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PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | | Execution Date |
|---|--|----------------|
| Virginia Polytechnic Institute and State University | | 10/22/2012 |

RECEIVING PARTY DATA

| Name: | Virginia Tech Intellectual Properties, Inc. | |
|-----------------|---|--|
| Street Address: | 2200 Kraft Drive, Suite 1050 | |
| City: | Blacksburg | |
| State/Country: | VIRGINIA | |
| Postal Code: | 24060 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13498657 |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: VTIP 10-025

NAME OF SUBMITTER: Mark S. Coburn

Total Attachments: 2

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PATENT REEL: 029223 FRAME: 0218 VTIP 10-025

Serial Number: 13/498,657

ASSIGNMENT

WHEREAS, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNOR), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at 301 Burruss Hall, Blacksburg, Virginia, 24061, is the owner of the entire right, title and interest in and to application for United States Letters Patent, filed on 3/28/2012 as Application Serial No. 13/498,657, in the name(s) of Paul Gatenholm, Henrik Backdahl, Theodore Jon Tzavaras, Rafael V. Davalos, Michael B. Sano for Three Dimensional Bioprinting of Biosynthetic Cellulose (BC) Implants and Scaffolds for Tissue Engineering and of the invention therein described; and

WHEREAS, Virginia Tech Intellectual Properties, Inc. (hereinafter referred to as ASSIGNEE), a non-stock corporation organized under the laws of the Commonwealth of Virginia and having a principal place of business at 2200 Kraft Drive, Suite 1050, Blacksburg, Virginia, 24060, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries and any non-provisional applications to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

PATENT REEL: 029223 FRAME: 0219 VTIP 10-025

Serial Number: 13/498,657

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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| | | | |
| $\mathbf{R}_{\mathbf{W}}$ | Martir | ı Daniel | |

Associate Vice President for Research Operations

County of Montgomery Commonwealth of Virginia

The foregoing instrument was acknowledged before me this <u>AA</u> by Martin Daniel, Associate Vice President for Research Operations for Virginia Polytechnic Institute and State University, a state agency of the Commonwealth of Virginia, on behalf of the agency.



Notary Public: Shelly 7. Key

Notary Registration Number: 7038286 My Commission Expires: 08/31/2014

> **PATENT** REEL: 029223 FRAME: 0220

RECORDED: 11/01/2012