#### 504032634 10/03/2016

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4079295

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
ROBERT J. MILLER	12/16/2010
LUIS Z AVILA	10/08/2010
CLARK Q. PAN	09/22/2010
PATRICK FINN	09/22/2010
JOHN HARRAHY	09/22/2010
QUN ZHOU	09/22/2010
YUNXIANG ZHU	09/28/2010
PAUL A. KONOWICZ	10/15/2010
JOSEPH P. KUTZKO	09/22/2010
MICHAEL R. REARDON	10/08/2010
JAMES E. STEFANO	09/22/2010
XIAOYANG ZHENG	09/22/2010
DUNCAN E. PATERSON	10/06/2010
ANDREAS PEER	10/06/2010
LAUREN YOUNG	06/24/2011

#### **RECEIVING PARTY DATA**

Name:	GENZYME CORPORATION
Street Address:	500 Kendall Street
City:	Cambridge
State/Country:	MASSACHUSETTS
Postal Code:	02142

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14445941

#### **CORRESPONDENCE DATA**

Fax Number: (908)981-7830

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.

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ATTORNEY DOCKET NUMBER:	5400 US CNT
NAME OF SUBMITTER:	BRIAN PRITCHETT
SIGNATURE:	/Brian Pritchett/
DATE SIGNED:	10/03/2016

#### **Total Attachments: 16**

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#### **ASSIGNMENT**

WHEREAS I/We, the below named inventor(s) (hereinafter referred to as Assignor(s)) have made an invention entitled:

#### OLIGOSACCHARIDE-PROTEIN CONJUGATES

identified as International Patent Application No. PCT/US2009/067775, filed December 11, 2009, which claims priority to U.S. provisional patent application No. 61/122,851, filed December 16, 2008; and

WHEREAS, Genzyme Corporation, a corporation of Commonwealth of Massachusetts whose post office address is 500 Kendall Street Cambridge, Massachusetts 02142, U.S.A. (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention, and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above provisional application (if any), as well as all rights to claim priority on the basis of this application, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof, and I/We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its

successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

County of Madalesey	Name: Robert J. Miller Address: 120 Northridge Drive
State of <u>MasSachuserts</u> )	E. Bridgewater, MA 02333 By: ペンレオウルベル Date: /参//レグンパッ
personally appeared Robert J. Miller, and pridentification, which were Robert Allia	, 20 <u>心</u> , before me, the undersigned notary public, roved to me through satisfactory evidence of <u>kanowan fo</u> , to be ched document, and acknowledged to me that he
Carel Ann William Notary Public	CAROLANN MAHONEY Notary Public Commonwealthof massachusetts My Commission Expires January 21, 2011
ACKNOWLEDGEMENT OF ASSIGNEE:	normal manufactural production of the following the second control of the second control of the second control
I hereby acknowledge the foregoing e  By:  Name:  Title:	executed Assignment on behalf of Genzyme Corporation.  Date:
appeared	, 20, before me, the undersigned notary public, personally , and proved to me through satisfactory evidenc , to be the d document, and acknowledged to me that he/she signed it
voignainy for its stated purpose.	
Notary Public	

#### ASSIGNMENT

WHEREAS I/We, the below named inventor(s) (hereinafter referred to as Assignor(s)) have made an invention entitled:

#### OLIGOSACCHARIDE-PROTEIN CONJUGATES

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WHEREAS, Genzyme Corporation, a corporation of Commonwealth of Massachusetts whose post office address is 500 Kendall Street Cambridge, Massachusetts 02142, U.S.A. (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters. Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention, and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above provisional application (if any), as well as all rights to claim priority on the basis of this application, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

Page 1 of 6

# IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

State of <u>Massachusetts</u> )	SS.	Name: Luis Z. Avila Address: 11 Sleepy Hollow Lane Arlington, MA 02474 By:
Subscribed and swom to before me this, Notary Pub	8 <sup>-∦</sup> ⊾ day llic	Date: OB OCT 2010
Notacy Fublic  Lynn C. Pomoe  Commonwealth of Messacrosetts  My Commission Excess of Park 2015		
County of <u>Madle 84</u> )		Name: Clark Q. Pan
)	SS.	Address: 353 Dutton Road Sudbury, MA 01766
State of Hassachusch }		By: Claud Farms
		Date: 역/22//Q
Subscribed and sworn to perore me this LISA M. WONDotary Pilo Commonwealth of Massachusetts My Commission Explain Jun 22, 2011	<u>∠/≈</u> day xlic	r of <u>September</u> , 2010
County of Middle SUL )		Name: Patrick Finn
<b>)</b>	SS.	Address: 909 Pleasant Street, Unit 16 Weymouth, MA 02189
State of Massachusets )		By: Fight A-
		Date: 07/2://2
Substribed and swom to before me this, Notary Pub	<u>////</u> day xiic	of <u>Splites</u> , 2010
Jord Beathwill will will be the distribution the will be the state of		
LISA M. WCCO Notary Public Commonwealth of Massachusetts My Commission Express Jun 23, 2011		
Mallind Dradhad Bradhad		

County of Michaeles ey)	Name: John Harrahy
) ss.	Address: 8 Autumn Road
and the state of t	Medway, MA 02053
State of Massachuats )	By: Oate: Date: Da
	Date: Salary Co
Subscribed and sworn to before me thisday Notary Public Notary Public	of <u>Sphenikus</u> 2010
County of Michaels ss.  State of Massachusets	Name: Qun Zhou Address: 15 Harris Lane Ashland, MA 01721  By: 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Subscribed and swort to before me this 200 day	of <u>SeMONDU</u> , 2010
Notary Public  USA M. WOOD  Notary Public  Commonwealth of Massachusetts  My Commission Express Jun 23, 2011	
Marit Down	
County of MANUSCH State of MESANUSCHS	Name: Yunxiang Zhu Address: 10 Caulfield Road Wayland, MA-01778  By: Date: 4 A A A A A A A A A A A A A A A A A A
Subscribed and swom to before me this day	of <u>Systember</u> 2010
TARYN LEE ANTALEK Notary Public Commonwealth of Messachusetts My Commission Expires Jun 23, 2011	

State of Massachusetts  Subscribed and sworn to before me this	ss. 25 <sup>%</sup> day blic	By: Date:	Paul A. Konowicz 6 Tremont Street  Maynard MA 01754-1251  S OCT 2010
State of Massachusetts  Subscribed and sworn to before me this 2  Subscribed and sworn to before me this 2  Notary Public  Notary Public  My Commission Expires Jun 23, 2011	ss. <u>///x<sup>l</sup></u> day blic	Address: By: Date:	Joseph P. Kutzko 15 Newton Street Southborough, MA 01772
State of MASSACHUSETIS  Subscribed and sworn to before me this	ss. <u>8</u> 4 day blic	By: Date:	Michael R. Reardon 77 Arnold Road North Attleboro, MA 02760  (10) 08) 10

Page 4 of 6

County of _	Middlegay	) ) ss.	Name: Address:	James E. Stefano 199 Saddlehiii Road
State of	Massa chicat	<b>)</b>	By: Date:	Hopkinton MA 01701
10	and sworn to before me  LISA M. WOOD  Notary Public  Sty Commonwealth of Massaci  My Commission Express Jun 2	ary Public nusette 3.2011	of <u>5</u>	<u>KMGA</u> , 2010
County of _	Middlegy	) ) ss. )	Name: Address:	Xiaoyang Zheng 18 Murray Terrace Newton, MA 02465
State of	Hassachusut	)	By: Date:	28 9 (100 ) 09 (22) 25 (0
Subjection	LISA M WASHINGTON OF THE STATE	ary Pullic Idusetts 23. 2014	of <u>Ja</u>	<u>(///kz /     ,</u> 2010
Witness:		-	Name: Addres	
			Ву:	···
			Date:	
			Name: Addres	
			Ву:	
			Date:	

#### **ACKNOWLEDGEMENT OF ASSIGNEE:**

I hereby acknowledge the foregoing executed Assignment on behalf of Genzyme Corporation.

Name:

Title:

Subscribed and sworn to before me this \_\_\_\_\_\_day of \_\_

MARY ELLEN MUCCI Notary Public OMMONWEALTH OF MASSACHUSETTS My Commission Expires May 19, 2017

#### ASSIGNMENT

WHEREAS I/We, the below named inventor(s) (hereinafter referred to as Assignor(s)) have made an invention entitled:

#### OLIGOSACCHARIDE-PROTEIN CONJUGATES

identified as International Patent Application No. PCT/US2009/067775, filed December 11, 2009, which claims priority to U.S. provisional patent application No. 61/122,851, filed December 16, 2008; and

WHEREAS, Genzyme Corporation, a corporation of Commonwealth of Massachusetts whose post office address is 500 Kendall Street Cambridge, Massachusetts 02142, U.S.A. (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention, and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above provisional application (if any), as well as all rights to claim priority on the basis of this application, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment:

AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

# IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

County of)		Name:	Luis Z. Avila
) ss		Address:	11 Sleepy Hollow Lane
<b>}</b> .			Arlington, MA 02474
State of)		By:	
		Date:	
Subscribed and sworn to before me this	day	of	, 2010
, Notary Public			
County of		Name:	Clark Q. Pan
ss			353 Dutton Road
}	•	71G(11,000).	Conference MA 01766
State of		Ву:	
- Carro 67		Date:	<u></u>
		LJCCCC.	<u> </u>
Subscribed and sworn to before me this	day	of	~ 2010
, Notary Public	_ 003	O	
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County of)		Name:	Patrick Finn
) ss			909 Pleasant Street, Unit 16
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County of		- 4	Name:	John marrany	
	**************************************	SS.	Address.	8 Autumn Road Medway, MA 02053	
State of	<u> </u>		By:	medway, MA 02003	
			Date:		
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Subscribed and sworn to before	me this		day of	, 2010	
	Notary Pub	HIC			
County of	).		Name:	Qun Zhou	
	}	SS.	Address:	15 Harris Lane	
	.)			Ashland, MA 01721	
State of	)				
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	Notary Pub	' ilic	day or	, 2010	
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County of	}		Name:	Yunxiang Zhu	
	)	SS.	Address:	10 Caulfield Road	
	ŷ			Wayland, MA 01778	
State of	)		Ву:		
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Subscribed and sworn to before	e me this Notary Pub				

State of Subscribed and sworn to before	) ) me this	ss. da	By: Date:	Paul A. Konowicz 6 Tremont Street Maynard MA 01754-1251, 2010
State of		<b>S\$</b> (		Joseph P. Kutzko 15 Newton Street Southborough, MA 01772
Subscribed and sworn to before	me this Notary Publ	da ic	y of	. 2010
County ofState of	) ) )	SS.		Michael R. Reardon 77 Arnold Road North Attleboro, MA 02760
Subscribed and sworn to before			y of	, 2010

) ss. A ) State of) B	ame: James E. Sterano Idress: 199 Saddiehiil Road Hopkinton MA 01701 y: ate:
State of B	ame: Xiaoyang Zheng ddress: 18 Murray Terrace Newton, MA 02465 y: ate:, 2010
Witness: Charactery Witness: Market M	Name: Duncan E. Paterson Address: Ruedi-Walter-Strasse 2A 8050 Zürich, Switzerland  By: Date: 0.2020
Witness: CLOYCUU Witness:	Name: Andreas Peer Address: Gempenstrasse 18 CH-4053 Basel, Switzerland  By: Test Date: October 6, 2010

### **ACKNOWLEDGEMENT OF ASSIGNEE:**

I hereby acknowledge the foregoing executed Assignment on behalf of Genzyme Corporation.

Name:

Title:

MARY ELLEN MUCCI Notery Public OMMONWEALTH OF MASSACHUSETTS My Commission Expires May 19, 2017

#### **ASSIGNMENT**

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successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

County of <u>Rockingham</u> } State of <u>New Humpshire</u>	SS.	Name:	Lauren Young 210 Landing Road Hampton, NH 03842
×	Q.3.	3.30000 20000	Hamiston NH 03842
State of Now Homoshice		By	
Jacobs Jacobs Land Control of the Co		Date:	
On this 24/4-day of JUNA	₹ 20	) // . befo	ire me, the undersigned notary public,
personally appeared Lauren Young, a	ind proved	to me thr	ore me, the undersigned notary public, ough satisfactory evidence of identification,
which were <u>V2//CL N//_L</u>	MANS		to be the person chowledged to me that he signed it
whose name is signed on the attache	d documen	it, and acl	(nowledged to me that he signed it
voluntarily for its stated purpose.			
CYNTHIA KELLEY, Notary F CYNTHIA KELLEY, Notary Public My Commission Expires December 20, 1			
ACKNOWLEDGEMENT OF ASSIGN	EE:		
			ignment on behalf of Genzyme Corporation.
Name: Lawen E. Title: N/4	Thung	Supeliusideking:	Date: <u>6/24///</u>
On this 24" day of 440 appeared 440 year year of identification, which were		)_/_, befo	ore me, the undersigned notary public, personally, and proved to me through satisfactory evidence, to be the and acknowledged to me that he/she signed it
person whose name is signed on the voluntarily for its stated purpose.	attached d	ocument,	and acknowledged to me that he/she signed it
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Notary Public	×		
CYNTHIA KELLEY, Notary Pub My Commission Expires December 5	iic 10, 2015		

Page 2 of 2