504478364 07/28/2017

EPAS ID: PAT4525066

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRIAN M. THOME	07/14/2017
CHERIE PARKHURST-LANG	07/21/2017
BRANDON W. LEVEILLE	06/29/2017

RECEIVING PARTY DATA

Name:	BIOVERATIV THERAPEUTICS INC.
Street Address:	225 SECOND AVENUE
City:	WALTHAM
State/Country:	MASSACHUSETTS
Postal Code:	02451

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15128951

CORRESPONDENCE DATA

Fax Number: (202)371-2540

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: (202) 371-2600

Email: TTOPSSecretary4@skgf.com,dchoo@skgf.com,ckim@skgf.com

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

Address Line 1: 1100 NEW YORK AVENUE, N.W.

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER: 4159.3970001/C-K/DKC NAME OF SUBMITTER: JI-EUN KIM SIGNATURE: /Ji-Eun Kim, Reg. No. 68,504/ **DATE SIGNED:** 07/28/2017

Total Attachments: 12

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> **PATENT REEL: 043125 FRAME: 0183** 504478364

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PATENT REEL: 043125 FRAME: 0184

ASSIGNMENT

For valuable consideration, we, <u>Brian M. THOME</u> of <u>Boston, MA</u>, <u>Cherie PARKHURST-LANG</u> of <u>Londonderry</u>, <u>NH</u>, and <u>Brandon W. LEVEILLE</u> of <u>Berwick</u>, <u>MA</u>, hereby assign to <u>Bioverativ Therapeutics Inc.</u>, a corporation of <u>Delaware</u> having a place of business at:

225 Second Avenue Waltham, Massachusetts 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 application for United States Patent entitled LYOPHILIZED FACTOR IX FORMULATIONS, assigned as U.S. Application Number 15/128,951, having the international filing date of March 24, 2015, this assignment including said application, any and all United States and foreign utility patents and patent applications, including continuation, continuation-inpart, 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.

Assignment Page 1 of 4

DATE: 19 JUL			
	Bi	an M. THO	ME
Witnessed before n	ne:		
Witness Signature:		Date:	19 20 2013
	3 Be1553	7"	
Print Name:	77 DE 1777	Date:	14 276 2013
Witness Signature:	lew L	Date: _	14 JUL 2017
Print Name:	Milliadis Paraskevopoul	رِين Date: _	14 JUL 2017

DATE:			
		RKHURST-LANG	
STATE OF)		
COUNTY OF) SS.)		
Before me this	day of	, 20	, personally
appeared Cherie PARKHURST-I	<u>_ANG</u> known to me to	be the person whose nar	ne is subscribed
to the foregoing Assignment, pro	ved to me through sat	isfactory evidence of idea	ntification in the
form of	, and ack	enowledged that she execu	ated the same as
her free act and deed for the purpo	oses therein contained.		
	Notary Public	2	
	My Commiss	sion Expires:	
[Notary's Seal Here]			

Assignment Page 3 of 4

DATE:				
		W. LEVEILLE		
STATE OF)			
COUNTY OF) SS.)			
Before me this	_ day of		, 20	, personally
appeared Brandon W. LEVEILLE k	nown to me to be	the person whose	name is sub	scribed to the
foregoing Assignment, proved to m	e through satisfac	tory evidence of	identification	on in the form
of	, and acknow	wledged that he	executed the	e same as his
free act and deed for the purposes th	erein contained.			
	Notary Publ	lic		
	My Commis	ssion Expires:		
[Notary's Seal Here]				

Assignment Page 4 of 4

ASSIGNMENT

For valuable consideration, we, <u>Brian M. THOME</u> of <u>Boston</u>, <u>MA</u>, <u>Cherie PARKHURST-LANG</u> of <u>Londonderry</u>, <u>NH</u>, and <u>Brandon W. LEVEILLE</u> of <u>Berwick</u>, <u>MA</u>, hereby assign to <u>Bioverativ Therapeutics Inc.</u>, a corporation of <u>Delaware</u> having a place of business at:

225 Second Avenue Waltham, Massachusetts 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 application for United States Patent entitled LYOPHILIZED FACTOR IX FORMULATIONS, assigned as U.S. Application Number 15/128,951, having the international filing date of March 24, 2015, this assignment including said application, any and all United States and foreign utility patents and patent applications, including continuation, continuation-inpart, 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.

Assignment Page 1 of 4

PATENT REEL: 043125 FRAME: 0189

DATE:	<u> </u>	
	Brian M. THOME	
Witnessed before me:		
withessed before the.		
Witness Signature:	Date:	
D. L. M.	D .	
Print Name:	Date:	
Witness Signature:	Date:	
Delay Name	Data	
Print Name:	Date:	

DATE: 21 July 2017 Cherie PARKHURST-LANG
STATE OF MUSSOCHU Setts COUNTY OF MUDDLESEX SS.
Before me this $2/$ day of JU/y , $20/7$, personally
appeared Cherie PARKHURST-LANG 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
her free act and deed for the purposes therein contained.
Mulle Raddi
Notary Public
My Commission Expires:
[Notary's Seal Here] MICHELLE RADDI Notary Public Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires April 2, 2021

DATE:				
		W. LEVEILLE		
STATE OF)			
COUNTY OF) SS.)			
Before me this	_ day of		, 20	, personally
appeared Brandon W. LEVEILLE k	nown to me to be	the person whose	name is sub	scribed to the
foregoing Assignment, proved to m	e through satisfac	tory evidence of	identification	on in the form
of	, and acknow	wledged that he	executed the	e same as his
free act and deed for the purposes th	erein contained.			
	Notary Publ	lic		
	My Commis	ssion Expires:		
[Notary's Seal Here]				

Assignment Page 4 of 4

ASSIGNMENT

For valuable consideration, we, <u>Brian M. THOME</u> of <u>Boston</u>, <u>MA</u>, <u>Cherie PARKHURST-LANG</u> of <u>Londonderry</u>, <u>NH</u>, and <u>Brandon W. LEVEILLE</u> of <u>Berwick</u>, <u>MA</u>, hereby assign to <u>Biogen MA Inc.</u>, a corporation of <u>Massachusetts</u> having a place of business at:

250 Binney Street Cambridge, Massachusetts 02142,

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 application for United States Patent entitled LYOPHILIZED FACTOR IX FORMULATIONS, assigned as U.S. Application Number 15/128,951, having the international filing date of March 24, 2015, this assignment including said application, any and all United States and foreign utility patents and patent applications, including continuation, continuation-inpart, 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.

Assignment Page 1 of 4

DATE:	
	Brian M. THOME
Witnessed before me:	
Witness Signature	Date:
withess Signature.	Batc
Print Name:	Date:
Witness Signature:	Date:
Print Name:	Date:

DATE:	
	Cherie PARKHURST-LANG
STATE OF)	
STATE OF	
Before me this day of	of, 20, personally
appeared Cherie PARKHURST-LANG know	own 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 she executed the same as
her free act and deed for the purposes there	in contained.
7	Notary Public
Ŋ	My Commission Expires:
[Notary's Seal Here]	

Assignment Page 3 of 4

Atty, Dkt. No: 4159.3970001 (P1008 US 002)

DATE: 39 June 2017 Brandon W. LEVELLE
STATE OF MASSOCHUSE HS) SS. COUNTY OF Middle Sex
Before me this Andrew day of June 2017, personally appeared Brandon W. LEVEILLE 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 Bioverativ Herakutics ID, and acknowledged that he executed the same as his free act and deed for the purposes therein contained.
Motary Public Show My Commission Expires:
[Notary's Seal Here] MARY-LOU SHEA Notery Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires September 19, 2019

Assignment Page 4 of 4

PATENT REEL: 043125 FRAME: 0196

RECORDED: 07/28/2017