

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2690612

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>MELVILLE DAVEY</td> <td>08/23/2013</td> </tr> <tr> <td>MICHAEL MEYER</td> <td>08/22/2013</td> </tr> <tr> <td>MARCIN SIKORA</td> <td>08/22/2013</td> </tr> <tr> <td>SIMON CAWLEY</td> <td>01/20/2014</td> </tr> <tr> <td>KIRK PASTORIAN</td> <td>10/14/2013</td> </tr> </tbody> </table>		Name	Execution Date	MELVILLE DAVEY	08/23/2013	MICHAEL MEYER	08/22/2013	MARCIN SIKORA	08/22/2013	SIMON CAWLEY	01/20/2014	KIRK PASTORIAN	10/14/2013
Name	Execution Date												
MELVILLE DAVEY	08/23/2013												
MICHAEL MEYER	08/22/2013												
MARCIN SIKORA	08/22/2013												
SIMON CAWLEY	01/20/2014												
KIRK PASTORIAN	10/14/2013												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>LIFE TECHNOLOGIES CORPORATION</td> </tr> <tr> <td>Street Address:</td> <td>5791 VAN ALLEN WAY</td> </tr> <tr> <td>City:</td> <td>CARLSBAD</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>92008</td> </tr> </table>		Name:	LIFE TECHNOLOGIES CORPORATION	Street Address:	5791 VAN ALLEN WAY	City:	CARLSBAD	State/Country:	CALIFORNIA	Postal Code:	92008		
Name:	LIFE TECHNOLOGIES CORPORATION												
Street Address:	5791 VAN ALLEN WAY												
City:	CARLSBAD												
State/Country:	CALIFORNIA												
Postal Code:	92008												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13967665</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13967665								
Property Type	Number												
Application Number:	13967665												
CORRESPONDENCE DATA													
<p>Fax Number:</p> <p>Email: LifetechDocket@system.foundationip.com</p> <p><i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i></p> <p>Correspondent Name: CHRISTIAN D'AVIGNON-AUBUT</p> <p>Address Line 1: 5791 VAN ALLEN WAY</p> <p>Address Line 2: LIFE TECHNOLOGIES CORPORATION</p> <p>Address Line 4: CARLSBAD, CALIFORNIA 92008</p>													
ATTORNEY DOCKET NUMBER:	LT00316 CIP												
NAME OF SUBMITTER:	ELIZABETH MORGAN												

Signature:	/Elizabeth Morgan/
Date:	01/21/2014
<p>Total Attachments: 15</p> <p>source=LT00316CIP-Executed-Assignment#page1.tif source=LT00316CIP-Executed-Assignment#page2.tif source=LT00316CIP-Executed-Assignment#page3.tif source=LT00316CIP-Executed-Assignment#page4.tif source=LT00316CIP-Executed-Assignment#page5.tif source=LT00316CIP-Executed-Assignment#page6.tif source=LT00316CIP-Executed-Assignment#page7.tif source=LT00316CIP-Executed-Assignment#page8.tif source=LT00316CIP-Executed-Assignment#page9.tif source=LT00316CIP-Executed-Assignment#page10.tif source=LT00316CIP-Executed-Assignment#page11.tif source=LT00316CIP-Executed-Assignment#page12.tif source=LT00316CIP-Executed-Assignment#page13.tif source=LT00316CIP-Executed-Assignment#page14.tif source=LT00316CIP-Executed-Assignment#page15.tif</p>	

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged, I/we:

1. Melville DAVEY, a citizen of **US**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Westbrook, CT.**

2. Michael MEYER, a citizen of **US**; having a mailing address of
122 Linn St., Ithaca, New York 14850;
and a resident of **Ithaca, NY.**

3. Marcin SIKORA, a citizen of **PL**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Foster City, CA.**

4. Simon CAWLEY, a citizen of **IE**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Oakland, CA.**

5. Kirk Pastorian, a citizen of **US**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Temecula, CA.**

do hereby SELL, ASSIGN, AND TRANSFER to **LIFE TECHNOLOGIES CORPORATION**, (the "Assignee", a corporation of the State of Delaware) having a place of business at 5791 Van Allen Way, Carlsbad, California 92008, USA the entire right, title, and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in United States Non-provisional Patent Application, Serial No. 13/967,665, filed on August 15, 2013 entitled METHODS AND APPARATUSES FOR ESTIMATING PARAMETERS IN A PREDICTIVE MODEL FOR USE IN SEQUENCING-BY-SYNTHESIS, and such applications and all divisional, continuing, substitute, renewal, reissue, and all other applications for patent which have been or shall be filed in the United

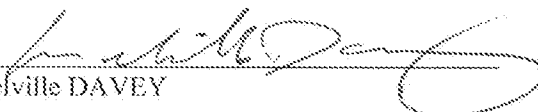
States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned; and

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible for which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining, and enforcing proper patent protection for such improvements.

TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

Signature: 
Name (1) Melville DAVEY

Date: 8/23/13

Signature: _____
Name (2) Michael MEYER

Date: _____

Signature: _____
Name (3) Marcin SIKORA

Date: _____

Signature: _____
Name (4) Simon CAWLEY

Date: _____

Signature: _____
Name (5) Kirk Pastorian

Date: _____

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged, I/we:

1. Melville DAVEY, a citizen of US; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Westbrook, CT.**
2. Michael MEYER, a citizen of US; having a mailing address of
122 Linn St., Ithaca, New York 14850;
and a resident of **Ithaca, NY.**
3. Marcin SIKORA, a citizen of PL; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Foster City, CA.**
4. Simon CAWLEY, a citizen of IE; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Oakland, CA.**
5. Kirk Pastorian, a citizen of US; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Temecula, CA.**

do hereby SELL, ASSIGN, AND TRANSFER to **LIFE TECHNOLOGIES CORPORATION**, (the "Assignee", a corporation of the State of Delaware) having a place of business at 5791 Van Allen Way, Carlsbad, California 92008, USA the entire right, title, and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in United States Non-provisional Patent Application, Serial No. 13/967,665, filed on August 15, 2013 entitled **METHODS AND APPARATUSES FOR ESTIMATING PARAMETERS IN A PREDICTIVE MODEL FOR USE IN SEQUENCING-BY-SYNTHESIS**, and such applications and all divisional, continuing, substitute, renewal, reissue, and all other applications for patent which have been or shall be filed in the United

States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned; and

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible for which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining, and enforcing proper patent protection for such improvements.

TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

Signature: _____
Name (1) Melville DAVEY

Date: _____

Signature: Michael J. Meyer
Name (2) Michael MEYER

Date: 08/22/2013

Docket No. LT00316 CIP
Customer No. 52059

Signature: _____

Name (3) Marcin SIKORA

Date: _____

Signature: _____

Name (4) Simon CAWLEY

Date: _____

Signature: _____

Name (5) Kirk Pastorian

Date: _____

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged, I/we:

1. Melville DAVEY, a citizen of **US**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Westbrook, CT**.

2. Michael MEYER, a citizen of **US**; having a mailing address of
122 Linn St., Ithaca, New York 14850;
and a resident of **Ithaca, NY**.

3. Marcin SIKORA, a citizen of **PL**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Foster City, CA**.

4. Simon CAWLEY, a citizen of **IE**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Oakland, CA**.

5. Kirk Pastorian, a citizen of **US**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Temecula, CA**.

do hereby SELL, ASSIGN, AND TRANSFER to **LIFE TECHNOLOGIES CORPORATION**, (the "Assignee", a corporation of the State of Delaware) having a place of business at 5791 Van Allen Way, Carlsbad, California 92008, USA the entire right, title, and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in United States Non-provisional Patent Application, Serial No. 13/967,665, filed on August 15, 2013 entitled METHODS AND APPARATUSES FOR ESTIMATING PARAMETERS IN A PREDICTIVE MODEL FOR USE IN SEQUENCING-BY-SYNTHESIS, and such applications and all divisional, continuing, substitute, renewal, reissue, and all other applications for patent which have been or shall be filed in the United

States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned; and

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible for which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining, and enforcing proper patent protection for such improvements.

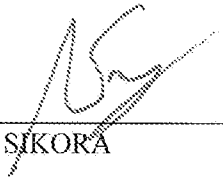
TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

Signature: _____
Name (1) Melville DAVEY

Date: _____

Signature: _____
Name (2) Michael MEYER

Date: _____

Signature: 
Name (3) Marcin SIKORA

Date: 8/22/2013

Signature: _____
Name (4) Simon CAWLEY

Date: _____

Signature: _____
Name (5) Kirk Pastorian

Date: _____

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged, I/we:

1. Melville DAVEY, a citizen of US; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Westbrook, CT.**

2. Michael MEYER, a citizen of US; having a mailing address of
122 Linn St., Ithaca, New York 14850;
and a resident of **Ithaca, NY.**

3. Marcin SIKORA, a citizen of PL; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Foster City, CA.**

4. Simon CAWLEY, a citizen of IE; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Oakland, CA.**

5. Kirk Pastorian, a citizen of US; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Temecula, CA.**

do hereby SELL, ASSIGN, AND TRANSFER to **LIFE TECHNOLOGIES CORPORATION**, (the "Assignee", a corporation of the State of Delaware) having a place of business at 5791 Van Allen Way, Carlsbad, California 92008, USA the entire right, title, and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in United States Non-provisional Patent Application, Serial No. 13/967,665, filed on August 15, 2013 entitled METHODS AND APPARATUSES FOR ESTIMATING PARAMETERS IN A PREDICTIVE MODEL FOR USE IN SEQUENCING-BY-SYNTHESIS, and such applications and all divisional, continuing, substitute, renewal, reissue, and all other applications for patent which have been or shall be filed in the United

States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned; and

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible for which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining, and enforcing proper patent protection for such improvements.

TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

Signature: _____
Name (1) Melville DAVEY

Date: _____

Signature: _____
Name (2) Michael MEYER

Date: _____

Signature: _____
Name (3) Marcin SIKORA

Date: _____

Signature:  _____
Name (4) Simon CAWLEY

Date: 1/20/2014

Signature: _____
Name (5) Kirk Pastorian

Date: _____

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged, I/we:

1. Melville DAVEY, a citizen of US; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Westbrook, CT.**
2. Michael MEYER, a citizen of US; having a mailing address of
122 Linn St., Ithaca, New York 14850;
and a resident of **Ithaca, NY.**
3. Marcin SIKORA, a citizen of **PL**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Foster City, CA.**
4. Simon CAWLEY, a citizen of **IE**; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Oakland, CA.**
5. Kirk Pastorian, a citizen of US; having a mailing address of
LIFE TECHNOLOGIES CORPORATION, 5791 Van Allen Way, Carlsbad, California 92008;
and a resident of **Temecula, CA.**

do hereby SELL, ASSIGN, AND TRANSFER to **LIFE TECHNOLOGIES CORPORATION**, (the "Assignee", a corporation of the State of Delaware) having a place of business at 5791 Van Allen Way, Carlsbad, California 92008, USA the entire right, title, and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in United States Non-provisional Patent Application, Serial No. 13/967,665, filed on August 15, 2013 entitled METHODS AND APPARATUSES FOR ESTIMATING PARAMETERS IN A PREDICTIVE MODEL FOR USE IN SEQUENCING-BY-SYNTHESIS, and such applications and all divisional, continuing, substitute, renewal, reissue, and all other applications for patent which have been or shall be filed in the United

States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned; and

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible for which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining, and enforcing proper patent protection for such improvements.

TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

Signature: _____
Name (1) Melville DAVEY

Date: _____

Signature: _____
Name (2) Michael MEYER

Date: _____

Docket No. LT00316 CIP
Customer No. 52059

Signature: _____
Name (3) Marcin SIKORA

Date: _____

Signature: _____
Name (4) Simon CAWLEY

Date: _____

Signature: Kirk Pastorian
Name (5) Kirk Pastorian

Date: 10/14/13