

May 22-23, 2019

ITEM 183-1505-R0519

Request for Approval of Transfer of Intellectual Property Under MUSP 401; Montana Technological University

THAT

Pursuant to Board of Regents Policy 401: Research and Public Service, the Board of Regents of Higher Education authorizes the Montana Technological University (MTU) to transfer its intellectual property related to battery impedance monitoring methods, apparatuses, and software for use in real time monitoring of batteries and other electrochemical storage systems to Dynexus Technology, Inc. (a closely held corporation based in Boulder, CO) in accordance with the University's technology transfer mission.

EXPLANATION

Background

MTU faculty began conducting research in the general field of batteries and other electrochemical storage systems in the early 2000's. The first MTU patent from this research effort was filed in 2004. Several patents followed and in 2010, MTU began a long and productive collaboration with Battelle Energy Alliance, LLC (BEA), the Management and Operating Contractor of the Idaho National Laboratory (INL), that created an extensive intellectual property portfolio related to battery impedance monitoring methods, apparatuses, and software for use in real time monitoring of batteries and other electrochemical storage systems.

In order to maximize the commercial value of the joint intellectual property, and retain the right to receive its share of income from all commercialization efforts, MTU assigned its interest in the jointly owned patents and copyrighted software to BEA under Income Sharing Agreement No. 11-ISA-01 executed March 3, 2015. This agreement assigned rights to inventions and shares of licensing fees, royalties and/or other consideration resulting from future licensing of the jointly developed intellectual property. BEA assumed the lead in these commercialization efforts; and in December 2016, entered into an exclusive licensing agreement with Dynexus Technology, Inc. in all fields of use for the patent portfolio and copyrighted software to commercialize the impedance technology for analyzing and forecasting the health, aging and safety characteristics of advanced energy storage devices. This exclusive license generates a revenue stream for both BEA and MTU.

Proposed Transfer of MTU Intellectual Property

In order to reach its strategic commercialization goals, Dynexus seeks to solely own or control the complete IP portfolio (patents, trademarks, and copyrights) relating to the battery impedance measurement technology. The 2016 exclusive license agreement between BEA and Dynexus gives Dynexus control over the patent portfolio jointly developed by BEA and MTU and MTU copyrighted software. However, the March 2015 Income Sharing Agreement No. 11-ISA-01 between BEA and MTU did not include the following intellectual property, which when transferred to Dynexus, would give Dynexus control over the remaining related intellectual property:

Patents

- (a) "Method of Calibrating Impedance Measurements of a Battery", provisional patent application numbers US 62/331,730 and US 62/326,923.
- (b) "Method of Calibrating Impedance Measurements of a Battery", Patent No. 15/497,142. (Jointly owned

by MTU and Dynexus)

Trademarks

- (a) Mark: IMB
- (b) Mark: Impedance Measurement Box

Copyrights

- (a) the machine computer code contained in the computer readable memory of the Impedance Measurement Box 1 hardware system owned by MTU and referred to as the "Impedance Measurement Box Control"
- (b) the source computer code consisting of a list of human-readable instructions prepared and compiled to generate the machine computer code described above.
- (c) Software entitled "Generation 3, 50-Volt System Control Software"

Justification for the Transfer of MTU Copyrights to Dynexus.

MTU can justify the transfer of the MTU copyrights to Dynexus, based on the following:

1. The MTU copyrights and software have no other purpose or use that is not encompassed by the scope of the existing Dynexus patent properties and therefore the MTU copyrights have little if any value to any other party outside of Dynexus.
2. The entirety of any revenue stream accruing in MTU based on the MTU copyright properties is already based on the performance of Dynexus as the exclusive licensee of the MTU copyrights under a license agreement between Dynexus and BEA.
3. Dynexus owns all right, title and interest in and to all derivative works developed by Dynexus based upon the MTU copyrights.
4. MTU copyright properties encompass an immature prototype source code that will require development and validation efforts to become widely commercially viable in world markets. Dynexus desires to fund the software development in order to fully commercialize the MTU copyrighted source code, but will only make the substantial investment necessary if Dynexus owns the MTU copyright properties, otherwise there are compelling reasons for Dynexus to develop the entirety of the source code de novo, to avoid a divided ownership in the core software in MTU and ownership in Dynexus of the derivative software.

Accordingly, there is a strong justification for MTU to transfer the MTU copyrights to Dynexus to allow for further development of the MTU software and increase probability that the software will generate a revenue stream from which MTU will receive monetary consideration.

Justification for the Transfer of MTU Patents to Dynexus.

MTU can justify the transfer of the MTU patent properties to Dynexus, based on the following:

1. Dynexus already owns a 100% interest in and to U.S. Patent Application 15/497,142 titled "Method of Calibrating Impedance Measurements of a Battery" based on its current joint ownership with MTU;

however, Dynexus would have to name MTU and MTU would have to be co-plaintiff in any suit brought to enforce the patent rights granted thereon.

Accordingly, there is a strong justification for MTU to transfer the MTU patent properties to allow Dynexus to enforce the patent rights without naming MTU as a co-plaintiff in any suit or notice letter.

MTU Opportunity in the Transfer of MTU Patents and Copyright Properties.

There is a compelling opportunity for MTU in the transfer of the MTU patent and copyright properties under an Asset Sale and Purchase Agreement, as follows:

1. MTU will be paid US \$5000.00 on the Closing Date.
2. MTU will obtain shares in Dynexus valued at about US \$80,000.00 as of the Closing Date and have fractional ownership interest in Dynexus of about 0.45%.
3. MTU will obtain a four (4) year sponsorship of a graduate student funded by Dynexus at \$25,000.00 per calendar year under a standard Sponsored Research Agreement.
4. MTU will obtain a Laboratory and Instrumentation Use Agreement for a period of five (5) years under which Dynexus will pay an hourly rate for use of the laboratory and instrumentation.
5. MTU will pro rata share in the increased valuation of its shares with a payment pro rata based on shares of up to \$1,000,000.00 upon the sale of Dynexus to any third party.
6. MTU will retain an irrevocable, nonexclusive license to use the transferred IP for academic research, instructional, or any other academic or non-commercial purpose. Any future IP created at MTU will be subject to Dynexus' option to purchase or license.

BOR Approval of the Proposed Asset Sale and Purchase

Based on the foregoing, MTU believes there is a compelling opportunity for MTU in the proposed Asset Sale and Purchase which affords cash up front; preserves the asset value in the MTU patent and copyright properties; allows MTU to participate in the ownership of shares in Dynexus; sponsors graduate student education in a graduate student for four (4) years; pays hourly use of instrumentation in laboratory; allows for a downstream cash payment of up to \$1,000,000.00 upon the sale of Dynexus to a third party; and allows MTU continued use of the transferred intellectual property for academic research, instructional, or any other academic or non-commercial purpose in accordance with its academic mission.

Accordingly, MTU requests BOR approval of the proposed transfer of its intellectual property to Dynexus Technology, Inc.

ATTACHMENTS

None