PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3713837

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|---------------------------|
| NATURE OF CONVEYANCE: | MERGER AND CHANGE OF NAME |
| EFFECTIVE DATE: | 01/05/2015 |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------------------------------|----------------|
| IRM LLC | 01/05/2015 |
| NOVARTIS INTERNATIONAL PHARMACEUTICAL LTD. | 01/05/2015 |

NEWLY MERGED ENTITY DATA

| Name | Execution Date |
|--------------------------------------------|----------------|
| NOVARTIS INTERNATIONAL PHARMACEUTICAL LTD. | 01/05/2015 |

MERGED ENTITY'S NEW NAME (RECEIVING PARTY)

| Name: | NOVARTIS INTERNATIONAL PHARMACEUTICAL LTD. | |
|-----------------|--------------------------------------------|--|
| Street Address: | 131 FRONT STREET | |
| City: | HAMILTON | |
| State/Country: | BERMUDA | |
| Postal Code: | HM 12 | |

PROPERTY NUMBERS Total: 7

| Property Type | Number |
|---------------------|----------|
| Patent Number: | 7939519 |
| Patent Number: | 7750021 |
| Patent Number: | 7417065 |
| Patent Number: | 7462629 |
| Patent Number: | 8507471 |
| Application Number: | 14380776 |
| Application Number: | 13985342 |

CORRESPONDENCE DATA

Fax Number: (973)781-8064

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 862-778-3423

Email: pip_inbox.phchbs@novartis.com

Correspondent Name: JIM LYNCH

Address Line 1: NOVARTIS PHARMACEUTICALS CORPORATION

PATENT

503667203 REEL: 037599 FRAME: 0484

| Address Line 2: Address Line 4: | ONE HEALTH PLAZA, BLDG 433 EAST HANOVER, NEW JERSEY 07936 | | |
|------------------------------------|--------------------------------------------------------------|---------------------------|--|
| ATTORNEY DOCKET NUMBER: | | IRM CERTIFICATE OF MERGER | |
| NAME OF SUBMITTER: | | DENISE COOPER | |
| SIGNATURE: | | /Denise Cooper/ | |
| DATE SIGNED: | | 01/27/2016 | |
| Total Attachments: 1 | | | |

source=IRM Certificate of Merger#page1.tif

PATENT REEL: 037599 FRAME: 0485

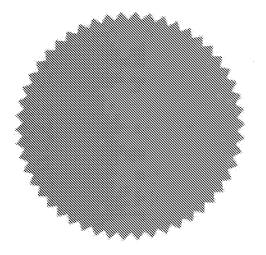


BERMUDA CERTIFICATE OF MERGER

In accordance with the provisions of Section 108 of the Companies Act, 1981 ("Act"), I HEREBY issue this Certificate of Merger to the surviving company bearing the name

Novartis International Pharmaceutical Ltd.

consequent upon the merger of IRM, LLC (a Delaware Limited Liability Company) and Novartis International Pharmaceutical Ltd. effective the 5th day of January 2015.



Given under my hand and the Scal of the REGISTRAR OF COMPANIES this 5th day of January 2015

for Registrar of Companies

PATENT REEL: 037599 FRAME: 0486

RECORDED: 01/27/2016