

Form PTO-1595

RECORDATION FORM COVER SHEET PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

(Rev. 6/95)

OMB No. 0651-0011 (exp. 4/94)

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

- a. Patrick A. Anquetil
- b. Ian W. Hunter
- c. John D. Madden
- d. Peter G. Madden
- e. Anthony E. Pullen

- f. Timothy M. Swager
- g. Bing Xu
- h. Hsiao-hua Yu

2. Name and address of receiving party(ies):

Name: Massachusetts Institute of Technology

Internal Address: _____

Street Address: Five Cambridge Center, Room NE25-230

City: Cambridge State: MA Zip 02142

Additional name(s) & addresses attached? Yes No

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

Execution Date: a. 7 May 2003; b. 9 May 2003; c. 11 June 2003; d. 12 May 2003; e. 28 May 2003; f. 7 May 2003; g. 5 May 2003; h. 7 May 2003.

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the filing date of the application is: _____

A. Patent Application No.(s) 10/392,354

B. Patent No.(s): _____

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Foley Hoag LLP

Internal Address: Patent Department

Street Address: 155 Seaport Boulevard

City: Boston State: MA ZIP 02210

6. Total number of applications and patents involved (1)

7. Total Fee (37 CFR 3.14).....\$ 40.00

- Enclosed
- Authorized to be charged to 06-1448 deposit account

8. Deposit account number:

06-1448, Ref. MTV-053.01

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Dana M. Gordon, Ph.D., 44,719

Name of Person Signing and Reg. No.

Signature

July 1, 2003

Date

Total number of pages including cover sheet, attachments, and document: (18)

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents, Mail Stop Assignments
Washington, D.C. 20231

CH \$40.00 061448 10392364

ASSIGNMENT

We, Patrick A. Anquetil, Ian W. Hunter, John D. Madden, Peter G. Madden, Anthony E. Pullen, Timothy M. Swager, Bing Xu, and Hsiao-hua Yu for valuable consideration received from Massachusetts Institute of Technology, a corporation of the state of Massachusetts, having its principal place of business at Five Cambridge Center, Room NE25-230, Cambridge, MA 02142, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

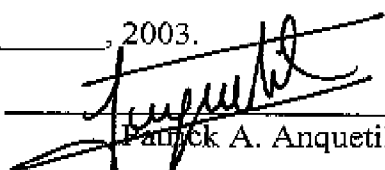
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

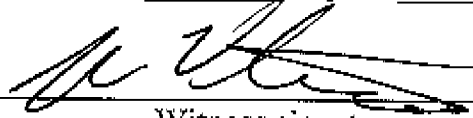
"MOLECULAR ACTUATORS, AND METHODS OF USE THEREOF"

described in application Serial No. 10/392,354 filed on March 19, 2003 in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, 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 and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries 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.

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 this 7 day of May, 2003.
By: 
Patrick A. Anquetil

Then personally appeared the above-named Patrick A. Anquetil and acknowledged the foregoing instrument to be his free act and deed, before me, this 7 day of MAY, 2003.


Witness signature
NATHAN VANDESTEEG
Witness Name (please print)

Assignment

Page 2

WITNESS my hand this 9 day of May, 2003.
By: [Signature]
Ian W. Hunter

Then personally appeared the above-named Ian W. Hunter and acknowledged the foregoing instrument to be his free act and deed, before me, this 9 day of May, 2003.

[Signature]
Witness signature
BRYAN SCHMID
Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.
By: _____
John D. Madden

Then personally appeared the above-named John D. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this 12 day of MAY, 2003.
By: [Signature]
Peter G. Madden

Then personally appeared the above-named Peter G. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this 12 day of May, 2003.

[Signature]
Witness signature
BRYAN SCHMID
Witness Name (please print)

Assignment

Page 3

WITNESS my hand this _____ day of _____, 2003.

By: _____
Anthony E. Pullen

Then personally appeared the above-named Anthony E. Pullen and acknowledged the foregoing instrument to be his free act and deed, before me, this 7 day of May, 2003.

Kim Lamm
Witness signature

Kim Scantlebury
Witness Name (please print)

WITNESS my hand this 7 day of May, 2003.

By: Timothy M. Swager
Timothy M. Swager

Then personally appeared the above-named Timothy M. Swager and acknowledged the foregoing instrument to be his free act and deed, before me, this 7 day of May, 2003.

Kim Lamm
Witness signature

Kim Scantlebury
Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Bing Xu

Then personally appeared the above-named Bing Xu and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 4

WITNESS my hand this 7 day of May, 2003.

By: Hsiao-hua Yu
Hsiao-hua Yu

Then personally appeared the above-named Hsiao-hua Yu and acknowledged the foregoing instrument to be his free act and deed, before me, this 7 day of May, 2003.

[Signature]
Witness signature

Rachel Zimet
Witness Name (please print)

ASSIGNMENT

We, Patrick A. Anquetil, Ian W. Hunter, John D. Madden, Peter G. Madden, Anthony E. Pullen, Timothy M. Swager, Bing Xu, and Hsiao-hua Yu for valuable consideration received from Massachusetts Institute of Technology, a corporation of the state of Massachusetts, having its principal place of business at Five Cambridge Center, Room NE25-230, Cambridge, MA 02142, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

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its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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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 this _____ day of _____, 2003.

By: _____
Patrick A. Anquetil

Then personally appeared the above-named Patrick A. Anquetil and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 2

WITNESS my hand this _____ day of _____, 2003.

By: _____
Ian W. Hunter

Then personally appeared the above-named Ian W. Hunter and acknowledged the foregoing instrument to be his free act and deed, before me, this 11th day of June, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this 11 day of June, 2003.

By: [Signature]
John D. Madden

Then personally appeared the above-named John D. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this 11th day of June, 2003.

[Signature]
Witness signature

Matthew J. Yedlin
Witness Name (please print)

WITNESS my hand this 12 day of June, 2003.

By: _____
Peter G. Madden

Then personally appeared the above-named Peter G. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 3

WITNESS my hand this _____ day of _____, 2003.

By: _____
Anthony E. Pullen

Then personally appeared the above-named Anthony E. Pullen and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Timothy M. Swager

Then personally appeared the above-named Timothy M. Swager and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Bing Xu

Then personally appeared the above-named Bing Xu and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 4

WITNESS my hand this _____ day of _____, 2003.

By: _____
Hsiao-hua Yu

Then personally appeared the above-named Hsiao-hua Yu and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

ASSIGNMENT

We, Patrick A. Anquetil, Ian W. Hunter, John D. Madden, Peter G. Madden, Anthony E. Pullen, Timothy M. Swager, Bing Xu, and Hsiao-hua Yu for valuable consideration received from Massachusetts Institute of Technology, a corporation of the state of Massachusetts, having its principal place of business at Five Cambridge Center, Room NE25-230, Cambridge, MA 02142, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

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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 this _____ day of _____, 2003.

By: _____
Patrick A. Anquetil

Then personally appeared the above-named Patrick A. Anquetil and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 2

WITNESS my hand this _____ day of _____, 2003.

By: _____
Ian W. Hunter

Then personally appeared the above-named Ian W. Hunter and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
John D. Madden

Then personally appeared the above-named John D. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Peter G. Madden

Then personally appeared the above-named Peter G. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 3

WITNESS my hand this 28 day of May, 2003.

By: *Anthony E. Pullen*
Anthony E. Pullen

Then personally appeared the above-named Anthony E. Pullen and acknowledged the foregoing instrument to be his free act and deed, before me, this 28 day of 5/28/03 MAY, 2003.

Andrew Loxley
Witness signature

ANDREW LOKLEY
Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Timothy M. Swager

Then personally appeared the above-named Timothy M. Swager and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Bing Xu

Then personally appeared the above-named Bing Xu and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 4

WITNESS my hand this _____ day of _____, 2003.

By: _____
Hsiao-hua Yu

Then personally appeared the above-named Hsiao-hua Yu and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

ASSIGNMENT

We, Patrick A. Anquetil, Ian W. Hunter, John D. Madden, Peter G. Madden, Anthony E. Pullen, Timothy M. Swager, Bing Xu, and Hsiao-hua Yu for valuable consideration received from Massachusetts Institute of Technology, a corporation of the state of Massachusetts, having its principal place of business at Five Cambridge Center, Room NE25-230, Cambridge, MA 02142, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

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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 this _____ day of _____, 2003.

By: _____
Patrick A. Anquetil

Then personally appeared the above-named Patrick A. Anquetil and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 2

WITNESS my hand this _____ day of _____, 2003.

By: _____
Ian W. Hunter

Then personally appeared the above-named Ian W. Hunter and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
John D. Madden

Then personally appeared the above-named John D. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Peter G. Madden

Then personally appeared the above-named Peter G. Madden and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

Assignment

Page 3

WITNESS my hand this _____ day of _____, 2003.

By: _____
Anthony E. Pullen

Then personally appeared the above-named Anthony E. Pullen and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this _____ day of _____, 2003.

By: _____
Timothy M. Swager

Then personally appeared the above-named Timothy M. Swager and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)

WITNESS my hand this fifth day of May, 2003.

By: _____
Bing Xu

Then personally appeared the above-named Bing Xu and acknowledged the foregoing instrument to be his free act and deed, before me, this fifth day of May, 2003.

Zhihong Guo
Witness signature

Zhihong Guo
Witness Name (please print)

Assignment

Page 4

WITNESS my hand this _____ day of _____, 2003.

By: _____
Hsiao-hua Yu

Then personally appeared the above-named Hsiao-hua Yu and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 2003.

Witness signature

Witness Name (please print)