



Sponsored Research Agreement

This Sponsored Research Agreement ("Agreement") is made by and between Drexel University, a Pennsylvania non-profit corporation ("Drexel"), with its principal place of business at 3020 Market Street, Suite 510, Philadelphia, PA 19104 and DiagnaMed Inc., a corporation organized and existing under the laws of Ontario, Canada ("Sponsor"), having a place of business at 82 Richmond Street East, Toronto, Ontario, M5C 1P1.

This Agreement is effective as of the 1st day of August 2022 ("Effective Date").

RECITALS

WHEREAS, the research program contemplated by this Agreement is of mutual interest and benefit to Drexel and to the Sponsor, and will further the instructional and research objectives of Drexel in a manner consistent with its status as a non-profit, tax-exempt, educational institution. In addition, the research program contemplated by this Agreement may benefit both Drexel and Sponsor through the creation or discovery of new inventions.

NOW, THEREFORE, the parties hereto agree as follows:

1. Definitions

1.1 **Drexel Intellectual Property** means all patentable inventions conceived or reduced to practice in the conduct of the Sponsored Research, during the term of this Agreement, by Drexel faculty, staff or students, including all United States and foreign patent applications claiming said patentable inventions, including any divisional, continuation, and foreign equivalents thereof, as well as any patents issued thereon or reissues or reexaminations thereof. Drexel Intellectual Property also includes all significant copyrightable software created by Drexel personnel in the conduct of the Sponsored Research during the term of this Agreement.

1.2 **Sponsor Intellectual Property** means all patentable inventions conceived or reduced to practice in the conduct of the Sponsored Research, during the term of this Agreement, solely by Sponsor personnel, and without the use of Drexel administered funds or facilities, including all United States and foreign patent applications claiming said patentable inventions, including any divisional, continuation, and foreign equivalents thereof, as well as any patents issued thereon or reissues or reexaminations thereof. Sponsor Intellectual Property also includes all significant copyrightable software created solely by Sponsor's personnel without the use of Drexel administered funds or facilities in the conduct of the Sponsored Research during the term of this Agreement.

1.3 **Joint Intellectual Property** means all patentable inventions conceived or reduced to practice in the conduct of the Sponsored Research, during the term of the Agreement, by both Drexel faculty, staff or students and Sponsor personnel, including all United States and foreign patent applications claiming said patentable inventions, including any divisional, continuation, and foreign equivalents thereof, as well as any patents issued thereon or reissues or reexaminations thereof. Joint Intellectual Property also includes all significant copyrightable software created jointly by Drexel personnel and Sponsor's personnel during the term of this Agreement.



1.4 **Principal Investigator** is Dr. John Kounios, who is responsible for the conduct, supervision and administration of the Sponsored Research.

1.5 **Sponsored Research** means the research program described in Attachment A to this Agreement.

1.6 **Research Results** means all data and information which are generated in the performance of the Sponsored Research during the term of this Agreement, and expressly excludes Drexel Intellectual Property, Sponsor Intellectual Property, and Joint Intellectual Property.

2. Sponsored Research

2.1 Drexel agrees to begin the Sponsored Research after the Effective Date and upon payment by Sponsor of any funds owed. Drexel agrees to use reasonable efforts to conduct the Sponsored Research. Sponsor acknowledges that Drexel and the Principal Investigator shall have the freedom to conduct and supervise the Sponsored Research in a manner consistent with Drexel's educational and research missions.

2.2 If the services of the Principal Investigator become unavailable to Drexel for any reason, Drexel is entitled to designate another member of its faculty who is acceptable to both parties to serve as the Principal Investigator of the Sponsored Research. If a substitute Principal Investigator has not been designated within sixty (60) days after the original Principal Investigator ceases his or her participation under this Agreement, either party may terminate this Agreement upon written notice to the other party, subject to the provisions of Section 10.

3. Term of Agreement

3.1 The initial term of this Agreement shall begin on the Effective Date of this Agreement and shall end on August 30, 2023 unless terminated sooner pursuant to Sections 2.2 or 10 hereof. This Agreement may be extended or renewed only by mutual written agreement executed by duly authorized representatives of the parties.

4. Reimbursement of Costs, Payment

4.1 Sponsor shall reimburse Drexel for all direct and indirect costs incurred in the conduct of the Sponsored Research in an amount not to exceed the total amount of \$222,437.00 as set forth in Attachment A. Sponsor acknowledges that this amount is a good faith estimate only and not a guarantee of the cost to conduct the Sponsored Research. If at any time Drexel determines that it will require additional funds for the Sponsored Research, it shall notify Sponsor and provide an estimate of the additional amount. Sponsor shall not be responsible for any costs in excess of the amount of \$222,437.00 as set forth in Attachment A unless it has agreed in writing to provide additional funds.

4.2 Sponsor shall make payments to Drexel in accordance with the payment schedule set forth in Attachment A. All payments are to be made payable in United States dollars, as follows: (a) If by check: to *Information redacted*.



4.3 Title to any equipment, laboratory animals, or any other materials made or acquired with funds provided under this Agreement shall vest in Drexel, and such equipment, animals, or materials shall remain the property of Drexel following termination of this Agreement.

5. Records and Reports; Confidentiality

5.1 Principal Investigator shall maintain records of the results of the Sponsored Research and shall provide Sponsor with reports of the progress and results of the Sponsored Research in accordance with Attachment A. Drexel shall maintain records of the use of the funds provided by Sponsor and shall make such records available to Sponsor upon reasonable notice during Drexel's normal business hours, but not more frequently than once each calendar year.

5.2 In order to preserve the patentability of Drexel Intellectual Property, Sponsor shall maintain Drexel Intellectual Property and information provided pursuant to Section 5.1 (whether oral or written) as confidential and shall not disclose such information to any third party except with Drexel's prior written approval.

5.3 If, in the performance of the Sponsored Research, the Principal Investigator and members of the Drexel research team require and accept access to the Sponsor's information that the Sponsor considers proprietary, the rights and obligations of the parties with respect to such information shall be governed by the terms and conditions set forth in Attachment B.

6. Sponsor Rights in Research Results and Reports

6.1 Sponsor shall have the right to use Research Results disclosed to Sponsor in records and reports for any reasonable purpose. Sponsor shall need to obtain a license to use Research Results from Drexel if such use would infringe any copyright or any claim of a patent application or issued patent owned by Drexel.

6.2 Drexel and the Principal Investigator hereby grant Sponsor a royalty-free, non-transferable, non-exclusive right to copy, reproduce and distribute any research reports furnished to Sponsor under this Agreement. Sponsor may not charge fees for said research reports, use said research reports for advertising or promotional activities, or alter or modify said research reports without the prior written permission of Drexel.

7. Intellectual Property

7.1 Drexel shall retain all right, title and interest in and to the Drexel Intellectual Property and any patents, copyrights and other intellectual property protections related thereto.

7.2 Sponsor shall retain all right, title and interest in and to the Sponsor Intellectual Property and any patents, copyrights and other intellectual property protections related thereto.

7.3 The parties shall jointly own all right, title and interest in and to the Joint Intellectual Property and any patent, copyrights, software and tangible research materials and other intellectual property related thereto.



7.4 The Sponsor shall be notified of any Drexel Intellectual Property and Joint Intellectual Property reasonably considered patentable after an invention disclosure is received by Drexel's Office of Entrepreneurship and Technology Commercialization from the Principal Investigator. Drexel will provide to Sponsor a copy of any such disclosure it receives and Sponsor shall advise Drexel in writing, no later than thirty (30) days after receipt of such disclosure, whether it requests Drexel to file and prosecute patent applications related to such Drexel Intellectual Property. If Sponsor does not request Drexel to file and prosecute such patent applications, Drexel may proceed with such preparation and prosecution at its own cost and expense; but such patent applications shall be excluded from Sponsor's option under Section 8. The parties shall agree on a case by case basis on the prosecution of any Joint Intellectual Property reasonably considered patentable.

7.5 Drexel shall control the preparation and prosecution of all patent applications and the maintenance of all patents related to Drexel Intellectual Property. With regard to any patent applications filed at the request and expense of Sponsor, Drexel will consult with Sponsor on patent prosecution. Sponsor shall reimburse Drexel upon receipt of invoice for all documented expenses incurred in connection with the filing and prosecution of the patent applications and maintenance of the patents that Sponsor has requested Drexel to prosecute under Section 7.4.

8. Option

8.1 In consideration of Sponsor's funding of the Sponsored Research and payment for intellectual property expenses as provided for in Article 7, Drexel grants Sponsor a first option to negotiate to acquire a royalty-bearing license to practice Drexel Intellectual Property and/or Drexel's interest in Joint Intellectual Property. Drexel and Sponsor will negotiate in good faith to determine the terms of a license agreement as to each item of Drexel Intellectual Property and/or Joint Intellectual Property for which Sponsor has agreed to make payment for intellectual property expenses as provided for in Article 7. If Sponsor and Drexel fail to execute a license agreement within six (6) months after disclosure of the Drexel Intellectual Property and/or Joint Intellectual Property to Sponsor or if Sponsor fails to make payment for intellectual property expenses as provided for in Article 7, Drexel shall be free to license the Drexel Intellectual Property and Drexel's interest in Joint Intellectual Property to any party upon such terms as Drexel deems appropriate, without any further obligation to Sponsor.

8.2 Any license granted to Sponsor pursuant to Section 8 hereof shall be subject, if applicable, to the rights of the United States government reserved under Public Laws 96-517, 97-256 and 98-620, codified at 35 U.S.C. 200-212, and any regulations issued thereunder.

9. Publication, Use of Name

9.1 Drexel shall be free to publish the results of the Sponsored Research, after providing the Sponsor with a forty-five (45) day period in which to review each publication to identify patentable subject matter and to identify any inadvertent disclosure of the Sponsor's proprietary information. If necessary to permit the preparation and filing U.S. patent applications, the Principal Investigator may agree to an additional review period not to exceed seventy (75) days. Any further extension will require subsequent agreement between the Sponsor and Drexel.

9.2 Neither Party will make any press or media announcements concerning this Agreement, or use the name, logo, insignia or trademarks of the other Party, or any version, abbreviation or representation



of them or the names of any of Drexel's trustees, officers, faculty, students, employees, or agents, in any advertising or other form of publicity, fund-raising, promotional materials or web sites, without the written permission of the other Party, except that Drexel may acknowledge Sponsor's funding of the Sponsored Research in scientific publications and in listings of sponsored research projects. Further, Sponsor shall not use the name of "Drexel University," or any variation, adaptation or abbreviation thereof, or that of any of its trustees, officers, or agents, or any trademark owned by Drexel without Drexel's written permission. Drexel's Office of University Communications has sole authority to grant in writing to the Sponsor any approved use of the Drexel name, logo, insignia or trademark or the names of any of Drexel's trustees, officers, faculty, students, employees, or agents in any press or media announcement.

10. Termination

10.1 In addition to the termination right set forth in Section 2.2 hereof, either party may terminate this Agreement effective upon written notice to the other party, if the other party breaches any of the terms or conditions of this Agreement and fails to cure such breach within sixty (60) days after receiving written notice of the breach. In the event of an incurable breach, the non-breaching party may terminate this Agreement effective immediately upon written notice to the breaching party.

10.2 In addition, either party may terminate this Agreement for any reason upon sixty (60) days prior written notice to the other party.

10.3 In the event of termination of this Agreement prior to its stated term, whether for breach or for any other reason whatsoever, Drexel shall be entitled to retain from the payments made by Sponsor prior to termination Drexel's reasonable costs of concluding the work in progress. Allowable costs include, without limitation, all costs or non-cancellable commitments incurred prior to the receipt, or issuance, by Drexel of the notice of termination, and the full cost of each employee, student and faculty member supported hereunder through the end of such commitments. In the event of termination, Drexel shall submit a final report of all costs incurred and all funds received under this Agreement within sixty (60) days after the effective termination date. The report shall be accompanied by a check in the amount of any excess of funds advanced over costs and allowable commitments incurred. In case of a deficit of funds, Sponsor shall pay Drexel the amount needed to cover costs and allowable commitments incurred by Drexel under this Agreement.

10.4 Termination of this Agreement shall not affect the rights and obligations of the parties accrued prior to termination. The provisions of Section 5.2; Article 7, entitled Intellectual Property; Article 8, entitled Option; Article 11, entitled Disclaimer of Warranties, Indemnification; and Article 12, entitled Additional Provisions, shall survive termination.

11. Disclaimer of Warranties; Indemnification

11.1 DREXEL MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, WARRANTIES WITH RESPECT TO THE CONDUCT, COMPLETION, SUCCESS OR PARTICULAR RESULTS OF THE SPONSORED RESEARCH, OR THE CONDITION, OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE SPONSORED RESEARCH OR ANY DREXEL INTELLECTUAL PROPERTY OR RESEARCH RESULTS OR THAT USE OF THE DREXEL INTELLECTUAL PROPERTY OR RESEARCH RESULTS WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER INTELLECTUAL PROPERTY RIGHT OF A THIRD



PARTY. DREXEL SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR OTHER DAMAGES SUFFERED BY SPONSOR OR ANY OTHER PERSON RESULTING FROM THE SPONSORED RESEARCH OR THE USE OF ANY DREXEL INTELLECTUAL PROPERTY, ANY RESEARCH RESULTS OR ANY PRODUCTS RESULTING THEREFROM.

11.2 Sponsor shall defend, indemnify and hold harmless Drexel, the Principal Investigator and any of Drexel's faculty, students, employees, trustees, officers, affiliates and agents (hereinafter referred to collectively as the "INDEMNIFIED PERSONS") from and against any and all liability, claims, lawsuits, losses, damages, costs or expenses (including attorneys' fees), which the INDEMNIFIED PERSONS may hereafter incur, or be required to pay as a result of Sponsor's use of the results of Sponsored Research or any Drexel Intellectual Property or as a result of any breach of this Agreement or any act or omission of Sponsor, its employees, affiliates, contractors, licensees or agents. Drexel shall notify Sponsor upon learning of the institution or threatened institution of any such liability, claims, lawsuits, losses, damages, costs and expenses and Drexel shall cooperate with Sponsor in every proper way in the defense or settlement thereof at Sponsor's request and expense. Sponsor shall maintain in force at its sole cost and expense, with reputable insurance companies, insurance of a type and in an amount reasonably sufficient to protect against liability hereunder. Drexel shall have the right to request the appropriate certificates of insurance from Sponsor for the purpose of ascertaining the sufficiency of such coverage.

12. Additional Provisions.

12.1 No rights hereunder may be assigned by Sponsor, directly or by merger or other operation of law, without the express written consent of Drexel. Any prohibited assignment of this Agreement or the rights hereunder shall be null and void. No assignment shall relieve Sponsor of responsibility for the performance of any accrued obligations which it has prior to such assignment.

12.2 A waiver by either party of a breach or violation of any provision of this Agreement will not constitute or be construed as a waiver of any subsequent breach or violation of that provision or as a waiver of any breach or violation of any other provision of this Agreement.

12.3 Nothing herein shall be deemed to establish a relationship of principal and agent between Drexel and Sponsor, nor any of their agents or employees, nor shall this Agreement be construed as creating any form of legal association or arrangement which would impose liability upon one party for the act or failure to act of the other party. Nothing in this Agreement, express or implied, is intended to confer on any person other than the parties hereto or their permitted assigns, any benefits, rights or remedies.

12.4 All notices required by this Agreement shall be made in writing, certified mail, return receipt requested or authorized overnight courier (e.g., Federal Express). Notices shall be effective upon the date of documented signed receipt.

If to Drexel:

Office of Research & Innovation
Drexel University
3020 Market Street, Suite 510
Philadelphia, PA 19104

If to Sponsor:

DiagnaMed Inc.
82 Richmond Street East
Toronto, Ontario M5C 1P1
Canada



With a required copy emailed to:
Information Redacted

With a required copy emailed to:
Information Redacted

12.5 This Agreement shall be construed and governed in accordance with the laws of the Commonwealth of Pennsylvania, without giving effect to conflict of law provisions. The parties hereby submit to the exclusive jurisdiction of and venue in any state or federal courts located within the Eastern District of Pennsylvania with respect to any and all disputes concerning the subject of this Agreement.

12.6 Drexel and Sponsor shall not discriminate against any employee or applicant for employment because of race, color, sex, sexual preference, age, religion, national origin, disability, or because he or she is a disabled veteran or veteran of the Vietnam Era.

12.7 Neither party shall be liable for any failure to perform as required by this Agreement to the extent such failure to perform is due to circumstances reasonably beyond such party's control, including, without limitation, labor disturbances or labor disputes of any kind, accidents, failure of any governmental approval required for full performance, civil disorders or commotions, acts of aggression, acts of God, energy or other conservation measures imposed by law or regulation, explosions, failure of utilities, mechanical breakdowns, material shortages, disease, or other such occurrences.

12.8 Sponsor shall comply with all laws, regulations and other legal requirements applicable to Sponsor in connection with this Agreement, including but not limited to any legal requirements applicable to Sponsor's use of the results of the Sponsored Research or any Drexel Intellectual Property and laws controlling the export of technical data, computer software, laboratory prototypes, and all other export controlled commodities.

12.9 This Agreement embodies the entire understanding between the parties relating to the subject matter hereof and supersedes all prior understandings and agreements, whether written or oral. This Agreement may not be varied except by a written document signed by duly authorized representatives of both parties.

[REMAINDER OF PAGE INTENTIONALLY BLANK. SIGNATURES ON FOLLOWING PAGE]



IN WITNESS WHEREOF, and intending to be legally bound, the duly authorized representatives of the parties hereby execute this Agreement as of the date first written above.

DREXEL UNIVERSITY

DIAGNAMED, INC.

By: (s) Sarah M. Saxton

By: (s) Fabio Chianelli

Name: Sarah M. Saxton, MA, MEd

Name: Fabio Chianelli

Title: Executive Director,
Office of Sponsored Programs

Title: President

Date: 08/01/2022

Date: 08/01/2022

I have read and agreed to the responsibilities of the Principal Investigator:

By: (s) Dr. John Kounios

Date: 08/01/2022



ATTACHMENT A

Statement of Work

The proposed financial support provided by DiagnaMed Inc. will enable Drs. Zhang, Fleck, and Kounios (i.e., the “Team”) to continue research and development work on the the next phase of the “EEG Brain-Age Estimation Project.” Work would pick up from where the current phase ends. We currently have versions of all the components of the brain-age estimation software suite: (a) automatic data-cleaning and preprocessing, (b) feature extraction, and (c) brain-age estimation. By the end of the current phase of the project, we will assemble these software components, combine them with one EEG recording system (see below), and do some initial checks to make sure that the integrated system works.

The next phase of the project would involve two studies:

- a. Study 1 would compare the Emotiv Epoc X, Muse, and OpenBCI Ultracortex Mark IV EEG recording systems to compare accuracy and usability. The Muse and Epoc X are less expensive and simpler to use, but the Ultracortex may be more accurate. The primary goal of this phase is to optimize accuracy and test the system, but if the Epoc X or Muse yield data that are of comparable accuracy to the Ultracortex, then there is no reason to move forward with the more expensive and intricate system. This study will compare EEG data from the three systems and then use these results to select which to rely on for subsequent testing in this phase of the project. We will test 20 subjects, each subject for 3 sessions. For each subject, one session will use the Epoc X, one session will use the Muse, and the other session will use the Ultracortex. This experimental design will afford us the opportunity to directly compare these systems.
- b. Study 2 will test approximately 100 healthy subjects using the EEG system selected based on data from the first study. The purpose of this study is to assess the stability and reliability of brain-age estimations over time. Each subject will be tested for 2 sessions separated by no more than 1 month. Subjects will range from 30-90 years of age. We will compare the estimated brain-ages from sessions 1 and 2 to directly assess the stability of brain-age estimation. We will also compare estimated brain-ages based on the average of the 2 sessions to the actual chronological age to see if multi-session EEG acquisition improves brain-age estimation.
- c. We will continue to refine the brain-age estimation software, including improvements to the preprocessing, feature extraction, and brain-age estimation modules. Additional data obtained by other labs and collected by us will contribute toward further refining the machine-learning model. We will also adapt the software for use with additional EEG recording systems that will have different numbers of electrodes and different electrode locations.
- d. The team will be available to publicize and give presentations about the product and to work with hardware and other vendors to coordinate production, distribution, and sales of



the brain-age estimation product (e.g., consumer and/or “pro” versions, as requested by DiagnaMed).

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Invoice and Payment Schedule

Drexel will submit invoices to Sponsor on a monthly basis for the duration of the Term of this Agreement. The invoices will be submitted in such form and reasonable detail as may be required by Sponsor, and sent via email to Mr. Fabio Chianelli at *information redacted*

Promptly upon receipt of itemized invoices, Sponsor will issue payments to Drexel as specified in Section 4.2 of this Agreement.

Sponsor must receive the final invoice, marked "Final", no later than forty-five (45) days after the end date of this Agreement.

Reporting Schedule

Drexel agrees to meet online, on a bi-weekly basis, with Sponsor to provide it with project progress reports, which will communicate the important activities and accomplishments of the project objectives and any deviation from the schedules, methods, and tasks established in the Statement of Work.



ATTACHMENT B

SPONSOR PROPRIETARY INFORMATION

If, in the performance of the Sponsored Research, the Principal Investigator and members of the Drexel research team designated by him/her accept access offered by the Sponsor to certain information that the Sponsor considers proprietary, the rights and obligations of the parties with respect to such information are as follows:

1. **PROPRIETARY INFORMATION.** For the purposes of this Agreement, "PROPRIETARY INFORMATION" refers to information of any kind which is disclosed by the Sponsor to Drexel and which, by appropriate marking, is identified as confidential and proprietary at the time of disclosure. In the event that proprietary information is provided visually or orally, obligations of confidentiality shall attach only to that information which is identified as confidential and proprietary at the time of disclosure and is confirmed by the Sponsor in writing within ten (10) working days as being confidential.
2. **LIMITATIONS ON USE.** Drexel shall use the Sponsor's PROPRIETARY INFORMATION solely for the purposes of the Sponsored Research. It is agreed by the Sponsor and Drexel that the disclosure of PROPRIETARY INFORMATION shall not be construed as a grant of any right or license with respect to such information except as set forth herein or in a duly executed license agreement.
3. **CARE OF PROPRIETARY INFORMATION.** The Sponsor and Drexel agree that all PROPRIETARY INFORMATION communicated by the Sponsor and accepted by Drexel in connection with this Agreement shall be kept confidential by Drexel as provided herein unless specific written release is obtained from the Sponsor. Drexel agrees to make PROPRIETARY INFORMATION available only to those employees and students who require access to it in the performance of this Agreement and to inform them of the confidential nature of such information. Drexel shall exert reasonable efforts to maintain such information in confidence.

Drexel shall be deemed to have discharged its obligations hereunder provided Drexel has exercised the foregoing degree of care and provided further that Drexel shall immediately, upon discovery of any disclosure not authorized hereunder, notify the Sponsor and take reasonable steps to prevent any further disclosure or unauthorized use.

When the PROPRIETARY INFORMATION is no longer required for the purpose of this Agreement, Drexel shall return it or dispose of it as directed by the Sponsor. Drexel's obligations of confidentiality with respect to PROPRIETARY INFORMATION provided under this Agreement will expire five (5) years after the Effective Date of this Agreement.

4. **INFORMATION NOT COVERED** It is agreed by the Sponsor and Drexel that the above obligations of confidentiality shall not attach to information which:
 - (a) is publicly available prior to the date of the Agreement or becomes publicly available thereafter through no wrongful act of Drexel;
 - (b) was known to Drexel prior to the date of disclosure or becomes known to Drexel thereafter from a third party having an apparent bona fide right to disclose the information;
 - (c) is disclosed by Drexel in accordance with the terms of the Sponsor's prior written approval;
 - (d) is disclosed by the Sponsor without restriction on further disclosure;
 - (e) is independently developed by Drexel;
 - (f) Drexel is obligated to produce pursuant to an order of a court of competent jurisdiction or a valid administrative or Congressional subpoena, provided that Drexel (i) promptly notifies the Sponsor and (ii) cooperates reasonably with the Sponsor's efforts to contest or limit the scope of such order.