

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3108036

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

## CONVEYING PARTY DATA

| Name        | Execution Date |
|-------------|----------------|
| NOVARTIS AG | 08/26/2014     |

## RECEIVING PARTY DATA

|                          |                                      |
|--------------------------|--------------------------------------|
| <b>Name:</b>             | NOVARTIS AG                          |
| <b>Street Address:</b>   | LICHTSTRASSE 35                      |
| <b>City:</b>             | BASEL                                |
| <b>State/Country:</b>    | SWITZERLAND                          |
| <b>Postal Code:</b>      | 4056                                 |
| <b>Name:</b>             | GRIFOLS WORLDWIDE OPERATIONS LIMITED |
| <b>Street Address:</b>   | EMBASSY HOUSE                        |
| <b>Internal Address:</b> | BALLSBRIDGE                          |
| <b>City:</b>             | DUBLIN 4                             |
| <b>State/Country:</b>    | IRELAND                              |
| <b>Postal Code:</b>      | D4                                   |

## PROPERTY NUMBERS Total: 5

| Property Type  | Number  |
|----------------|---------|
| Patent Number: | 7198923 |
| Patent Number: | 7807438 |
| Patent Number: | 5612453 |
| Patent Number: | 7657385 |
| Patent Number: | 7252958 |

## CORRESPONDENCE DATA

**Fax Number:** (617)871-4708

*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:** 617.871.8000

**Email:** katy.bastarache@novartis.com

**Correspondent Name:** NOVARTIS VACCINES AND DIAGNOSTICS, INC.

**Address Line 1:** IP SERVICES BLDG. 433 257

**Address Line 2:** ONE HEALTH PLAZA

**Address Line 4:** EAST HANOVER, NEW JERSEY 07936-1080

PATENT

|                                |                          |
|--------------------------------|--------------------------|
| <b>ATTORNEY DOCKET NUMBER:</b> | COOWNED_AG & GRIF        |
| <b>NAME OF SUBMITTER:</b>      | KATHLEEN M. BASTARACHE   |
| <b>SIGNATURE:</b>              | /Kathleen M. Bastarache/ |
| <b>DATE SIGNED:</b>            | 11/14/2014               |

**Total Attachments: 20**

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## CONFIRMATORY ASSIGNMENT

This Confirmatory Assignment Agreement is entered into by and between Novartis Vaccines and Diagnostics, Inc., a Delaware corporation ("**NVD Inc.**") and Novartis AG, a company limited by shares (*Aktiengesellschaft*) pursuant to art. 620 ff. CO having its seat in Basel (together with NVD Inc., "**Assignors**"), on the one hand, and Grifols Worldwide Operations Limited, a company organized under the laws of the Republic of Ireland ("**Grifols**"), on the other hand.

Assignors and Grifols previously entered into an Intellectual Property Assignment and Agreement dated January 9, 2014 (the "IP Assignment Agreement") whereby Assignors agreed to assign, transfer, convey and deliver to Grifols an undivided one-half ownership interest in and to the patents and patent applications on the attached Schedule. All capitalized terms that are not expressly defined herein have the definition provided in the IP Assignment Agreement.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, effective as of January 10, 2014 (the "Effective Date") and subject to the terms and conditions of the IP Assignment Agreement (including, without limitation, Sections 2.1 and 2.2), each Assignor hereby assigns, transfers, conveys and delivers, and shall cause each of its relevant Affiliates to, assign, transfer, convey and deliver to Grifols, and its successors and assigns, absolutely and forever, and Grifols hereby accepts the assignment, transfer, conveyance and delivery of an undivided one-half ownership interest in and to the patents and patent applications listed in the attached Schedule.

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment shall be governed by the laws of the state of New York, including all matters of construction, validity and performance, in each case without reference to any conflict of law rules that might lead to the application of the laws of any other jurisdiction.

*[Signatures begin on the next page]*

AS WITNESS the signature of duly authorized officers of the parties hereto

Signed for and behalf of )  
Novartis Vaccines and )  
Diagnostics, Inc. ) Name: Helen Lee  
Capacity: Assistant Secretary  
Date: 21 August 2014

Witness Signature: Colleen McKiernan  
Print Witness Name: Colleen McKiernan  
Witness Address: 350 Massachusetts Ave, Cambridge, MA USA 02139

Signed for and behalf of )  
Novartis AG )  
Name: Marco Riensche  
Capacity: Authorized Signatory  
Date: 26 August 2014

Witness Signature: Colleen McKiernan  
Print Witness Name: Colleen McKiernan  
Witness Address: 350 Massachusetts Ave, Cambridge, MA USA 02139

Signed for and behalf of )  
Novartis AG )  
Name: Beth O'Brien  
Capacity: Authorized Signatory  
Date: 26 August 2014

Witness Signature: Colleen McKiernan  
Print Witness Name: Colleen McKiernan  
Witness Address: 350 Massachusetts Ave, Cambridge, MA USA 02139

Signed for and behalf of  
Grifols Worldwide  
Operations Limited

)  
) .....  
) Name: Javier Jorba Ribes  
Capacity: Director  
Date: 18/09/2014

Witness Signature:

Carme Casamor Baules

Print Witness Name:

Carme Casamor Baules

Witness Address:

Pol. Levante-C / Can Guasch, 2  
08150 Parets del Valles Barcelona - Spain

| Case Reference   | Internal Title                                                   | Country                         | Current Status | Filing     | Filing Number | Granted     | Grant Number |
|------------------|------------------------------------------------------------------|---------------------------------|----------------|------------|---------------|-------------|--------------|
| PAT050960-AT-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Austria                         | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-BE-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Belgium                         | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-CA-PCT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Canada                          | Granted        | 9-May-1994 | 2162250       | 17-Jul-2007 | 2162250      |
| PAT050960-CH-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Switzerland                     | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-CN-PCT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | China                           | Expired        | 9-May-1994 | 94192560.9    | 3-Dec-2003  | 94192560.9   |
| PAT050960-CZ-NP  | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Czech Republic                  | Expired        | 9-May-1994 | 1995-2929     | 16-Feb-2005 | 294629       |
| PAT050960-DE-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Germany                         | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 69434117.7   |
| PAT050960-DK-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Denmark                         | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-EP-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | European Procedure              | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-ES-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Spain                           | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-FR-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | France                          | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-GB-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | United Kingdom                  | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-GE-PCT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Georgia                         | Expired        | 9-May-1994 | AP1994002146  | 25-Apr-2001 | P2421        |
| PAT050960-GR-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Greece                          | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 3052144      |
| PAT050960-HU-PCT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Hungary                         | Expired        | 9-May-1994 | P9503219      | 2-Sep-2005  | 224513       |
| PAT050960-IE-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Ireland                         | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-IT-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Italy                           | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-JP-PCT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Japan                           | Expired        | 9-May-1994 | 06-525627     | 10-Feb-2005 | 3645904      |
| PAT050960-KR-PCT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | South Korea / Republic of Korea | Expired        | 9-May-1994 | 1995-0704993  | 14-Mar-2002 | 330278       |
| PAT050960-LU-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Luxembourg                      | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-MC-EPT | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Monaco                          | Expired        | 9-May-1994 | 94916061.8    | 3-Nov-2004  | 698216       |

| Case Reference      | Internal Title                                                   | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|---------------------|------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT050960-MX-PCT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Mexico                   | Expired        | 9-May-1994  | 943452        | 21-Nov-2007 | 251686       |
| PAT050960-NL-EPT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Netherlands              | Expired        | 9-May-1994  | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-PL-PCT01  | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Poland                   | Expired        | 9-May-1994  | P311653       | 17-Aug-1998 | 175342       |
| PAT050960-PL-PCTD   | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Poland                   | Expired        | 25-Nov-1997 | P323368       | 17-Aug-1998 | 175338       |
| PAT050960-PL-PCTD01 | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Poland                   | Expired        | 25-Nov-1997 | P323367       | 17-Aug-1998 | 175360       |
| PAT050960-PT-EPT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Portugal                 | Expired        | 9-May-1994  | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-RO-PCT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Romania                  | Expired        | 9-May-1994  | 95-01952      | 31-Jan-2000 | 115471       |
| PAT050960-RU-PCT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Russian Federation       | Expired        | 9-May-1994  | 95122701      | 10-Nov-2000 | 2158928      |
| PAT050960-SE-EPT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Sweden                   | Expired        | 9-May-1994  | 94916061.8    | 3-Nov-2004  | 698216       |
| PAT050960-SK-PCT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Slovakia                 | Expired        | 9-May-1994  | 1359-95       | 8-Oct-2002  | 282543       |
| PAT050960-UA-PCT    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | Ukraine                  | Expired        | 9-May-1994  | 95114832      | 17-Jun-2002 | 46707        |
| PAT050960-US-CNT01  | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | United States of America | Granted        | 9-Nov-1994  | 08/336553     | 25-Apr-2000 | 6054264      |
| PAT050960-US-DIV    | METHODS OF TYPING HEPATITIS C VIRUS AND REAGENTS FOR USE THEREIN | United States of America | Granted        | 11-May-1995 | 08/439157     | 9-Jul-2002  | 6416944      |
| PAT050964-AT-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Austria                  | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-AU-PCT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Australia                | Granted        | 23-May-1997 | 32143/97      | 31-Aug-2000 | 719929       |
| PAT050964-BE-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Belgium                  | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-CA-PCT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Canada                   | Granted        | 23-May-1997 | 2250723       | 17-Jul-2012 | 2250723      |
| PAT050964-CH-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Switzerland              | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-DE-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Germany                  | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 69734776.1   |
| PAT050964-DK-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Denmark                  | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-EP-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | European Procedure       | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-ES-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Spain                    | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-FI-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Finland                  | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-FR-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | France                   | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-GB-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | United Kingdom           | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |
| PAT050964-GR-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Greece                   | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 3056641      |
| PAT050964-IE-EPT    | MULTIPLE EPITOPES FUSION PROTEIN                                 | Ireland                  | Granted        | 23-May-1997 | 97927767.0    | 30-Nov-2005 | 935662       |

| Case Reference    | Internal Title                                                     | Country                  | Current Status | Filing      | Filing Number  | Granted     | Grant Number |
|-------------------|--------------------------------------------------------------------|--------------------------|----------------|-------------|----------------|-------------|--------------|
| PAT050964-IL-PCT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Israel                   | Granted        | 23-May-1997 | 126460         | 5-Oct-2007  | 126460       |
| PAT050964-IT-EPT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Italy                    | Granted        | 23-May-1997 | 97927767.0     | 30-Nov-2005 | 935662       |
| PAT050964-JP-PCT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Japan                    | Granted        | 23-May-1997 | 09-542848      | 20-Apr-2007 | 3945822      |
| PAT050964-LU-EPT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Luxembourg               | Granted        | 23-May-1997 | 97927767.0     | 30-Nov-2005 | 935662       |
| PAT050964-MC-EPT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Monaco                   | Granted        | 23-May-1997 | 97927767.0     | 30-Nov-2005 | 935662       |
| PAT050964-NL-EPT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Netherlands              | Granted        | 23-May-1997 | 97927767.0     | 30-Nov-2005 | 935662       |
| PAT050964-NZ-PCT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | New Zealand              | Granted        | 23-May-1997 | 333431         | 7-Sep-2000  | 333431       |
| PAT050964-PT-EPT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Portugal                 | Granted        | 23-May-1997 | 97927767.0     | 30-Nov-2005 | 935662       |
| PAT050964-SE-EPT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | Sweden                   | Granted        | 23-May-1997 | 97927767.0     | 30-Nov-2005 | 935662       |
| PAT050964-US-CIP  | MULTIPLE EPTOPE FUSION PROTEIN                                     | United States of America | Granted        | 20-May-1997 | 08/859524      | 6-Aug-2002  | 6428792      |
| PAT050964-US-CNT  | MULTIPLE EPTOPE FUSION PROTEIN                                     | United States of America | Granted        | 17-Jun-2002 | 10/174652      | 6-Jun-2006  | 7056658      |
| PAT050964-US-NP01 | MULTIPLE EPTOPE FUSION PROTEIN                                     | United States of America | Granted        | 24-May-1996 | 08/653226      | 4-Feb-2003  | 6514731      |
| PAT051056-US-CNT  | HIV PROBES FOR USE IN SOLUTION PHASE SANDWICH HYBRIDIZATION ASSAYS | United States of America | Granted        | 17-Dec-1993 | 08/169715      | 9-Oct-2001  | 6300056      |
| PAT051228-AT-EPT  | HCV ASSAY                                                          | Austria                  | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-AU-PCT  | HCV ASSAY                                                          | Australia                | Granted        | 8-Sep-2003  | 2003273296     | 11-Mar-2010 | 2003273296   |
| PAT051228-BE-EPT  | HCV ASSAY                                                          | Belgium                  | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-BR-PCT  | HCV ASSAY                                                          | Brazil                   | Pending        | 8-Sep-2003  | PI0314166-7    |             |              |
| PAT051228-CA-PCT  | HCV ASSAY                                                          | Canada                   | Granted        | 8-Sep-2003  | 2498228        | 22-Mar-2011 | 2498228      |
| PAT051228-CH-EPT  | HCV ASSAY                                                          | Switzerland              | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-CN-PCT  | HCV ASSAY                                                          | China                    | Granted        | 8-Sep-2003  | 3824965        | 26-May-2010 | 3824965      |
| PAT051228-DE-EPT  | HCV ASSAY                                                          | Germany                  | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 60324003.8   |
| PAT051228-ES-EPT  | HCV ASSAY                                                          | Spain                    | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-FR-EPT  | HCV ASSAY                                                          | France                   | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-GB-EPT  | HCV ASSAY                                                          | United Kingdom           | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-IE-EPT  | HCV ASSAY                                                          | Ireland                  | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-IT-EPT  | HCV ASSAY                                                          | Italy                    | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-JP-PCT  | HCV ASSAY                                                          | Japan                    | Granted        | 8-Sep-2003  | 2004-534744    | 10-Sep-2010 | 4585314      |
| PAT051228-MX-PCT  | HCV ASSAY                                                          | Mexico                   | Granted        | 8-Sep-2003  | PA/a/05/002641 | 12-Sep-2008 | 260552       |
| PAT051228-NL-EPT  | HCV ASSAY                                                          | Netherlands              | Granted        | 8-Sep-2003  | 03755795.6     | 8-Oct-2008  | 1546414      |
| PAT051228-NO-PCT  | HCV ASSAY                                                          | Norway                   | Pending        | 8-Sep-2003  | 20051715       |             |              |
| PAT051228-NZ-PCT  | HCV ASSAY                                                          | New Zealand              | Granted        | 8-Sep-2003  | 538711         | 10-May-2007 | 538711       |

| Case Reference    | Internal Title                                                                                                    | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|-------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051228-PL-PCT  | HCV ASSAY                                                                                                         | Poland                   | Granted        | 8-Sep-2003  | P375600       | 18-Apr-2011 | 209710       |
| PAT051228-US-NP   | HCV ASSAY                                                                                                         | United States of America | Granted        | 8-Sep-2003  | 10/658782     | 23-Jan-2007 | 7166426      |
| PAT051239-AU-PCT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | Australia                | Granted        | 12-Jun-2003 | 2003276719    | 25-Jun-2009 | 2003276719   |
| PAT051239-CH-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | Switzerland              | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 1552022      |
| PAT051239-CN-PCTD | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | China                    | Pending        | 15-Mar-2012 | 201210079564  |             |              |
| PAT051239-DE-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | Germany                  | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 60343183.6   |
| PAT051239-EP-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | European Procedure       | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 1552022      |
| PAT051239-ES-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | Spain                    | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 1552022      |
| PAT051239-FR-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | France                   | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 1552022      |
| PAT051239-GB-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | United Kingdom           | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 1552022      |
| PAT051239-IT-EPT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | Italy                    | Granted        | 12-Jun-2003 | 03741986.8    | 23-Jan-2013 | 1552022      |
| PAT051239-JP-PCT  | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NI(CT)IC ACID | Japan                    | Granted        | 12-Jun-2003 | 2004-513454   | 13-Sep-2013 | 5361109      |

| Case Reference      | Internal Title                                                                                                   | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|---------------------|------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051239-JP-PCTD   | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NUCLEIC ACID | Japan                    | Pending        | 12-Jun-2003 | 2009-178917   |             |              |
| PAT051239-JP-PCTD02 | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NUCLEIC ACID | Japan                    | Pending        | 16-May-2013 | 2013-103892   |             |              |
| PAT051239-RU-PCT    | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NUCLEIC ACID | Russian Federation       | Granted        | 12-Jun-2003 | 2005100511    | 20-Dec-2010 | 2406762      |
| PAT051239-US-CNT    | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF HEPATITIS A VIRAL NUCLEIC ACID | United States of America | Pending        | 21-Nov-2011 | 13/301599     |             |              |
| PAT051388-AT-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Austria                  | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-BE-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Belgium                  | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-CA-PCT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Canada                   | Granted        | 20-Nov-2000 | 2392075       | 4-Jan-2011  | 2392075      |
| PAT051388-CH-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Switzerland              | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-CY-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Cyprus (Republic)        | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-DE-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Germany                  | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 60036403.8   |
| PAT051388-DK-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Denmark                  | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-ES-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Spain                    | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-FI-EPT    | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION                                             | Finland                  | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |

| Case Reference    | Internal Title                                                       | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|-------------------|----------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051388-FR-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | France                   | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-GB-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | United Kingdom           | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-GR-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Greece                   | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 3063757      |
| PAT051388-IE-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Ireland                  | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-IT-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Italy                    | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-JP-PCT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Japan                    | Pending        | 20-Nov-2000 | 2001-538480   | 4-Feb-2011  | 4675017      |
| PAT051388-LU-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Luxembourg               | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-MC-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Monaco                   | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-NL-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Netherlands              | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-PT-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Portugal                 | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-SE-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Sweden                   | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | 1230347      |
| PAT051388-TR-EPT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | Turkey                   | Granted        | 20-Nov-2000 | 00979837.2    | 12-Sep-2007 | TR200708411  |
| PAT051388-US-PCT  | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | United States of America | Granted        | 26-Feb-2003 | 10/130467     | 3-Apr-2007  | 7198923      |
| PAT051388-US-PCTD | METHOD FOR THE PREPARATION OF PURIFIED HCV RNA BY EXOSOME SEPARATION | United States of America | Granted        | 30-Jan-2007 | 11/699925     | 5-Oct-2010  | 7807438      |

| Case Reference     | Internal Title                                                                                                               | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|--------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051430-US-CNT03 | Selected peptides of the group-specific antigen [GAG] of Human Immunodeficiency Virus [HIV], the preparation and use thereof | United States of America | Expired        | 13-Dec-1994 | 08/356798     | 18-Mar-1997 | 5612453      |
| PAT051470-AT-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Austria                  | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-BE-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Belgium                  | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-BG-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Bulgaria                 | Granted        | 14-Jun-2001 | 107 441       | 5-Apr-2012  | 66205        |
| PAT051470-BR-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Brazil                   | Pending        | 14-Jun-2001 | PI0111731-9   |             |              |
| PAT051470-BY-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Belarus                  | Granted        | 14-Jun-2001 | a20030031     | 30-Apr-2007 | 9207         |
| PAT051470-CA-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Canada                   | Granted        | 14-Jun-2001 | 2412035       | 10-Apr-2012 | 2412035      |
| PAT051470-CH-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Switzerland              | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-CN-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | China                    | Granted        | 14-Jun-2001 | 1811243.9     | 17-May-2006 | 1811243.9    |
| PAT051470-CY-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Cyprus (Republic)        | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-CZ-NP    | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Czech Republic           | Filed          | 14-Jun-2001 | 2002-4058     |             |              |
| PAT051470-DE-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Germany                  | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 60125240.3   |
| PAT051470-DK-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Denmark                  | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-EP-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | European Procedure       | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-ES-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Spain                    | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-FI-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Finland                  | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-FR-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | France                   | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-GB-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | United Kingdom           | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |
| PAT051470-GR-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Greece                   | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 3061195      |
| PAT051470-HU-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Hungary                  | Granted        | 14-Jun-2001 | P0500444      | 14-May-2013 | 228873       |
| PAT051470-IE-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                                       | Ireland                  | Granted        | 14-Jun-2001 | 01952160.8    | 13-Dec-2006 | 1354204      |

| Case Reference     | Internal Title                                                                                                 | Country                  | Current Status | Filing      | Filing Number  | Granted     | Grant Number |
|--------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|----------------|-------------|--------------|
| PAT051470-IT-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Italy                    | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-JP-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Japan                    | Granted        | 14-Jun-2001 | 2002-510953    | 30-Sep-2011 | 4834279      |
| PAT051470-LU-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Luxembourg               | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-MC-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Monaco                   | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-MX-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Mexico                   | Granted        | 14-Jun-2001 | PA/a/02/012424 | 9-Feb-2006  | 234280       |
| PAT051470-NL-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Netherlands              | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-NO-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Norway                   | Granted        | 14-Jun-2001 | 20025878       | 13-Aug-2012 | 332275       |
| PAT051470-PL-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Poland                   | Granted        | 14-Jun-2001 | P365599        | 17-Jul-2012 | 213363       |
| PAT051470-PT-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Portugal                 | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-RU-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Russian Federation       | Granted        | 14-Jun-2001 | 2003100884     | 20-Apr-2006 | 2274863      |
| PAT051470-SE-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Sweden                   | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-SG-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Singapore                | Granted        | 14-Jun-2001 | 200207441-7    | 29-Jul-2005 | 93587        |
| PAT051470-SI-EPT01 | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Slovenia                 | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | 1354204      |
| PAT051470-SK-PCT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Slovakia                 | Granted        | 14-Jun-2001 | 1777-2002      | 14-Apr-2011 | 287 694      |
| PAT051470-TR-EPT   | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | Turkey                   | Granted        | 14-Jun-2001 | 01952160.8     | 13-Dec-2006 | TR200701494  |
| PAT051470-US-DIV   | POLYNUCLEOTIDES ENCODING A MULTIPLE EPTOPE FUSION ANTIGEN FOR USE IN AN HCV ANTIGEN/ANTIBODY COMBINATION ASSAY | United States of America | Granted        | 19-Aug-2003 | 10/643853      | 15-Jan-2008 | 7319144      |
| PAT051470-US-NP    | HCV ANTIGEN/ANTIBODY COMBINATION ASSAY                                                                         | United States of America | Granted        | 14-Jun-2001 | 09/881239      | 7-Oct-2003  | 6630298      |
| PAT051477-AT-EPT   | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C    | Austria                  | Granted        | 3-Jul-2001  | 01954282.8     | 24-May-2006 | 1297015      |
| PAT051477-DE-EPT   | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C    | Germany                  | Granted        | 3-Jul-2001  | 01954282.8     | 24-May-2006 | 60119929.4   |

| Case Reference   | Internal Title                                                                                              | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|------------------|-------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051477-ES-EPT | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C | Spain                    | Granted        | 3-Jul-2001  | 01954282.8    | 24-May-2006 | 1297015      |
| PAT051477-FR-EPT | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C | France                   | Granted        | 3-Jul-2001  | 01954282.8    | 24-May-2006 | 1297015      |
| PAT051477-GB-EPT | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C | United Kingdom           | Granted        | 3-Jul-2001  | 01954282.8    | 24-May-2006 | 1297015      |
| PAT051477-IT-EPT | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C | Italy                    | Granted        | 3-Jul-2001  | 01954282.8    | 24-May-2006 | 1297015      |
| PAT051477-MC-EPT | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C | Monaco                   | Granted        | 3-Jul-2001  | 01954282.8    | 24-May-2006 | 1297015      |
| PAT051477-NL-EPT | STRUCTURE-BASED DRUG DESIGN METHOD TO IDENTIFY COMPOUNDS THAT BIND TO CD81, A CELL RECEPTOR FOR HEPATITIS-C | Netherlands              | Granted        | 3-Jul-2001  | 01954282.8    | 24-May-2006 | 1297015      |
| PAT051477-US-PCT | STRUCTURE-BASED HEPATITIS C VIRUS DRUG DESIGN                                                               | United States of America | Granted        | 3-Jul-2001  | 10/312490     | 2-Feb-2010  | 7657385      |
| PAT051478-AT-EPT | Modulation of Tetraspanin Function                                                                          | Austria                  | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-BE-EPT | Modulation of Tetraspanin Function                                                                          | Belgium                  | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-CH-EPT | Modulation of Tetraspanin Function                                                                          | Switzerland              | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-DE-EPT | Modulation of Tetraspanin Function                                                                          | Germany                  | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 60120410.7   |
| PAT051478-FR-EPT | Modulation of Tetraspanin Function                                                                          | France                   | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-GB-EPT | Modulation of Tetraspanin Function                                                                          | United Kingdom           | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-IE-EPT | Modulation of Tetraspanin Function                                                                          | Ireland                  | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-IT-EPT | Modulation of Tetraspanin Function                                                                          | Italy                    | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-LU-EPT | Modulation of Tetraspanin Function                                                                          | Luxembourg               | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-MC-EPT | Modulation of Tetraspanin Function                                                                          | Monaco                   | Granted        | 3-Jul-2001  | 01954288.5    | 7-Jun-2006  | 1301536      |
| PAT051478-US-PCT | Modulation of Tetraspanin Function                                                                          | United States of America | Granted        | 3-Jul-2001  | 10/312491     | 7-Aug-2007  | 7252958      |
| PAT051504-AT-EPT | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES                                                                        | Austria                  | Granted        | 14-Jun-2001 | 01952156.6    | 25-Jul-2007 | 1350105      |
| PAT051504-BE-EPT | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES                                                                        | Belgium                  | Granted        | 14-Jun-2001 | 01952156.6    | 25-Jul-2007 | 1350105      |

| Case Reference     | Internal Title                       | Country            | Current Status | Filing      | Filing Number  | Granted     | Grant Number   |
|--------------------|--------------------------------------|--------------------|----------------|-------------|----------------|-------------|----------------|
| PAT051504-BR-PCT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Brazil             | Pending        | 14-Jun-2001 | PI0111682-7    |             |                |
| PAT051504-CA-PCT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Canada             | Granted        | 14-Jun-2001 | 2413003        | 13-Aug-2013 | 2413003        |
| PAT051504-CH-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Switzerland        | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-CH-ETD   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Switzerland        | Granted        | 14-Jun-2001 | 07008125.2     | 26-Dec-2012 | 1829891        |
| PAT051504-CN-PCT02 | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | China              | Granted        | 14-Jun-2001 | 1811246.3      | 10-Aug-2005 | 1811246.3      |
| PAT051504-CN-PCTD  | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | China              | Granted        | 14-Jun-2001 | 200410011660.6 | 25-Feb-2009 | 200410011660.6 |
| PAT051504-CY-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Cyprus (Republic)  | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-DE-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Germany            | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 60129598.6     |
| PAT051504-DE-ETD   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Germany            | Granted        | 14-Jun-2001 | 07008125.2     | 26-Dec-2012 | 60147539.9     |
| PAT051504-DK-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Denmark            | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-EP-ETD   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | European Procedure | Granted        | 14-Jun-2001 | 07008125.2     | 26-Dec-2012 | 1829891        |
| PAT051504-ES-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Spain              | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-FI-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Finland            | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-FR-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | France             | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-FR-ETD   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | France             | Granted        | 14-Jun-2001 | 07008125.2     | 26-Dec-2012 | 1829891        |
| PAT051504-GB-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | United Kingdom     | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-GB-ETD   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | United Kingdom     | Granted        | 14-Jun-2001 | 07008125.2     | 26-Dec-2012 | 1829891        |
| PAT051504-GR-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Greece             | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 3062848        |
| PAT051504-HK-FPR01 | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Hong Kong          | Granted        | 14-Jun-2001 | 4104878.5      | 30-Dec-2005 | 1061861        |
| PAT051504-HK-FPR02 | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Hong Kong          | Granted        | 14-Jun-2001 | 5111793.1      | 16-Oct-2009 | 1079796        |
| PAT051504-IE-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Ireland            | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |
| PAT051504-IT-EPT   | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES | Italy              | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105        |

| Case Reference      | Internal Title                              | Country                  | Current Status | Filing      | Filing Number  | Granted     | Grant Number |
|---------------------|---------------------------------------------|--------------------------|----------------|-------------|----------------|-------------|--------------|
| PAT051504-IT-ETD    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Italy                    | Granted        | 14-Jun-2001 | 07008125.2     | 26-Dec-2012 | 1829891      |
| PAT051504-JP-PCT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Japan                    | Granted        | 14-Jun-2001 | 2002-510948    | 7-Oct-2011  | 4837229      |
| PAT051504-LU-EPT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Luxembourg               | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105      |
| PAT051504-MC-EPT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Monaco                   | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105      |
| PAT051504-MX-PCT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Mexico                   | Granted        | 14-Jun-2001 | PA/a/02/012401 | 18-Sep-2008 | 260674       |
| PAT051504-NL-EPT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Netherlands              | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105      |
| PAT051504-PT-EPT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Portugal                 | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105      |
| PAT051504-SE-EPT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Sweden                   | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | 1350105      |
| PAT051504-TR-EPT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | Turkey                   | Granted        | 14-Jun-2001 | 01952156.6     | 25-Jul-2007 | TR200707273  |
| PAT051504-US-CNT    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | United States of America | Granted        | 26-Jul-2004 | 10/899715      | 10-Jul-2007 | 7241879      |
| PAT051504-US-DIV    | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | United States of America | Granted        | 8-Aug-2003  | 10/637323      | 28-Sep-2004 | 6797809      |
| PAT051504-US-NP     | IMMUNOASSAYS FOR ANTI-HCV ANTIBODIES        | United States of America | Granted        | 14-Jun-2001 | 09/881654      | 14-Oct-2003 | 6632601      |
| PAT051514-AU-PCT    | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | Australia                | Granted        | 28-Jun-2002 | 2002318450     | 6-Mar-2008  | 2002318450   |
| PAT051514-AU-PCTD   | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | Australia                | Granted        | 5-Nov-2007  | 2007231822     | 12-May-2011 | 2007231822   |
| PAT051514-CN-PCT    | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | China                    | Granted        | 28-Jun-2002 | 2812816.8      | 4-Jul-2007  | 2812816.8    |
| PAT051514-EP-EPT    | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | European Procedure       | Pending        | 28-Jun-2002 | 02748013.6     |             |              |
| PAT051514-JP-PCTD02 | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | Japan                    | Pending        | 11-Nov-2011 | 2011-247977    |             |              |
| PAT051514-RU-PCT    | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | Russian Federation       | Granted        | 28-Jun-2002 | 2004102205     | 10-Jun-2007 | 2301263      |
| PAT051514-US-NP     | DIAGNOSTIC ASSAYS FOR PARVOVIRUS B19        | United States of America | Granted        | 28-Jun-2002 | 10/187253      | 30-Aug-2005 | 6936442      |
| PAT051533-AT-EPT    | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Austria                  | Granted        | 22-Sep-1998 | 98948398.7     | 21-Feb-2007 | 1021719      |
| PAT051533-BE-EPT    | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Belgium                  | Granted        | 22-Sep-1998 | 98948398.7     | 21-Feb-2007 | 1021719      |
| PAT051533-CA-PCT    | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Canada                   | Granted        | 22-Sep-1998 | 2303123        | 11-Apr-2006 | 2303123      |

| Case Reference     | Internal Title                              | Country           | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|--------------------|---------------------------------------------|-------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051533-CA-PCT01 | BUFFERS FOR STABILIZING ANTIGENS            | Canada            | Granted        | 22-Sep-1998 | 2303165       | 11-Jul-2006 | 2303165      |
| PAT051533-CH-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Switzerland       | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-CH-EPT02 | BUFFERS FOR STABILIZING ANTIGENS            | Switzerland       | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-CY-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Cyprus (Republic) | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-DE-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Germany           | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 69837155     |
| PAT051533-DE-EPT02 | SAMPLE<br>BUFFERS FOR STABILIZING ANTIGENS  | Germany           | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 69840334.7   |
| PAT051533-DK-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Denmark           | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-ES-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Spain             | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-ES-EPT02 | SAMPLE<br>BUFFERS FOR STABILIZING ANTIGENS  | Spain             | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-FI-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Finland           | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-FR-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | France            | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-FR-EPT02 | SAMPLE<br>BUFFERS FOR STABILIZING ANTIGENS  | France            | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-GB-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | United Kingdom    | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-GB-EPT02 | SAMPLE<br>BUFFERS FOR STABILIZING ANTIGENS  | United Kingdom    | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-GR-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Greece            | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 3061416      |
| PAT051533-IE-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Ireland           | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-IT-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Italy             | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-IT-EPT02 | SAMPLE<br>BUFFERS FOR STABILIZING ANTIGENS  | Italy             | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-JP-PCT   | BUFFERS FOR STABILIZING ANTIGENS            | Japan             | Pending        | 22-Sep-1998 | 2000-513148   | 18-Dec-2009 | 4427182      |
| PAT051533-JP-PCT01 | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Japan             | Granted        | 22-Sep-1998 | 2000-513145   | 16-May-2008 | 4124961      |
| PAT051533-LU-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Luxembourg        | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-MC-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Monaco            | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-NL-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Netherlands       | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-NL-EPT02 | SAMPLE<br>BUFFERS FOR STABILIZING ANTIGENS  | Netherlands       | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-PT-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Portugal          | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |

| Case Reference     | Internal Title                              | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number |
|--------------------|---------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|--------------|
| PAT051533-SE-EPT   | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE | Sweden                   | Granted        | 22-Sep-1998 | 98948398.7    | 21-Feb-2007 | 1021719      |
| PAT051533-SE-EPT02 | BUFFERS FOR STABILIZING ANTIGENS            | Sweden                   | Granted        | 22-Sep-1998 | 98948399.5    | 10-Dec-2008 | 1021723      |
| PAT051533-US-CNT01 | BUFFERS FOR STABILIZING ANTIGENS            | United States of America | Granted        | 2-Feb-2001  | 09/775962     | 25-Mar-2003 | 6537745      |
| PAT051533-US-NP    | BUFFERS FOR STABILIZING ANTIGENS            | United States of America | Granted        | 22-Sep-1998 | 09/158815     | 17-Jul-2001 | 6261764      |
| PAT051534-AT-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Austria                  | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-BE-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Belgium                  | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-CA-PCT   | IMMUNOASSAY DETECTION SYSTEMS               | Canada                   | Granted        | 25-Jul-2000 | 2380777       | 4-Jan-2011  | 2380777      |
| PAT051534-CH-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Switzerland              | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-CY-EPT   | IMMUNOASSAY DETECTION SYSTEMS               | Cyprus (Republic)        | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-DE-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Germany                  | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 60033190     |
| PAT051534-DK-EPT   | IMMUNOASSAY DETECTION SYSTEMS               | Denmark                  | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-ES-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Spain                    | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-FI-EPT   | IMMUNOASSAY DETECTION SYSTEMS               | Finland                  | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-FR-EPT   | HEPATITIS C VIRAL ANTIGEN                   | France                   | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-GB-EPT   | IMMUNOASSAY DETECTION SYSTEMS               | United Kingdom           | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-GR-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Greece                   | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 3061008      |
| PAT051534-IE-EPT   | IMMUNOASSAY DETECTION SYSTEMS               | Ireland                  | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-IT-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Italy                    | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-JP-PCT   | IMMUNOASSAY DETECTION SYSTEMS               | Japan                    | Pending        | 25-Jul-2000 | 2001-514569   |             |              |
| PAT051534-JP-PCTD  | HEPATITIS C VIRAL ANTIGEN                   | Japan                    | Pending        | 25-Jul-2000 | 2009-275000   |             |              |
| PAT051534-LU-EPT   | IMMUNOASSAY DETECTION SYSTEMS               | Luxembourg               | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
| PAT051534-MC-EPT   | HEPATITIS C VIRAL ANTIGEN                   | Monaco                   | Granted        | 25-Jul-2000 | 00952184.0    | 24-Jan-2007 | 1295126      |
|                    | IMMUNOASSAY DETECTION SYSTEMS               |                          |                |             |               |             |              |

| Case Reference   | Internal Title                                                                             | Country                  | Current Status | Filing      | Filing Number  | Granted     | Grant Number   |
|------------------|--------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|----------------|-------------|----------------|
| PAT051534-NL-EPT | HEPATITIS C VIRAL ANTIGEN<br>IMMUNOASSAY DETECTION SYSTEMS                                 | Netherlands              | Granted        | 25-Jul-2000 | 00952184.0     | 24-Jan-2007 | 1295126        |
| PAT051534-PT-EPT | HEPATITIS C VIRAL ANTIGEN<br>IMMUNOASSAY DETECTION SYSTEMS                                 | Portugal                 | Granted        | 25-Jul-2000 | 00952184.0     | 24-Jan-2007 | 1295126        |
| PAT051534-SE-EPT | HEPATITIS C VIRAL ANTIGEN<br>IMMUNOASSAY DETECTION SYSTEMS                                 | Sweden                   | Granted        | 25-Jul-2000 | 00952184.0     | 24-Jan-2007 | 1295126        |
| PAT051534-US-CNT | HEPATITIS C VIRAL ANTIGEN<br>IMMUNOASSAY DETECTION SYSTEMS                                 | United States of America | Granted        | 7-Apr-2004  | 10/820922      | 19-Sep-2006 | 7108967        |
| PAT051534-US-PCT | HEPATITIS C VIRAL ANTIGEN<br>IMMUNOASSAY DETECTION SYSTEMS                                 | United States of America | Granted        | 25-Jul-2000 | 10/048191      | 9-Nov-2004  | 6815160        |
| PAT051559-US-NP  | METHOD FOR DETECTING ANTIBODIES IN A SAMPLE                                                | United States of America | Granted        | 22-Sep-1998 | 09/158301      | 21-May-2002 | 6391540        |
| PAT051604-US-NP  | HEPATITIS A VIRUS NUCLEOTIDE SEQUENCES, RECOMBINANT PROTEINS AND USES THEREOF              | United States of America | Granted        | 15-Oct-2002 | 10/272459      | 13-Sep-2005 | 6942965        |
| PAT051768-AT-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Austria                  | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |
| PAT051768-BE-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Belgium                  | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |
| PAT051768-CA-PCT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Canada                   | Pending        | 7-Jun-2005  | 2569561        |             |                |
| PAT051768-CH-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Switzerland              | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |
| PAT051768-CN-PCT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | China                    | Granted        | 7-Jun-2005  | 200580018286.5 | 20-Mar-2013 | 200580018286.5 |
| PAT051768-CZ-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Czech Republic           | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |
| PAT051768-DE-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Germany                  | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |
| PAT051768-EP-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | European Procedure       | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |
| PAT051768-ES-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Spain                    | Granted        | 7-Jun-2005  | 05857448.4     | 7-May-2014  | EP1766098      |

| Case Reference    | Internal Title                                                                             | Country                         | Current Status | Filing     | Filing Number    | Granted     | Grant Number    |
|-------------------|--------------------------------------------------------------------------------------------|---------------------------------|----------------|------------|------------------|-------------|-----------------|
| PAT051768-FI-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Finland                         | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-FR-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | France                          | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-GB-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | United Kingdom                  | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-GR-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Greece                          | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-HU-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Hungary                         | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-IE-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Ireland                         | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-IT-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Italy                           | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-JP-PCT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Japan                           | Granted        | 7-Jun-2005 | 2007-527715      | 1-Mar-2013  | 5209309         |
| PAT051768-JP-PCTD | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Japan                           | Pending        | 8-May-2012 | 2012-106831      |             |                 |
| PAT051768-KR-PCT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | South Korea / Republic of Korea | Granted        | 7-Jun-2005 | 10-2006-7026757  |             | 10-2007-0034505 |
| PAT051768-MX-PCT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Mexico                          | Granted        | 7-Jun-2005 | PA/a/2006/013933 | 26-Sep-2011 | 290471          |
| PAT051768-NL-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Netherlands                     | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-PL-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Poland                          | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |
| PAT051768-PT-EPT  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME | Portugal                        | Granted        | 7-Jun-2005 | 05857448.4       | 7-May-2014  | EP1766098       |

| Case Reference   | Internal Title                                                                                | Country                  | Current Status | Filing      | Filing Number | Granted     | Grant Number   |
|------------------|-----------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|---------------|-------------|----------------|
| PAT051768-SE-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME    | Sweden                   | Granted        | 7-Jun-2005  | 05857448.4    | 7-May-2014  | EP1766098      |
| PAT051768-SK-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME    | Slovakia                 | Granted        | 7-Jun-2005  | 05857448.4    | 7-May-2014  | EP1766098      |
| PAT051768-TR-EPT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME    | Turkey                   | Granted        | 7-Jun-2005  | 05857448.4    | 7-May-2014  | EP1766098      |
| PAT051768-US-CNT | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME    | United States of America | Granted        | 27-Oct-2008 | 12/290096     | 8-May-2012  | 8173375        |
| PAT051768-US-NP  | RABBIT MONOCLONAL ANTIBODIES TO HEPATITIS B SURFACE ANTIGENS AND METHODS OF USING THE SAME    | United States of America | Granted        | 7-Jun-2005  | 11/148012     | 21-Jul-2009 | 7563873        |
| PAT051858-CH-EPT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | Switzerland              | Granted        | 26-Aug-2005 | 05814007.0    | 5-Oct-2011  | 1802778        |
| PAT051858-DE-EPT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | Germany                  | Granted        | 26-Aug-2005 | 05814007.0    | 5-Oct-2011  | 602005030488.6 |
| PAT051858-ES-EPT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | Spain                    | Granted        | 26-Aug-2005 | 05814007.0    | 5-Oct-2011  | 1802778        |
| PAT051858-FR-EPT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | France                   | Granted        | 26-Aug-2005 | 05814007.0    | 5-Oct-2011  | 1802778        |
| PAT051858-GB-EPT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | United Kingdom           | Granted        | 26-Aug-2005 | 05814007.0    | 5-Oct-2011  | 1802778        |
| PAT051858-IT-EPT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | Italy                    | Granted        | 26-Aug-2005 | 05814007.0    | 5-Oct-2011  | 1802778        |
| PAT051858-JP-PCT | HCV MULTIPLE EPTOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF | Japan                    | Granted        | 26-Aug-2005 | 2007-530138   | 24-Aug-2012 | 5070055        |

| Case Reference     | Internal Title                                                                                                                    | Country                  | Current Status | Filing      | Filing Number  | Granted     | Grant Number |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|----------------|-------------|--------------|
| PAT051858-US-PCT   | HCV MULTIPLE EPTIOTPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF                                   | United States of America | Granted        | 26-Aug-2005 | 11/661577      | 18-Jan-2011 | 7871625      |
| PAT051914-CA-PCT   | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF WEST NILE VIRUS                                 | Canada                   | Granted        | 5-Dec-2003  | 2509520        | 20-Aug-2013 | 2509520      |
| PAT051914-MX-PCT   | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF WEST NILE VIRUS                                 | Mexico                   | Granted        | 5-Dec-2003  | PA/a/05/006158 | 21-Nov-2008 | 262390       |
| PAT051914-MX-PCTD  | QUANTITATION OF WEST NILE VIRUS IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF WEST NILE VIRUS | Mexico                   | Pending        | 23-May-2008 | MX/a/08/006713 |             |              |
| PAT051914-US-CNT02 | IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF WEST NILE VIRUS                                 | United States of America | Granted        | 15-Apr-2011 | 13/088273      | 8-Oct-2013  | 8551706      |
| PAT051914-US-DIV01 | QUANTITATION OF WEST NILE VIRUS IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF WEST NILE VIRUS | United States of America | Granted        | 20-Oct-2006 | 11/584253      | 19-Apr-2011 | 7927839      |
| PAT051914-US-DIV02 | QUANTITATION OF WEST NILE VIRUS IDENTIFICATION OF OLIGONUCLEOTIDES FOR THE CAPTURE, DETECTION AND QUANTITATION OF WEST NILE VIRUS | United States of America | Granted        | 20-Oct-2006 | 11/584252      | 5-Oct-2010  | 7807813      |