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To the Director of the 0.5. Faterit 2			ents or the new addre		W.
1. Name of conveying party(ies) Olaf PIEPENBURG			of receiving par	rty(ies)	
Derek L. STEMPLE		ASM Scientific, Inc.			
Niall A. ARMES	Interna	l Address:	<u> </u>		
Additional name(s) of conveying party(ies) attached? Ye	es 🔽 No ─				
3. Nature of conveyance/Execution Date(s):	Street .	Address: 240 No	orfolk Street		
Execution Date(s) 9/20/07: 9/21/07: 9/20/07					
✓ Assignment					
Security Agreement Change of N	Name City: <u>c</u>	ambridge			
Joint Research Agreement	State: t	Massachusetts			
Government Interest Assignment					
Executive Order 9424, Confirmatory License	e Countr	y: <u>U.S.A.</u>	Zip: <u>021</u>	39	
Other	Addition	al name(s) & add	ress(es) attached?	Yes •	7
A. Patent Application No.(s)(1) 11/628,343, filed June 2, 2005	B. F	Patent No.(s)			
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Additional nu 5. Name and address to whom correspondent concerning document should be mailed: Name: Jonathan M. Spenner, Ph.D. Internal Address: MINTZ, LEVIN, COHN, FERRIS GLOVSKY and POPEO, P.C. Street Address: 666 Third Avenue - 24th Floor City: New York State: NY Zip: 10017 Phone Number: (212) 935-3000 Fax Number: (212) 983-3115 Email Address: imspenner@mintz.com	mbers attached? [1ce 6. Tota involve 7. Tota Au Au Real Au Au Ab B. Payl a. C	Yes No I number of apode: 1 I fee (37 CFR 1 thorized to be compared to be compared (government Information and Las Expreposit Account uthorized User	.21(h) & 3.41) \$ harged by credit harged to deposi vernment interest r on t 4 Numbers iration Date Number _50-0311	6 40.00 card it account not affecting 8 2007	

PATENT REEL: 019919 FRAME: 0363

ASSIGNMENT

We, Olaf PIEPENBURG, Derek L. STEMPLE, and Niall A. ARMES, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to ASM Scientific, Inc., a Delaware corporation, with offices at 240 Norfolk Street, Cambridge, Massachusetts 02139, and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

2' - NITROBENZYL-MODIFIED RIBONUCLEOTIDES

filed with the U.S. Patent and Trademark Office on June 2, 2005 and assigned Serial No.: 11/628,343, including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefore, including priority application U.S. Provisional Patent Application No. 60/576,907; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

PATENT REEL: 019919 FRAME: 0364 We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: 20/9/2007	Signature of: Olaf PIKPENBURG
State of	·
Country of	_
Subscribed and swom to before me this 20	day of Saptember Notary Public
	My commission expires
Date: 2/September 2007 State of Country of	Signature of: Derek L. STEMPLE
Subscribed and sworn to before me this	day of
	Notary Public My commission expires

2 of 3

Attorney Docket No. 18921-006 NATL

Date: 20/9/2007	\mathcal{N}_{-}
20/1/204	Signature of: Niall A/ARMES
State of	_
Country of	
Subscribed and sworn to before me this 280	hay of Soptember 2007
	Mahin
	Notary Public
	My commission expires .

3 of 3

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RECORDED: 09/28/2007

PATENT REEL: 019919 FRAME: 0366