

THE UNIVERSITY OF MICHIGAN  
REGENTS COMMUNICATION

ACTION REQUEST

Subject: Project Agreements with the University of Michigan

Action Requested: Authorization to enter into or amend Agreements

Preamble:

Statutory conflicts of interest situations were identified by the Office of Research and Sponsored Projects while reviewing Proposal Approval Forms that then triggered a review by the Medical School Conflict of Interest Board and/or the UMOR Conflict of Interest Review Committee. Plans for management of the possible risks associated with the conflicts of interest will be developed and approved by the Board and/or Committee and may require agreement by the parties involved at time of award.

These proposed project (e.g., research, sponsored activity, and/or subcontract) agreements (“Agreement”) and/or amendments to Agreements (“Amendments”) fall under the State of Michigan Conflict of Interest Statute because University of Michigan (“University”) employees have activities, relationships, or interests in the companies as described in Attachment A. The law permits such Agreements provided they are disclosed to the Board of Regents (“Regents”) of the University and approved in advance by a 2/3 vote.

Agreement Terms:

The terms of the Agreements and/or Amendments conform to University policy. The funding support will not exceed the amount reported in Attachment A for each Agreement and/or Amendment. Since projects are often amended, these Agreements and/or Amendments include provisions for changes in time and scope. University procedures for approval of these changes will be followed and additional conflict of interest review will be done as appropriate.

Impact of the Agreement:

The Agreements and/or Amendments will provide support of investigator’s effort to use their expertise and University laboratories, as well as other University resources, to execute the projects as reported in Attachment A.

Recommendations:

These matters have been reviewed and approved by the Medical School Conflict of Interest Board and/or the UMOR Conflict of Interest Review Committee. In light of this disclosure and our finding that the Agreements and Amendments were negotiated in conformance with standard University practices, I recommend that the Board of Regents approve the University’s entering into or amending the Agreements referenced in Attachment A.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Arthur Lupia". The signature is fluid and cursive, with the first name "Arthur" and last name "Lupia" clearly distinguishable.

Arthur Lupia  
Interim Vice President for Research and Innovation

December 2024

## Attachment A

### Project #1

<b>STTR Phase I Subcontract Agreement between the University and Fourth State LLC Reviewed by the UMOR Conflict of Interest Review Committee</b>	
<b><u>Project Information</u></b>	
<b>Title:</b> Controlling discharge power to multiple plasma applicators to scale up plasma processing of liquids	<b>U-M Project ID:</b> 25-PAF02711
<b>Direct Sponsor:</b> Fourth State LLC	<b>Prime Sponsor:</b> U.S. Department of Energy
<b>Principal Investigator/Department:</b> John Foster, Nuclear Engineering and Radiological Sciences	
<b>Project Duration:</b> One (1) Year	<b>Funding Support:</b> \$60,000
<b>Purpose:</b> The purpose of this project is to design and provide computational analysis of the plasma water reactor matching.	
<b><u>University Employee; University Title; Relationship with Fourth State LLC</u></b>	
<ul style="list-style-type: none"><li>• John Foster; Professor, Nuclear Engineering and Radiological Sciences; Partial Owner</li><li>• Joseph Groele; Intermittent Lecturer, Nuclear Engineering and Radiological Sciences; Partial Owner</li></ul>	

### Project #2

<b>STTR Phase I Subcontract Agreement between the University and h-Bar Instruments, LLC Reviewed by the UMOR Conflict of Interest Review Committee</b>	
<b><u>Project Information</u></b>	
<b>Title:</b> STTR Phase I: Cryo-Electron Microscopy of Biological Systems with Liquid Helium and Cryo-Transfer	<b>U-M Project ID:</b> 25-PAF02475
<b>Direct Sponsor:</b> h-Bar Instruments, LLC	<b>Prime Sponsor:</b> Department of Energy
<b>Principal Investigator/Department:</b> Robert Hovden, Materials Science and Engineering	
<b>Project Duration:</b> One (1) Year	<b>Funding Support:</b> \$115,000
<b>Purpose:</b> The purpose of this project is to produce ultra-cold cryo-TEM holders for biological applications, including adjustments for grid handling and minimizing ice contamination during transfer.	
<b><u>University Employee; University Title; Relationship with h-Bar Instruments, LLC</u></b>	
<ul style="list-style-type: none"><li>• Robert Hovden; Associate Professor, Materials Science and Engineering; Partial Owner</li></ul>	

### Project #3

<b>SBIR Phase I/II Subcontract Agreement between the University and Heat2Power Inc. Reviewed by the UMOR Conflict of Interest Review Committee</b>	
<b><u>Project Information</u></b>	
<b>Title:</b> Upscaling Air-Bridge Thermophotovoltaics for Thermal Batteries	<b>U-M Project ID:</b> 25-PAF02491
<b>Direct Sponsor:</b> Heat2Power Inc.	<b>Prime Sponsor:</b> National Science Foundation
<b>Principal Investigator/Department:</b> Stephen Forrest, Electrical Engineering and Computer Science – Electrical and Computer Engineering (EECS – ECE) Division	
<b>Project Duration:</b> Three (3) Years	<b>Funding Support:</b> \$300,000
<b>Purpose:</b> The purpose of this project is to work jointly on the design of the 1 kW panels that are the objective of Phase II based on the results of this Phase I workplan and validate the ability to produce a 50 kW, 1 m2 panel.	
<b><u>University Employee; University Title; Relationship with Heat2Power Inc.</u></b>	
<ul style="list-style-type: none"><li>● Stephen Forrest; Professor, EECS – ECE Division; Partial Owner</li><li>● Andrej Lenert; Associate Professor, Chemical Engineering; Partial Owner</li></ul>	

### Project #4

<b>Amendment to Research Agreement between the University and Tuebor Energy, Inc. Reviewed by the UMOR Conflict of Interest Review Committee</b>	
<b><u>Project Information</u></b>	
<b>Title:</b> Optimization and of Aramid Nanofiber Separators for Batteries Year 2	<b>U-M Project ID:</b> 25-PAF02083
<b>Direct Sponsor:</b> Tuebor Energy, Inc.	
<b>Principal Investigator/Department:</b> Nicholas Kotov, Chemical Engineering	
<b>Agreement Initially Approved by the Regents:</b> September 21, 2023	
<b>Original Project Duration:</b> Five (5) Months <b>Additional Time:</b> Eighteen (18) Months	<b>Initial Funding Support:</b> \$205,905 <b>Additional Funding Support:</b> \$342,671
<b>Purpose:</b> The purpose of this amendment is to add time and funds so that Dr. Kotov may continue to work on (1) the development of aramid nanofiber (ANF) materials for ion-selective membranes for batteries; (2) testing for conditions as specified by Tuebor Energy, Inc.; and (3) the development scalable manufacturing process for ANF-based separators.	
<b><u>University Employee; University Title; Relationship with Tuebor Energy, Inc.</u></b>	
<ul style="list-style-type: none"><li>● Nicholas Kotov; Professor, Chemical Engineering; Partial Owner</li></ul>	