-Oct-19	Taiwan	108137906	202027768	N/A	Pending	21-Oct-39	
02-Nov-18	N/A	Europe	18204199.6	N/A	N/A	Withdrawn	N/A	MRx0005 as a vaccine adjuvant
02-Nov-18	12-Dec-18	GB	1820261.4	N/A	N/A	Withdrawn	N/A	
02-Nov-18	04-Nov-19	PCT	PCT/EP2019/080131	WO2020089488	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	Australia	2019373731	N/A	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	China	201980072246.0	N/A	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	Israel	282439	N/A	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	Korea	10-2021-7014421	N/A	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	Singapore	11202104258T	N/A	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	Taiwan	108139911	202034949	N/A	Pending	04-Nov-39	
02-Nov-18	04-Nov-19	USA	17/245060	N/A	N/A	Pending	04-Nov-39	
09-Oct-18	N/A	Europe	18199455.9	N/A	N/A	Withdrawn	N/A	Thetanix to stabilise the microbiome
09-Oct-18	09-Oct-19	PCT	PCT/EP2019/077332	WO2020/074569	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Australia	2019358439	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Brazil	112021006660-8	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Canada	3115590	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	China	201980066326.5	112823013	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Eurasia	202190876	N/A	N/A	Pending	09-Oct-39	

09-Oct-18	09-Oct-19	Europe	19794894.6	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	India	202117020902	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Israel	281951	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Japan	2021-518476	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Korea	10-2021-7011650	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Mexico	a/2021/004150	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	New Zealand	775868	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Saudi Arabia	521421673	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	09-Oct-19	Singapore	11202103605W	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	08-Oct-19	Taiwan	108136758	202027767	N/A	Pending	08-Oct-39	
09-Oct-18	08-Oct-19	UAE	6000553/2021	N/A	N/A	Pending	09-Oct-39	
09-Oct-18	08-Oct-19	USA	17/226148	N/A	N/A	Pending	09-Oct-39	
12-Dec-18	N/A	Europe	18212006.3	N/A	N/A	Withdrawn	N/A	Valeric Acid Producers / MRx0029 In the Treatment of C Diff Infection
12-Dec-18	N/A	GB	1820230.9	N/A	N/A	Withdrawn - Priority not claimed	N/A	
12-Dec-18	19-Dec-18	GB	1820745.6	N/A	N/A	Withdrawn	N/A	
12-Dec-18	19-Dec-18	GB	1820744.9	N/A	N/A	Withdrawn - Priority not claimed	N/A	
12-Dec-18	13-May-19	GB	1906731.3	N/A	N/A	Withdrawn - Priority not claimed	N/A	
12-Dec-18	13-May-18	GB	1906732.1	N/A	N/A	Withdrawn	N/A	
12-Dec-18	14-Oct-19	GB	1914856.8	N/A	N/A	Withdrawn	N/A	
12-Dec-18	12-Dec-19	PCT	PCT/EP2019/084993	WO2020/120716	N/A	Pending	12-Dec-39	
17-Dec-18	12-Dec-19	Taiwan	108145615	202038977	N/A	Pending	12-Dec-39	
12-Dec-18	N/A	Europe	18212096.4	N/A	N/A	Withdrawn	N/A	MRx0029 in the treatment of Serotonin Deficiency
12-Dec-18	13-May-19	GB	1906728.9	N/A	N/A	Withdrawn	N/A	
12-Dec-18	14-Oct-19	GB	1914852.7	N/A	N/A	Withdrawn	N/A	
12-Dec-18	12-Dec-19	PCT	PCT/EP2019/084991	WO2020/120714	N/A	Pending	12-Dec-39	
12-Dec-18	12-Dec-19	Israel	283751	N/A	N/A	Pending	12-Dec-39	
12-Dec-18	12-Dec-19	Taiwan	108145619	202038979	N/A	Pending	12-Dec-39	

12-Dec-18	N/A	Europe	18212087.3	N/A	N/A	Withdrawn	N/A	MRx0005 in the treatment of MEK / ERK Cancers
12-Dec-18	04-Nov-19	GB	1916001.9	N/A	N/A	Withdrawn	N/A	
12-Dec-18	04-Nov-19	PCT	PCT/EP2019/080131	N/A	N/A	Withdrawn	12-Dec-38	
12-Dec-18	12-Dec-19	PCT	PCT/EP2019/084994	WO2020/120717	N/A	Pending	12-Dec-39	
12-Dec-18	12-Dec-19	Brazil	112021010917-0	N/A	N/A	Pending	12-Dec-39	
12-Dec-18	12-Dec-19	Taiwan	108145620	202038978	N/A	Pending	12-Dec-39	
10-May-19	10-May-19	Europe	19173945.7	N/A	N/A	Withdrawn	N/A	Blautia in the treatment of fibromyalgia
10-May-19	11-May-20	PCT	PCT/EP2020/063084	WO2020/229428	N/A	Pending	11-May-40	
10-May-19	11-May-20	Taiwan	109115641	202108153	N/A	Pending	11-May-40	
05-Jul-19	N/A	Europe	19184768	N/A	N/A	Withdrawn	N/A	Anaerostipes / Eubacterium / Faecalibacterium in the treatment of HDAC mediated / CNS disease
05-Jul-19	13-Jan-20	GB	2000437.0	N/A	N/A	Withdrawn	N/A	
05-Jul-19	01/02/2020	Europe	20156697.3	N/A	N/A	Withdrawn	N/A	
05-Jul-19	03-Jul-20	PCT	PCT/EP2020/068867	WO2021/004958	N/A	Pending	03-Jul-40	
05-Jul-19	03-Jul-20	Taiwan	109122678	N/A	N/A	Pending	05-Jul-40	
20-Nov-19	N/A	Europe	19210481.8	N/A	N/A	Withdrawn	N/A	Fusicatenibacter (including MRx1578) in the treatment of CNS disorders
20-Nov-19	20-Dec-19	GB	1919003.2	N/A	N/A	Withdrawn	N/A	
20-Nov-19	23-Dec-19	GB	1919227.7	N/A	N/A	Withdrawn	N/A	
20-Nov-19	30-Dec-20	GB	1919420.8	N/A	N/A	Withdrawn	N/A	
20-Nov-19	28-Feb-20	GB	2002902.1	N/A	N/A	Withdrawn	N/A	
20-Nov-19	18-May-20	PCT	PCT/EP2020/063854	WO2021098991	N/A	Pending	28-May-40	
20-Nov-19	20-Nov-20	PCT	PCT/EP2020/082991	WO2021099624	N/A	Pending	20-Nov-40	
20-Nov-19	17-Nov-20	Taiwan	109140098	N/A	N/A	Pending	17-Nov-40	
20-Dec-19	18-Dec-20	Taiwan	109145175	N/A	N/A	Pending	18-Dec-40	
16-Dec-19	16-Dec-19	Europe	19216569.4	3839030	N/A	Pending	N/A	Preparation and formulation of biomass (including Bacteroides)
16-Dec-19	16-Dec-20	PCT	PCT/EP2020/086456	N/A	N/A	Pending	N/A	
16-Dec-19	15-Dec-20	Taiwan	109144180	N/A	N/A	Pending	N/A	

20-Dec-19	N/A	Europe	19219112.0	3838261	N/A	Pending	N/A	Clostridiaceae (including MRx1330) in the treatment of CNS disorders
20-Dec-19	18-Dec-20	PCT	PCT/EP2020/087317	N/A	N/A	Pending	N/A	
20-Dec-19	18-Dec-20	Taiwan	109145151	N/A	N/A	Pending	N/A	
N/A	27-Jan-20	Europe	20153911.1	N/A	N/A	pending	N/A	Use of Enterococcus durans to treat CNS disorders
27-Jan-20	27-Jan-21	PCT	PCT/EP2021/051863	N/A	N/A	pending	N/A	
27-Jan-20	26-Jan-21	Taiwan	110102906	N/A	N/A	pending	N/A	
30-Jun-20	N/A	Europe	20183196.3	N/A	N/A	Pending	N/A	Bacteroides to treat neuroinflammation
28-Oct-20	30-Jun-20	GB	2017110.4	N/A	N/A	Pending	N/A	

Part 1B – Unregistered Intellectual Property
None listed

Part 2 – SPECIFIED INVESTMENTS

None specified.

Part 3 – REPRESENTATIONS AND WARRANTIES

The Chargor represents and warrants to the Collateral Agent and to each Secured Party that:

1. No Security

The Charged Property is, or when acquired will be, owned by the Chargor free from any Lien other than:

- 1.1.1 as created by this Deed; and
- 1.1.2 as permitted by the Loan Documents (including a Permitted Lien).

2. No avoidance

Subject to the Legal Reservations, this Deed creates the security it purports to create and is not liable to be avoided or otherwise set aside on its liquidation or administration or otherwise.

3. Obligations, legal, valid and binding

Subject to the Legal Reservations, this Deed creates legal, valid and binding obligations, enforceable against it in accordance with its terms.

4. Ownership

Save as permitted by the Loan Documents, the Chargor is the owner of all of its Charged Property.

5. Real Property

- 5.1.1 there is no breach of any law, regulation or covenant that is continuing which affects or would be reasonably likely to affect materially the value, saleability or use of its Real Property;
- 5.1.2 There are no undertakings, covenants, agreements, stipulations, reservations, conditions, interest, rights, adverse claims or other matters whatsoever affecting its Real Property which conflict with its present use or adversely affect the value, saleability or use of any of the Real Property, in each case to any material extent;
- 5.1.3 to the best of its knowledge, the Chargor confirms nothing has arisen or has been created or is subsisting which would be an encumbrance (within the meaning of the Land Registration etc. (Scotland) Act 2012) which would be reasonably likely to affect materially its value, saleability or use;
- 5.1.4 all facilities (including access) necessary for the enjoyment and use of its Real Property (including those necessary for the carrying on of its business at the Real Property) are enjoyed by that Real Property and none of those facilities are on terms entitling any person to terminate or limit its use or on terms which conflict with or restrict its use, where the lack of those facilities would be reasonably likely to affect materially its value, saleability or use; and
- 5.1.5 its Real Property is free from any Lien, tenancies or any lease or licence which would be reasonably likely to affect materially its value, saleability or use.

6. Investments

Its Investments are duly authorised, validly issued and fully paid and are not subject to any option to purchase or similar right.

7. Intellectual Property

As at the date of this Deed, all Intellectual Property which is material to its business is identified in part 1 of the Schedule, other than the Intellectual Property referred to in clause 3.3.1 of this Deed.

8. Times for Making Representations and Warranties

- 8.1 The representations and warranties set out in this Deed are made by the Chargor on the date of this Deed (save where a contrary intention is expressed) and are deemed to be repeated thereafter on each day of the Security Period.
- 8.2 When a representation and warranty is deemed to be repeated, in accordance with paragraph 8.1 of this part 3 of the Schedule, it is deemed to be made by reference to the circumstances existing at the time of repetition.

Part 4 – UNDERTAKINGS
Part 4A - General Undertakings

1. NEGATIVE PLEDGE

The Chargor undertakes that it will not at any time create (or agree to create) or permit to subsist any Lien on or in relation to any of its property or assets (including, for the avoidance of doubt, its Intellectual Property) other than as expressly permitted by the Loan Agreement.

2. NO DISPOSALS

The Chargor undertakes that it will not at any time dispose of (or agree to dispose of) all or any part of the Charged Property save as expressly permitted by the Loan Agreement.

3. PRESERVATION OF CHARGED PROPERTY

Subject to the Loan Documents, the Chargor shall manage its Charged Property in a proper and efficient manner which is commercially reasonable, provided that the Chargor shall not do, or permit to be done, anything which might in any way depreciate, jeopardise or otherwise prejudice or diminish the value of any material part of the Charged Property or the effectiveness of the security created by this Deed and shall immediately inform the Collateral Agent of anything which occurs which might have that effect.

4. ENFORCEMENT OF RIGHTS

The Chargor shall use all commercially reasonable endeavours to:

- 4.1.1 procure the prompt observance and performance by the relevant party of all material undertakings, covenants and other obligations imposed on the Chargor's counterparties; and
- 4.1.2 enforce any rights and institute, continue or defend any proceedings relating to any of the Charged Property which the Collateral Agent may from time to time reasonably require, in each case, at the Chargor's cost.

5. INFORMATION AND ACCESS

- 5.1 The Chargor shall deliver to the Collateral Agent from time to time on written request such information about the Charged Property and its compliance with the terms of this Deed as the Collateral Agent may reasonably require.
- 5.2 Without prejudice to the foregoing of the Loan Agreement, no entry by the Collateral Agent (or anyone else authorised by the Collateral Agent) into any Real Property, shall cause the Collateral Agent (or anyone else authorised by the Collateral Agent) to be liable as a creditor in possession.

6. COVENANTS AND LEGAL OBLIGATIONS

The Chargor shall:

- 6.1.1 observe, perform and otherwise comply with all material undertakings, covenants and other material obligations and matters (whether or not contained in any Lease, agreement or other document) from time to time affecting any of the Charged Property or their use or enjoyment and if requested in writing by the Collateral Agent (acting reasonably) produce evidence to satisfy the Collateral Agent that it is complying with such covenants, undertakings, obligations and matters;
- 6.1.2 pay (or procure the payment of) all rents, rates, Taxes, charges, assessments, impositions and other outgoings of any kind which are from time to time payable (whether by the owner or the occupier) in respect of any of the Charged Property and (if requested by the Collateral Agent) produce evidence of payment to satisfy the Collateral Agent.

7. INSURANCE

Section 6.5 (Insurance) of the Loan Agreement shall be deemed incorporated into this Deed, and the Chargor shall comply with it, as if it were set out in full here, *mutatis mutandis*.

Part 4B – Book Debts

1. BOOK DEBTS

1.1 No dealing with Book Debts

Other than permitted under the Loan Agreement, the Chargor shall not create a Lien, dispose, release, exchange, compound, set-off, grant time or indulgence or otherwise deal over, of or with its Book Debts otherwise than by getting in and realising them in the ordinary and proper course of business (and for this purpose the realisation of Book Debts by means of block discounting, factoring or the like shall not be regarded as dealing in the ordinary and proper course of its business).

1.2 Payment of Book Debts

1.2.1 The Chargor shall promptly pay, or procure the prompt payment of, all monies received by it or on its behalf in respect of any of its Book Debts into one of its bank accounts with its principal bankers.

1.2.2 The Chargor shall, at any time after the security constituted or purported to be constituted by this Deed becomes enforceable at the request of the Collateral Agent, execute such security as required by the Collateral Agent of the Book Debts to the Collateral Agent in such terms as the Collateral Agent may require and give notice of that security to the debtors from whom the Book Debts are due, owing or incurred.

Part 4C – Property Undertakings

1. FUTURE ACQUISITIONS

If the Chargor acquires any Real Property after the date of this Deed, it shall:

1.1.1 notify the Collateral Agent promptly, but in any event, within three Business Days following the occurrence of such acquisition;

1.1.2 immediately, if so requested by the Collateral Agent and at the cost of the Chargor, execute and deliver to the Collateral Agent a standard security in favour of the Collateral Agent if that Real Property in any form (consistent with this Deed) which Collateral Agent may require;

1.1.3 ensure that such standard security is correctly noted in the Registers of Scotland.

2. PROPERTY TITLE DOCUMENTS

2.1 The Chargor shall, on the date of this Deed and from time to time, deliver (or procure that there are delivered) to the Collateral Agent (or a nominee specified by the Collateral Agent acting on its behalf) all title documents relating to the Real Property. The Collateral Agent shall be entitled to hold or retain (or have its nominee hold or retain) them.

3. INVESTIGATION OF TITLE

Following the occurrence of an Event of Default which is continuing, the Chargor must grant the Collateral Agent or its lawyers on request all facilities within the power of that Chargor to enable the Collateral Agent or its lawyers (at the expense of the Chargor) after this security has become enforceable to:

3.1.1 carry out investigations of title to the Real Property; and

3.1.2 make such enquiries in relation to any part of the Real Property as a prudent mortgagee might carry out.

4. POWER TO REMEDY

4.1 If following the occurrence of an Event of Default which is continuing, the Chargor fails to perform any title condition, undertaking or stipulation or any term of this Deed affecting its Real Property, that Chargor must allow the Collateral Agent or its agents and contractors:

4.1.1 to enter any part of its Real Property;

4.1.2 to comply with or object to any notice served on that Chargor in respect of its Real Property, and

4.1.3 to take any action as the Collateral Agent may reasonably consider necessary or desirable to prevent or remedy any breach of any such title condition, undertaking or stipulation or term or to comply with or object to any such notice.

- 4.2 The Chargor shall immediately on request by the Collateral Agent pay the costs and expenses of the Collateral Agent or its agents and contractors incurred in connection with any action taken by it under this paragraph 4.2.

5. POSITIVE UNDERTAKINGS

5.1 Real Property Undertakings

The Chargor shall:

- 5.1.1 keep its Real Property in good and substantial repair and condition;
- 5.1.2 keep its Fixtures in a good state of repair and in good working order and condition;
- 5.1.3 perform all the material terms on its part contained in any lease, agreement for lease, licence or other agreement or document which gives that Chargor a right to occupy or use property comprised in its Real Property; and
- 5.1.4 duly and punctually comply with all material covenants and stipulations affecting the Real Property or the facilities (including access) necessary for the enjoyment and use of the Real Property and indemnify each Secured Party in respect of any breach of those covenants and stipulations.

6. DEVELOPMENT

The Chargor shall not, at any time:

- 6.1 carry out or permit to be carried out on any of the Real Properties any development (within the meaning of that expression in the Planning Acts and being development for which the permission of the local planning authority is required);
- 6.2 otherwise pull down or remove the whole, or any part of, any building forming part of any Real Property;
- 6.3 make any material alterations to any Real Property or sever or unfix or remove any of the fixtures from any of the Real Properties nor remove any of the plant and machinery (other than stock-in-trade or work-in-progress) on any Real Property (except for the purpose and in the course of effecting necessary repairs to that asset or of replacing it with a new or improved model or substitute); and
- 6.4 make (or permit others to make) any application for planning permission in respect of any of the Real Properties.

7. LEASES

The Chargor shall not without the prior written consent of the Collateral Agent:

- 7.1 renounce or terminate or agree to the renounce, terminate or termination of any Lease forming part of the Charged Property; or
- 7.2 agree to any amendment of, or to any waiver of rights under, any Lease forming part of the Charged Property.

8. LOCAL AUTHORITY PROPOSALS

8.1 The Chargor shall:

- 8.1.1 give to the Collateral Agent a copy of any notice or order (or any proposal for a notice or order) given, issued or made by any local or other authority relating to any Charged Property;
- 8.1.2 take all necessary steps to comply with that notice, order or proposal; and
- 8.1.3 make or join in making any representations which the Collateral Agent requests in respect of the notice, order or proposal.

9. NO RESTRICTIVE OBLIGATIONS

The Chargor shall not, without the prior consent of the Collateral Agent, enter into any materially onerous or materially restrictive obligations or title conditions affecting the whole or any part of any Real Property or create or permit to arise any encumbrance, servitude or right in or over the whole or any part of any Real Property.

Part 4D – Investment Undertakings

1. TITLE DOCUMENTS AND REGISTRATIONS

1.1 The Chargor shall:

- 1.1.1 inform the Collateral Agent after acquiring howsoever any Investments after the date of this Deed (and in any event within two Business Days) which relate to a company situated in Scotland or subject to Scots law, or following an Event of Default which is continuing, situated in any jurisdiction or subject to any foreign law; and
- 1.1.2 within two Business Days of request, deliver (or procure that there are delivered) to the Collateral Agent (or a nominee specified by the Collateral Agent acting on its behalf) all share certificates or other documents of title to or representing its Investments, together with (in each case in form and substance satisfactory to the Collateral Agent):
 - (i) if any of the Investments is not in its sole name, a declaration of trust in respect of those Investments in its favour duly executed by each person other than the Chargor in whose name those Investments are registered or held;
 - (ii) any instrument of transfer or assignment of such Investments specified by the Collateral Agent duly executed by each person in whose name any of those Investments are registered or held (with the name of the transferee or assignee, the consideration and the date left blank); and
 - (iii) any other Instrument, other document or thing which the Collateral Agent may specify to perfect or improve its security over the Chargor's Investments.

1.2 The Collateral Agent shall be entitled to hold or retain (or have its nominee hold or retain) all items delivered pursuant to paragraph 1.1.

1.3 The Collateral Agent may at any time have any of the Investments registered in its name or in the name of a nominee specified by it acting on its behalf.

2. WAIVERS OF PRE-EMPTION RIGHTS

The Chargor shall ensure that all shareholders of each Company from time to time enter into waivers in a form satisfactory to the Collateral Agent of all pre-emption rights and restrictions in the Articles of Association of that Company from time to time or otherwise which may in any respect vary, restrict or affect the exercise of any rights which may arise in connection with the enforcement of this security or the transfer of the relevant Investments to the Collateral Agent or such other person as the Collateral Agent may so direct.

3. NO SHARE ISSUES, ETC.

The Chargor shall ensure (insofar as it is able by the exercise of all voting rights, powers of control and other means available to it) that, no Company will, without the prior consent of the Collateral Agent:

- 3.1.1 issue or allot (or agree to issue or allot) any shares or other securities or enter (or agree to enter) into or permit any agreement or other arrangement to make, or entitle any person to call for, an issue or allotment of that Company's shares or other securities;
- 3.1.2 in any way modify (or agree to modify) the rights attached to any of the shares in its issued share capital;
- 3.1.3 increase, consolidate, sub-divide or reduce its share capital (or agree to do any of the same);
- 3.1.4 alter (or agree to alter) its memorandum or articles of association;
- 3.1.5 purchase its own shares or reduce its share capital (or agree to do any of the same);
- 3.1.6 take any step to place itself in liquidation or administration or pass any resolution to wind itself up; or
- 3.1.7 refuse to register any transfer of any of its shares which may be lodged for registration by or on behalf of the Collateral Agent or the Chargor in accordance with this Deed.

4. CALLS AND NOTICES

4.1 The Chargor shall:

- 4.1.1 duly and punctually pay (or ensure that there are paid) all calls, instalments or other payments which may be made or become due in respect of the Investments as and when the same become due from time to time; and
- 4.1.2 (and shall procure that its nominee(s) shall) provide the Collateral Agent with a copy of any report, accounts, circular, notice or other item sent or provided to it (or to any person on its behalf) in connection with its holding of the Investments or any of them immediately on receipt them.

4.2 If the Chargor fails to pay any of the sums referred to in paragraph 4.1, the Collateral Agent may, at its discretion but without obligation, make such payments on behalf of that Chargor.

4.3 Any sum paid by the Collateral Agent on behalf of the Chargor under paragraph 4.2:

- 4.3.1 shall be reimbursed by the Chargor on demand by the Collateral Agent on a full indemnity basis;
- 4.3.2 is, pending reimbursement, secured by this security and may be debited to any account of the Chargor as the Collateral Agent deems fit; and
- 4.3.3 shall bear interest on a daily basis from the due date up to the date of actual payment (both before and after judgment), at the rate and on the terms from time to time applicable under the relevant Instrument (or, in the absence of an applicable rate and applicable terms, to be calculated and paid under the terms of the Loan Agreement as if it were an Unpaid Sum).

Part 4E – Equipment Undertakings

1. MAINTENANCE

The Chargor shall maintain its Equipment in good and serviceable condition (except fair wear and tear) and if any such Equipment is destroyed, damaged or deteriorates, repair, replace and make good the same provided it makes commercial sense to do so.

Part 4F – Intellectual Property Undertakings

1. PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

Section 6.7 (Protection of Intellectual Property Rights) of the Loan Agreement shall be deemed incorporated into this Deed as if it were set out in full here, mutatis mutandis, with reference to the Lenders being deemed to refer to the Collateral Agent, references to Intellectual Property being deemed to include Related Rights and reference to Borrower being deemed to refer to the Chargor, and as varied according to the other provisions of this part 4 of the Schedule.