

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5388423

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DEIRDRE MELDRUM	02/15/2019
WEIMIN GAO	02/21/2019
SHUFANG CI	02/13/2019
SHIH-HUI CHAO	02/19/2019
RHETT MARTINEAU	02/11/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIVERSITY
<b>Street Address:</b>	1475 N SCOTTSDALE RD SUITE 200
<b>City:</b>	SCOTTSDALE
<b>State/Country:</b>	ARIZONA
<b>Postal Code:</b>	85257
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15213194
<b>Application Number:</b>	62193205
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	6467190522
<b>Email:</b>	rlin@leelinip.com
<b>Correspondent Name:</b>	RITA LIN
<b>Address Line 1:</b>	347 FIFTH AVE, SUITE 1402
<b>Address Line 4:</b>	NEW YORK, NEW YORK 10016
<b>ATTORNEY DOCKET NUMBER:</b>	18965/001
<b>NAME OF SUBMITTER:</b>	RITA LIN
<b>SIGNATURE:</b>	/Rita H. Lin/
<b>DATE SIGNED:</b>	02/22/2019

**Total Attachments: 5**

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**CONFIRMATORY ASSIGNMENT**

SKYSONG ID: M15-171L-US1

WHEREAS, the undersigned inventors:

1. <b>Deirdre Meldrum</b> Phoenix, Arizona	2. <b>Rhett Martineau</b> <del>Gilbert, Arizona</del> <i>per</i> <i>Centerville, Ohio</i>	3. <b>Weimin Gao</b> Chandler, Arizona	4. <b>Shufang Ci</b> Tempe, Arizona
5. <b>Shih-Hui Chao</b> Phoenix, Arizona			

(collectively, the "Assignors") have invented certain new, useful, nonobvious, and otherwise patentable subject matter concerning

**ACCELERATED ISOTHERMAL AMPLIFICATION OF DNA**

(the "Inventions") for which the following United States patent applications are filed herewith or were filed in the United States Patent and Trademark Office: United States provisional patent application serial number 62/193,205 filed on July 16, 2015 and United States nonprovisional patent application serial number 15/213,194 filed on July 18, 2016 (the "Assigned IP"). The term "Assigned IP" further includes (1) all patent applications that claim priority to or from the patent application referenced or identified in the preceding sentence, whether a provisional application, a utility application, a design application, or other application, as well as any patent application that has been filed or will be filed and otherwise discloses one or more of the Inventions; (2) all other right, title, and interest in and to the Inventions, including but not limited to all other patent rights, copyrights, trade secrets or know-how, priority rights, rights to sue for past, present, and future damages, and all other rights in and to the Inventions; and (3) all patents, inventor's certificates, other forms of protection granted thereon in the United States, in foreign countries or regions, or under any international convention, agreement, protocol, treaty, including those arising under the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, or otherwise.

WHEREAS, Arizona State University is the Assignors' employer and, in accordance with the Assignors' employment agreements, the Arizona Board of Regents Intellectual Property Policy (ABOR 6-908 as of the date of this assignment), and/or other employment obligations, the Arizona Board of Regents on behalf of Arizona State University (the "Assignee") already owns all right, title, and interest in and to the Inventions and the Assigned IP, including not limited to all priority rights in, and all rights and entitlements to claim priority to and from, the Assigned IP.

WHEREAS, the Assignors are researchers employed by the Assignee who, in accordance with their employment agreements, Arizona Board of Regents Intellectual Property Policy, and/or other employment obligations: (1) have had an obligation to assign, and have in fact previously assigned to the Assignee, all right, title, and interest in the Inventions and the Assigned IP, including but not limited to all priority rights in, and all rights and entitlements to claim priority to and from, the Assigned IP, and (2) have an obligation to execute this confirmatory assignment for recordation purposes.

NOW, THEREFORE, in consideration of good and valuable consideration, including but not limited to Assignors' eligibility to personally benefit from Assignee's Intellectual Property Management Implementation Policy (RSP 604 as of the date of this assignment):

- The Assignors do hereby sell, assign, transfer, and convey unto the Assignee the entire right, title, and interest (a) in and to the Inventions; (b) in and to the Assigned IP, including all priority rights in, and all rights and entitlements to claim priority to and from, any of the Assigned IP; (c) in and to each and every patent application that is a substitution, a continuation, a continuation-in-part, or a divisional, of any of the Assigned IP; (d) in and to each and every reissue, reexamination, renewal, or extension of any kind of any of the foregoing; (e) in and to each and every patent application of any kind filed outside the United States and corresponding to any of the foregoing, including but not limited to international (e.g., Patent Cooperation Treaty) applications; (f) in and to each and every patent or other form of protection, whether within or outside the United States, issuing or reissuing from any of the foregoing; and (g) in and to all claims for past, present, and future infringement of any of the Assigned IP, including all rights to sue for and recover for the Assignee's own use all past, present, and future lost profits, royalties, and damages of whatever nature recoverable from any infringement of the Assigned IP.
- The Assignors will, at the Assignee's request and expense, execute all rightful oaths, assignments, powers of attorney, declarations, or other papers, provide written or oral testimony, that Assignee deems necessary to carry out, in good faith, the intent and purpose of this assignment or to otherwise assist Assignee in establishing its ownership rights.
- The Assignors hereby request that any patents or other forms of protection issuing in the United States, foreign countries or regions, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee or its successors, assigns, or legal representatives for the sole use of the Assignee and its successors, assigns, or legal representatives.
- The terms and conditions of this assignment shall be binding upon the Assignors and their respective successors, assigns, and legal representatives.
- This instrument will be interpreted and construed in accordance with the laws of the State of Arizona without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. This instrument may be executed in physical or electronically transmitted individual counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.

IN WITNESS WHEREOF, the Assignors have executed and delivered this instrument to the Assignee as of the dates written below:

1. <b>Deirdre Meldrum</b>	2. <b>Rhett Martineau</b>	3. <b>Weimin Gao</b>	4. <b>Shufang Ci</b>
Signature:	Signature: <i>Rhett Martineau</i>	Signature:	Signature:
Date:	Date: <i>2/11/19</i>	Date:	Date:
5. <b>Shih-Hui Chao</b>			
Signature:			
Date:			

CONFIRMATORY ASSIGNMENT			SKYSONG ID: M15-171L-US1									
WHEREAS, the undersigned inventors:												
1. <b>Deirdre Meldrum</b> Phoenix, Arizona	2. <b>Rhett Martineau</b> Gilbert, Arizona	3. <b>Weimin Gao</b> Chandler, Arizona	4. <b>Shufang Ci</b> Tempe, Arizona									
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<p>(collectively, the "Assignors") have invented certain new, useful, nonobvious, and otherwise patentable subject matter concerning</p> <p style="text-align: center;"><b>ACCELERATED ISOTHERMAL AMPLIFICATION OF DNA</b></p> <p>(the "Inventions") for which the following United States patent applications are filed herewith or were filed in the United States Patent and Trademark Office: United States provisional patent application serial number <u>62/193,205</u> filed on <u>July 16, 2015</u> and United States nonprovisional patent application serial number <u>15/213,194</u> filed on <u>July 18, 2016</u> (the "Assigned IP"). 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The Assignors do hereby sell, assign, transfer, and convey unto the Assignee the entire right, title, and interest (a) in and to the Inventions; (b) in and to the Assigned IP, including all priority rights in, and all rights and entitlements to claim priority to and from, any of the Assigned IP; (c) in and to each and every patent application that is a substitution, a continuation, a continuation-in-part, or a divisional, of any of the Assigned IP; (d) in and to each and every reissue, reexamination, renewal, or extension of any kind of any of the foregoing; (e) in and to each and every patent application of any kind filed outside the United States and corresponding to any of the foregoing, including but not limited to international (e.g., Patent Cooperation Treaty) applications; (f) in and to each and every patent or other form of protection, whether within or outside the United States, issuing or reissuing from any of the foregoing; and (g) in and to all claims for past, present, and future infringement of any of the Assigned IP, including all rights to sue for and to recover for the Assignee's own use all past, present, and future lost profits, royalties, and damages of whatever nature recoverable from any infringements of the Assigned IP.</li> <li>2. The Assignors will, at the Assignee's request and expense, execute all rightful oaths, assignments, powers of attorney, declarations, or other papers, or provide written or oral testimony, that Assignee deems necessary to carry out, in good faith, the intent and purpose of this assignment or to otherwise assist Assignee in establishing its ownership rights.</li> <li>3. The Assignors hereby request that any patents or other forms of protection issuing in the United States, foreign countries or regions, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee or its successors, assigns, or legal representatives for the sole use of the Assignee and its successors, assigns, or legal representatives.</li> <li>4. The terms and conditions of this assignment shall be binding upon the Assignors and their respective successors, assigns, and legal representatives.</li> <li>5. This instrument will be interpreted and construed in accordance with the laws of the State of Arizona without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. This instrument may be executed in physical or electronically transmitted individual counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.</li> </ol> <p>IN WITNESS WHEREOF, the Assignors have executed and delivered this instrument to the Assignee as of the dates written below:</p> <table style="width: 100%; margin-top: 20px;"> <tr> <td style="width: 25%; vertical-align: top;"> <b>1. Deirdre Meldrum</b>            Signature: <i>Deirdre Meldrum</i>            Date: <u>2/5/19</u> </td> <td style="width: 25%; vertical-align: top;"> <b>2. Rhett Martineau</b>            Signature: _____            Date: _____         </td> <td style="width: 25%; vertical-align: top;"> <b>3. Weimin Gao</b>            Signature: _____            Date: _____         </td> <td style="width: 25%; vertical-align: top;"> <b>4. Shufang Ci</b>            Signature: _____            Date: _____         </td> </tr> <tr> <td colspan="4" style="vertical-align: top; margin-top: 10px;"> <b>5. Shih-Hui Chao</b>            Signature: _____            Date: _____         </td> </tr> </table>					<b>1. Deirdre Meldrum</b> Signature: <i>Deirdre Meldrum</i> Date: <u>2/5/19</u>	<b>2. Rhett Martineau</b> Signature: _____ Date: _____	<b>3. Weimin Gao</b> Signature: _____ Date: _____	<b>4. Shufang Ci</b> Signature: _____ Date: _____	<b>5. Shih-Hui Chao</b> Signature: _____ Date: _____			
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CONFIRMATORY ASSIGNMENT			SKYSONG ID: M15-171L-US1								
WHEREAS, the undersigned inventors:											
1. <b>Deirdre Meldrum</b> Phoenix, Arizona	2. <b>Rhett Martineau</b> Gilbert, Arizona	3. <b>Weimin Gao</b> Chandler, Arizona	4. <b>Shufang Ci</b> <del>Tempe, Arizona</del> <i>North Phoenix, Arizona</i>								
5. <b>Shih-Hui Chao</b> Phoenix, Arizona											
<p>(collectively, the “<b>Assignors</b>”) have invented certain new, useful, nonobvious, and otherwise patentable subject matter concerning</p> <p style="text-align: center;"><b>ACCELERATED ISOTHERMAL AMPLIFICATION OF DNA</b></p> <p>(the “<b>Inventions</b>”) for which the following United States patent applications are filed herewith or were filed in the United States Patent and Trademark Office: United States provisional patent application serial number <u>62/193,205</u> filed on <u>July 16, 2015</u> and United States nonprovisional patent application serial number <u>15/213,194</u> filed on <u>July 18, 2016</u> (the “<b>Assigned IP</b>”). 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# CONFIRMATORY ASSIGNMENT

SKYSONG ID: M15-171L-US1

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1. <b>Deirdre Meldrum</b> Phoenix, Arizona	2. <b>Rhett Martineau</b> Gilbert, Arizona	3. <b>Weimin Gao</b> Chandler, Arizona	4. <b>Shufang Ci</b> Tempe, Arizona
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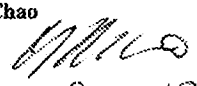
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Signature:	Signature:	Signature:	Signature:
Date:	Date:	Date:	Date:
5. <b>Shih-Hui Chao</b>			
Signature: 			
Date: <u>2-19-2019</u>			

**CONFIRMATORY ASSIGNMENT**

SKYSONG ID: M15-1711-US1

WHEREAS, the undersigned inventors:

1. Deirdre Meldrum Phoenix, Arizona	2. Rhett Martineau Gilbert, Arizona	3. Weimin Gao Chandler, Arizona	4. Shufang Ci Tempe, Arizona
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(collectively, the "Assignors") have invented certain new, useful, nonobvious, and otherwise patentable subject matter concerning

**ACCELERATED ISOTHERMAL AMPLIFICATION OF DNA**

(the "Inventions") for which the following United States patent applications are filed herewith or were filed in the United States Patent and Trademark Office: United States provisional patent application serial number 62/193,205 filed on July 16, 2015 and United States nonprovisional patent application serial number 15/213,194 filed on July 18, 2016 (the "Assigned IP"). The term "Assigned IP" further includes (1) all patent applications that claim priority to or from the patent application referenced or identified in the preceding sentence, whether a provisional application, a utility application, a design application, or other application, as well as any patent application that has been filed or will be filed and otherwise discloses one or more of the Inventions, (2) all other right, title, and interest in and to the Inventions, including but not limited to all other patent rights, copyrights, trade secrets or know-how, priority rights, rights to sue for past, present, and future damages, and all other rights in and to the Inventions, and (3) all patents, inventor's certificates, and other forms of protection granted thereon in the United States, in foreign countries or regions, or under any international convention, agreement, protocol, or treaty, including those arising under the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, or otherwise.

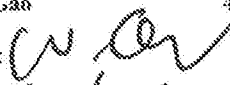
WHEREAS, Arizona State University is the Assignors' employer and, in accordance with the Assignors' employment agreements, the Arizona Board of Regents Intellectual Property Policy (ABOR 6-908 as of the date of this assignment), and/or other employment obligations, the Arizona Board of Regents on behalf of Arizona State University (the "Assignee") already owns all right, title, and interest in and to the Inventions and the Assigned IP, including but not limited to all priority rights in, and all rights and entitlements to claim priority to and from, the Assigned IP.

WHEREAS, the Assignors are researchers employed by the Assignee who, in accordance with their employment agreements, Arizona Board of Regents Intellectual Property Policy, and/or other employment obligations: (1) have had an obligation to assign, and have in fact previously assigned to the Assignee, all right, title, and interest in the Inventions and the Assigned IP, including but not limited to all priority rights in, and all rights and entitlements to claim priority to and from, the Assigned IP, and (2) have an obligation to execute this confirmatory assignment for recordation purposes.

NOW, THEREFORE, in consideration of good and valuable consideration, including but not limited to Assignors' eligibility to personally benefit from the Assignee's Intellectual Property Management Implementation Policy (RSP 604 as of the date of this assignment):

- The Assignors do hereby sell, assign, transfer, and convey unto the Assignee the entire right, title, and interest (a) in and to the Inventions; (b) in and to the Assigned IP, including all priority rights in, and all rights and entitlements to claim priority to and from, any of the Assigned IP; (c) in and to each and every patent application that is a substitution, a continuation, a continuation-in-part, or a divisional, of any of the Assigned IP; (d) in and to each and every reissue, reexamination, renewal, or extension of any kind of any of the foregoing; (e) in and to each and every patent application of any kind filed outside the United States and corresponding to any of the foregoing, including but not limited to international (e.g., Patent Cooperation Treaty) applications; (f) in and to each and every patent or other form of protection, whether within or outside the United States, issuing or reissuing from any of the foregoing; and (g) in and to all claims for past, present, and future infringement of any of the Assigned IP, including all rights to sue for and to recover for the Assignee's own use all past, present, and future lost profits, royalties, and damages of whatever nature recoverable from any infringements of the Assigned IP.
- The Assignors will, at the Assignee's request and expense, execute all rightful oaths, assignments, powers of attorney, declarations, or other papers, or provide written or oral testimony, that Assignee deems necessary to carry out, in good faith, the intent and purpose of this assignment or to otherwise assist Assignee in establishing its ownership rights.
- The Assignors hereby request that any patents or other forms of protection issuing in the United States, foreign countries or regions, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee or its successors, assigns, or legal representatives for the sole use of the Assignee and its successors, assigns, or legal representatives.
- The terms and conditions of this assignment shall be binding upon the Assignors and their respective successors, assigns, and legal representatives.
- This instrument will be interpreted and construed in accordance with the laws of the State of Arizona without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. This instrument may be executed in physical or electronically transmitted individual counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.

IN WITNESS WHEREOF, the Assignors have executed and delivered this instrument to the Assignee as of the dates written below:

1. Deirdre Meldrum	2. Rhett Martineau	3. Weimin Gao	4. Shufang Ci
Signature:	Signature:	Signature: 	Signature:
Date:	Date:	Date: 2/21/2019	Date:
5. Shih-Hui Chao			
Signature:			
Date:			

**PATENT**