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**RESEARCH PROJECT AGREEMENT**

This Research Project Agreement (the "Agreement") is made and entered into in Montreal, Quebec, as of the 19<sup>th</sup> day of June, 2015 (the "Effective Date").

**BETWEEN:** **ORTHO REGENERATIVE TECHNOLOGIES INC.**, a company having its business place at 16 667 Hymus Blvd., Kirkland, Quebec, Canada H9H 4R9, represented herein by Steve Saviuk, President, duly authorized for the purpose hereof as he so declares;

(hereinafter referred to as "ORTHO RTT"),

**AND:** **CORPORATION DE L'ÉCOLE POLYTECHNIQUE DE MONTRÉAL**, a corporation duly constituted, having its business place on the Campus de l'Université de Montréal, 2900, boulevard Édouard-Montpetit, 2500 chemin de Polytechnique, Montréal (Québec) H3T 1J4, Canada, and its postal address being PO Box 6079 Station "Downtown", Montréal (Québec) H3C 3A7, Canada, represented herein by \_\_\_\_\_, its \_\_\_\_\_, duly authorized for the purposes hereof, as he so declares;

(hereinafter referred to as "POLYTECHNIQUE")

(hereinafter jointly referred to as the "Parties")

**AND TO WHICH INTERVENES:**

**POLYVALOR, SOCIÉTÉ EN COMMANDITE**, a limited partnership duly constituted under the laws of the Province of Quebec, having its principal place of business at 3535, Queen-Mary road, Suite 220, Montreal, Quebec, H3V 1H8, acting through its general partner **GESTION UNIVALOR, SOCIÉTÉ EN COMMANDITE**, a limited partnership duly constituted and having its principal place of business at the same address, itself acting by its general partner **UNIVALOR INC.**, a corporation duly constituted and having its head office at the same address, represented herein by Jacques Simoneau, President and Chief Executive Officer, duly authorized for the purposes hereof, as he so declares;

(hereinafter referred to as "POLYVALOR")

**RECITALS**

**WHEREAS** POLYTECHNIQUE, via its investigators Michael D. Buschmann, Caroline D. Hoemann and Daniel Veilleux (the "Inventors"), has developed a technology entitled "*DIV-518/VAL-1058 - Freeze-dried chitosan scaffolds that spontaneously form a hydrated micro-particle dispersion after contact with blood or blood-derived fluids and stimulate anabolic wound repair processes including angiogenesis, cell chemotaxis, tissue remodeling, and viscoelastic articular repair cartilage matrix deposition*" (the "Technology");

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**WHEREAS** the Inventors have assigned all their undivided rights, title and interests in and to the Technology to POLYTECHNIQUE;

**WHEREAS** POLYTECHNIQUE has assigned all its undivided rights, title and interests in and to the Technology to POLYVALOR, the commercialisation partner of POLYTECHNIQUE which is in charge of managing, granting and assigning intellectual property rights;

**WHEREAS** Ortho RTI currently seeks to develop and commercialize a range of products, processes and services in the areas of "*Polymer Devices (in the FDA sense of Device — that excludes Drug Delivery and Nucleic Acid Delivery Products) for Orthopaedic Tissue Repair (Meniscus, Cartilage, Bone, Ligaments) and intra-articular injections of platelet-rich plasma chitosan formulations*";

**WHEREAS** POLYVALOR has assigned all its rights, title and interests in and to the Technology to ORTHO RTI pursuant to the Intellectual Property Assignment and Technology Transfer Agreement entered into POLYVALOR and Ortho RTI concurrently with this Agreement and to which POLYTECHNIQUE intervened, a copy of which is attached hereto as **Appendix A** (the "Assignment Agreement");

**WHEREAS** the Parties have agreed to work jointly in a research project which will be devoted to the development of the Technology, as further detailed hereafter, and during which New R&D IP may be developed;

**WHEREAS** ORTHO RTI, as part of POLYVALOR's assignment to ORTHO RTI of the Assigned Intellectual Property (as defined hereinafter), has agreed to financially contribute to such research project for a total amount of **CND \$630,000** over a period of three (3) years in addition to its "IN-KIND" contribution;

**WHEREAS** POLYTECHNIQUE has agreed in the Assignment Agreement, to assign all its rights, titles and interests in and to the New R&D IP to POLYVALOR, which has also agreed to assign such rights, titles and interests to ORTHO RTI;

**NOW THEREFORE**, in consideration of the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the Parties agree as follows:

### **1**     **INTERPRETATION**

**1.1**     **Definitions.** The following terms used in this Agreement shall have the following meanings:

- a)     "**Additional Personnel**" shall mean any individual, including post-doctoral fellows, students and technical staff, who may be involved in the Project from time to time under the direct supervision of the Project Director.
- b)     "**Advisory Committee**" has the meaning ascribed to this term in the Assignment Agreement;
- c)     "**Assigned Intellectual Property**" has the meaning ascribed to this term in the Assignment Agreement;
- d)     "**Assignment Agreement**" has the meaning ascribed to this term in the Recitals;

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- e) **"Intellectual Property"** means any and all rights in inventions (whether patentable or not), scientific formulae, data, discovery, ideas, software, models, prototypes, specifications, patterns, drawings, algorithms, concepts, products, compositions, processes and protocols, methods, tests and improvements, machines, devices, and computer programs, and bacterial, viral, plant, human, or animal material that has new genetic or other characteristics first produced by a Party, and includes any and all patents, patents rights, patents application, copyright material, trade secrets, confidential information which embody, emulate or employ any of the foregoing;
- f) **"Inventors"** has the meaning ascribed to this term in the Recitals;
- g) **"Liabilities"** means any losses, damages, fines, costs, liabilities and expenses (including the reasonable fees, costs and expenses of attorneys and expert and court costs), to be paid further to a court order or settlement based on a claim for any civil, criminal, statutory or regulatory liability;
- h) **"New Patents"** shall mean all future patent applications covering, describing or claiming the New R&D IP, as well as any other patent applications related to those patent applications which may be filed around the world and any patent that is issued in connection with the aforementioned applications, including any requests for reissues, continuation applications, continuation-in-part applications, divisional applications, supplementary applications, extension requests, re-examination requests, reinstatement requests, reissues or any other combination of the above that may arise;
- i) **"New R&D IP"** shall mean, the New Technical Data, the New Patents and any Intellectual Property in any form whatsoever, whether of a commercial nature or not related to the Technology, created, invented or developed by, or under the direction of, the Project Director during this Agreement in performing the Project. The New R&D IP shall exclude the Research Tools;
- j) **"New Technical Data"** shall mean the technical data listed in **Appendix B** hereof that the Project Director intends to develop or obtain during this Agreement;
- k) **"Polytechnique Indemnified Parties"** has the meaning ascribed to this term in Article 14;
- l) **"Project"** has the meaning ascribed to this term in Article 2;
- m) **"Project Director"** has the meaning ascribed to this term in Section 3.1;
- n) **"Research Tools"** shall mean any readily available, commonly used or standard research tools, laboratory procedures, operating procedures, animal models, devices, processes or methods provided or developed by POLYTECHNIQUE under the direction of the Project Director during the Project;
- o) **"Technology"** has the meaning ascribed to this term in the Recitals;
- p) **"Term"** has the meaning ascribed to this term in Article 7.

1.2 **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws in force in the Province of Québec and the federal laws of Canada applicable therein, without regard to the principles of conflict of law. The Parties hereby elect to submit to the



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exclusive jurisdiction of the courts in the judicial district of Montreal, of the Province of Québec, in respect of any action or proceeding arising out of or related to this Agreement.

1.3 **Currency.** All dollar amounts referred to in this Agreement are in lawful money of Canada.

## 2 RESEARCH PROJECT

POLYTECHNIQUE, in collaboration with ORTHO RTI, agrees to perform the research project described in the attached Appendix C (hereinafter referred as the "Project").

## 3 SCOPE, DIRECTION AND SUPERVISION OF THE PROJECT

3.1 **Project Director.** The Project will be realized under the supervision of Professor Caroline D. Hoemann from the Department of Chemical Engineering, at POLYTECHNIQUE (hereinafter referred as the "Project Director"). ORTHO RTI, including its scientific consultants and the scientific and technical team of ORTHO RTI, will collaborate and provide feedback and assessments, in order to ensure that the Project's objectives, milestones and deliverables are successfully achieved.

3.2 **Deliverables.** POLYTECHNIQUE and the Project Director shall provide the deliverables identified in Appendix C attached hereto in accordance with the timing set forth in Appendix D.

3.3 **Progress Reports.** POLYTECHNIQUE and the Project Director shall make reasonable efforts to provide progress reports regarding the Project, at least, once every four (4) months.

3.4 **Final Report.** The final report regarding the Project will be provided to ORTHO RTI within sixty (60) days following the termination of the Project.

3.5 **Additional Personnel.** POLYTECHNIQUE and the Project Director shall ensure that any Additional Personnel engaged in the Project have, prior to the commencement of their participation in the Project, agreed to assign and assigned all their rights, titles and interests in and to the New R&D IP to POLYTECHNIQUE and have agreed to be bound by and to perform their obligations in accordance with this Agreement.

## 4 ORTHO RTI'S CONTRIBUTION AND BASIS OF PAYMENT

4.1 **Funding Budget.** For the performance of the Project, ORTHO RTI shall pay to POLYTECHNIQUE a cash contribution of Six Hundred Thirty Thousand Dollars (CND \$ 630,000.00), exclusive of applicable taxes, as further detailed in the funding budget attached hereto as Appendix E.

4.2 **Payment Period.** The amount stipulated in Section 4.1 shall be paid by ORTHO RTI to POLYTECHNIQUE over a period of three (3) years in thirty-six (36) monthly installments of Seventeen Thousand Five Hundred Dollars each (CND \$ 17,500.00), whereby ORTHO RTI shall, on the Effective Date, (i) pay to POLYTECHNIQUE the first instalment and (ii) provide to POLYTECHNIQUE two post-dated cheques for the second and third instalments.

4.3 **Invoice.** Except for the three first monthly installments, which are payable on the Effective Date of this Agreement, ORTHO RTI will issue payments to POLYTECHNIQUE within thirty (30) days following the submission of invoices by POLYTECHNIQUE.

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- 4.4 **Interests.** All amounts invoiced but not paid after that period will bear interest at a rate equivalent to the preferential rate of the Canada Bank plus three per cent (3%) per annum.

## 5 RESEARCH AND DEVELOPMENT (R&D) TAX CREDITS

- 5.1 **Fiscal Benefits.** ORTHO RTI agrees that the risks related to fiscal benefits, including those that depend on the interpretation of research activities and expenses by POLYTECHNIQUE or by ORTHO RTI, in the context of the Project, as research activities and expenses acceptable as scientific research and experimental development as defined by federal and provincial tax laws, are the sole responsibility of ORTHO RTI.

- 5.2 **No Guarantee.** POLYTECHNIQUE offers no guarantee, whatsoever, that:

- a) the activities executed in the context of the Project constitute scientific research and experimental development as per the *Loi sur l'impôt sur le revenu (Canada)* and the *Loi sur les impôts (Québec)*;
- b) the expenses by POLYTECHNIQUE or ORTHO RTI in the context of the Project will be scientific research and experimental development expenses as per the *Loi sur l'impôt sur le revenu (Canada)* and the *Loi sur les impôts (Québec)*, or that they will be deemed reasonable in the context of the aforementioned laws;
- c) ORTHO RTI will be awarded tax deductions or tax credits by the governments, federal or provincial, whatever the case.

## 5. EQUIPMENT

All materials and equipments acquired by POLYTECHNIQUE to realize the Project, including those acquired with ORTHO RTI's contribution pursuant to Section 4.1, shall remain the property of POLYTECHNIQUE.

## 6. INTELLECTUAL PROPERTY

- 6.1 **Disclosure by POLYTECHNIQUE.** Upon becoming aware of the development or creation of any New R&D IP, POLYTECHNIQUE shall promptly notify ORTHO RTI, POLYVALOR and the Advisory Committee, in confidence and in writing of the existence, nature and details of such New R&D IP.

- 6.2 **Assignment to POLYTECHNIQUE and POLYVALOR.** According to internal policies, the Project Director and the Additional Personnel will promptly assign in writing the New R&D IP to POLYTECHNIQUE, which will thereafter assign such New R&D IP to POLYVALOR.

- 6.3 **Ownership of the New R&D IP.** The Parties hereby acknowledge and agree that all rights, title and interests in and to the New R&D IP are owned by ORTHO RTI as of the Effective Date. Subject to ORTHO RTI's compliance with the terms and conditions set forth in this Agreement and in the Assignment Agreement, POLYVALOR agrees to assign, and does hereby assign to ORTHO RTI all of its rights, titles and interests in and to the New R&D IP upon the moment of its creation, conception or development. POLYVALOR, POLYTECHNIQUE and the Project Director shall provide such information, execute such documents and perform such acts as may be necessary or useful to ensure that all rights in the New R&D IP vest in ORTHO RTI at all times.



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- 6.4 **Licensed-back Rights.** Notwithstanding any other provision of this Agreement, and as set out in the Assignment Agreement, ORTHO RTI shall grant to POLYTECHNIQUE, the Project Director and the Additional Personnel a free and perpetual non-exclusive, non-commercial, non-sub-licensable, irrevocable, non-assignable license to use the New R&D IP for purposes of research and teaching only, but not for any commercial use whatsoever.
- 6.5 **Ownership of the Research Tools.** POLYTECHNIQUE and/or POLYVALOR are and shall remain the sole owner(s) of the Research Tools. ORTHO RTI acknowledges and agrees that, except for the limited license granted in Section 6.6 herein, it obtains no rights whatsoever on the Research Tools, the only assets acquired by ORTHO RTI in accordance with this Agreement being the New R&D IP.
- 6.6 **License on the Research Tools.** POLYTECHNIQUE and/or POLYVALOR hereby grants to ORTHO RTI, subject to third party rights, a personal, non-exclusive, non-transferable and non-commercial license to use the Research Tools solely for the purpose of performing the Project pursuant to this Agreement.

7. **TERM**

The Agreement shall commence on the Effective Date and shall continue for a period of three (3) years from the Effective Date, unless earlier terminated pursuant to the terms and conditions hereof (the "Term"). This Term of this Agreement may be extended if needed, upon written agreement of both Parties.

8. **DEFAULT AND TERMINATION**

- 8.1 **Breach.** In the event that either Party hereto shall commit any breach of or default in any of the terms or conditions of this Agreement, and also shall fail to remedy such default or breach within thirty (30) days after the receipt of a written notice thereof from the other Party, this Agreement may be terminated as of the date of the receipt of such notice.
- 8.2 **Bankruptcy.** Either Party may terminate this Agreement if the other Party makes a general assignment for the benefit of creditors or a proposal or arrangement under the *Bankruptcy and Insolvency Act* (Canada) or similar legislation, if a petition is filed against the other Party under the *Bankruptcy and Insolvency Act* (Canada) or similar legislation, if the other Party shall be declared or adjudicated bankrupt, if a liquidator, trustee in bankruptcy or any other officer with similar powers shall be appointed of or for the other Party or if the other Party shall commit an act of bankruptcy or shall propose a compromise or arrangement under the *Companies Creditors Arrangement Act* (Canada) or similar legislation or institute proceedings to be adjudged bankrupt or become insolvent or consent to the institution of such appointment or proceedings, or upon or after the institution by the other Party of any proceedings for the dissolution or winding-up of the corporation; and upon the exercise of such rights, this Agreement will terminate thirty (30) days after notice to that effect has been given by a Party to the other Party.
- 8.3 **No Failure.** No failure or delay of either Party to exercise its right of termination hereunder for any one or more defaults shall be construed to prejudice its rights of termination for each other or subsequent default.
- 8.4 **Orderly Termination.** In the event of termination of this Agreement during the Term, the Parties shall take all necessary steps to effect the orderly termination of the Project. In case of early

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termination of this Agreement, ORTHO RTI shall reimburse POLYTECHNIQUE for any non-cancellable commitments entered into by POLYTECHNIQUE prior to the date of termination in relation to the Project provided that POLYTECHNIQUE uses reasonable efforts to minimize the non-cancellable commitments incurred in relation to the Project. Salaries payable by POLYTECHNIQUE for the Project up to the date of such early termination shall be considered as non-cancellable commitments.

- 8.5 **Assignment Agreement.** Without limiting the applicability of the other provisions of the Assignment Agreement, upon termination of this Agreement or of the Assignment Agreement, Sections 6.2, 6.3, 6.4 and 6.5 of the Assignment Agreement shall apply, whereby the New R&D IP will immediately and automatically revert back and be assigned to POLYVALOR in consideration for a total nominal amount of \$ 1.00, with a full release by ORTHO RTI in favor of POLYVALOR, the whole without any additional formalities and requirements, ORTHO RTI accepting such assignment.
- 8.6 **Survival.** Articles 9, 10, 11, 12, 13 and 14 and Sections 1.1, 6.4, 8.5 and 8.6 shall survive the expiry or termination of this Agreement.

## 9. CONFIDENTIALITY

- 9.1. **Confidential Information.** The Parties may communicate to each other any information which can reasonably be considered to be confidential, proprietary or secret information, whether transmitted electronically, orally or in written form, relating to the Project, the Technology and the Assigned Intellectual Property (the “**Confidential Information**”). When such Confidential Information is communicated verbally, the party transmitting it shall confirm to the other party, in writing and within a reasonable time, the confidentiality of the Confidential Information. The absence of marking or legend indicating that the Confidential Information is to be treated as confidential shall not limit or diminish the obligation of any Party to treat such information as Confidential Information.
- 9.2. **Protective Measures.** Each Party undertakes to take all necessary measures to protect the confidentiality of the Confidential Information and to prevent any and all disclosure of Confidential Information other than the disclosure permitted pursuant to this Agreement. Any Person requesting access to the Confidential Information will be required to sign a confidentiality agreement suitably acceptable to the owner of the Confidential Information.
- 9.3. **Exceptions.** This obligation of confidentiality shall not apply to information:
- a) that is part of the public domain or publicly known without being in violation of the provisions of Article 9 hereof;
  - b) obtained from third parties who are not required to ensure the confidentiality thereof, to the extent that said information was not obtained in violation of the provisions of Article 9 hereof;
  - c) that must be disclosed by a Party to any public authority regulating securities or the stock exchange, to the extent necessary;
  - d) that must be disclosed by a Party as a result of any judicial or governmental decision ordering such Party to provide such information.



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- 9.4. **Required Disclosure.** Where the disclosure of the Confidential Information is required pursuant to paragraphs 9.3c) or d), each Party shall use all reasonable efforts to minimize the extent of such disclosure and to obtain an undertaking from the recipient to maintain the confidentiality of such Confidential Information.

## 10. PRESS RELEASES

- 10.1. **Consent.** A Party may not, directly or indirectly, without the prior written consent of the other Party, as appropriate, disclose the terms of this Agreement or use, resort to, infer, state the names and business names belonging to the other Party in any document, publication, advertisement, note and other documents destined to be publicly released, unless legally required to do so. In the latter case, such Party as appropriate, shall take all reasonable measures to notify the other Party in advance of the disclosure. Notwithstanding the foregoing, either Party may issue a press release concerning the Agreement concluded between the Parties and publish such press release on its website information and in its annual reports, provided that the press release does not disclose any specific regarding the Agreement's business terms.

- 10.2. **Party.** POLYVALOR shall be considered a Party for the purpose of this Article 10.

## 11. PUBLICATION

- 11.1. Subject to Sections 11.2 and 11.3, ORTHO RTI acknowledges that the results of the Project may be publishable, and that POLYTECHNIQUE encourage its researchers or students to publish the results of their research activities. Also, ORTHO RTI acknowledges that, as the case may be, some of POLYTECHNIQUE's students may wish to include some of the results in their memoir or thesis.
- 11.2. ORTHO RTI agrees that the Project Director and the Additional Personnel engaged in the Project shall be permitted to present at symposia or meetings, and to publish in journals, theses or dissertations, or otherwise, results of the Project or other information concerning the Technology ("**Proposed Publication**") in respect of the terms of this Agreement provided, however, that ORTHO RTI shall first receive a copy of any Proposed Publication, at least, forty five (45) days prior to the submission of such Proposed Publication. ORTHO RTI shall have thirty (30) days (the "**Objection Period**") after receipt of such copy, to object to such Proposed Publication because it includes or divulges some of its Confidential Information or some subject matter arising from the Project that ORTHO RTI wishes to prevent from public disclosure prior to seeking patent protection. In the absence of any response from ORTHO RTI within the aforementioned delay, the Proposed Publication will be deemed to have been approved by ORTHO RTI, provided that ORTHO RTI will not be liable for not having optimized the protection or value of New R&D IP for such deemed approval.
- 11.3. If the Proposed Publication contains ORTHO RTI's Confidential Information, or if it contains some subject matter or proprietary information arising from the Project or otherwise relating to the Technology which ORTHO RTI wishes to prevent from public disclosure in order to create, maintain or protect the commercial value of the Technology, ORTHO RTI may request that POLYTECHNIQUE remove from the Proposed Publication all concerned Confidential Information before publishing or presenting to the public the Proposed Publication. However, in no case, the removal of the concerned Confidential Information should affect the scientific value of the Proposed Publication. If the Proposed Publication contains some subject matter arising from the Project or the Technology that ORTHO RTI wishes to file a patent for, ORTHO RTI may request that the publication or presentation of the Proposed Publication be postponed for a

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maximum of three (3) months after the end of the Objection Period in order to file patent application(s) directed to the patentable subject matter contained in the Proposed Publication. In all cases, POLYTECHNIQUE and the Project Director shall use their best efforts to work with ORTHO RTI and the concerned Dean of Graduate Studies to ensure that any such delay does not interfere with a student's thesis/dissertation or the graduation of the student.

**12. REPRESENTATIONS AND WARRANTIES**

Each Party represents and warrants to the other Party that:

- 12.1. it is validly existing under the laws of its jurisdiction;
- 12.2. it has full right, power and authority to enter into this Agreement and to perform its obligations under this Agreement;
- 12.3. it is duly qualified to carry on business in all jurisdictions in which it possesses assets or conducts and carries on business, and it complies and has complied with laws in force on the date hereof to which the Party is subject and owns or has the right to use all governmental authorizations required to conduct its business as it is now being conducted and complies with said governmental authorizations;
- 12.4. it has taken all corporate action necessary to authorize its execution and delivery of, its performance of, its obligations under, and its consummation of the transactions contemplated by this Agreement and this Agreement has been executed and delivered by an officer of each Party in accordance with that authorization;
- 12.5. this Agreement has been duly executed by such Party and constitutes a legal, valid and binding obligation of such Party, enforceable in accordance with its terms subject only to applicable bankruptcy, reorganization, insolvency, moratorium, and similar applicable laws affecting creditors' rights generally and to general principles of equity; and
- 12.6. the execution of this Agreement, to the best of its knowledge, does not and will not conflict in any material respect with or constitute a material breach or material default under its organizational documents or under the terms and conditions of any documents, agreements, licenses or other writings to which it is a party.

**13. LIMITATION OF LIABILITY**

- 13.1. **No Warranties.** EXCEPT AS OTHERWISE EXPRESSLY SET OUT HEREIN, NEITHER PARTY MAKES ANY REPRESENTATIONS NOR EXTENDS ANY WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE REGARDING THE PROJECT, THE CONFIDENTIAL INFORMATION, THE NEW R&D IP, OR THAT THE PROJECT, THE CONFIDENTIAL INFORMATION, THE NEW R&D IP, WILL NOT INFRINGE UPON ANY INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, THE PARTIES RECOGNIZE THAT THE PRINCIPAL NATURE OF THE WORK TO BE PERFORMED UNDER THE PROJECT IS RESEARCH AND DEVELOPMENT AND THAT THERE IS THEREFORE NO GUARANTEE WITH RESPECT TO ITS OUTCOME.



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- 13.2. **Liability.** NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFIT, REVENUES, OPPORTUNITIES OR DATA, WHETHER DIRECT OR INDIRECT, EVEN IF SUCH PARTY HAS BEEN ADVISED OF OR SHOULD HAVE BEEN AWARE OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING LIMITATIONS AND DISCLAIMERS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO THE DAMAGE, LOSS, CLAIM OR LIABILITY, EVEN IF SUCH DAMAGE, LOSS, CLAIM OR LIABILITY IS BASED ON CONTRACT OR OTHERWISE.
- 13.3. **Force Majeure.** No Party shall be liable to any other Party or shall be in default of its obligations hereunder if such default is the result of war, hostilities, terrorist activity, revolution, civil commotion, strike, epidemic, fire, flood or because of any act of God or other cause beyond the reasonable control of the Party affected. The Party affected by such circumstances shall promptly notify the other Party in writing when such circumstances cause a delay or failure in performance and shall take whatever reasonable steps are necessary to relieve the effect of such cause as rapidly as reasonably possible. In the event of a delay lasting for four (4) weeks or more, the non-affected Party shall have the right to terminate this Agreement in accordance with Section 8.1 of this Agreement.
- 13.4. **POLYVALOR.** POLYVALOR shall be considered a Party for the purposes of this Article 13.

## 14. INDEMNIFICATION

ORTHO RTI shall hold harmless, indemnify and defend POLYTECHNIQUE, POLYVALOR, the Project Director and the Additional Personnel, together with their limited and general partners, directors, officers, employees, students, representatives and agents (the "Polytechnique Indemnified Parties") from and against any and all Liabilities arising out of or relating to (i) any breach or misstatement by ORTHO RTI of its representations, undertakings and warranties made in this Agreement; (ii) the use, practice, development, exploitation or commercialization of the New R&D IP, or any part thereof by ORTHO RTI or by any third party acting on behalf of or under authorization from ORTHO RTI or (iii) ORTHO RTI's negligence or wilful misconduct; provided that the foregoing shall not apply to the extent such Liabilities are due to the fault or negligence of any Polytechnique Indemnified Parties. Such indemnity shall include all reasonable costs and expenses, including legal costs of any settlement.

## 15. GENERAL

- 15.1. **Assignment.** Except as otherwise expressly set out herein, the Parties may not assign this Agreement or any right or obligation under this Agreement without the prior written consent of all Parties. Without limiting the generality of the foregoing, ORTHO RTI may assign this Agreement or any rights or obligations under this Agreement to any Affiliate, a purchaser of all or substantially all of ORTHO RTI's assets or shares, or to a successor in interest of ORTHO RTI, or as part of a corporate reorganization, consolidation or merger, without having obtained the prior written consent of POLYVALOR, provided that such Affiliate, purchaser or successor agrees to be bound by all the terms of this Agreement.
- 15.2. **Subcontract.** A Party shall not subcontract any work to be performed in connection with the Project without obtaining the prior express written consent of the other Party.
- 15.3. **Notices.** Any notice, consent or other communication under this Agreement shall be given in writing and delivered by hand or by bailiff or sent by fax, and addressed as follows:

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- a) if to ORTHO RTI:

16667 Hymus Boulevard  
Kirkland (Quebec) H9H 4R9  
Facsimile: (514) 240-4371

To the attention of: Steve Saviuk, President

- b) if to POLYTECHNIQUE

2900 Édouard-Montpetit Boulevard  
Montréal (Quebec) H3T 1J4  
Facsimile: (514) 340-5871;

To the attention of: Mr. Jean-Pierre Labelle, Director of the Office of research /  
Center for Technological Development – BRCDD.

- c) if to POLYVALOR

3535 Queen Mary Road, Suite 220  
Montreal (Quebec) H3V 1H8  
Facsimile: (514) 340-3204;

To the attention of: Jacques Simoneau, Chief Executive Officer

Such notice, consent or other communication will be deemed to have been given and received on the day it is actually delivered or sent (or if that day is not a business day, on the following business day), unless it is delivered or sent after 4:30 p.m., in which case it will be deemed to have been given and received on the next business day. A Party may, from time to time, designate another address in accordance with this Section 15.3.

- 15.4. **Amendment.** No amendment or variation to this Agreement shall operate to change or vary the terms, obligations or conditions hereof except upon mutual agreement by both Parties signed by an authorized representative of each Party.
- 15.5. **Relationship.** The relationship of POLYTECHNIQUE to ORTHO RTI is that of an independent contractor and nothing in this Agreement shall be construed as establishing an agency, partnership or employment relationship between the Parties.
- 15.6. **Severability.** If any provision of this Agreement is determined to be invalid or unenforceable by a court of competent jurisdiction in any jurisdiction, the remainder of the Agreement shall remain in full force and effect without said provision in said jurisdiction and such determination shall not affect the validity or enforceability of such Article or the Agreement in any other jurisdiction. The Parties shall in good faith negotiate a substitute clause for any provision declared invalid or unenforceable, which shall most nearly approximate the intent of the Parties in entering this Agreement.
- 15.7. **Headings.** The headings to Articles used in this Agreement are for convenience of reference only and shall not be used in interpreting or construing this Agreement.
- 15.8. **Cumulative Rights.** The rights of each Party under this Agreement are cumulative and no



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exercise or enforcement by a Party of any right or remedy hereunder shall preclude the exercise or enforcement by such Party of any other right or remedy hereunder or which such Party is otherwise entitled by law to enforce.

- 15.9. **Entire Agreement.** The Parties acknowledge that this Agreement, the Assignment Agreement and the Letter Agreement dated as of [] sets forth the entire agreement and understanding of the Parties as to the subject matter hereof, and supersedes all prior discussions, agreements and writings in respect hereto.
- 15.10. **Successors and Assigns.** This Agreement shall enure to the benefit of and be binding upon the Parties, and, to the extent applicable, their respective heirs, executors, administrators, successors, and permitted assigns.
- 15.11. **Counterparts.** This Agreement may be signed in any number of counterparts, each of which is deemed to be an original and all of which when taken together are deemed to constitute one and the same instrument. Each counterpart may be delivered by fax or email and a faxed or emailed copy is as effective as an original.

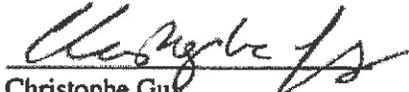
*[Signature Page To Follow]*

A handwritten signature in black ink, appearing to be a stylized name, located in the bottom right corner of the page.

EXECUTION COPY

IN WITNESS WHEREOF, the duly authorized officers of the Parties have executed this Agreement as of the Effective Date.

**CORPORATION DE L'ÉCOLE POLYTECHNIQUE DE MONTRÉAL**

By:   
Christophe Guy  
General Directorate LEO

**ORTHO REGENERATIVE TECHNOLOGIES INC.**

By: \_\_\_\_\_  
Steve Saviuk  
President

**INTERVENOR**

The undersigned, POLYVALOR, LIMITED PARTNERSHIP, having read this Agreement, hereby agrees to act in accordance with the terms and conditions contained in this Agreement.

**POLYVALOR, A LIMITED PARTNERSHIP,**  
acting through its general partner **Gestion Univalor,**  
a **limited partnership,** itself acting through  
its general partner **Univalor Inc.**

By: \_\_\_\_\_  
Jacques Simoneau  
President and Chief Executive Officer

EXECUTION COPY

IN WITNESS WHEREOF, the duly authorized officers of the Parties have executed this Agreement as of the Effective Date.

**CORPORATION DE L'ÉCOLE POLYTECHNIQUE DE MONTRÉAL**

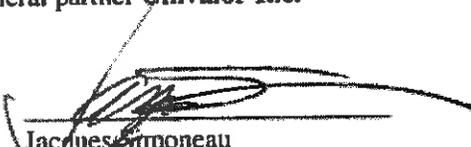
By: \_\_\_\_\_  
Name:  
Title:

**ORTHO REGENERATIVE TECHNOLOGIES INC.**  
By:   
Steve Saviuk  
President

**INTERVENOR**

The undersigned, POLYVALOR, LIMITED PARTNERSHIP, having read this Agreement, hereby agrees to act in accordance with the terms and conditions contained in this Agreement.

**POLYVALOR, A LIMITED PARTNERSHIP,**  
acting through its general partner Gestion Univalor,  
a limited partnership, itself acting through  
its general partner Univalor Inc.

By:   
Jacques Bernoneau  
President and Chief Executive Officer



EXECUTION COPY

**Acknowledgement of the Project Director**

I, the Project Director, having read this Agreement, hereby agree to act in accordance with all the terms and conditions herein and further agree to:

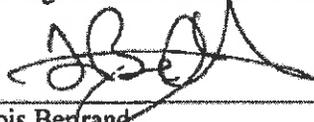
- 1.1 Ensure that all persons participating in the Project are informed of their obligations under such terms and conditions and take all reasonable measures to have them act accordingly;
- 1.2 Abide by the rules and responsibilities of the POLYTECHNIQUE's policies concerning the administration of research funds and intellectual property;
- 1.3 Ensure the confidentiality and security, if needed, of the New R&D IP;
- 1.4 obtain from all persons participating in the Project their prior written consent, waiver and agreement to automatically assign to POLYTECHNIQUE all their titles, rights and interests that they may have in and to the New R&D IP;
- 1.5 Disclose promptly to the BRCDT any New R&D IP that may constitute an invention, patentable or not, including software, or an improvement to the Technology, before any public disclosure.

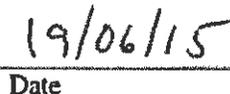
  
Caroline D. Hoemann

  
Date

**Acknowledgement of the Director of the Department**

I, Director of the Chemical engineering Department, having read this Agreement, hereby accept all its terms and conditions. I further agree to undertake all my responsibilities, pursuant to POLYTECHNIQUE's policy concerning the administration of the research funds.

  
François Bertrand  
Director

  
Date



EXECUTION COPY

APPENDIX A  
IP ASSIGNMENT AGREEMENT

See the attached document.

A handwritten signature in black ink, appearing to be 'P. A.', located in the bottom right corner of the page.

EXECUTION COPY

**APPENDIX B**  
**NEW TECHNICAL DATA**

See the attached document.



## NEW TECHNICAL DATA

### ***Viscosupplementation and Rotator Cuff Repair***

- Documented study protocols and associated results (including positive and negative results) for viscosupplementation, including use of an animal model to generate such results, using chitosan-based solutions / compositions which specifically apply to any of the following three technologies:
  - (VAL-782) A chitosan-based solution that is for mixing with platelet rich plasma (PRP) for tissue repair and includes an inorganic salt such as NaCl and a clot activator such as CaCl<sub>2</sub> ;
  - (VAL-1139) A freeze-dried chitosan that is for rehydration in platelet rich plasma (PRP) for tissue repair or intra-articular injections and includes a lyoprotectant such as trehalose and a clot activator such as CaCl<sub>2</sub> ;
  - (VAL-1058) A freeze-dried chitosan (positive and negative results) that is for rehydration in vivo in a tissue defect to produce a microparticle dispersion in situ for tissue repair.
  
- Documented study protocols and associated results (including positive and negative results) which apply to rotator cuff repair, including use of an animal model to generate such results, using the chitosan-based solutions / compositions which apply to any of the above noted three technologies.

### ***Manufacturing Processes***

- Documented manufacturing protocols and associated results (including positive and negative results), for the chitosan-based solutions / compositions which apply to any of the above noted three technologies.
  
- Documented Quality Control protocols and associated results (including positive and negative results) for the chitosan-based solutions / compositions which apply to any of the above noted three technologies.
  
- Documented study protocols and associated results (including positive and negative results) for upscaling the manufacturing protocols of the chitosan-based solutions / compositions which apply to any of the above noted three technologies, such as: results on optimization of parameters affecting stability / biological activity, and the like.

### ***Regulatory***

- Documented study protocols and associated results (including positive and negative results) of studies carried out to assess in vivo efficacy / safety / posology (dosage) of the chitosan-based solutions / compositions which apply to any of the above noted three technologies for meniscus repair.
  
- Documented study protocols and associated results (including positive and negative results) of studies carried out to assess in vivo efficacy / safety / posology (dosage) of the chitosan-based solutions / compositions which apply to any of the above noted three technologies for viscosupplementation.



- Documented study protocols and associated results (including positive and negative results) of studies carried out to assess in vivo efficacy / safety / posology (dosage) of the chitosan-based solutions / compositions which apply to any of the above noted three technologies for rotator cuff repair.

***Financed MD-60 Study***

- Recipes for freeze-dried cake composition which were reconstituted in autologous PRP for use in a meniscus repair model in sheep, and results generated in the sheep model using these compositions, namely results of: implant retention, menisci macroscopic / microscopic assessment, macroscopic and microscopic assessment of synovial pathology, electromechanical properties and macroscopic / microscopic assessment of articular cartilage surfaces, and biochemical content of meniscal and articular surface tissues.

EXECUTION COPY

APPENDIX C

PROJECT

**Cartilage Repair**

Years 1 and 2:

R&D (in collaboration with Buschmann Chitosan Production group, Dr. Bob McCormack, and Clinical Advisory Board)

1. FD-chitosan Formulation development for arthroscopic delivery: physical handling, microparticle formation in plasma, blood compatibility, innate immune response.
2. Identify the best packaging: freeze-dry in syringe, freeze-dry in vial and core with a hollow tool with an ejector.
3. Ex vivo studies with mock microfracture defects and delivery methods
4. Human Cadaver knee study to demonstrate delivery.

R&D (in collaboration with Mark Hurtig and Clinical Advisory Board)

5. Pilot sheep study : implant treat microfracture vs drilled (N=4 sheep, 6 month repair)
6. Pivotal sheep study with new formulation (N=8 sheep) vs previously optimized formulation (N=4 sheep): bilateral model: 1 knee is control marrow stimulation vs contralateral knee implant + marrow stimulation (9 months repair + 4 months for analyses).
7. Publish the above findings and present at international cartilage meetings

Manufacturing (in collaboration with Valeo and others)

1. Transfer to GMP and scale up to pre-commercial clinical trial scale

Clinical (in collaboration with Clinical Advisory Group)

1. Estimate and draft inclusion/exclusion criteria for human clinical use.
2. Identify surgeons for trial centers.
3. Design clinical trial partly based on outcome data in pivotal sheep study.
4. Examine the use of the special access program in Canada for initial clinical use

Regulatory (in collaboration with Valeo and others; in parallel with other FD-chitosan products as a family of devices)

1. Establish Design History file according to ISO13485
2. Europe : obtain regulatory route from BSI in UK
3. Canada : obtain regulatory route from Randy Stroud
4. US : obtain regulatory route from Janice Hogan <http://www.hoganlovells.com/janice-hogan/>

Year 3: activities to be determined by the end of Year 1



APPENDIX D

DELIVERABLES

- Finalize Study protocols and reports from a dose-dependent study of FD-chitosan in a sheep cartilage repair model (Study MD-48).
- Minutes from Design Input meetings
- Design Input documents
- Quarterly milestones.
- DVD or USB key containing all relevant technical file data: traceable raw data, photocopies of notebooks, sheep clinical records, certificates of characterization of the test articles for study MD-48.
- Design Control file initiation
- Study protocols and reports from all studies listed in Appendix B for this Project
- DVD or USB key containing all relevant technical file data: traceable raw data, photocopies of notebooks, sheep clinical records, certificates of characterization of the test articles for each study.



APPENDIX E

FUNDING BUDGET

- In reference to Section 4.1 of this Agreement, Ortho RTI shall pay to Polytechnique, for the performance of the Project, a cash contribution of \$630,000.00 (i.e. \$150,000.00 per year + 40% indirect costs for 3 years). The amount of \$150,000.00 per year can be detailed as follow: \$100,000 per year: for partial salaries towards all the personnel need to carry out the Project (Jessica Guzman, David Fong, Gaoping Chen, Charles-Hubert Lafantaisie, Genevieve Picard, Julie Tremblay, and others as needed);
- \$45,000 per year for materials and services (i.e., NMR/GPC analysis of chitosan, packaging, thromboelastography tests, BioPlex assays, cell culture assays, knee cadavers, rent surgery suite/lab space and arthroscopy equipment, histology supplies, chitosan fluorescent labeling, chemicals, plasticware, glassware, antibodies, ELISA kits, minor equipment maintenance, lab computer, printer cartridges, lab notebooks);
- \$5,000 per year for other fees (publication costs, travel to conferences to present Ortho RTI data, travel to clinics to perform cadaver delivery studies).

