

09/194068

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Expires 06/30/99  
OMB 0651-0027

05-06-1999

U.S. Department of Commerce  
Patent and Trademark Office  
PATENT



101030564

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☐ Correction of PTO Error  
Reel #  Frame #   
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Reel #  Frame #

Conveyance Type

☒ Assignment ☐ Security Agreement  
☐ License ☐ Change of Name  
☐ Merger ☐ Other   
**U.S. Government**  
(For Use ONLY by U.S. Government Agencies)  
☐ Departmental File ☐ Secret File

Conveying Party(ies)

☒ Mark if additional names of conveying parties attached  
Execution Date  
Month Day Year  
03091999

Name (line 1) Caponetti, Giovanni

Name (line 2)

Second Party

Name (line 1) Hrkach, Jeffrey S.

Execution Date  
Month Day Year  
02261999

Name (line 2)

Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1) Massachusetts Institute of Technology

Name (line 2)

Address (line 1) 77 Massachusetts Avenue

Address (line 2)

Address (line 3) Cambridge

Massachusetts

02139

City

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

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REEL: 9923 FRAME: 0384

**Correspondent Name and Address**

Area Code and Telephone Number (404) 873-8794

Name Patrea L. Pabst, Esq.

Address (line 1) ARNALL GOLDEN &amp; GREGORY, LLP

Address (line 2) 2800 One Atlantic Center

Address (line 3) 1201 West Peachtree Street

Address (line 4) Atlanta, Georgia 30309-3450

**Pages**Enter the total number of pages of the attached conveyance document  
including any attachments.

# 6

**Application Number(s) or Patent Number(s)**☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)**

09194068

**Patent Number(s)**If this document is being filed together with a new Patent Application, enter the date the patent application was  
signed by the first named executing inventor.

Month Day Year

**Patent Cooperation Treaty (PCT)**

Enter PCT application number

only if a U.S. Application Number  
has not been assigned.

PCT

PCT

PCT

PCT

PCT

PCT

**Number of Properties**

Enter the total number of properties involved.

# 1

**Fee Amount**

Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Method of Payment:

Enclosed ☒Deposit Account ☒

Deposit Account

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# 01-2507

Authorization to charge additional fees:

Yes

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☐**Statement and Signature**

To the best of my knowledge and belief, the foregoing information is true and correct and any  
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Patrea L. Pabst

Name of Person Signing

Signature

Date

RECORDATION FORM COVER SHEET  
CONTINUATION  
PATENTS ONLY

U.S. Department of Commerce  
Patent and Trademark Office  
**PATENT**

**Conveying Party(ies)**

☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1) Lotan, Noah

Execution Date  
Month Day Year

03161999

Name (line 2)

Execution Date  
Month Day Year

Name (line 1) Hanes, Justin

03191999

Name (line 2)

Execution Date  
Month Day Year

Name (line 1) Langer, Robert S.

03011999

Name (line 2)

**Receiving Party(ies)**

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Address (line 2)

Address (line 3)

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State/Country

Zip Code

Name (line 1)

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State/Country

Zip Code

**Application Number(s) or Patent Number(s)**

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)**

09194068

**Patent Number(s)**

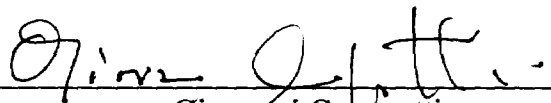
## ASSIGNMENT

We, Giovanni Caponetti of Via Genova 33, Piacenza, 29100, ITALY, Jeffrey S. Hrkach of 65 Willow Avenue, Apartment 1, Somerville, Massachusetts 02144, Noah Lotan of 27 Shimkin Street, Haifa 34750, ISRAEL, Justin Hanes of 218 Tunbridge Road, Baltimore, Maryland 21205, and Robert S. Langer of 77 Lombard Street, Newton, Massachusetts 02158, in consideration of ten dollars and other valuable consideration paid to us by Massachusetts Institute of Technology, a corporation of the Commonwealth of Massachusetts, having its principal place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said Massachusetts Institute of Technology, its successors and assigns, the entire interest for the United States of America, and its territories and all foreign countries and jurisdictions, including all rights of priority under the International Convention for the Protection of Industrial Property, in a certain invention or improvement in "*Aerodynamically Light Particles for Pulmonary Drug Delivery*" described in U.S. Serial No. 09/194,068, filed in the U.S. Receiving Office for the Patent Cooperation Treaty on November 19, 1998, by David A. Edwards, Giovanni Caponetti, Jeffrey S. Hrkach, Noah Lotan, Justin Hanes, Abdell Aziz Ben-Jebria, and Robert S. Langer, which claims priority to International Application No. PCT/US97/08895 filed May 23, 1997, in the U.S. Receiving Office for the Patent Cooperation Treaty, which claims priority to U.S. Serial No. 08/739,308 filed October 29, 1996, in the U.S. Patent and Trademark Office, and U.S. Serial No. 08/655,570 filed May 24, 1996, in the U.S. Patent and Trademark Office, and in all Letters Patent of the United States and its territories and all foreign countries and jurisdictions which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuation, continuation-in-part, reissue, or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns, but at its or their expense or charges, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and its territories and in all other foreign countries and jurisdictions to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation, and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

Title: "Aerodynamically Light Particles for Pulmonary Drug Delivery"  
By: David A. Edwards, Giovannia Caponetti, Jeffrey S. Hrkach,  
Noah Lotan, Justin Hanes, Abdell A. Ben-Jebria, and Robert S. Langer  
U.S.S.N. 09/194,068  
Filed: May 23, 1997 (PCT)  
ASSIGNMENT

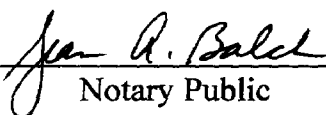
And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 9th day of MARCH, 1999.

  
\_\_\_\_\_  
Giovanni Caponetti

Commonwealth/State of Massachusetts )  
County of Middlesex )

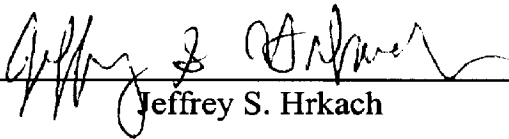
Then personally appeared the above named Giovanni Caponetti and acknowledged the foregoing instrument to be his free act and deed, before me this 9th day of March, 1999.

  
\_\_\_\_\_  
Notary Public

Jean A. Balch  
NOTARY PUBLIC  
My commission expires July 22, 2005

My Commission expires 7/22/2005


WITNESS my hand and seal this 26<sup>th</sup> day of February, 1999.

  
\_\_\_\_\_  
Jeffrey S. Hrkach

Commonwealth of Massachusetts )

County of Middlesex )

Then personally appeared the above named Jeffrey S. Hrkach and acknowledged the foregoing instrument to be his free act and deed, before me this 26<sup>th</sup> day of February, 1999.

  
\_\_\_\_\_  
Notary Public

My Commission expires 7/22/2005

Jean A. Balch  
NOTARY PUBLIC  
My commission expires July 22, 2005

Title: "Aerodynamically Light Particles for Pulmonary Drug Delivery"  
By: David A. Edwards, Giovannia Caponetti, Jeffrey S. Hrkach,  
Noah Lotan, Justin Hanes, Abdell A. Ben-Jebria, and Robert S. Langer  
U.S.S.N. 09/194,068  
Filed: May 23, 1997 (PCT)  
ASSIGNMENT

WITNESS my hand and seal this 16 day of March, 1999.

Noah Lotan

Noah Lotan

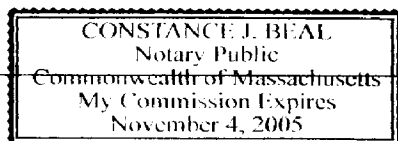
State/Commonwealth of Massachusetts)  
County of Middlesex)

Then personally appeared the above named Noah Lotan and acknowledged  
the foregoing instrument to be his free act and deed, before me this 16<sup>th</sup> day  
of March, 1999.

Constance J. Beal

Notary Public

My Commission expires \_\_\_\_\_



WITNESS my hand and seal this 19 day of MARCH, 1999.

Justin Hanes  
Justin Hanes

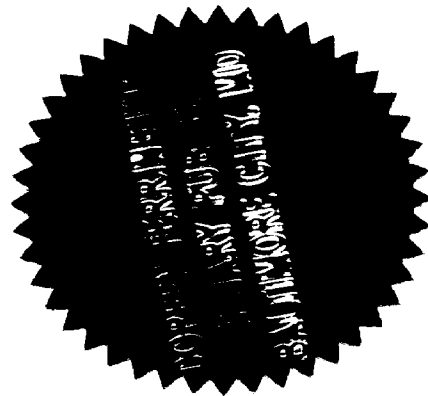
State of Maryland )

County of BALTIMORE )

Then personally appeared the above named Justin Hanes and acknowledged  
the foregoing instrument to be his free act and deed, before me this 19 day of  
MARCH, 1999.

Dore Fenington  
Notary Public

My Commission expires 3/25/02





WITNESS my hand and seal this 1st day of March, 1999.

Robert S. Langer  
Robert S. Langer

Commonwealth of Massachusetts )

County of Middlesex )

Then personally appeared the above named Robert S. Langer and acknowledged  
the foregoing instrument to be his free act and deed, before me this 1st day of  
March, 1999.

Constance J. Beal  
Notary Public

My Commission expires \_\_\_\_\_

