Client Code: HITACHI,083NP

## RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director, U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

| Name of conveying parties:                                                                                                                                                        | Name and address of receiving parties:                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Cindy Yamamoto     Toshit Sen                                                                                                                                                     | <ul> <li>a. Name: Hitachi Chemical Co., Ltd.</li> <li>Street Address: 1-1 Nishi-Shinjuku 2-chome,<br/>Shinjuku-ku</li> </ul>        |
| Additional name of conveying parties attached?                                                                                                                                    | City: Tokyo Country: Japan ZIP: 163-0449                                                                                            |
| () Yes (X) No                                                                                                                                                                     | b. Name: Hitachi Chemical Research Center, Inc.     Street Address: 1003 Health Sciences Road     City: Irvine State: CA ZIP: 92617 |
| Nature of conveyance:     (X) Assignment                                                                                                                                          | Additional names of receiving parties attached?  () Yes (X) No                                                                      |
| ( ) Other:  Execution Date: (List as in section 1 if multiple                                                                                                                     | US or PCT Application number(s) or US Patent number(s):                                                                             |
| signatures)  1) February 20, 2009                                                                                                                                                 | (X) US Patent Application No.: 12/374,480<br>Filing Date: January 20, 2009                                                          |
| 2) February 20, 2009                                                                                                                                                              | Additional numbers attached?                                                                                                        |
|                                                                                                                                                                                   | () Yes (X) No                                                                                                                       |
| <ol><li>Party to whom correspondence concerning document should be mailed:</li></ol>                                                                                              | Total number of applications and patents involved: 1                                                                                |
| Customer No. 20,995                                                                                                                                                               |                                                                                                                                     |
| Address: Knobbe, Martens, Olson & Bear, LLP<br>2040 Main Street, 14 <sup>th</sup> Floor<br>Irvine, CA 92614<br>Return Fax: (949) 760-9502<br>Attorney's Docket No.: HITACHI.083NP |                                                                                                                                     |
| 7. Total fee (37 CFR 1.21(h)): \$40                                                                                                                                               | 8. Deposit account number: 11-1410                                                                                                  |
| (X) Authorized to be charged to deposit account                                                                                                                                   | Please charge this account for any additional fees which may be required, or credit any overpayment to this account.                |
| 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.                             |                                                                                                                                     |
| Umair A. Qadeer Umay                                                                                                                                                              | 2/20/09                                                                                                                             |
| Name of Person Signing Signature Date                                                                                                                                             |                                                                                                                                     |
| 54,380<br>Registration No.                                                                                                                                                        |                                                                                                                                     |
| Total number of pages including cover sheet, attachments and document: 4                                                                                                          |                                                                                                                                     |

Documents transmitted via Facsimile to be recorded with required cover sheet information to:

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6677011 / 022009

PATENT REEL: 022295 FRAME: 0574 Application No.: 12/374480

Filing Date: January 20, 2009

PATENT

Client Code: HITACHI.083NP

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## **ASSIGNMENT**

WHEREAS, We, Cindy Yamamoto, a United States citizen, residing at 34 Duet, Irvine, CA 92603, and Toshit Sen, a Indian citizen, residing at 15506 Williams Street, #F, Tustin, CA 92780, have Invented certain new and useful improvements in a NUCLEIC ACID LIGANDS CAPABLE OF BINDING TO INTERNALIN B OR INTERNALIN A for which we have filed an application for Letters Patent as International Application No. PCT/US2007/074044, filed on July 20, 2007, the United States national phase of which was assigned Application No. 12/374480, entered into the U.S. national phase on January 20, 2009;

AND WHEREAS, Hitachi Chemical Co., Ltd., a Japanese Corporation, with its principal place of business at 1-1 Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo, Japan 163-0449, and Hitachi Chemical Research Center, Inc., a California Corporation, with its principal place of business at 1003 Health Sciences Road, Irvine, CA 92617 (hereinafter jointly referred to as "ASSIGNEES"), desire to acquire the entire right, title, and interest in and to said improvements and said Application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, said inventors, do hereby acknowledge that we have sold, assigned, transferred, and set over, and by these presents do hereby sell, assign, transfer, and set over, unto said ASSIGNEES, their successors, legal representatives, and assigns, the entire right, title, and interest throughout the world in, to, and under said improvements, and said application including all provisional applications relating thereto (including but not limited to U.S. Provisional Application No. 60/876929, filed on December 22, 2006, and U.S. Provisional Application No. 60/832648, filed on July 21, 2006), and all divisions, renewals, and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals, and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said ASSIGNEES, their successors, legal representatives, and assigns, in accordance with the terms of this instrument.

AND WE DO HEREBY sell, assign, transfer, and convey to ASSIGNEES, their successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEES, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND WE HEREBY covenant and agree that we will communicate to said ASSIGNEES, their successors, legal representatives, and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional,

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REEL: 022295 FRAME: 0575

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continuing, and reissue applications, make all rightful oaths and generally do everything possible to aid said ASSIGNEES, their successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 20th day of

STATE OF PARIFORIUM

On FEB: 20, 2009, before me, Donnah j-fok AKSON personally appeared Cindy Yamamoto who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument, and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct,

WITNESS my hand and official seal.

[SEAL]

COMM, #1650851

Notary Signature

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IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 20th day of

COUNTY OF PROPERTY

On The Total Total Sen who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

[SEAL]

6575227/wn 020209

> **PATENT REEL: 022295 FRAME: 0577**

**RECORDED: 02/20/2009**