

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT8277911

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| GENETICS RESEARCH, LLC, D/B/A ZS GENETICS, INC. | 10/19/2023 |
| RECEIVING PARTY DATA | |
| Name: | HARBINGER HEALTH, INC. |
| Street Address: | 25 SPINELLI PLACE |
| City: | CAMBRIDGE |
| State/Country: | MASSACHUSETTS |
| Postal Code: | 02138 |
| PROPERTY NUMBERS Total: 13 | |
| Property Type | Number |
| Application Number: | 17498290 |
| Patent Number: | 10527608 |
| Patent Number: | 10947599 |
| Patent Number: | 11142788 |
| Patent Number: | 10081829 |
| Patent Number: | 10370700 |
| Patent Number: | 11421263 |
| Patent Number: | 11224850 |
| Application Number: | 18128698 |
| Application Number: | 18124212 |
| Application Number: | 18121328 |
| Application Number: | 18131634 |
| Application Number: | 17166270 |
| CORRESPONDENCE DATA | |
| Fax Number: | (617)523-1231 |
| <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> | |
| Phone: | (617) 570-1000 |
| Email: | us-patentbos@goodwinlaw.com, CZhang@goodwinlaw.com, scannon@goodwinlaw.com |
| Correspondent Name: | GOODWIN PROCTER LLP |

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|------------------------|-----------------------------|
| Address Line 1: | 100 NORTHERN AVENUE |
| Address Line 2: | IP DOCKETING DEPT./7TH FL |
| Address Line 4: | BOSTON, MASSACHUSETTS 02210 |

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| ATTORNEY DOCKET NUMBER: | HRG EXHIBIT B |
|--------------------------------|---------------|

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|---------------------------|-------------|
| NAME OF SUBMITTER: | CLARK ZHANG |
|---------------------------|-------------|

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| SIGNATURE: | /Clark Zhang/ |
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| DATE SIGNED: | 11/15/2023 |
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Total Attachments: 9

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**PATENT ASSIGNMENT
(GENETICS RESEARCH, LLC, D/B/A ZS GENETICS, INC.)**

This Assignment Agreement ("Assignment") is entered into as of October 23, 2023 (the "Effective Date"), by and between **GENETICS RESEARCH, LLC, D/B/A ZS GENETICS, INC.**, a Massachusetts limited liability company having a place of business at 9 Blynman Circle, Manchester, MA 01944, its successors and assigns ("Assignor"), and **HARBINGER HEALTH, INC.**, a Delaware corporation with its principal office at 25 Spinelli Place, Cambridge, Massachusetts 02138, its successors and assigns ("Assignee").

WHEREAS, Assignor owns certain Patent Rights (as defined below);

WHEREAS, Assignor and Assignee are parties to that certain Asset Purchase Agreement, dated as of the date hereof (the "Purchase Agreement"), pursuant to which Assignor transferred, sold and conveyed to Assignee certain of the assets of Assignor, including the Patent Rights;

WHEREAS, Assignee and Assignor wish to have Assignor assign the Patent Rights to Assignee; and

WHEREAS, the execution and delivery of this Assignment is a condition to Closing under the Purchase Agreement.

NOW, THEREFORE, for good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, Assignee and Assignor agree as follows:

1. Definitions

- 1.1. "Patent Rights" means any and all patent rights owned by Assignor to (i) any and all inventions disclosed in the patents and patent applications listed in Appendix A, and (ii) all continuing, divisional, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any and all inventions disclosed in the patents and patent applications listed in Appendix A; and in and to (iii) all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said any and all inventions including the right to apply for patent rights in the United States and each foreign country, and (iv) all rights to claim priority therefrom; and further including (v) all rights to all causes of action in law or equity relating thereto, and (vi) all rights to sue, counterclaim, claim and recover damages, restitution, injunctive, and other legal or equitable relief for past, present or future infringement, misuse, misappropriation, violation, dilution or default of the rights assigned.
- 1.2. "Party" means Assignor or Assignee individually, and when used in the plural, means Assignor and Assignee collectively.

2. Assignment of Patent Rights.

- 2.1. Upon the Effective Date, Assignor hereby assigns to Assignee, Assignor's entire right, title and interest for the United States and all foreign countries, in, to and under the Patent Rights, and the right to all causes of action in law or equity relating thereto, including the right to sue for past, present or future infringement of the Patent Rights. Such assignment shall be effective upon the Effective Date.

- 2.2. Assignor shall execute for the benefit of Assignee any assignment document which is necessary for submission to patent offices in any country to evidence the assignment of the Patent Rights to Assignee.
- 2.3. When requested, Assignor agrees to carry out in good faith the intent and purpose of this Assignment, by executing any further documents required by Assignee to effect, secure and enforce the rights granted to Assignee under this Assignment for all Patent Rights, and generally by doing everything reasonably possible which Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for any and all inventions disclosed in the patents and patent applications in the Patent Rights and for vesting title to said any and all inventions and all applications for patents and all patents on said inventions, in Assignee.
- 2.4. When requested, Assignor agrees to provide documentary evidence and statements or testimony in any interference, opposition, re-examination, reissue or other proceeding in which any of the Patent Rights may be involved.
- 2.5. Assignee may record this Assignment with the United States Patent and Trademark Office ("USPTO") and with comparable offices in other jurisdictions throughout the world. Assignor hereby authorizes and requests the Commissioner for Patents of the USPTO, and any Official of any country or countries foreign to the United States whose duty is to record documents evidencing ownership of patents and patent applications to record Assignee as owner of the patents and applications in the Patent Rights.
- 2.6. Assignor hereby authorizes and requests the Commissioner for Patents of the USPTO, and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue all letters patent related to the Patent Rights to Assignee in accordance with the terms of this Assignment.
- 2.7. Assignor appoints, authorizes and requests the attorneys appointed in the patents or patent applications in the Patent Rights to hereafter amend this Assignment, as needed, by inserting the filing date and serial number of patents or patent applications in the Patent Rights when known.
3. Assignee does hereby acknowledge and accept the above assignment and transfer of all the rights, title and interest enumerated above, including but not limited to the right to priority and the right to sue for past, present or future infringement.

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IN WITNESS WHEREOF, the Parties have caused this Assignment to be duly executed by its duly authorized representatives as of the Effective Date.

GENETICS RESEARCH, LLC,
D/B/A ZS GENETICS, INC.



Name: Thomas A. Shields

Title: Manager

Date: 10/19/2023

HARBINGER HEALTH, INC.



Name: Stephen M. Hahn, M.D.

Title: President & CEO

Date:



Thomas A. Shields

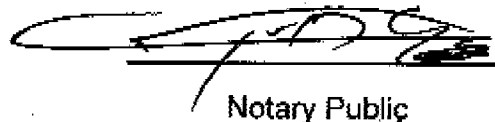
State of Massachusetts

County of Essex

I, Trevor D. Brooks, a notary public in and for said County, in the State aforesaid, do hereby certify that Thomas A. Shields personally known to me to be the same person whose name is subscribed in the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instruments as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and official seal this 19 day of October, 2023.





Notary Public

Commission expires: 11-6-26

IN WITNESS WHEREOF, the Parties have caused this Assignment to be duly executed by its duly authorized representatives as of the Effective Date.

GENETICS RESEARCH, LLC,
D/B/A ZS GENETICS, INC.

HARBINGER HEALTH, INC.

DocuSigned by:

Stephen M. Hahn

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Name:

Name: Stephen M. Hahn, M.D.

Title:

Title: President & CEO

10/18/2023

Date:

Date:

DocuSigned by:

Jennifer Zarutskie

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APPENDIX A**PATENT RIGHTS**

| Family No. | Application/Patent No. | Title | Filing Date | Jurisdiction |
|------------|---------------------------------------|---|-------------|--------------|
| 001 | 3,069,938 | ISOLATION OF TARGET NUCLEIC ACIDS | 13-Jun-2018 | CA |
| 001 | 18818594.6 | ISOLATION OF TARGET NUCLEIC ACIDS | 13-Jun-2018 | EP |
| 001 | 16/007,514 U.S. Pat. 11,142,788 | ISOLATION OF TARGET NUCLEIC ACIDS | 13-Jun-2018 | US |
| 001 | 17/498,290 | ISOLATION OF TARGET NUCLEIC ACIDS | 11-Oct-2021 | US |
| 001 | PCT/US18/37294 | ISOLATION OF TARGET NUCLEIC ACIDS | 13-Jun-2018 | WO |
| 002 | 15/877,614 | METHODS AND KITS FOR QUALITY CONTROL | 23-Jan-2018 | US |
| 002 | PCT/US18/37273 | METHODS AND KITS FOR QUALITY CONTROL | 13-Jun-2018 | WO |
| 002 | 62/568,136 | METHODS AND KITS FOR QUALITY CONTROL | 4-Oct-2017 | US |
| 003 | 15/877,618 U.S. Pat. 10,947,599 | TUMOR MUTATION BURDEN | 23-Jan-2018 | US |
| 003 | 17/202,890 | TUMOR MUTATION BURDEN | 16-Mar-2021 | US |
| 003 | PCT/US18/37296 | TUMOR MUTATION BURDEN | 13-Jun-2018 | WO |
| 003 | 62/568,114 | TUMOR MUTATION BURDEN | 4-Oct-2017 | US |
| 004 | 3,069,934 | NEGATIVE-POSITIVE ENRICHMENT FOR NUCLEIC ACID DETECTION | 13-Jun-2018 | CA |
| 004 | 18817717.4 | NEGATIVE-POSITIVE ENRICHMENT FOR NUCLEIC ACID DETECTION | 13-Jun-2018 | EP |
| 004 | 16/007,427 | NEGATIVE-POSITIVE ENRICHMENT FOR NUCLEIC ACID DETECTION | 13-Jun-2018 | US |
| 004 | 62/656,592 | NEGATIVE-POSITIVE ENRICHMENT FOR NUCLEIC ACID DETECTION | 12-Apr-2018 | US |
| 004 | 15/877,619 U.S. Pat. 10,527,608 | METHODS FOR RARE EVENT DETECTION | 23-Jan-2018 | US |
| 004 | 16/701,688 | METHODS FOR RARE EVENT DETECTION | 3-Dec-2019 | US |
| 004 | PCT/US18/37277 | NEGATIVE-POSITIVE ENRICHMENT FOR NUCLEIC ACID DETECTION | 13-Jun-2018 | WO |
| 004 | 62/568,121 | METHODS FOR RARE EVENT DETECTION | 4-Oct-2017 | US |

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|-----|---------------------------------------|--|-------------|----|
| 005 | 3,069,831 | DETECTION OF TARGETED SEQUENCE REGIONS | 13-Jun-2018 | CA |
| 005 | 18816610.2 | DETECTION OF TARGETED SEQUENCE REGIONS | 13-Jun-2018 | EP |
| 005 | 15/877,620 U.S. Pat. 10,081,829 | DETECTION OF TARGETED SEQUENCE REGIONS | 23-Jan-2018 | US |
| 005 | 16/132,955 U.S. Pat. 10,370,700 | DETECTION OF TARGETED SEQUENCE REGIONS | 17-Sep-2018 | US |
| 005 | 16/519,506 U.S. Pat. 11,421,263 | DETECTION OF TARGETED SEQUENCE REGIONS | 23-Jul-2019 | US |
| 005 | PCT/US18/37280 | DETECTION OF TARGETED SEQUENCE REGIONS | 13-Jun-2018 | WO |
| 005 | 62/568,144 | DETECTION OF TARGETED SEQUENCE REGIONS | 4-Oct-2017 | US |
| 006 | 16/795,970 U.S. Pat. 11,224,850 | REGULATED MULTIPLEX REACTIONS IN A SINGLE TUBE | 20-Feb-2020 | US |
| 006 | 17/577,728 | REGULATED MULTIPLEX REACTIONS IN A SINGLE TUBE | 18-Jan-2022 | US |
| 006 | PCT/US20/18964 | REGULATED MULTIPLEX REACTIONS IN A SINGLE TUBE | 20-Feb-2020 | WO |
| 006 | 62/808,033 | REGULATED MULTIPLEX REACTIONS IN A SINGLE TUBE | 20-Feb-2019 | US |
| 007 | 3,069,843 | RARE NUCLEIC ACID DETECTION | 13-Jun-2018 | CA |
| 007 | 18817308.2 | RARE NUCLEIC ACID DETECTION | 13-Jun-2018 | EP |
| 007 | 16/007,541 | RARE NUCLEIC ACID DETECTION | 13-Jun-2018 | US |
| 007 | 18/128,698 | RARE NUCLEIC ACID DETECTION | 30-Mar-2023 | US |
| 007 | PCT/US18/37312 | RARE NUCLEIC ACID DETECTION | 13-Jun-2018 | WO |
| 007 | 62/634,250 | RARE NUCLEIC ACID DETECTION | 23-Feb-2018 | US |
| 008 | 16/007,510 | SELECTIVE PROTECTION OF NUCLEIC ACIDS | 13-Jun-2018 | US |
| 008 | 18/124,212 | SELECTIVE PROTECTION OF NUCLEIC ACIDS | 21-Mar-2023 | US |
| 008 | PCT/US18/37307 | SELECTIVE PROTECTION OF NUCLEIC ACIDS | 13-Jun-2018 | WO |
| 008 | 62/656,599 | SELECTIVE PROTECTION OF NUCLEIC ACIDS | 12-Apr-2018 | US |
| 009 | 16/007,531 | TUMOR MUTATION BURDEN BY QUANTIFICATION OF MUTATIONS IN NUCLEIC ACID | 13-Jun-2018 | US |

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| 009 | PCT/US18/37310 | TUMOR MUTATION BURDEN BY QUANTIFICATION OF MUTATIONS IN NUCLEIC ACID | 13-Jun-2018 | WO |
| 009 | 62/672,269 | TUMOR MUTATION BURDEN BY QUANTIFICATION OF MUTATIONS IN NUCLEIC ACID | 16-May-2018 | US |
| 010 | 3,069,834 | PLASMA/SERUM TARGET ENRICHMENT | 13-Jun-2018 | CA |
| 010 | 18816856.1 | PLASMA/SERUM TARGET ENRICHMENT | 13-Jun-2018 | EP |
| 010 | 16/007,498 | PLASMA/SERUM TARGET ENRICHMENT | 13-Jun-2018 | US |
| 010 | PCT/US18/37287 | PLASMA/SERUM TARGET ENRICHMENT | 13-Jun-2018 | WO |
| 010 | 16/018,926 | BODILY FLUID TARGET ENRICHMENT | 26-Jun-2018 | US |
| 010 | 18/121,328 | BODILY FLUID TARGET ENRICHMENT | 14-Mar-2023 | US |
| 010 | 16/177,784 | BODILY FLUID ENRICHMENT | 1-Nov-2018 | US |
| 010 | 3,100,492 | SEQUENCE SPECIFIC METHYLATION ENRICHMENT AND DETECTION | 3-Oct-2018 | CA |
| 010 | 18919343.6 | SEQUENCE SPECIFIC METHYLATION ENRICHMENT AND DETECTION | 3-Oct-2018 | EP |
| 010 | 16/150,962 | SEQUENCE SPECIFIC METHYLATION ENRICHMENT AND DETECTION | 3-Oct-2018 | US |
| 010 | 17/888,152 | SEQUENCE SPECIFIC METHYLATION ENRICHMENT AND DETECTION | 15-Aug-2022 | US |
| 010 | PCT/US18/54188 | SEQUENCE SPECIFIC METHYLATION ENRICHMENT AND DETECTION | 3-Oct-2018 | WO |
| 010 | 16/179,523 | SOLID PHASE NEGATIVE ENRICHMENT | 2-Nov-2018 | US |
| 010 | 18/131,634 | SOLID PHASE NEGATIVE ENRICHMENT | 6-Apr-2023 | US |
| 010 | 62/672,217 | PLASMA/SERUM TARGET ENRICHMENT | 16-May-2018 | US |
| 010 | 3,069,939 | TUMOR DETECTION AND MONITORING | 12-Oct-2018 | CA |
| 010 | 18918562.2 | TUMOR DETECTION AND MONITORING | 12-Oct-2018 | EP |
| 010 | 16/159,116 | TUMOR DETECTION AND MONITORING | 12-Oct-2018 | US |
| 010 | PCT/US18/55648 | TUMOR DETECTION AND MONITORING | 12-Oct-2018 | WO |
| 011 | 16/007,656 | POLYNUCLEIC ACID MOLECULE ENRICHMENT METHODOLOGIES | 13-Jun-2018 | US |
| 011 | PCT/US18/37337 | POLYNUCLEIC ACID MOLECULE ENRICHMENT METHODOLOGIES | 13-Jun-2018 | WO |
| 011 | 62/577,851 | POLYNUCLEIC ACID MOLECULE ENRICHMENT METHODOLOGIES | 27-Oct-2017 | US |

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| 011 | 62/526,091 | POLYNUCLEIC ACID MOLECULE ENRICHMENT METHODOLOGIES | 28-Jun- 2017 | US |
| 011 | 62/519,051 | POLYNUCLEIC ACID MOLECULE ENRICHMENT METHODOLOGIES | 13-Jun- 2017 | US |
| 018 | 17/166,270 | METHODS AND SYSTEMS OF DNA LIBRARY PREPARATION FOR DETECTING FUSIONS | 3-Feb- 2021 | US |
| 018 | 62/969,412 | METHODS AND SYSTEMS OF DNA LIBRARY PREPARATION FOR DETECTING FUSIONS | 3-Feb- 2020 | US |