504662352 11/29/2017

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| NITIN PURI | 07/01/2010 |
| IRUDAYA CHARLES | 06/09/2010 |
| SUSAN MAGDALENO | 06/08/2010 |
| ALEXANDER VLASSOV | 06/08/2010 |
| CHRISTOPHER BURNETT | 06/22/2010 |

RECEIVING PARTY DATA

| Name: | APPLIED BIOSYSTEMS, LLC |
|-----------------|-------------------------|
| Street Address: | 5823 NEWTON DRIVE |
| City: | CARLSBAD |
| State/Country: | CALIFORNIA |
| Postal Code: | 92008 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15696172 |

CORRESPONDENCE DATA

Fax Number: (760)476-6048

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: (760)603-7200

Email: LSGDocketing@thermofisher.com

Correspondent Name: LIFE TECHNOLOGIES CORPORATION

Address Line 1: ATTN: IP LEGAL DEPARTMENT

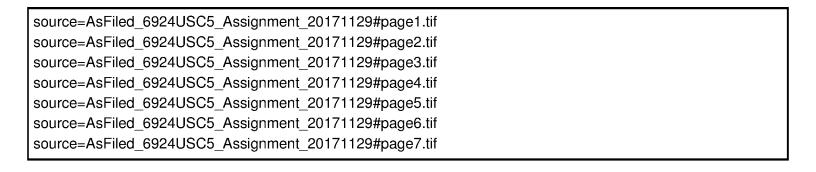
Address Line 2: 5823 NEWTON DRIVE

Address Line 4: CARLSBAD, CALIFORNIA 92008

| ATTORNEY DOCKET NUMBER: | 6924USC5 |
|-------------------------|------------------|
| NAME OF SUBMITTER: | GRACIE SEGOVIA |
| SIGNATURE: | /Gracie Segovia/ |
| DATE SIGNED: | 11/29/2017 |
| · | |

Total Attachments: 7

504662352



ASSIGNMENT

WHEREAS, We, Nitin PURI, residing at 7909 Crandall Road, Austin, TX 78739, and Irudaya CHARLES, residing at 7220 Moon Rock Road, Austin, TX 78739, and Susan MAGDALENO, residing at 10904 Shady Hollow, Austin, TX 78748, and Alexander VLASSOV, residing at 5704 Ballenton Ct., Austin, TX 78739, and Christopher BURNETT, residing at 7625 Rockpoint Drive, Austin, TX 78731, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on March 19, 2010, which application was assigned U.S. patent application serial number 12/727,336, and is entitled SIRNA SEQUENCE-INDEPENDENT MODIFICATION FORMATS FOR REDUCING OFF-TARGET PHENOTYPIC EFFECTS IN RNAI, AND STABILIZED FORMS THEREOF;

AND WHEREAS, Applied Biosystems, LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 5791 Van Allen Way, Carlsbad, California, 92008 (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

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NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filled in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

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I further authorize and direct the ASSIGNEE and its attorneys to insert above the application number of said application now identified as Docket No. 6924 USC1 as soon as the same shall have been made known to them by the U.S. Patent and Trademark Office.

| IN TESTIMONY WHERE | EOF, I have hereunto set my hand this day of |
|---------------------------------------|---|
| | 0 W. |
| | Nitin PURI |
| STATE OF |) |
| COUNTY OF | |
| · · · · · · · · · · · · · · · · · · · | , 2010 before me personally appeared Nitin e to be the person described in and who executed the |
| | y acknowledged to me that he/she executed the same for the |
| uses and purposes therein set forth. | |
| | |
| [SEAL] | |
| | Notary Public |

Notary Public

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Notary Public

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[SEAL]

IN TESTIMONY WHEREOF, I have hereunto set my hand this 22 day of June , 2010. Christopher BURNETT STATE OF COUNTY OF ______) On this day of ______, 2010 before me personally appeared Christopher BURNETT, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth. [SEAL] Notary Public

> PATENT REEL: 044250 FRAME: 0687

RECORDED: 11/29/2017

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