PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------|----------------|
| BRIDGET BAX | 03/24/2014 |
| MURRAY BAIN | 03/24/2014 |

RECEIVING PARTY DATA

| Name: | ST. GEORGE'S HOSPITAL MEDICAL SCHOOL | |
|-------------------|--------------------------------------|--|
| Street Address: | CRAMMER TERRACE | |
| Internal Address: | TOOTING | |
| City: | LONDON GREATER LONDON | |
| State/Country: | GREAT BRITAIN | |
| Postal Code: | SW17 0RE | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14347635 |

CORRESPONDENCE DATA

Fax Number: (480)830-2717

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.

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Correspondent Name: RODNEY J. FULLER, BOOTH UDALL FULLER, PLC

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| ATTORNEY DOCKET NUMBER: | 15872.439 |
|-------------------------|--------------------|
| NAME OF SUBMITTER: | RODNEY J. FULLER |
| SIGNATURE: | /Rodney J. Fuller/ |
| DATE SIGNED: | 12/16/2018 |

Total Attachments: 3

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PATENT 505238839 REEL: 047789 FRAME: 0184

ASSIGNMENT

This Assignment is made and executed by:

Bridget BAX St George's Hospital Medical School Cranmer Terrace, Tooting, London Greater London SW17 0RE Great Britain Murray BAIN
St George's Hospital Medical School
Cranmer Terrace, Tooting, London
Greater London SW17 0RE
Great Britain

(hereinafter "Assignors"), to and in favor of ST GEORGE'S HOSPITAL MEDICAL SCHOOL having a business address of Cranmer Terrace, Tooting, London Greater London SW17 0RE Great Britain (hereinafter "Assignee").

Whereas each of the Assignors desires to assign his entire right, title and interest in and to the invention described in the nonprovisional patent application for a United States Patent entitled "TREATMENT FOR MITOCHONDRIAL NEUROGASTROINTESTINAL ENCEPHALOMYOPATHY (MNGIE)" which claims priority to as a 371 of international of PCT/GB2012/052157, filed on September 03, 2012, which claims priority to GB patent application number 1116767.3, filed on September 28, 2011 (hereinafter the "Patent Application") and all patents, patent applications and the like on the invention to Assignee for valuable consideration; and

Whereas Assignee has provided such valuable consideration to the Assignors;

Accordingly, Assignors each warrant, covenant and agree as follows:

- 1. Each of the Assignors hereby sells, assigns and conveys to Assignee such Assignor's entire right, title and interest in and to the invention described in the Patent Application, including the Patent Application itself and all substitute, continuation, continuation-in-part and divisional applications based in whole or in part on the Patent Application, and including all patents resulting therefrom and all reissues and extensions thereof, and including any and all rights of priority resulting from the filing of any such applications within the United States.
- 2. Each of the Assignors hereby sells, assigns and conveys to Assignee such Assignor's entire right, title and interest in all counterparts to the Patent Application that have been or may be filed outside the United States or under the Patent Cooperation Treaty, whether pursued as a patent, an inventor's certificate, a utility model or the like, including all rights of priority based on the Patent Application, further including all continuation, continuation-in-part and divisional applications based in whole or in part on the non-U.S. counterparts, and still further including all patents, inventor's certificates, utility models, reissues and extensions resulting from any of the non-U.S. counterparts.

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ASSIGNMENT Docket No.

Title: "TREATMENT FOR MITOCHONDRIAL

NEUROGASTROINTESTINAL ENCEPHALOMYOPATHY (MNGIE)*

- 3. Each of the Assignors hereby grants to Assignee the sole and exclusive right to prosecute the Patent Application and all related applications as described in Paragraphs 1 and 2 above, as well as any opposition proceedings, reissue applications, reexaminations, and nullity or invalidity proceedings. Each of the Assignors authorizes all governmental bodies having the power to issue patents, inventor's certificates or utility models to issue a patent, inventor's certificate or utility model based on the Patent Application or any related applications as described in Paragraphs 1 and 2 above in the name of Assignee.
- 4. Each of the Assignors agrees upon request and without further consideration, but at Assignee's expense: (a) to assist Assignee in prosecuting the Patent Application and all related applications as described in Paragraphs 1 and 2 above, as well as opposition proceedings, reissue applications, reexaminations, and nullity or invalidity proceedings; (b) to provide Assignee with information concerning the Patent Application and the related applications described in Paragraphs 1 and 2 above to enable Assignee to obtain, secure and protect all of the rights, title and interest sold, assigned, conveyed and granted under this Assignment (the "Assigned Assets"); (c) to sign papers, take oaths and testify in legal proceedings to enable Assignee to obtain, secure and protect the Assigned Assets; and (d) to perform all acts reasonably necessary to enable Assignce to obtain, secure and protect the Assigned Assets, including assistance in any proceedings pertaining to the Patent Application and the related applications described in Paragraphs 1 and 2 above or to their enforcement.
- 5. Each of the Assignors warrants and covenants that such Assignor has the full right to sell, assign and convey the Assigned Assets, that all of the Assigned Assets are free and clear of all mortgages, liens, security interests, charges, claims, royalty obligations and encumbrances of any nature whatsoever and that the Assignor has not executed and will not execute any agreement in conflict with this Assignment.
- 6. Assignee may assign the Assigned Assets in whole or in part. All references herein to Assignee include any successors or assigns of Assignee.
- 7. Each of the Assignors acknowledges that Assignee has paid valuable consideration for the Assigned Assets.

24 3 2014 Date

Bridget BAX

Witness

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NSLV-001 US Assignment

ASSIGNMENT Docket No.
Title: "TREATMENT FOR MITOCHONDRIAL

NEUROGASTROINȚESTINAL ENCEPHALOMYOPATHY (MNGIE)"

24/3/14 Date Murray BAIN

JAEdwards.

Witness

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RECORDED: 12/16/2018