## 504719520 01/09/2018 PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE:         |                              | NEW ASSIGNMENT |                |
|--------------------------|------------------------------|----------------|----------------|
| NATURE OF CONVEYANCE:    |                              | ASSIGNMENT     |                |
| CONVEYING PARTY          | ' DATA                       |                |                |
|                          |                              | Name           | Execution Date |
| TODD B PARRISH           |                              |                | 12/18/2017     |
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| Postal Code:             | 60208                        |                |                |
| PROPERTY NUMBE           | RS Total:                    | 1              |                |
| Property Type            |                              | Number         | 7              |
| Property Ty              |                              |                |                |

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| ATTORNEY DOCKET NUMBER:                                       | 702581.00126.NU2016-178-3 |  |  |  |
|---|---------------------------|--|--|--|
| NAME OF SUBMITTER:  | DENISE L PREBELSKI        |  |  |  |
| SIGNATURE:  | /Denise L Prebelski/      |  |  |  |
| DATE SIGNED:  | 01/09/2018                |  |  |  |
| Total Attachments: 4  |                           |  |  |  |
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Attorney Docket No. 702581.00126.NU2016-178-3 NU Reference No. 2016-178-03

## ASSIGNMENT

U.S. Serial No: 15/785,343 Filing Date: October 16, 2017 Inventors: Todd B. Parrish; Yu Fen Chen Title of U.S. Patent Application: SYSTEM AND METHOD FOR ACQUIRING BOTH T2\* WEIGHTED AND T1-WEIGHTED DATA IN A SINGLE ACQUISITION USING A SINGLE DOSE OF CONTRAST AGENT

For good and valuable consideration, the receipt and sufficiency of which are hereby agreed, each of the undersigned hereby assigns to Northwestern University, an Illinois not-for-profit corporation, having a place of business at 633 Clark Street, Evanston, Illinois 60208 and its successors and assigns ("Assignee") the entire right, title and interest in and to the inventions of such undersigned disclosed in the application listed above, and in any and all other applications anywhere in the world which the undersigned may file and/or be named as an inventor of, solely or jointly, on said inventions, in any and all patents which may be obtained on any of said applications and in any and all reissues, reexaminations, supplemental examinations, inter partes reviews, oppositions, post-grant reviews, supplementary protection certificates and/or seek other remedies for the past, present and future infringement of any of the foregoing, the right of priority, including without limitation to claim priority benefit of or to said patent applications, and request the Commissioner for Patents in the United States and similar authorities outside the United States to issue said patents to and in the name of the Assignee.

Each of the undersigned states that the application listed above is or was made or authorized to be made by him or her. Each of the undersigned believes himself or herself to be the original inventor or a joint inventor with another undersigned of a claimed invention in the application listed above. Each of the undersigned acknowledges that any willful faise statement made by him or her in this paragraph is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five years, or both.

Except in favor of Assignee, each of the undersigned warrants that: (i) he or she is the owner of all its rights, titles and interests herein assigned and has the right to make this unconditional and irrevocable assignment to Assignee without obtaining any approval or permission of a third party; and (ii) there are no outstanding encumbrances, liens, prior assignments, licenses, or other obligations or restrictions on the rights, titles and interests herein assigned.

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Attorney Docket No. 702581.00126.NU2016-178-3 NU Reference No. 2016-178-03

Upon the request of Assignee and at no expense to the undersigned, each of the undersigned hereby agrees to execute any and all applications on said inventions, including without limitation for the reissue, reexamination, supplementary protection certificate or extension thereof and any oath, declaration or affidavit relating thereto that said Assignee may deem necessary or expedient, and to cooperate to the best of the ability of the undersigned with and perform any and all affirmative acts requested by Assignee to prepare, file, prosecute, maintain, defend, enforce and vest in Assignee the rights, titles and interests assigned herein, including without limitation, preparing and executing statements and giving and producing evidence in support thereof, whereby said rights, titles and interests will be held and enjoyed by said Assignee to the full end of the term for which said patents may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Undersigned (ASSIGNORS):

\_\_\_\_\_2/18/\_\_\_\_ \_\_\_\_\_\_\_\_\_ timiter and the second s Inventor Name: Todd B. Parrish State of TC

35.

County of U.S.M

subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.



Lelia d. Eglesten)

My Commission Expires: 11/18/2019

(Continued on next page)

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PATENT REEL: 045027 FRAME: 0825 U.S. Serial No: 15/785,343 Filing Date: October 16, 2017 Inventors: Todd B. Parrish; Yu Fen Chen Title of U.S. Patent Application: SYSTEM AND METHOD FOR ACQUIRING BOTH T2\* WEIGHTED AND T1-WEIGHTED DATA IN A SINGLE ACQUISITION USING A SINGLE DOSE OF CONTRAST AGENT

12/18/17-

Undersigned (ASSIGNORS) continued:

Inventor Name: Yu Fen Chen

State of \_\_\_\_\_! i.\_\_\_

County of USA SS.

On this \_\_\_\_\_\_ day of <u>December</u> \_\_\_\_\_\_, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

CELIA G EGLESTON OFFICIAL SEAL Notery Public, State of Illinois My Commission Expires AU November 13, 2019

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ASSIGNEE ACCEPTANCE: Northwestern University:

On behalf of Northwestern University, Assignee, the authorized signatory below, hereby confirms Assignee's acceptance of all rights, privileges, titles and interests conveyed by this Assignment.

Date: 12/18/17 Authorized Signature:

Printed Name

Lolita Buckingham, Invention Specialist, or Nicole A. Janovick, Ph.D., J.D., Invention Manager

Department: Innovation and New Ventures Office (INVO)

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