## 502661897 01/31/2014

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2708505

| SUBMISSION TYPE:   |                 |                        | NEW ASSIGNMENT                     |                |  |  |
|--|-----------------|------------------------|------------------------------------|----------------|--|--|
| NATURE OF CONVEYANCE:  |                 |                        | ASSIGNMENT                         |                |  |  |
| CONVEYING PARTY  | ' DATA          |                        |                                    |                |  |  |
|  |                 | N                      | Name                               | Execution Date |  |  |
| RAPHAEL C. POOS  | ER              |                        |                                    | 01/31/2014     |  |  |
| RECEIVING PARTY  | DATA            |                        |                                    |                |  |  |
| Name:  | UT-Battelle, LI | UT-Battelle, LLC       |                                    |                |  |  |
| Street Address:  | <b></b>         | One Bethel Valley Road |                                    |                |  |  |
| Internal Address:  | <u> </u>        | 4500N, MS-6258         |                                    |                |  |  |
| City:  | Oak Ridge       |                        |                                    |                |  |  |
| State/Country:   | TENNESSEE       |                        |                                    |                |  |  |
| Postal Code:   | 37831-6258      |                        |                                    |                |  |  |
|  |                 |                        |                                    |                |  |  |
| Property Type  |                 |                        | Number                             |                |  |  |
| Application Number   |                 | 141471                 | 101                                |                |  |  |
| CORRESPONDENC  | E DATA          |                        |                                    |                |  |  |
| Fax Number: (865)574-0381  |                 |                        |                                    |                |  |  |
| Phone: (865) 574-4179  |                 |                        |                                    |                |  |  |
| Email:   |                 | eke@oı                 | =                                  |                |  |  |
| •  |                 |                        | the email attempt is unsuccessful. |                |  |  |
| Correspondent Name: COLIN L. CINI Address Line 1: ONE BETHEL VALLEY ROAD |                 |                        |                                    |                |  |  |
| Address Line 2: 4500N, MS-6258   |                 |                        |                                    |                |  |  |
| Address Line 4: OAK RIDGE, TENNESSEE 37831-6258                          |                 |                        |                                    |                |  |  |
| ATTORNEY DOCKET NUMBER:  |                 | 2727.0                 |                                    |                |  |  |
| NAME OF SUBMITTER:   |                 | KAREN E. VANCE         |                                    |                |  |  |
| Signature:   |                 |                        | /KE Vance/                         |                |  |  |
| Date:  |                 |                        | 01/31/2014                         |                |  |  |
| Total Attachments: 3   | ·               |                        |                                    |                |  |  |

502661897 PATENT REEL: 032107 FRAME: 0812 Form **PTO-1595** (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)

| RECORDATION FORM COVER SHEET PATENTS ONLY   |  |  |  |  |  |
|---|--|--|--|--|--|
| To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. |  |  |  |  |  |
| 1. Name of conveying party(ies)   | 2. Name and address of receiving party(ies)                              |  |  |  |  |
| Raphael C. Pooser   | Name: UT-Battelle, LLC   |  |  |  |  |
|   | Internal Address: 4500N, MS-6258   |  |  |  |  |
| Additional name(s) of conveying party(ies) attached? Yes V No   | 4  |  |  |  |  |
| 3. Nature of conveyance/Execution Date(s):  | Street Address: One Bethel Valley Road                                   |  |  |  |  |
| Execution Date(s) 01/31/2014  Assignment  Merger  |  |  |  |  |  |
| Security Agreement Change of Name   | City: Oak Ridge  |  |  |  |  |
| Joint Research Agreement  Joint Research Agreement  |  |  |  |  |  |
| Government Interest Assignment  | State: TN  |  |  |  |  |
| Executive Order 9424, Confirmatory License  | Country: USA Zip: 37831-6258   |  |  |  |  |
| Other   | Additional name(s) & address(es) attached? Yes Vo                        |  |  |  |  |
| 14/147,131  Additional numbers attached? Yes No   |  |  |  |  |  |
| 5. Name and address to whom correspondence concerning document should be mailed:  | 6. Total number of applications and patents involved: 1                  |  |  |  |  |
| Name:Colin L. Cini  | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00                            |  |  |  |  |
| Internal Address: UT-Battelle, LLC  | Authorized to be charged by credit card                                  |  |  |  |  |
| !   | Authorized to be charged to deposit account                              |  |  |  |  |
| Street Address: One Bethel Valley Road  | Enclosed   |  |  |  |  |
| 4500N, MS-6258  | None required (government interest not affecting title)                  |  |  |  |  |
| City: Oak Ridge   | 8. Payment Information   |  |  |  |  |
| State: TN Zip:37831-6258  | a. Credit Card Last 4 Numbers<br>Expiration Date                         |  |  |  |  |
| Phone Number: <u>(865)</u> 574-4179   | ,  |  |  |  |  |
| Fax Number: (865) 574-0381  | b. Deposit Account Number 13-1958  |  |  |  |  |
| Email Address: cinicl@ornl.gov  | Authorized User Name Karen E. Bowman                                     |  |  |  |  |
| 9. Signature: /Colin L. Cini/   | 01/31/2014   |  |  |  |  |
| Signature   | Date   |  |  |  |  |
| Colin L. Cini, Reg. No. 51,563 Name of Person Signing   | Total number of pages including cover sheet, attachments, and documents: |  |  |  |  |

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

**REEL: 032107 FRAME: 0813** 

## ASSIGNMENT

WHEREAS, I the below-named inventor whose residence is as stated below, have an interest in an invention entitled:

## **Quantum Random Number Generator**

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 14/147,131 filed on January 3, 2014 and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at One Bethel Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6258, hereinafter referred to as "ASSIGNEE," is desirous of acquiring my entire right, title and interest of the undersigned in the same;

NOW, THEREFORE, in accordance with the terms of my employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby assign and transfer to ASSIGNEE and its successors in interest my entire right, title and interest in the Subject Invention to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or patent applications therefor on the Subject Invention.

I hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, I hereby agree to communicate to said ASSIGNEE or its representatives any facts known to me respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

I further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on me, my heirs, legal representatives, and assigns.

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PATENT REEL: 032107 FRAME: 0814 Name of Inventor:

Raphael C. Pooser

Signature:

Date:

Residence:

705 Summit Lake Court, Knoxville, Tennessee 37922

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PATENT REEL: 032107 FRAME: 0815