505609621 08/07/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT5656422

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------------|----------------|
| CHRISTINE FILLMORE BRAINSON | 04/23/2019 |
| CARLA F. KIM | 06/05/2019 |

RECEIVING PARTY DATA

| Name: | CHILDREN'S MEDICAL CENTER CORPORATION | |
|-----------------|---------------------------------------|--|
| Street Address: | 55 SHATTUCK STREET | |
| City: | BOSTON | |
| State/Country: | MASSACHUSETTS | |
| Postal Code: | 02115 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15305498 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | DFS-13801 |
|-------------------------|---------------|
| NAME OF SUBMITTER: | FAY GUARINO |
| SIGNATURE: | /Fay Guarino/ |
| DATE SIGNED: | 08/07/2019 |

Total Attachments: 4

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PATENT 505609621 REEL: 049983 FRAME: 0934

ASSIGNMENT

WHEREAS, we, Christine Fillmore Brainson and Carla F. Kim, have invented one or more inventions described in an application for Letters Patent of the United States, entitled TUMOR SUPPRESSOR AND ONCOGENE BIOMARKERS PREDICTIVE OF ANTI-IMMUNE CHECKPOINT INHIBITOR RESPONSE the specification of which:

is being executed herewith; and is about to be filed in the United States Patent Office;

| [x] was filed on | October 20, 2016 | _as U.S. Appl | ication No | 15/305498 | *************************************** |
|--|--|--|--|--|--|
| was filed on | PROFESSIONAL PROFE | as PCT Applic | ation No. | | |
| [] was patented | on | as U. | S. Patent No. | day | _; |
| having principal of | , Children's Medica fices at 55 Shattuck in accordance with a | Street, Boston | , Massachusetts (| 02115, desires | NEE"), to acquire |
| consideration of sai which is hereby sell, assign a representatives, our its territories and al application, together Letters Patent as more revival and foreign applicable statute, the and Letters Patent the its successors, assign Patent may be grant assignment not be enternational agreemant such application Letters Patent including the patent | REFORE, to all who dagreements and of mowledged, we have and transfer unto said entire right, title and foreign countries, it with our entire right ay issue thereon, and counterparts thereof reaty or convention to be held and enjoyed as fully and entire a made; we hereby contents, treaties or lawns for Letters Patent, ding the right to sue of, all rights to initiate, records and other and registrations pertagis assignment, being with it the right in antries of the world assignee of the entire assignee of the entires. | cother good and sold, assigned ASSIGNEE, dinterest in an and to said into the said into the said into the said into the said and including based on said and by said ASS intatives, to the ely as the same onvey all rights relating to the and collect proceedings naterials arising to the appropriate the grand all Leprocure the grand all Leprocure the grand and all L | Id valuable considered and transferred its successors, and throughout the invention(s) as decrest in and to sation, reissue, continued in the right to claim application; said siGNEE for its own full end of the test would have been arising under one protection of its action pertaining the damages and ot before government of the prosecution of the protection of its action pertaining the protection of the protection of the protection of the protection of the protections or Letters patent by attent of all such Letters Patent by attent of all such Letters Patent by attent of all such Letters patent of | deration, the reland by these ssigns and legs united States becribed in said application inuation, divisual priority under invention(s), a wn use and belem for which en held by us ber pursuant to andustrial properto the application, exploit ters Patent. We derest in and totain from comtorneys and agetters Patent to | eceipt of presents do al of America of America of and such sional, er any application half and for said Letters had this any and all erty by filing tions or of for past istrative tation, or e hereby o said upetent gents of |

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AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional, continuation or revival applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, the undersigned has hereunto set their hand and seal on the date after their signature.

| CtBm | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | 4/23/19 |
|----------------------|--|--------------|--|
| Christine Fillmore B | rainson | | (Date) |
| Commonwealth of M | Aassachusetts) | .9 | |
| County of |) | | |
| Christina Fillmore H | rainson, to me pers | onally known | , 20 <u>19</u> before me personally appeared and known to me to be the person who he signing of same as their free act and Lynthia D. Smith |
| | | Notary F | ublic . |
| My commission exp | ires_ 1/24/22 | | |
| | | | .' |

CYNTHIA D. SMITH Notary Public - State at Large State of Kenlucky Notery ID # 603794 My Commission Expires Jan. 24, 2022 Carla F. Kim

Commonwealth of Massachusetts)

County of Soffold

On this the day of da

IN TESTIMONY WHEREOF, the undersigned has hereunto set their hand and seal on

ACKNOWLEDGEMENT OF ASSIGNEE:

| I hereby acknowledge the foregoing ex | ecuted Assignment on behalf of Children's Medical |
|---------------------------------------|---|
|---------------------------------------|---|

Center Corporation,

By:

Title:

Name:

Vice President-Technology Development and New Ventures
Technology & Innovation Development Office
Children's Medical Center Corporation
55 Shattuck Street, Boston, MA 02115

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PATENT REEL: 049983 FRAME: 0938

RECORDED: 08/07/2019