

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6580611

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
ABAXIS LLC	03/02/2020

**RECEIVING PARTY DATA**

<b>Name:</b>	ZOETIS SERVICES LLC
<b>Street Address:</b>	10 SYLVAN WAY
<b>City:</b>	PARSIPPANY
<b>State/Country:</b>	NEW JERSEY
<b>Postal Code:</b>	07054

**PROPERTY NUMBERS Total: 36**

Property Type	Number
Patent Number:	7177767
Patent Number:	7765069
Patent Number:	6818415
Patent Number:	8137920
Patent Number:	8530152
Patent Number:	8846319
Patent Number:	8377643
Patent Number:	8568989
Patent Number:	8828675
Patent Number:	8673576
Patent Number:	8758772
Patent Number:	9034656
Patent Number:	9816987
Patent Number:	9651546
Patent Number:	9157913
Patent Number:	9442112
Patent Number:	9201071
Patent Number:	9470682
Patent Number:	9194870
Patent Number:	9599609

PATENT

Property Type	Number
Patent Number:	9921218
Patent Number:	10488409
Patent Number:	9696300
Patent Number:	9766238
Patent Number:	9702883
Patent Number:	10620196
Patent Number:	9835622
Patent Number:	9851352
Patent Number:	10444231
Patent Number:	10330687
Patent Number:	10073095
Patent Number:	10429383
Patent Number:	10371701
Patent Number:	10281465
Patent Number:	10921321
Patent Number:	10919039

**CORRESPONDENCE DATA**

**Fax Number:** (202)842-7899

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

**Phone:** 2028427800

**Email:** zIPPatentDocketingMailboxUS@cooley.com

**Correspondent Name:** COOLEY LLP / PATENT DEPARTMENT

**Address Line 1:** 1299 PENNSYLVANIA AVENUE, NW, SUITE 700

**Address Line 4:** WASHINGTON, D.C. 20004

**ATTORNEY DOCKET NUMBER:** ISSUED ABAXIS TO ZOETIS

**NAME OF SUBMITTER:** MEGHANN K. TEAGUE

**SIGNATURE:** /Meghann K. Teague/

**DATE SIGNED:** 03/03/2021

**Total Attachments: 22**

- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page1.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page2.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page3.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page4.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page5.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page6.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page7.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page8.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page9.tif
- source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page10.tif

source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page11.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page12.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page13.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page14.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page15.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page16.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page17.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page18.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page19.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page20.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page21.tif  
source=Assignment\_AbaxisLLC-to-ZoetisServicesLLC#page22.tif

## PATENT ASSIGNMENT

This PATENT ASSIGNMENT (the "Assignment") is made effective as of March 2, 2020 (the "Effective Date"), by and between Abaxis LLC, a California limited liability company (which was formed on the conversion of Abaxis, Inc., a California corporation, on February 26, 2020 into a limited liability company), located at 3240 Whipple Road, Union City, CA 94587, United States of America ("Assignor") and Zoetis Services LLC, a limited liability company organized under the laws of Delaware, located at 10 Sylvan Way, Parsippany, NJ 07054, United States of America ("Assignee"). Assignor and Assignee may be referred to herein individually as a "Party" and collectively as the "Parties." Capitalized terms used but not defined herein shall have the meaning ascribed to such terms in the Transfer Agreement (as defined herein).

### RECITALS:

WHEREAS, pursuant to the Asset Transfer Agreement, effective as of March 2, 2020, by and between Assignor and Assignee (the "Transfer Agreement"), Assignor is assigning to the Assignee all of Assignor's right, title and interest in, to and under the issued patents and patent applications identified on Schedule A hereto (collectively, the "Assigned Patent Rights").

NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged and in consideration of the mutual agreements, provisions and covenants contained in this Assignment, the Parties, intending to be legally bound, hereby agree as follows:

1. **Conveyance**. Assignor hereby transfers, conveys and assigns to Assignee its entire right, title and interest in, to and under (a) the Assigned Patent Rights, for the United States and for all foreign countries, including any and all (i) divisionals, continuations, and continuations-in-part that claim priority to any Assigned Patent Rights to the extent the claims thereof are entirely supported by such Assigned Patent Rights, (ii) reissues, renewals, re-examinations, substitutions, extensions, or additions of the Assigned Patent Rights, (iii) foreign equivalents of the Assigned Patent Rights, and (iv) rights to apply for, prosecute and obtain patents in respect of any of the inventions to the extent fully supported by the Assigned Patent Rights in any country of the world, including the right to claim priority from the Assigned Patent Rights under the Paris Convention for the Protection of Industrial Property, and under any and all other applicable treaties and agreements which afford similar priority-claiming privileges, in all countries of the world, and (b) the right to sue for and to recover damages and other remedies in respect of any past, present or future infringement or other unauthorized use or violation of the Assigned Patent Rights.
2. **Issuance and Recordation**. Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue any and all Assigned Patent Rights to Assignee, its successors and assigns, in accordance with the terms of this Assignment. Assignor hereby requests the Commissioner of Patents and Trademarks, and the corresponding entities or agencies in any applicable foreign jurisdiction, to record Assignee as the assignee and owner of the Assigned Patent Rights. Assignee shall have the right to record this Assignment with all applicable government authorities and registrars so as to perfect its ownership of the Assigned Patent Rights.

3. **No Modification.** Nothing contained in this Assignment is intended to or shall be deemed to modify, alter, amend or otherwise change any of the rights or obligations of Assignee or Assignor under the Transfer Agreement. Without limiting the foregoing, in the event and to the extent that there shall be a conflict between the provisions of this Assignment and the provisions of the Transfer Agreement, the Transfer Agreement shall control.
4. **Successors and Assigns.** This Assignment shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.
5. **Counterparts.** This Assignment may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same agreement and shall become effective when one or more counterparts have been signed by each of the Parties and delivered to the other Party, it being understood that both Parties need not sign the same counterpart.
6. **Interpretation.** The Article and Section headings contained in this Assignment are solely for the purpose of reference, are not part of the agreement of the Parties and shall not in any way affect the meaning or interpretation of this Assignment.
7. **Further Assurances.** Assignor and Assignee hereby covenant and agree, without the necessity of any further consideration, to execute, acknowledge, and deliver any and all such other documents and take any such other action as may be reasonably necessary or appropriate to implement this Assignment and carry out the intent and purposes of this Assignment.
8. **Governing Law.** This Assignment is governed by and construed in accordance with the laws of the State of New York, without regard to its conflict of law rules (other than Sections 5-1401 and 5-1402 of the New York General Obligations Law).
9. **Jurisdiction.** With respect to any suit, action or proceeding relating to this Assignment, each Party hereto irrevocably agrees and consents to be subject to the exclusive jurisdiction of the courts of the State of New York and any court of the United States located in the Borough of Manhattan in New York City; (b) waives any objection which such Party may have at any time to the laying of venue of any action brought in any such court, waives any claim that such action has been brought in an inconvenient forum and further waives the right to object, with respect to such action, that such court does not have jurisdiction over such Party; and (c) consents to the service of process at the address set forth for notices in the Transfer Agreement; provided, however, that such manner of service of process shall not preclude the service of process in any other manner permitted under applicable law.

*[Signature page follows]*

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be executed by their duly authorized representatives as of the Effective Date.

ASSIGNOR:  
ABAXIS LLC

Salvatore Gagliardi  
Name: Salvatore Gagliardi

Title: Vice President

ASSIGNEE:  
ZOETIS SERVICES LLC

Jane Ungaro  
Name: Jane Ungaro

Title: Assistant Secretary

WITNESSED AS TO BOTH BY:

Regina Benson  
Name: Regina Benson  
Nationality: USA  
Title: Executive Assistant  
Commercial address:  
10 Sylvan Way  
Parlisspany NJ 07054

WITNESSED AS TO BOTH BY:

Gelsomina Bohmann  
Name: Gelsomina Bohmann  
Nationality: USA  
Title: Senior IP Analyst  
Commercial address:  
10 Sylvan Way  
Parlisspany, NJ 07054

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be executed by their duly authorized representatives as of the Effective Date.

ASSIGNOR:  
ABAXIS LLC

\_\_\_\_\_  
Name: Salvatore Gagliardi

Title: Vice President


ASSIGNEE:  
ZOETIS SERVICES LLC

\_\_\_\_\_  

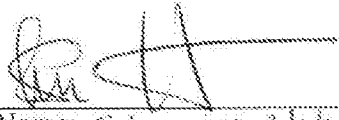

Name: Jane Ungaro

Title: Assistant Secretary

WITNESSED AS TO BOTH BY:

\_\_\_\_\_  
  
Name: Regina Benson  
Nationality: USA  
Title: Executive Assistant  
Commercial address:  
10 Sylvan Way  
Parsippany, NJ 07654

WITNESSED AS TO BOTH BY:

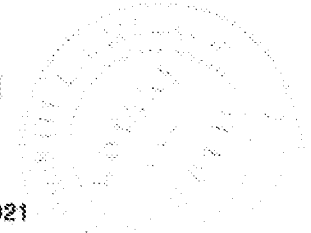
\_\_\_\_\_  
  
Name: Geisming Hohmann  
Nationality: USA  
Title: Senior IP Analyst  
Commercial address:  
10 Sylvan Way  
Parsippany, NJ 07654

STATE OF NEW JERSEY     )  
  )SS.  
COUNTY OF MORRIS        )

This instrument was executed before me on this 3<sup>rd</sup> day of November 2020, by Salvatore Gagliardi, Vice President (title) of ABAXIS LLC, a California limited liability company organized under the laws of California.

Michelle L. McGowan  
Notary Public

MICHELLE L. MCGOWAN  
NOTARY PUBLIC  
STATE OF NEW JERSEY  
ID # 2409814  
MY COMMISSION EXPIRES JUNE 22, 2021

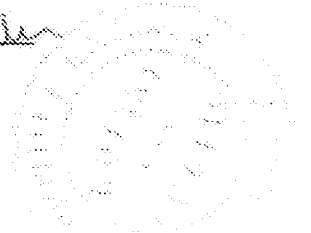


STATE OF NEW JERSEY     )  
  )SS.  
COUNTY OF MORRIS        )

This instrument was executed before me on this 3<sup>rd</sup> day of November 2020, by Jane Ungaro, the Assistant Secretary (title) of ZOETIS SERVICES LLC, a Limited Liability Company organized under the laws of Delaware.

Michelle L. McGowan  
Notary Public

MICHELLE L. MCGOWAN  
NOTARY PUBLIC  
STATE OF NEW JERSEY  
ID # 2409814  
MY COMMISSION EXPIRES JUNE 22, 2021





**SCHEDULE A  
ASSIGNED PATENTS**

Attached.

Schedule A

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Alabama	AL/P/2018/874	11/20/2012	7833	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS SYSTEMS AND METHODS FOR THE DETECTION OF SHORT AND LONG SAMPLES
Australia	2003277426	10/17/2003	2003277426	11/26/2009	Granted	DETECTION OF SHORT AND LONG SAMPLES
Australia	2017289187	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Australia	2010322085	11/17/2010	2010322085	1/5/2017	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Australia	2013329025	10/11/2013	2013329025	10/17/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichia ANTIBODIES
Australia	2012340722	11/20/2012	2012340722	7/12/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Australia	2018304793	6/29/2018			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Australia	2010321790	11/19/2010	2010321790	11/24/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichia ANTIBODIES
Australia	2015209461	1/21/2015	2015209461	12/5/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Australia	2015240632	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRlichia SPECIES
Australia	2015301632	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Australia	2016301375	8/4/2016			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Australia	2018212809	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Australia	2018254610	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Austria	12852350.3	11/20/2012	E1046631	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Austria	10832262.9	11/19/2010	E815722	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichIA ANTIBODIES
Austria	15740392.4	1/21/2015	E1301424	11/29/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Belgium	12852350.3	11/20/2012	Z784216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Belgium	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Brazil	BR112018077664-7	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Brazil	BR1120150880367	10/11/2013			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichIA ANTIBODIES
Brazil	BR1120160167376	1/21/2015			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Brazil	BR1120160231481	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRlichIA SPECIES
Brazil	BR11201700726031	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Brazil	BR1120190156640	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Brazil	BR112019022001-1	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Bulgaria	12852350.3	11/20/2012	Z784216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Canada	2500345	10/17/2003	2500345	12/12/2012	Granted	SYSTEMS AND METHODS FOR THE DETECTION OF SHORT AND LONG SAMPLES
Canada	3039060	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Canada	2781110	11/17/2010	2781110	7/31/2018	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Canada	2886989	10/11/2013			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Canada	2853812	11/20/2012			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Canada	2851540	11/5/2012			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Canada	2781117	11/19/2010	2781117	5/28/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Canada	2933376	1/21/2015			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Canada	2944509	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
Canada	2957134	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Canada	2991532	8/4/2016			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Canada	3051465	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Canada	3057501	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Canada	2742678	12/2/2009			Filed	LATERAL FLOW STRIP ASSAY WITH IMMOBILIZED CONJUGATE
China P.R.	201780052477.6	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
China P.R.	201380063495.6	10/11/2013	201380063495.6	7/4/2017	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
China P.R.	2012800657143.5	11/29/2012	2012800657143.5	7/6/2016	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
China P.R.	201610403886.3	11/16/2016	201610403886.3	6/1/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
China P.R.	201080061669.1	11/19/2010	201080061669.1	10/21/2015	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
China P.R.	201510582480.1	11/19/2010	201510582480.1	4/5/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
China P.R.	201580005151.9	1/21/2015			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
China P.R.	201580023440.1	4/3/2015	201580023440.1	8/21/2018	Granted	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
China P.R.	201580042633.1	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
China P.R.	201680045090.3	8/4/2016			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
China P.R.	201880022558.6	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
China P.R.	201880026307.5	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
China P.R.	201420096875.8	1/6/2014	201420096875.8	8/13/2014	Granted	CENTRIFUGAL ROTOR USED FOR FLUID SAMPLE INDEX DETECTION
Croatia	12852350.3	11/20/2012	P20182023	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Cyprus	CY20181101345	11/20/2012	CY1121291	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Czechia	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Denmark	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Estonia	12852350.3	11/20/2012	E016664	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Europe	03809123.7	10/17/2003			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS AND METHODS FOR THE DETECTION OF SHORT AND LONG SAAMPLES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Europe	17521066.2	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Europe	10832113.4	11/17/2010	2501719	11/4/2015	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Europe	13844762.8	10/11/2013	2906950	3/21/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Europe	18196372.9	9/24/2018			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Europe	12852330.3	11/20/2012	2785216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Europe	19150770.6	1/8/2019			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Europe	10832262.9	11/19/2010	2501718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Europe	19209648.5	11/18/2019			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Europe	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Europe	15772535.9	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
Europe	15831667.9	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Europe	16833889.5	8/4/2016			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Europe	18745189.3	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Europe	18787864.0	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Europe	11796504.6	6/17/2011	2585100	3/2/2016	Granted	ROTORs FOR IMMUNOASSAYS

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Finland	128523350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
France	108321134	11/17/2010	2501719	11/4/2015	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
France	13844762.8	10/11/2013	2906950	3/21/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
France	128523350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
France	10832262.9	11/19/2010	2501718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
France	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Germany	108321134	11/17/2010	602010028864.1	11/4/2015	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Germany	13844762.8	10/11/2013	602013034852.9	3/21/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Germany	128523350.3	11/20/2012	602012051599.6	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Germany	10832262.9	11/19/2010	602010035113.0	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Germany	15740392.4	1/21/2015	602015043047.0	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Germany	11796594.6	6/17/2011	602011023684.9	3/2/2016	Granted	ROTORS FOR IMMUNOASSAYS
Great Britain	108321134	11/17/2010	2501719	11/4/2015	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Great Britain	13844762.8	10/11/2013	2906950	3/21/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Great Britain	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS.
Great Britain	10832262.9	11/19/2010	2501718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Great Britain	11796504.6	6/17/2011	2583100	3/2/2016	Granted	ROTTORS FOR IMMUNOASSAYS
Greece	20180403778	11/26/2012	3098348	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Greece	15740392.4	1/21/2015	20200400238	11/26/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Hong Kong	19130069.3	9/23/2019			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Hong Kong	42019000109.9	12/19/2019			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Hong Kong	18113786.1	6/4/2016			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Hungary	12852350.3	11/20/2012	E041414	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Hungary	15740392.4	1/21/2015	3096784	11/26/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Iceland	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
India	201617037292	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
India	201717003710	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Ireland	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Israel	248165	4/3/2015	248165	11/30/2019	Granted	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
Israel	250564	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS



Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Israel	268238	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Italy	50201800018425	10/11/2013	2906950	3/21/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Italy	50201800041161	11/29/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Italy	502016000107805	11/19/2010	2361718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Italy	15740392.4	1/21/2015	3096784	11/29/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Japan	2004-545458	10/17/2003	4633465	11/26/2010	Granted	SYSTEMS AND METHODS FOR THE DETECTION OF SHORT AND LONG SAMPLES
Japan	2019-519621	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Japan	2015-536934	10/11/2013	6325583	4/20/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Japan	2014-542574	11/20/2012	6367650	1/24/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Japan	2017-245671	12/22/2017			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Japan	2014-540187	11/5/2012			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Japan	2018-190592	10/8/2018			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Japan	2012-540990	11/19/2010	6161291	6/23/2017	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Japan	2016-547569	1/21/2015			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Japan	2016-560708	4/3/2015	6514714	4/19/2019	Granted	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
Japan	2017-507701	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Japan	2018-505669	8/4/2016			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Japan	2019-541198	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Japan	2019-557408	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Japan	2011-500931	3/18/2009	5511095	4/4/2014	Granted	MULTI-WAVELENGTH ANALYSES OF SOL-PARTICLE SPECIFIC BINDING ASSAYS
Japan	2014-033833	2/25/2014	6050772	12/2/2016	Granted	MULTI-WAVELENGTH ANALYSES OF SOL-PARTICLE SPECIFIC BINDING ASSAYS
Korea South	10-2019-7902433	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Korea South	10-2015-7010378	10/11/2013			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
Korea South	10-2019-7012067	4/25/2019	10-2965387	1/7/2020	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Korea South	10-2014-7013716	11/20/2012	10-1975178	4/29/2019	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Korea South	10-2019-7035277	11/28/2019			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Korea South	10-2014-7015224	11/5/2012			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
Korea South	10-2012-7015476	11/19/2010	10-1892482	8/20/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
Korea South	10-2016-7022271	1/21/2015			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Korea South	10-2016-7030795	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRlichIA SPECIES
Korea South	10-2017-7006173	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Korea South	10-2019-7025459	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Korea South	10-2019-7030779	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Latvia	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Lithuania	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Luxembourg	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Mexico	MX/6/2018/016334	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Mexico	MX/6/2016/012986	4/7/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRlichIA SPECIES
Mexico	MX/6/2017/001905	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Mexico	MX/A/2019/00088970	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
Mexico	MX/A/2019/012509	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Netherlands	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Netherlands	10832262.9	11/19/2010	2501718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichIA ANTIBODIES
Netherlands	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
New Zealand	749465	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
New Zealand	724911	4/3/2015			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRlichia SPECIES
New Zealand	728879	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
New Zealand	755886	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
New Zealand	757765	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
North Macedonia	2018/1053	11/20/2012	EP2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Norway	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Poland	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Portugal	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Portugal	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Romania	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Romania	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Serbia	P-2018/1486	11/20/2012	58168	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Singapore	10201901240T	2/13/2019			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Slovakia	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Slovenia	12852350.3	11/20/2012	P-2012231492	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
South Africa	2016/06811	4/3/2015	2016/06811	11/29/2017	Granted	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRlichia SPECIES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
South Africa	2017/00873	8/13/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Spain	13844762.8	10/11/2013	29069950	3/21/2018	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichIA ANTIBODIES
Spain	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Spain	10832262.9	11/19/2010	2501718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichIA ANTIBODIES
Spain	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Sweden	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Switzerland	12852350.3	11/20/2012	2783216	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Switzerland	10832262.9	11/19/2010	2501718	7/27/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRlichIA ANTIBODIES
Switzerland	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
Thailand	104126255	8/12/2015			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
Thailand	1801098043	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
Thailand	1901006701	4/23/2018			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
Turkey	2018/18881	11/20/2012	TR 2018 18881 T4	9/26/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
Turkey	15740392.4	1/21/2015	3096784	11/20/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
United States	10/273873	10/18/2002	7177767	2/13/2007	Granted	SYSTEMS AND METHODS FOR THE DETECTION OF SHORT AND LONG SAMPLES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
United States	11/196941	8/4/2005	7765069	7/27/2010	Granted	SYSTEMS AND METHODS FOR THE DETECTION OF SHORT AND LONG SAMPLES
United States	15/158901	5/19/2016			Filed	NOVEL ASSAYS FOR DETECTING ANALYTES IN SAMPLES AND KITS AND COMPOSITIONS RELATED THERETO
United States	16/227860	6/27/2017			Filed	DEVICES WITH MODIFIED CONDUITS
United States	12/948209	11/17/2010	8568389	10/29/2013	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
United States	14/052236	10/11/2013	9851546	5/16/2017	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	14/252690	4/14/2014	9157913	10/12/2015	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	14/842440	9/1/2015	9696300	7/4/2017	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	15/608560	5/30/2017	10444231	10/15/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	16/555381	8/27/2019			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	13/682306	11/20/2012	9034656	5/19/2015	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
United States	14/688419	4/16/2015	9921218	3/20/2018	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
United States	15/860296	2/1/2018	10281465	5/7/2019	Granted	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
United States	16/359142	3/20/2019			Filed	SIGNAL AMPLIFICATION IN LATERAL FLOW AND RELATED IMMUNOASSAYS
United States	13/667909	11/2/2012	8758772	6/24/2014	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES

Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
United States	14/304809	6/13/2014	9201071	12/1/2015	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
United States	14/924358	10/27/2015	9766238	9/19/2017	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
United States	15/684635	8/23/2017	10073095	9/11/2018	Granted	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
United States	16/126419	9/10/2018			Filed	PEPTIDES AND METHODS FOR THE DETECTION OF LYME DISEASE ANTIBODIES
United States	12/950707	11/19/2010	8828675	9/9/2014	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	14/450154	8/1/2014	9470682	10/18/2016	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF EHRLICHIA ANTIBODIES
United States	14/511916	10/10/2014	9194870	11/24/2015	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
United States	14/885443	10/16/2015	9702883	7/11/2017	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
United States	15/628864	6/21/2017	10330687	6/23/2019	Granted	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
United States	16/407563	5/9/2019			Filed	PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
United States	14/232696	4/14/2014	9442112	9/13/2016	Granted	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
United States	15/226108	8/2/2016	9851352	12/26/2017	Granted	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
United States	15/812052	11/14/2017			Filed	COMPOSITIONS AND METHODS FOR IDENTIFYING EHRLICHIA SPECIES
United States	14/825668	8/13/2015	10488409	11/26/2019	Granted	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS



Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
United States	16/654988	10/22/2019			Filed	SIGNAL AMPLIFICATION IN PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
United States	15/228491	8/4/2016	9835622	12/5/2017	Granted	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
United States	15/799320	10/31/2017	10429383	10/1/2019	Granted	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
United States	16/545019	8/20/2019			Filed	SIGNAL AMPLIFICATION IN SOLUTION-BASED PLASMONIC SPECIFIC-BINDING PARTNER ASSAYS
United States	16/479663	1/30/2018			Filed	SOLUTION-BASED PLASMON SPECIFIC-BINDING PARTNER ASSAYS AND METALLIC NANOSTRUCTURES
United States	16/591814	10/3/2019			Filed	SYSTEMS, DEVICES AND METHODS FOR MICROFLUIDIC ANALYSIS
United States	09/887628	6/22/2001	6818415	11/16/2004	Granted	SODIUM ACTIVATION OF AMYLASE
United States	12/406906	3/18/2009	8137920	3/20/2012	Granted	MULTI-WAVELENGTH ANALYSES OF SOL-PARTICLE SPECIFIC BINDING ASSAYS
United States	13/424217	3/19/2012	8673576	3/18/2014	Granted	MULTI-WAVELENGTH ANALYSES OF SOL-PARTICLE SPECIFIC BINDING ASSAYS
United States	12/500549	7/9/2009	8530152	9/10/2013	Granted	METHODS OF REDUCING NON-SPECIFIC INTERACTION IN METAL NANOPARTICLE ASSAYS
United States	12/630777	12/3/2009	8846319	9/30/2014	Granted	LATERAL FLOW STRIP ASSAY WITH IMMOBILIZED CONJUGATE
United States	14/469347	8/26/2014	9599609	3/21/2017	Granted	LATERAL FLOW STRIP ASSAY WITH IMMOBILIZED CONJUGATE
United States	13/794909	6/17/2011	9816987	11/14/2017	Granted	ROTORs FOR IMMUNOASSAYS
United States	15/783126	10/13/2017	10371701	8/6/2019	Granted	ROTORs FOR IMMUNOASSAYS
United States	16/446082	6/24/2019			Filed	ROTORs FOR IMMUNOASSAYS



Country/Region	Application Serial Number	Application Date	Patent Number	Grant Date	Status	Title
United States	12/721784	3/11/2010	8377643	2/19/2013	Granted	SPLIT FLOW DEVICE FOR ANALYSES OF SPECIFIC-BINDING PARTNERS

PATENT

REEL: 055474 FRAME: 0623

RECORDED: 03/03/2021