505802177 12/04/2019

PATENT ASSIGNMENT COVER SHEET

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CONVEYING PARTY DATA

| Name | Execution Date |
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| MASSACHUSETTS INSTITUTE OF TECHNOLOGY | 02/25/2019 |

RECEIVING PARTY DATA

| Name: | NATIONAL SCIENCE FOUNDATION |
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| City: | ALEXANDRIA |
| State/Country: | VIRGINIA |
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PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16248729 |

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> **PATENT** REEL: 051182 FRAME: 0015 505802177

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|---|
| Invention Title: METHODS OF QUANTIFYING RNA AND DNA VARIANTS THROUGH SEQUENCING EMPLOYING |
| PHOSPHOROTHIOATES |
| inventor(s): Bo Cao, Peter Christian Dedon, Michael DeMott, Jennifer F. Hu |
| U.S. Filing/Issue Date: 01/15/2019 |
| Patent or Application Serial No.: 16/248,729 |
| Grant/Contract Number(s): MCB1412379, ES024615, CHE1019990, CHE1709364 |
| Foreign Applications filed/intended in (countries): |
| The invention identified above is a Subject Invention under 35 U.S.C. 200, et seq., and the Standard Patent Rights clause at 37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12 (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of: |
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| Signed this day of February, 20 19 . |
| By Leigh Edwards (Signature) |
| Title Patent Compliance Administrator |
| For MASSACHUSETTS INSTITUTE OF TECHNOLOGY (Grantee/Contractor Organization) |
| At 255 Main Street NE18-501 Cambridge, MA 02142 (Business Address) |

PATENT REEL: 051182 FRAME: 0016

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