|   |  | 1-06-1998 <del></del>  |  |  |
|---|--|--|--|--|
| FORM PTO-1595 (modified)  | RECORDA  | U.S. DEPARTMENT OF COMMERCE  |  |  |
| MRD 11-2-98   |  | Patent and Trademark Office  |  |  |
| To the Assistant Commissioner for   | Patents: Please re   | 00873390 copy(ies) thereof.  |  |  |
| 1. Name of conveying party(ies  | s):  | 2. Name and address of receiving party(ies):   |  |  |
| Satoshi ÕMURA<br>Masayasu KATO<br>Miichiro ARITA                                  |  | Name: TAKEDA CHEMICAL INDUSTRIES, LTD.  Street Address: 1-1, Doshomachi 4-chome, Chuo-ku, Osaka 541, Japan   |  |  |
|   |  |  |  |  |
| Additional name(s) of conveying party(  | es) attached? <u>No</u>  | &  |  |  |
| 3. Nature of conveyance:  X Assignment Security Agreement Other                   | Merger<br>Change of Name   | Name: <u>THE KITASATO INSTITUTE</u> Street Address: <u>9-1, Shirokane 5-chome, Minato-ku, Tokyo 108, Japan</u>   |  |  |
| Execution Date: October 21  | and 26, 1998   | Additional name(s) & address(es) attached? No  |  |  |
| 4. Application number(s) or pat   | ent number(s):   | The state of the s |  |  |
| •   |  | the execution date of the application is:  |  |  |
| A. Patent Application No.   |  | B. Patent No.  |  |  |
| 09/143,365  |  |  |  |  |
|   | Additional numbe   | rs attached? <u>No</u>   |  |  |
| <ol><li>Name and address of party t<br/>concerning document should</li></ol>      | 15 Table 1 Tab | 6. Total number of applications and patents involved: 1  |  |  |
| Name: WENDEROTH, LIND   | <u>&amp; PONACK, L.L.P.</u>  | 7. Total fee (37 C.F.R. § 3.41) \$40.00  |  |  |
| Internal Address:   |  | [98-0946*/WMC/280]   |  |  |
| Street Address: 2033 K Str  | eet, N.W., Suite 800   | Enclosed Check No. 30472  Authorized to be charged to deposit account  |  |  |
| City: <u>Washington</u> , State: <u>D</u>   | C_ZIP: <u>20006</u>  | 8. Deposit account number:   |  |  |
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| 9. Statement and signature.  To the best of my knowledge a the original document. |  | tion is true and correct and any attached copy is a true copy of   |  |  |
| Warren M. Cheek, Jr., Reg. Name of Person Signing                                 | Signature  | November 2, 1998 Date  Pages including cover sheet, attachments, and document: 3   |  |  |
| <b>M</b> ail d  | ocuments to be recorded with re  | equired cover sheet information to:  |  |  |
| 705/1998 SBURMS 00000119 09143365<br>FC::581 40.                                  | Commissioner of Pate<br>Box Assig<br>Washington, [   | nments   |  |  |
|   |  |  |  |  |

PATENT REEL: 9558 FRAME: 0457

## **ASSIGNMENT**

|                                   | In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned                            |  |  |  |  |
|-----------------------------------|---|--|--|--|--|
|                                   | Satoshi ŌMURA   |  |  |  |  |
|                                   | Masayasu KATO   |  |  |  |  |
| nsert Name(s) f Inventor(s)       | Miichiro ARITA  |  |  |  |  |
|                                   |   |  |  |  |  |
|                                   | the undersigned hereby sell(s) and assign(s) to   |  |  |  |  |
| nsert Name(s)                     | Takeda Chemical Industries Ltd. and The Kitasato Institute  |  |  |  |  |
| f Assignee(s)<br>Address          | of 1-1, Doshomachi 4-chome, Chuo-ku, Osaka 541 Japan and 9-1, Shirokane 5-chome, Minato-ku, Tokyo 108 Japan, respectively                               |  |  |  |  |
|                                   | (hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as |  |  |  |  |
| Title of<br>nvention              | METHOD OF PRODUCING ERYTHROMYCIN DERIVATIVE   |  |  |  |  |
| Date of Signing<br>of Application | for which an application for patent in the United States has been executed by the undersigned on  |  |  |  |  |
|                                   | October 21 and 26, 1998   |  |  |  |  |
|                                   |   |  |  |  |  |

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

PATENT REEL: 9558 FRAME: 0458 The undersigned hereby grant(s) the firm of WENDEROTH, LIND & PONACK, Southern Building, Suite 700, 805 Fifteenth Street, N.W., Washington, D.C. 20005, the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

| In witness whereof, execu  | ited by the undersig  | med on the date(s      | ) opposite the    | undersigned name(s).       |  |  |
|--|-----------------------|------------------------|-------------------|----------------------------|--|--|
| Date <u>Oct. 21, 1998</u> ,  | Name of Inventor      | Antosci                | Emun_             | (Satoshi ŌMURA)            |  |  |
| Date <u>October 26, 1998</u> ,   | Name of Inventor      | masayasu               | Kato              | (Masayasu KATO)            |  |  |
| Date <u>October 26, 1998</u> ,   | Name of Inventor      | Michina                | Arita)            | (Miichiro ARITA)           |  |  |
| Date,  | Name of Inventor      |                        |                   |                            |  |  |
| Date,  | Name of Inventor      |                        |                   |                            |  |  |
| Date,  | Name of Inventor      |                        |                   |                            |  |  |
| (This assignment should pretion by the Inventor(s) should be we Witness Witness  | ritnessed by at least | two witnesses who      | o sign here.)     | 1. If not, then the execu- |  |  |
|  |                       | 5                      |                   |                            |  |  |
| This   |                       |                        |                   |                            |  |  |
| to me personally known as the indi   |                       |                        |                   |                            |  |  |
|  |                       | C                      | Official Signatur | e                          |  |  |
| SEAL   | <del></del>           | Official Title         |                   |                            |  |  |
| The above application magnification magnific | ay be more particular | rly identified as foll | lows:             |                            |  |  |
| • •  | 09/143,365            | -                      | A                 | ıst 28, 1998               |  |  |
| U.S. Application Serial No   | 2405US0P              | Filing Da              |                   | ,                          |  |  |
| Applicant Reference Number  Title of InventionMETHO  | DD OF PRODUC          | Atty Doc               |                   | DERIVATIVE                 |  |  |

PATENT REEL: 9558 FRAME: 0459

**RECORDED: 11/02/1998**