

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4642604

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	THE UNIVERSITY OF MANITOBA	01/29/2016
RECEIVING PARTY DATA		
Name:	DARREN FREED	
Street Address:	UNIVERSITY OF ALBERTA HOSPITAL	
Internal Address:	2D4.34 WMC, 8440-112 STREET	
City:	EDMONTON	
State/Country:	CANADA	
Postal Code:	T6G2B7	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15302593
CORRESPONDENCE DATA		
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<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>		
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ATTORNEY DOCKET NUMBER:	96280-9T	
NAME OF SUBMITTER:	JAMES PAN	
SIGNATURE:	/james pan/	
DATE SIGNED:	10/16/2017	
Total Attachments: 11		
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ASSIGNMENT AGREEMENT

THIS AGREEMENT is effective as of this 29th day of January, 2016 (the "Effective Date").

BETWEEN:

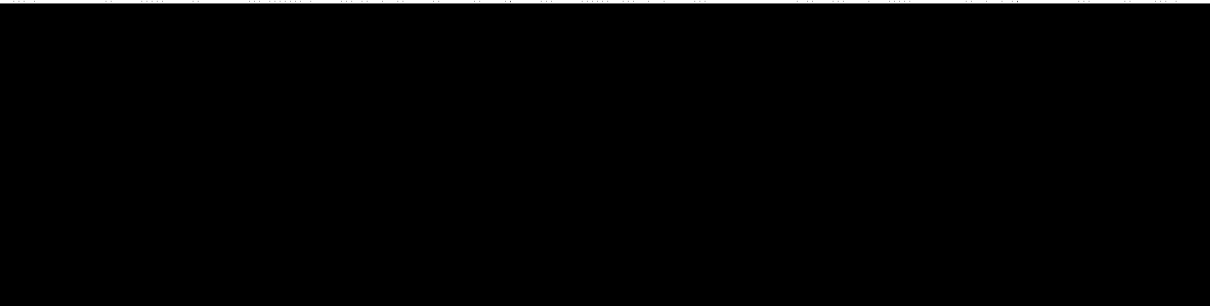
THE UNIVERSITY OF MANITOBA
(the "University")

- and -

DARREN FREED
(**"Freed"**)

WHEREAS:

- A. Freed, Christopher White ("**White**"), and Larry Hryshko ("**Hryshko**"), (Freed, White and Hryshko are hereinafter jointly referred to as the "**Inventors**") developed and invented an invention entitled "**Modulation of calcium ion homeostasis in harvested transplantable hearts**" and as further described in Schedule "A" attached hereto;

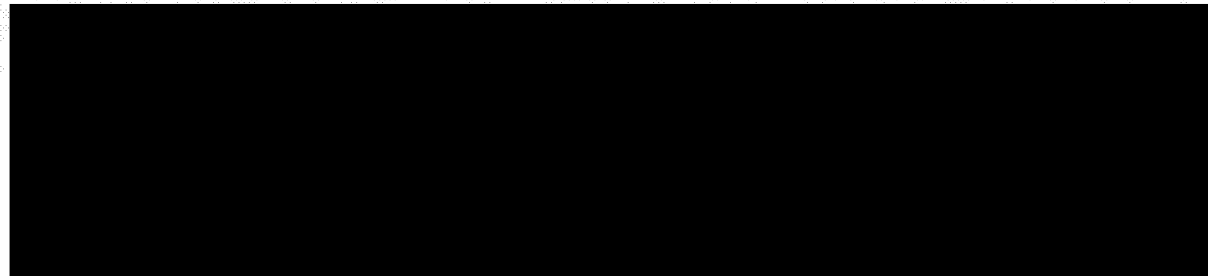


- D. Freed has asked that the University not be involved in the commercialization of the Technology, and is desirous of entering into an Agreement to support the assignment and transfer of the Technology from the University to himself;
- E. White and Hryshko each acknowledge and approve of the assignment of the Technology from the University to Freed; and
- F. The University is desirous of the assignment of the Technology to Freed so that Freed can be responsible for the commercialization of the Technology, with the assignment taking place on the terms and conditions described hereinafter.

NOW THEREFORE in consideration of the mutual covenants and conditions contained herein, the receipt and sufficiency of which is acknowledged by the parties, the parties hereto agree as follows:

ARTICLE 1 - DEFINITIONS

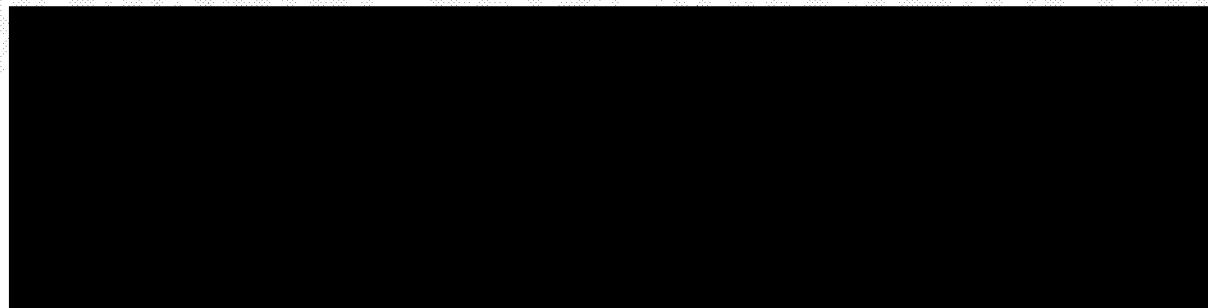
- 1.1 "Agreement" shall mean this Assignment Agreement.
- 1.2 "Copyright" means the rights described in the *Copyright Act* (Canada), as amended from time to time, that are inherent to the Technology.



- 1.4 "Improvements" means any direct improvement, enhancement, alteration, extension, modification, derivative work or discovery, whether patentable or not, with respect to the Technology developed after execution of this Agreement.



- 1.6 "Invention" means "Modulation of calcium ion homeostasis in harvested transplantable hearts" and as further described in Schedule "A" attached hereto;



- 1.8 "Patents" means patent applications that have been filed to date, and patent applications hereafter to be filed relating to the Invention, and any and all patents which may hereafter be issued pursuant to said patent applications (including all divisions, continuations, reissues, re-examinations and extensions thereof and all related international priority rights) whether foreign or domestic relating to the Invention.
- 1.9 "Technical Information" means procedures, processes, trade secrets, methods, practices, techniques, information, bills of parts, diagrams, drawings, specifications, blueprints, scientific theorems, lists of materials, models, samples, manuals and data relating to the design, manufacture, production, inspection and testing of the Invention.

1.10 "Technology" means the combination of:

- (a) the Invention;
- (b) Copyright;
- (c) Technical Information; and
- (d) Patents.

ARTICLE 2 – ASSIGNMENT OF TECHNOLOGY TO FREED

- 2.1 The University hereby assigns to Freed the University's entire right, title and interest in and to the Technology which the University has, including any rights, title or interests in and to the Technology which have previously been assigned to the University by the Inventors, subject to the payment of Net Revenue in accordance with Article 4 hereof.
- 2.2 The University hereby requests that all Patents, Copyrights and/or trademarks, which may be issued for the Technology, are issued to Freed as the assignee, for the sole use of Freed to the end of the term for which said Patents, Copyrights and/or trademarks may be granted.
- 2.3 The Inventors acknowledge and agree that their entire right, title and interest in and to the Technology are hereby assigned to Freed, subject to the payment of the Net Revenue in accordance with Article 4 hereof.

ARTICLE 3 – FREED OBLIGATIONS

- 3.1 Freed shall have the exclusive responsibility for causing Patents, Copyrights and/or trademarks to be filed relating to the Technology, which in its sole discretion deems advisable.

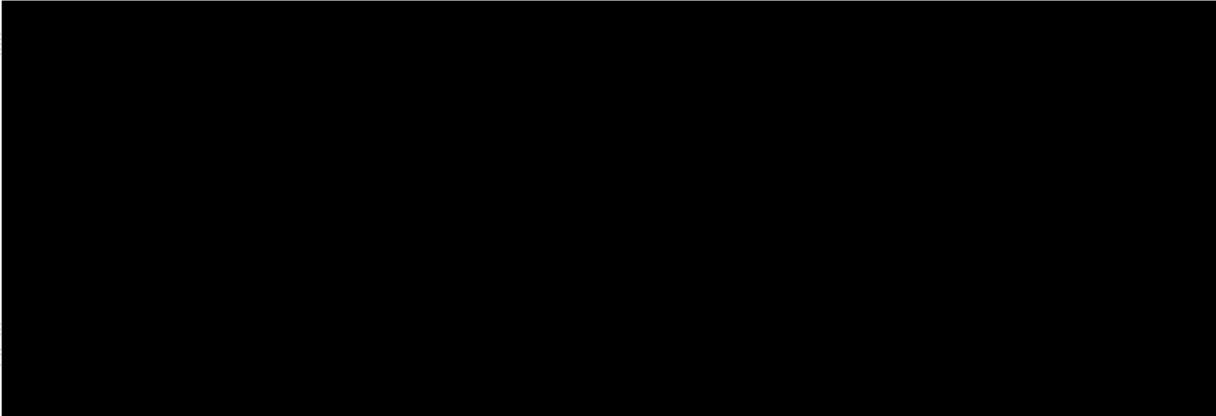


- 3.3 Freed will be responsible to undertake, as appropriate, one or more of the following activities with respect to the Technology without assistance from the University:
 - (a) prepare and negotiate non-disclosure, option, license, and other agreements in implementing the Technology transfer strategy;
 - (b) administer non-disclosure, option, license, and other such agreements; and
 - (c) provide financial accounting and reporting services for option, license, and other such agreements.

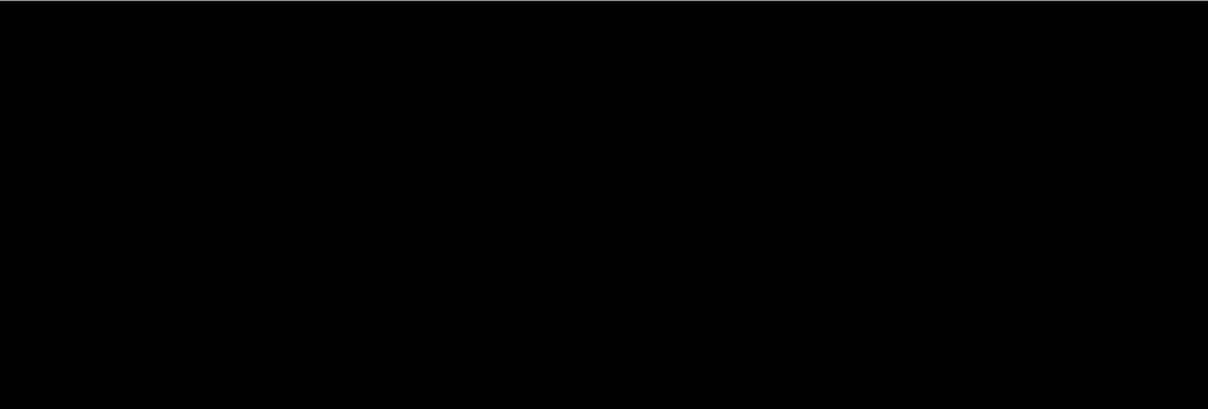
ARTICLE 4 - SHARING OF NET REVENUE AND REPORTING



ARTICLE 5 - REPRESENTATION AND WARRANTIES



ARTICLE 6 - IMPROVEMENTS



ARTICLE 7 - TERM AND TERMINATION

- 7.1 This Agreement shall have a term which extends from the Effective Date to the date of expiry of the last Patent included in the Technology, and in the event the Technology is not patented and/or is protected under the provisions of copyright or trademark law, the term shall be a period of twenty (20) years following the Effective Date.

ARTICLE 8 - NOTICE

- 8.1 Any notice, report or other communication which any party may desire to give to the other, may be hand delivered or sent by prepaid courier or registered mail, or by facsimile transmission to the respective addresses as set out below, or to such other address as one party hereto might subsequently advise the other:

If to Freed:

Darren Freed
5016 Donsdale Drive
Edmonton, AB, T6M 2V2

Email: darrenfreed@gmail.com

with a copy to:

O'Neill Moon Quedado LLP
425 University Avenue, Suite 301
Toronto, ON M5G 1T6
Attention: Gary Quedado, Partner

Email: gary.quedado@omqlaw.ca

If to the University:

The University of Manitoba
Technology Transfer Office
Room 631 Drake Centre
Winnipeg, Manitoba R3T 5V4
Telephone: (204) 474-6200
Fax: (204) 261-3475

with a copy to:

The University of Manitoba
207 Administration Building
Winnipeg, Manitoba R3T 2N2
Attention: Vice-President (Research and International)
Telephone: (204) 474-6915
Fax: (204) 474-7568

Any notice, report or other communication given shall be deemed to be received on the date of delivery by hand or by prepaid courier or by facsimile transmission as the case may be or on the fifth business day following the date of mailing.

ARTICLE 9 - GENERAL

- 9.1 Nothing in this Agreement shall be construed as releasing Freed from responsibility and liability arising from any act or omission of Freed with respect to the Technology.
- 9.2 This Agreement may be amended by the parties as they may from time to time mutually agree in writing.
- 9.3 This Agreement shall ensure to the benefit of the parties hereto and their respective successors and permitted assigns.
- 9.4 Preamble paragraphs "A" through "F" form part of this Agreement.
- 9.5 This Agreement contains the entire agreement between the University and Freed, and supersedes all prior agreements, negotiations, representations and proposals, written and oral, with respect to the subject matter herein.
- 9.6 This Agreement shall be interpreted and governed by the laws of Canada and the Province of Manitoba.
- 9.7 Each party to this Agreement represents and warrants to each other party that such party has read and fully understands the terms and provisions hereof, has had an opportunity to obtain independent legal advice, and has executed this Agreement based upon such party's own judgment and advice of independent legal counsel (if sought), or alternatively, has waived the right to obtain independent legal counsel.
- 9.8 The obligations of the Parties hereunder are joint and several.
- 9.9 If any provision of this Agreement is declared invalid, illegal or unenforceable by a court of competent jurisdiction, such provision shall be severed from this Agreement in its entirety and the remainder of the Agreement shall continue in full force and effect.
- 9.10 All rights and remedies of the University under this Agreement shall be cumulative. The rights, powers and remedies given to the University by this Agreement are in addition to, and not in lieu of, any other rights, powers and remedies which the University may have or acquire against Freed whether by the terms of any other agreement, by operation of law or otherwise. No waiver or condoning of a breach, default or non-observance by a party hereto shall operate as a waiver of any continuing or subsequent breach, default or non-observance hereunder.
- 9.11 This Agreement may not be assigned by Freed without the written consent of the University, which will not be unreasonably withheld.

- 9.12 This Agreement may be signed in any number of counterparts and by the parties on separate counterparts, each of which when signed shall constitute an original but all the counterparts shall together constitute but one and the same instrument. For the purposes of this clause, the delivery of a facsimile copy of a signed counterpart of this Agreement shall be deemed to be a valid signature thereof provided that the party so delivering a facsimile hereby undertakes to deliver an original copy of this Agreement forthwith following such facsimile transmission.

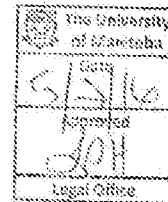
Freed and a duly authorized representative of the University have caused this Agreement to be executed as of the day and year first written above.

[remainder of page left intentionally blank; signature page follows]

THE UNIVERSITY OF MANITOBA

Per: _____

Darren Fast
Director, Technology Transfer Office



DARREN FREED

Per: _____

Darren Freed

We, the undersigned Inventors, acknowledge that we have read and understand this Assignment Agreement and agree to the terms and conditions set out herein.

CHRISTOPHER WHITE

Per: _____

Christopher White

LARRY HRYSHKO

Per: _____

Larry Hryshko

SCHEDULE "A" (updated)

The Invention and Technology

The following groups of patents or patent applications forms part of the Technology:

1) Modulation of calcium ion homeostasis in harvested transplantable hearts with the following International PCT Application serial number:

- a) PCT/CA2015/050297;
- b) Provisional number: 61/978132; and
- c) Provisional number: 62/068524.

2) Novel composition and solution with controlled calcium ion level, and related method and use for reperfusion with the following international PCT Application serial number:

- a) PCT/CA2015/051084.

SCHEDULE "A" (updated)

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DF

CW

AA