### 502593315 12/06/2013

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2639537

| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

#### **CONVEYING PARTY DATA**

| Name               | Execution Date |
|--------------------|----------------|
| JENNIFER A. DUMONT | 12/01/2011     |
| SUSAN LOW          | 01/30/2012     |
| ALAN J. BITONTI    | 01/18/2012     |
| GLENN PIERCE       | 12/15/2011     |
| ALVIN LUK          | 12/01/2011     |
| HAIYAN JIANG       | 12/01/2011     |
| BYRON MCKINNEY     | 01/04/2012     |
| MATT OTTMER        | 12/01/2011     |
| JURG SOMMER        | 01/18/2012     |
| KAREN NUGENT       | 12/16/2011     |
| LIAN LI            | 01/18/2012     |
| ROBERT PETERS      | 12/01/2011     |

#### **RECEIVING PARTY DATA**

| Name:           | BIOGEN IDEC HEMOPHILIA INC. |
|-----------------|-----------------------------|
| Street Address: | 9 FOURTH AVENUE             |
| City:           | WALTHAM                     |
| State/Country:  | MASSACHUSETTS               |
| Postal Code:    | 02451                       |

# PROPERTY NUMBERS Total: 2

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 13513424 |
| Application Number: | 13793783 |

# CORRESPONDENCE DATA

 Fax Number:
 (202)371-2540

 Phone:
 202-371-2600

PATENT REEL: 031730 FRAME: 0449

502593315

Email: ckim@skgf.com, bqin@skgf.com, pdomally@skgf.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C

Address Line 1: 1100 NEW YORK AVENUE, NW

Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20005

| ATTORNEY DOCKET NUMBER: | 2159.2740007         |
|-------------------------|----------------------|
| NAME OF SUBMITTER:      | JI-EUN KIM           |
| Signature:              | /Ji-Eun Kim #68,504/ |
| Date:                   | 12/06/2013           |

Total Attachments: 14

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PATENT REEL: 031730 FRAME: 0450

# <u>ASSIGNMENT</u>

For valuable consideration, we, Jennifer A. DUMONT, of Groton, MA; Susan LOW, of Pepperill, MA; Alan J. BITONTI, of Acton, MA; Glenn PIERCE, of Rancho Santa Fe, CA; Alvin LUK of Boston, MA; Haiyan JIANG, of Belmont, MA; Byron MCKINNEY, of San Diego, CA; Matt OTTMER, of Newton, MA; Jurg SOMMER, of Wayland, MA; Karen NUGENT, of Princes Risborough, Buckinghamshire, UK; Lian LI, of Lexington, MA; and Robert PETERS, of West Roxbury, MA hereby assign to Biogen Idec Hemophilia Inc., a corporation of Delaware having a place of business at:

9 Fourth Avenue Waltham, MA 02451,

and its successors and assigns (collectively hereinafter called "the Assignee"), our entire right, title and interest throughout the world in the inventions and improvements which are subject of an international application for patent entitled Factor VIII-Fc Chimeric and Hybrid Polypeptides, and Methods of Use Thereof, international filing date December 6, 2010, and assigned International Application Number PCT/US2010/059136, this assignment including said application, any and all United States and foreign utility patents and patent applications, including continuation, continuation-in-part, divisional, reissue, and reexamination applications, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Page 1 of 13

| DATE: <u>Dec 1, 2011</u>                      | Jennifer A. Dumoud<br>Jennifer A. DUMONT  |
|---|---|
| STATE OF MUSSACHUSETTS)                       |   |
| COUNTY OF MILDRESEX SE                        |   |
|   | December, 20 11, personally me to be the person whose name is subscribed to the                           |
| foregoing Assignment, proved to me throu      | gh satisfactory evidence of identification in the form and acknowledged that she executed the same as her |
| free act and deed for the purposes therein of |   |
|   | MUMUR RADA!<br>Notary Public  |
| [Notary's Seal Here]                          | My Commission Expires:  |
|   | WICHELLE TADOS  Notery Public  CONNECTION OF WASSACHUSETTS  My Controlisation Expires                     |

| DATE: 1 30 12                                     | Swamllow   |
|---|--|
|   | Susan LOW  |
|   |  |
| STATE OF MASSACIUSELY COUNTY OF MIDDLESTK         | <u>ち</u> ) ss.   |
| Before me this 3000 appeared Susan LOW known to r | day of Junuay, 20 12, personally ne to be the person whose name is subscribed to the foregoing                     |
| Assignment, proved to me throug                   | th satisfactory evidence of identification in the form of, and acknowledged that she executed the same as her free |
| act and deed for the purposes there               | ein contained.   |
|   | Moral  |
|   | Notary Public  |
|   | My Commission Expires:   |
| [Notary's Seal Here]                              | June 17, 2016.   |
|   |  |

Page 3 of 13

| DATE: Jan 18 2012 Of Bitact  |
|--|
| Alan J. BITONTI  |
|  |
|  |
| : 4일 <sup></sup>   |
| STATE OF Massachuscher ) ss. COUNTY OF Michaelescope )   |
| ) SS.  |
| COUNTY OF Mescy  |
|  |
| Before me this 18th day of Tanuary, 2012, personally   |
| appeared Alan J. BITONTI known to me to be the person whose name is subscribed to the          |
|  |
| foregoing Assignment, proved to me through satisfactory evidence of identification in the form |
| of, and acknowledged that he executed the same as his  |
| free act and deed for the purposes therein contained.  |
|  |
| $\mathcal{H}_{2}$  |
| Notary Public Notary Public  |
|  |
| My Commission Expires:   |
| [Notary's Seal Here]   |

Attorney Docket No: 2159.274PC07/EKS/HCC

DATE: 15 Dec 11

Glenn PIERCE

STATE OF MASSOCHUSE HS

COUNTY OF MiddleS ex Ss.

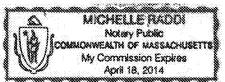
Before me this 15 day of December 20 1 , personally appeared Glenn PIERCE known to me to be the person whose name is subscribed to the foregoing Assignment, proved to me through satisfactory evidence of identification in the form of Company id , and acknowledged that he executed the same as his free act and deed for the purposes therein contained.

MANUAL RADII

Notary Public

My Commission Expires:

[Notary's Seal Here]



| DATE: Of DEC, SOIT                            | Alvin LÜK  |
|---|--|
|   |  |
| STATE OF MSSACHUSETT                          | <u>S</u> )   |
| STATE OF MASSACHUSEHO<br>COUNTY OF MIDDLES EX | <b>) SS.</b><br>)  |
| Before me this                                | day of December, 20 11, personally   |
| appeared Alvin LUK known to me t              | to be the person whose name is subscribed to the foregoing   |
| Amas anian Id                                 | satisfactory evidence of identification in the form of, and acknowledged that he executed the same as his free |
| act and deed for the purposes therein         | n contained.   |
|   | MUNIUS RUDAL<br>Notary Public  |
|   | My Commission Expires:   |
| [Notary's Seal Here]                          | MICHELLE RADDI Noray Public  |
|   | COMMONWEALTH OF MASSACHUSETTS My Convenience Explices April 18, 2014   |

| DATE: /2///2011                              | 122                         | 57  |
|--|-----------------------------|---|
|  | Haiyan JIANG                |   |
|  |                             |   |
|  |                             |   |
| STATE OF MUSSACHUSETI                        | 5                           |   |
| STATE OF Massachusett<br>COUNTY OF Middlesex | ) SS.                       |   |
|  |                             |   |
| Before me this 15+                           | day of December             | , 20 1, personally  |
| appeared Haiyan JIANG known to               | me to be the person whose r | ame is subscribed to the  |
| foregoing Assignment, proved to m            |                             | nce of identification in the form at the executed the same as her   |
| free act and deed for the purposes the       | herein contained.           |   |
|  |                             |   |
|  | muhele                      | e Rada 1  |
|  | Notary Public               |   |
|  | My Commission Exp           | ires:   |
| [Notary's Seal Here]                         |                             |   |
|  |                             | MICHAN PLEASE THE COMMENCEMENT OF MICEACHERS THE  |
|  |                             | My Conventition Estimate<br>April 18, 2014  |
|  |                             | Same and the control of the control |

Attorney Docket No: 2159.274PC07/EKS/HCC

| DATE: 1/4/2012  | Byron MCKINNEY  |
|---|---|
| STATE OF <u>California</u> COUNTY OF <u>San Diego</u> | SS.   |
|   |   |
| foregoing Assignment, proved to me thro               | of Sanar , 20 , personally me to be the person whose name is subscribed to the ough satisfactory evidence of identification in the form , and acknowledged that he executed the same as his |
| free act and deed for the purposes therein            |   |
|   | Notary Public  My Commission Expires: \\-\3-2014  |
| [Notary's Seal Here]                                  |   |

JEPFERSON P. MOORE
Commission # 1913176
Notary Public - California
San Diego County
My. Comm. Expires Nov 13, 2014

Attorney Docket No: 2159.274PC07/EKS/HCC

| DATE: /2/1/11                            | WHILK-  |
|--|---|
|  | Matt OTTMER   |
|  |   |
|  |   |
| STATE OF MASSICHUSE HS                   |   |
| Maiddle Cox                              | SS.   |
| COUNTY OF MICHIESEX                      |   |
|  | Nagarakan   |
| Before me thisS <sup>†</sup> day         | of December, 20 1, personally                             |
| appeared Matt OTTMER known to me         | to be the person whose name is subscribed to the          |
| foregoing Assignment, proved to me the   | rough satisfactory evidence of identification in the form |
|  | , and acknowledged that he executed the same as his       |
| free act and deed for the purposes there |   |
|  |   |
|  | monthle Raddi   |
|  | Notary Public   |
|  | My Commission Expires:                                    |
| [Notary's Seal Here]                     |   |
|  |   |
|  | Lay Controlled in 2014                                    |

| 107- 700                                  |                               |   |
|---|-------------------------------|---|
| DATE: 18 Jan 2012                         | July SOMMER                   |   |
|   |                               |   |
|   |                               |   |
| Marca Maris offic                         |                               |   |
| STATE OF MISSACHUSUIS                     |                               |   |
| STATE OF MASSACHUSETS COUNTY OF MIDDLESEX | ) SS.<br>)                    |   |
|   | Tagridi                       |   |
| Before me this <u>18</u> d                | lay of January                | , 20, personally                            |
| appeared Jurg SOMMER known to n           | ne to be the person whose nam | e is subscribed to the                      |
| foregoing Assignment, proved to me        | through satisfactory evidence | of identification in the form               |
| of drivers license                        | , and acknowledged that h     | e executed the same as his                  |
| free act and deed for the purposes the    |                               |   |
|   |                               |   |
|   | Madrille                      | e Raddi                                     |
|   | Notary Public                 |   |
|   | My Commission Expires         |   |
| [Notary's Seal Here]                      | <b>/</b>                      | MICHELLE PACIDI                             |
|   | l like                        | Notary Public COMMONWEALTH OF MASSACHUSETTS |
|   |                               | My Commission Expires April 18, 2014        |
|   |                               |   |

| ner name.           |   |                 |                 |             |       |
|---------------------|---|-----------------|-----------------|-------------|-------|
| Date: 150ec         | <u> 2011</u> si   | gnature of Inve | ntor:           |             | ****  |
|                     |   |                 | Karen           | TKJOUV      |       |
|                     |   |                 |                 |             |       |
| Witnessed before me | 를 보기 있다.<br>경기를 보고 있는 것이 없는 것이 없는 것이 없는 것이 없다.<br># 기를 보고 있는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다. |                 |                 |             |       |
| Witness Signature:  |   | D               | ate: 16/        | /<br>Dec/20 | )   } |
| Print Name:         | DEREL Du  |                 | ٤               | ·           |       |
|                     | OOLI CI   | ينتنع           | e e e           | Dec/ 1011   |       |
| Witness Signature:  | Twite force   | D:              | ate:16 <i>]</i> | . need and  |       |
| Drint Name          | (40.00000000000000000000000000000000000   | 2. ř. t         |                 |             |       |

IN WITNESS WHEREOF, executed by the undersigned inventor on the date opposite

Attorney Docket No: 2159.274PC07/EKS/HCC

| DATE: 1/18/2012   | lia 1  |
|---|--|
|   | Lian LI  |
|   |  |
|   |  |
| STATE OF MUSSOCHUSE H   |  |
| COUNTY OF MIDDLESEX   |  |
| Before me this  | day of Tanuary, 20 12, personally  |
| appeared Lian LI known to me to be  | the person whose name is subscribed to the foregoing   |
|   | atisfactory evidence of identification in the form of, and acknowledged that she executed the same as her free |
| act and deed for the purposes therein   |  |
|   | mulle Raddi  |
| Maxima<br>and State of the State o | Notary Public  |
|   | My Commission Expires:   |
| [Notary's Seal Here]  | MICHELLE RADOI Notary Public   |
|   | COMMONWEALTH OF MASSACHUSETTS My Commission Expires April 18, 2014   |
|   |  |

| DATE: 17/1/2011   | Attorney Docket No: 2159.274PC07/EKS/HCC Robert PETERS   |
|---|--|
| STATE OF MASSACHUSEHS,  COUNTY OF MIDDLESEX ) SS  Before me this 15t day of | S. <u>December</u> , 20 11, personally   |
|   | be the person whose name is subscribed to the  |
|   | gh satisfactory evidence of identification in the form and acknowledged that he executed the same as his |
| free act and deed for the purposes therein c                                | ontained.  |
|   | muchelle Raddi   |
|   | Notary Public  |
|   | My Commission Expires:   |
| [Notary's Seal Here]  | MICHELLE RACOS  Notary Public  COMMONWEALTH OF MASSICHUSETTS  My Commission Expires  April 18, 2014      |

# **SCHEDULE A**

# UNITED STATES PATENTS, UNITED STATES PATENT APPLICATIONS AND INTERNATIONAL APPLICATIONS THAT DESIGNATE THE UNITED STATES

| Application No. | Filing Date | Patent No. | Issue Date |
|-----------------|-------------|------------|------------|
| 13/513,424      | 12/28/2012  |            |            |
| 13/793,783      | 03/11/2013  |            |            |
|                 |             |            |            |
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|                 |             |            |            |

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**RECORDED: 12/06/2013** 

PATENT REEL: 031730 FRAME: 0464