

MINUTES OF THE MEETING OF
THE
MICHIGAN STATE UNIVERSITY
BOARD OF TRUSTEES

April 16, 2021

President Stanley called the meeting of the Board of Trustees to order at 8:00 a.m. via livestream.

Trustees present: Dianne Byrum, Melanie Foster, Dan Kelly, Renee Knake Jefferson, Pat O'Keefe, Brianna Scott, Kelly Tebay, and Rema Vassar.

University officers present: President Stanley; Provost and Executive Vice President Woodruff; Executive Vice President Woo; Vice President and General Counsel Quinn; Secretary Barr; Vice Presidents Bales, Beekman, Bollman, Gore, Guerrant, Haas, Heil, Swain, and Wilbur; and Interim Vice President Gage. Faculty liaisons present: Richard Fulton; Jennifer Johnson; Anna Pegler-Gordon.

All actions taken were by unanimous vote of the Trustees present, unless otherwise noted.

1. On a motion by Trustee Byrum, supported by Trustee Kelly, the **BOARD VOTED to approve** the proposed agenda.
2. On a motion by Trustee Scott, supported by Trustee Foster, the **BOARD VOTED to approve** the February 12, 2021 meeting minutes.
3. Public Participation
 - a. Jason Fitz – Swimming and Diving
 - b. Jennifer Farley – Swimming and Diving
 - c. David Zoltowski – Swimming and Diving
 - d. David McCaffree – Charles McCaffree and his legacy at MSU
 - e. Annette Ries – In person classes for Fall 2021
 - f. Selman Akbulut – Corruption at MSU
 - g. Danielle James – Release of the 6000 documents
 - h. Alexis Hampton – Release of the 6000 documents
 - i. Sydney Connors – AG Investigation
 - j. Mary McGinnis – Board decision to maintain attorney client privilege
 - k. Erica Thibodeau – Transparency
 - l. Tammy Borque – The effect of MSU on survivors
 - m. Sandy Smith – MSU student impact on the community
 - n. Henry McCoy – MSU Divestment Campaign–protesting the rejection of ASMSU Bill 57-44

- o. Alexander Aaring – Transparency in University Decisions
- p. Kevin Bird – Transparency in University Decisions
- q. Michael Balow – State of recreational facilities at MSU
- r. Amanda Ling – NCAA Championship experience

4. President's Report

President Stanley provided the following report to the Board:

I want to thank all of those who spoke today and appreciate the difficulty that it may have presented. Thank you so much for your courage and coming forward. I will start my remarks today with our graduation season and an update on the COVID-19 outbreak. Then I want to turn to our planning for fall semester and university updates.

It has been a busy, challenging year and it is hard to believe that in just two weeks we will celebrate the graduation of MSU's undergraduate and graduate degree-earners. This year, more than 8,400 Spartans will carry their degrees, knowledge, and drive into the world. We are so pleased that we are able to offer in-person graduation for the class of 2021. We will do it by holding more than 50 smaller ceremonies held outside, rain or shine, for undergraduates, graduate professional students, and a limited number of family members. We will require masks, as we do in our campus compact, and our seating will enable social distancing.

We were pleased to receive vaccines to distribute to students over the past week, including our international students. By the end of today we expect to have vaccinated more than 2,800 students at the Pavilion, with 3,500 new appointments available next week. I had a chance to speak with several students on Tuesday at the vaccination site, and they were as happy about the opportunity as we were to offer it. I want to thank the Ingham County Health Department, which very quickly supplied us with Pfizer vaccines to substitute for Johnson & Johnson doses. This allowed us to honor all appointments students made despite pausing the J&J vaccine following public health official's guidance. We hope to receive more vaccines from our health department partners so we can continue this important work. While MSU is one source of distribution, we have encouraged students to register with as many vaccine providers as possible. Student vaccine numbers to date are welcome news. When combined with the fact that more than 80 percent of our undergraduate and graduate students say they intend to get a COVID-19 vaccine, we are moving closer to a more typical fall semester and I look forward to seeing more students on campus. Beyond health concerns, the pandemic has had a severe financial impact on many families and students who have been unable to work. Last Friday, the Office of Financial Aid completed awarding \$15 million to help 14,118 students with grants earmarked from the federal government's Higher Education Emergency Relief Fund II program.

As I said before, I'm excited about fall semester as we look forward to a more typical campus experience, including student activities and athletics. We are planning nearly all courses to be held in-person but will continue online offering for large lectures. Students say they like the online flexibility, particularly with asynchronous courses, which also can help accommodate things like internships and work schedules. First year students will be back with us living on campus, with as many others as we can safely accommodate. We are pleased with the demand we have seen; it is clear that our students value and miss campus living. Dining will be open with available seating, as allowed by public health department rules. And it will be great to see the return of more in-person activities. Plans for Fall Welcome events are in the works, and many campus events could offer both in-person and remote access components. More than 800 student organizations have registered for the year so far, and those activities will continue to enrich the MSU experience. MSU Athletics is planning for fall events with spectators to the degree allowed by state requirements and guidelines in place at the time. Wharton Center and Broad Art Museum also are planning performances or events. We expect testing and other precautions to continue at some level, and all of us will need to adhere to these policies and engage in the actions and behaviors that have kept us safe and healthy. And as mentioned before, I encourage students, faculty, and staff to get vaccinated as soon as you can. This is the key to a safe and successful fall. Something new next academic year will be a two-day fall break we're piloting on Monday and Tuesday, October 25 and 26. Students asked for a fall break and I am pleased it is now part of next fall's general academic calendar.

I want to note several important university updates. As we move the university forward in this and other strategic ways, I am looking forward to, contingent on your approval today, working with Lisa Frace as Senior Vice President and Chief Financial Officer. She is a transformative leader in higher education and finance with 15-plus years at tier-one research universities. She brings experience improving administrative functions, and she is a champion for professional development with a focus on diverse viewpoints and voices. Lisa will manage our financial progress, develop a long-range financial plan and help ensure institutional resources are used effectively.

As you know, Pride Month is celebrated at MSU in April, and I had a chance to greet students on Sunday at the annual Lavender Reception hosted by the Resource Center for graduates and members of MSU's LGBTQA+ community.

And this afternoon, I will welcome attendees at a conversation with 2020 National Book Award winner Charles Yu as part of APIDA Heritage Month on MSU's campus.

I would like to share a few updates on key partnerships. MSU has some new, important collaborations I want to briefly discuss. First, we learned recently how

much MSU's Grand Rapids Medical Mile facilities, the Secchia Center, the MSU Grand Rapids Research Center, and the Doug Meijer Medical Innovation Building and Perrigo's North American headquarters, both under construction, will contribute to that region's economy. A new study estimated the annual direct economic activity related to the four buildings at \$203 million and an annual economic impact of \$339 million overall, support for 2,017 jobs and yearly earnings increases of \$142 million. The report also noted the catalytic effect MSU's Research Center has on that region's scientific ecosystem, complementing other organizations and attracting top researchers and funding opportunities. Research spinoffs also are anticipated to generate new businesses by taking advantage of scientific innovation. This is a powerful quantification of MSU's partnership with the Grand Rapids medical and business communities, which started with the expansion of our College of Human Medicine in the new Secchia Center in 2010.

We have some student-focused collaborations I want to mention, also. I recently joined approximately 40 U.S. College and University leaders on the Task Force on Higher Education and Opportunity to support innovative approaches to issues in higher education. The task force was formed to address post-COVID-19 challenges facing higher education across the country. MSU's initial contribution to the effort is the My Spartan Story program, which will allow students to document their co-curricular activities to give a fuller representation of their experience. Many MSU students transfer here from other colleges, and Lansing Community College (LCC) sends more students to us than any other. We continue to work toward improving the experience for those students through a new agreement with LCC. MSU will provide two dedicated academic advisers to LCC once a week and pursue other ways to improve the transfer process.

I have several new rankings and recognitions to report. U.S. News and World Report ranked five MSU graduate programs first in the nation, with several others appearing in the Top 20. For the 27th consecutive year, MSU's College of Education ranked number one for elementary and secondary education. The College also ranked number one in Curriculum and Instruction and in Rehabilitation Counseling, and for the first time, added a number one ranking for Educational Administration. The Eli Broad College of Business' Supply Chain Management graduate program also maintained its top ranking. And speaking of rankings, MSU's College of Communications Arts and Sciences' Game Design and Development program was ranked first in the nation by the Princeton Review. Another winner in the media space is WKAR, which was named Michigan Public Television Station of the Year by the Michigan Association of Broadcasters. It also won several other radio and television awards, including nine Best in Category awards. This year marks the ninth time in 10 years WKAR has been named Public TV Station of the Year. Meanwhile, our student-run radio and media organization, Impact 89FM, won the 2021 College Radio Station of the Year award. This is Impact 89FM's seventeenth time winning the award.

There are many important recognitions for Spartan students, as well. The Goldwater Scholarship is one of the most competitive and prestigious undergraduate scholarships available to students in science, mathematics or engineering. Two Spartans are 2021 Goldwater Scholars. Congratulations to Charles Hultquist, an Honors College junior majoring in Physics and Advanced Mathematics in the College of Natural Science; and Andrew McDonald, an Honors College junior majoring in Computer Science in the College of Engineering; also, in Statistics and Advanced Mathematics in the College of Natural Science. For the seventh consecutive year, MSU was named a top producer of both Fulbright Scholars and Fulbright Students in the U.S. These programs support academic exchanges with over 150 countries. MSU is one of only 17 institutions to receive both recognitions this year. Eleven MSU students and 10 scholars received Fulbright awards. As we announced this week, an MSU student has been named a Truman Scholar. Gregory Marchal is an Honors College junior majoring in Economics in the College of Social Science. The Truman Scholarship recognizes college juniors with exceptional leadership potential who are committed to affecting change through public service. Congratulations to all of our scholarship award winners.

And with that, I'll conclude my remarks.

5. Gifts, Grants, and Contract Report

Interim Vice President Gage presented the Gifts, Grants, and Contracts Report for the period of January 16, 2021 through March 19, 2021. The report is a compilation of 479 Gifts, Grants and Contracts plus 40 Consignment/Non-Cash Gifts, with a total value of \$132,289,862.

Trustee Scott **moved to approve** the recommendation, with support from Trustee O'Keefe.

THE BOARD VOTED TO APPROVE the recommendation.

6. Research Presentation

Interim Vice President Gage introduced Sneha Banerjee, an Electrical Engineering Ph.D. Student, who gave a presentation entitled, "Modeling Nanoscale Electrical Contracts". (Appendix A)

7. Personnel Actions

Provost Woodruff presented the following personnel actions.

Lisa A. Face, MBA - AN, Senior Vice President and Chief Financial Officer, Office of the Vice President for Finance, effective May 10, 2021.

Tanya E. Hartman, MFA - AN, Professor, Department of Art, Art History, and Design, College of Arts and Letters, with tenure, effective July 15, 2021.

Karthikeyan Namasivayam, Ph.D. - AN, John & Becky Duffey Endowed Professor, School of Hospitality Business, The Eli Broad College of Business, with tenure, effective, August 16, 2021.

Christopher P. Long, Ph.D. - AN, Dean, College of Arts and Letters, for an additional title of Dean, Honors College, effective July 1, 2021.

Quentin R. Tyler, Ph.D. - AN, Associate Professor, fixed term, for a change in status to with tenure, Associate Professor, Department of Community Sustainability, College of Agriculture and Natural Resources, effective May 1, 2021.

Trustee Foster **moved to approve** the recommendations with support from Trustee Byrum.

Trustee O’Keefe voted no, noting his opposition to the appointment of Lisa Frace.

THE BOARD VOTED TO APPROVE the recommendations.

8. Committee on Budget and Finance

Trustee Foster presented the Trustee Budget and Finance Committee Report and the following recommendation and resolution.

A. Long-Term Lease—Apple Developer Academy

The Trustee Committee on Budget and Finance recommends that the Board of Trustees authorize the Administration to enter into a lease of space in the City of Detroit and to complete tenant improvements in the leased space for purposes of establishing and operating an Apple Developer Academy.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to negotiate and execute a lease for space in the City of Detroit for the purposes of establishing and operating an Apple Developer Academy, for a term that may exceed 10 years, and upon such other terms and conditions as may be acceptable to the President or his designee; and

BE IT FURTHER RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with leasehold

improvements and to procure and install equipment, furnishings and technology for the facility.

Trustee **Foster moved to approve** the recommendation, supported by Trustee Byrum.

THE BOARD VOTED to approve the recommendation.

Trustee Foster noted that the Committee also reviewed the Fiscal Year '22 Budget Recommendations and received updates on the Student Information System and Multicultural Center.

9. Committee on Academic Affairs

Trustee Byrum presented the Trustee Academic Affairs Committee Report and the following recommendations and resolutions.

A. Amendments to Bylaws for Academic Governance

The Trustee Committee on Academic Affairs recommends that the Board of Trustees approve amendments to the Bylaws for Academic Governance.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves the amendments to the Bylaws for Academic Governance included as attachment A, regarding special meetings and representation on the University Committee on Undergraduate Education. (Appendix B)

Trustee Byrum **moved to approve** the recommendation, supported by Trustee Kelly.

THE BOARD VOTED to approve the recommendation.

B. Amendment to Student Rights and Responsibilities

The Trustee Committee on Academic Affairs recommends that the Board of Trustees approve an amendment to the Student Rights and Responsibilities document to update the definition of "student."

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves an amendment to the Student Rights and Responsibilities document to update the definition of "student," as reflected in Attachment A. (Appendix C)

Trustee Byrum **moved to approve** the recommendation, supported by Trustee O'Keefe.

THE BOARD VOTED to approve the recommendation.

C. Naming Proposal: College of Engineering Student Activities Building

The Trustee Committee on Academic Affairs recommends that the Board of Trustees approve naming the College of Engineering Student Activities Center the William A. Demmer Engineering Center.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves naming the College of Engineering Student Activities Center the William A. Demmer Engineering Center.

Trustee Byrum **moved to approve** the recommendation, supported by Trustee Foster.

THE BOARD VOTED to approve the recommendation.

10. Committee on Audit, Risk, and Compliance

Trustee Kelly presented the Trustee Audit, Risk, and Compliance Committee Report and the following recommendations and resolutions.

A. Approval of Contract Terms

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and Advertent Biotherapeutics, Inc., a Michigan corporation, in which MSU faculty member Dr. Erik Martinez-Hackert holds a financial interest.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves an option agreement with Advertent Biotherapeutics, Inc., consistent with earlier public notice and with an "Option Agreement Term Sheet" presented to the Board for inclusion in its minutes. (Appendix D)

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and West Central Michigan Horticultural Research, Inc., a Michigan non-profit corporation, on which MSU faculty member Dr. Douglas Buhler serves as a board member.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves a license agreement with West Central Michigan Horticultural Research, Inc., consistent with earlier public notice and with a "License Agreement Term Sheet" presented to the Board for inclusion in its minutes. (Appendix E)

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and Iaso Therapeutics, Inc., a Michigan corporation, in which MSU faculty member Dr. Xuefei Huang holds a financial interest.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves a service agreement with Iaso Therapeutics, Inc., consistent with earlier public notice and with a “Services Agreement Term Sheet” presented to the Board for inclusion in its minutes. (Appendix F)

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and STEP for Success LLC, a Michigan company, in which MSU faculty member Dr. Connie Sung, an Associate Professor in the Department of Counseling, Educational Psychology and Special Education holds a financial interest.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves a license agreement with STEP for Success LLC, consistent with earlier public notice and with a “License Agreement Term Sheet” presented to the Board for inclusion in its minutes. (Appendix G)

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and RedoxBlox, Inc., a Delaware corporation, in which MSU faculty members Dr. James Klausner, Professor in the College of Engineering, Joerg Petrasch, Associate Professor in the College of Engineering, Kelvin Randhir, Research Associate in the College of Engineering, Nima Rahmatian, Research Associate in the College of Engineering, and Alessandro Bo, a doctoral student in the College of Engineering, and members of their families have, or have options to buy, an interest in the company or are officers or paid employees of the company.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves an option agreement with RedoxBlox, Inc., consistent with earlier public notice and with a “Option Agreement Term Sheet” presented to the Board for inclusion in its minutes. (Appendix H)

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and National Pesticide Safety Education Center, a company in which MSU employee Tom Smith holds an interest.

BE IT RESOLVED, that the Board of Trustees of Michigan State University

hereby approves a service agreement with National Pesticide Safety Education Center consistent with earlier public notice given at a Board meeting and with a “Service Agreement Term Sheet” presented to the Board for inclusion in its minutes. (Appendix I)

The Trustee Committee on Audit, Risk and Compliance recommends that the Board of Trustees approve a contract between Michigan State University and Great Lakes Crystal Technologies, Inc., a Michigan corporation, in which MSU faculty member Dr. Timothy Grotjohn holds a financial interest.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves a service agreement with Great Lakes Crystal Technologies, Inc., consistent with earlier public notice and a “Service Agreement Term Sheet” presented to the Board for inclusion in its minutes. (Appendix J)

Trustee Kelly **moved to approve** the recommendations, with support from Trustee Tebay.

THE BOARD VOTED to approve the recommendations.

B. Notice of Intent to Negotiate Contracts

Pursuant to State law, the Chair of the Trustee Committee on Audit, Risk and Compliance is requested to give public notice of the University’s intent to negotiate contracts with Nordish LLC, a Wisconsin limited liability company. Dr. Roozbeh Dargazany, Associate Professor of Civil & Environmental Engineering, College of Engineering owns or has options to buy an ownership interest of more than one percent of the company.

Pursuant to State law, the Chair of the Trustee Committee on Audit, Risk and Compliance is requested to give public notice of the University’s intent to negotiate contracts with Nimble Acoustics Inc., a Michigan company. Dr. Mi Zhang, Associate Professor of Electrical and Computer Engineering, College of Engineering owns or has options to buy an ownership interest of more than one percent of the company.

Pursuant to State law, the Chair of the Trustee Committee on Audit, Risk and Compliance is requested to give public notice of the University’s intent to negotiate contracts with Polyplastic Technologies LLC, a Michigan company. Dr. Muhammad Rabnawaz, Assistant Professor of Packaging, College of Agriculture and Natural Resources owns or has options to buy an ownership interest of more than one percent in the company.

11. Committee on Student Life and Culture

Trustee Scott presented Student Life and Culture Committee Report. The Committee on Student Life and Culture discussed Sensory Rooms for Athletics facilities with Athletic Director Beekman and Senior Vice President Gore, and received an update on the Counseling and Mental Health Services Fund.

We are pleased to report that the most recent updates to the fund have all been implemented, including the addition of an online fillable form. Additional information regarding the updates can be found by visiting the Our Commitment website.

12. Chairperson's Report and Trustees' Comments

Chairperson Byrum acknowledged and thanked those who spoke during the public participation portion of the meeting. She presented the list of 133 Board of Trustees Scholarship Recipients for Spring Semester 2021. Chairperson Byrum noted that commencement will be celebrated with in-person ceremonies with President Stanley, the Provost, and Trustees participating. She stated that she had the opportunity to virtually attend the Black Faculty and Staff Administrator's Association (BFSAA) Historical and Emerging Leader's Recognition Reception and noted that Trustees Tebay and Scott, Board Secretary Barr, President Stanley, and several Deans and administrators also attended. Chairperson Byrum congratulated the 2020 and 2021 BSFAA reward recipients. She wished ASMSU President Abii-Tah Bih well and welcomed new ASMSU President Georgia Frost. Chairperson Byrum acknowledged the passing of Trustee Emerita Barbara Sawyer-Koch and expressed her condolences to the Sawyer-Koch Family.

Vice Chairperson Kelly welcomed Lisa Frace. He acknowledged that he stands by the decision to cut the Swim and Dive Team but is frustrated with how that decision was communicated. Vice Chairperson Kelly said that with regards to the attorney client privilege, he views the privilege as an important aspect of receiving legal advice and stands by his decision to keep the documents private.

Trustee Foster welcomed Lisa Frace in the inaugural role of Chief Financial Officer at MSU. She gave her condolences to the Sawyer-Koch family and noted that she had the honor of serving with Barbara for two years on the Board. Trustee Foster congratulated graduates and remarked that she looked forward to attending ceremonies for the class of 2021 and hopes that the class of 2020 can be recognized. She congratulated the 133 Board of Trustee Scholarship recipients and wished them well with their future.

Trustee Knake Jefferson welcomed Lisa Frace as CFO and noted that the trustees were part of the search process. She thanked everyone who spoke during public comment and noted that she agreed with Vice Chairperson Kelly regarding the poor communication of the end of the swimming and diving program. Trustee Knake Jefferson said that she wanted to turn to the survivors who spoke today, and to everyone who has sent in the many emails about the Nassar documents.

She said that she hears and is listening. She noted that she has reviewed the documents but said that she will not go into detail about that now, because she did so at the December 2020 board meeting and her statement about her reasons for reviewing the documents, why it took so long, what she found, and recommendations based upon my review is publicly available on the Board of Trustees website as part of the meeting minutes and her personal website. Trustee Knake Jefferson said that she stands by those comments, including her recommendation for an independent review. She also stated that when she accepted her appointment to the Board in December 2019, she knew she was joining amidst disagreement about this matter. She noted that she is one of eight and does not govern alone. Trustee Knake Jefferson said that she agrees with survivors that her review of the documents may not be what some, maybe all, need in their individual healing processes. She stated that she agrees with the Attorney General that her review is not a replacement for her office's work but, it is what she believes was necessary to fulfill her obligations as a trustee in the context in which she joined the Board. Trustee Knake Jefferson said that her review of the documents informs the calls for reform she has made and will continue to pursue. She said that relationship violence and sexual misconduct remain pervasive on this campus, documented recently in a 2019 survey. Trustee Knake Jefferson said that we have a lot of work to do to improve the policies and the culture to address this. She said that she appreciates Provost Woodruff's dedication to these efforts, and that everyone can expect to hear more about this in the coming months.

Trustee O'Keefe welcomed Lisa Frace. He stated that he supported Trustee Kelly's comments on the response to the AG Investigation. He noted that Trustees Knake Jefferson and Tebay have been champions of reform in regards to sexual misconduct on campus and while there is still work to be done, they are advocates of making sure that reform happens sooner rather than later. Trustee O'Keefe thanked those who spoke on behalf the Swim and Dive team for their passion and persistence and encouraged further meetings to discuss the issue.

Trustee Scott welcomed Lisa Frace and noted that she believes she is an excellent candidate for the position. She extended her condolences to the Sawyer-Koch family. Trustee Scott thanked those who spoke in the public participation portion of the meeting, especially the Swimming and Diving representatives. She noted her frustration with the communication of the decision and advocated for further discussion on the matter. Trustee Scott congratulated the Spring 2021 scholarship award recipients and graduates. She welcomed the new ASMSU President Georgia Frost and extended her gratitude to Abii-Tah Bih. Trustee Scott responded to public speaker Erica Thibodeau's comments by indicating that her disagreement with an independent investigation company was due to their bestowing a Halloween award to an employee in blackface. Trustee Scott said that her position has been that there is no need for an independent investigation if the 6,000 plus privileged documents are to remain private. She said that she continues to work on leveling the playing field in her community of

Muskegon for diversity and inclusion. She noted that she stands by the decisions she has made and welcomes discussions concerning the independent investigation via email. Trustee Scott acknowledged the black faculty, staff, and administrators celebrated at the BFSAA Reception and congratulated them on their accomplishments.

Trustee Tebay thanked the student liaisons to the Board who addressed tuition increases and their concerns for raising housing and dining rates. She reminded those who are attending in-person graduation ceremonies to wear a mask. Trustee Tebay indicated the importance of acknowledging the mental health of students this fall and her support for further discussion on matters regarding the Swim and Dive team. Trustee Tebay stated that she stands with survivors and is working hard to prevent future occurrences of sexual misconduct and relationship violence.

Trustee Vassar acknowledged the pain Trustee Tebay is experiencing and apologized that she must relive it with the survivors. She thanked Ms. Banerjee for her presentation, welcomed Lisa Frace as CFO and new Dean of the Honors College Dr. Long. Trustee Vassar appreciates the resilience and tenacity of the survivor community and noted that she remains steadfast as Trustee Tebay has in her positions. She thanked the Swim and Dive representatives for their perseverance in their concerns. Trustee Vassar congratulated the 2021 Board Scholarship Awards recipients and thanked Dr. Jennifer Johnson for acknowledging the killing of Daunte Wright and raising awareness of the anguish of the Asian-American community. Trustee Vassar concluded her remarks by extending her congratulations to the Spring 2021 graduates.

13. Request to Adjourn

On a motion by Trustee Kelly, supported by Trustee Scott, **THE BOARD VOTED to adjourn** at 9:54 a.m.

Respectfully submitted,



Nakia Barr
Secretary of the Board of Trustees

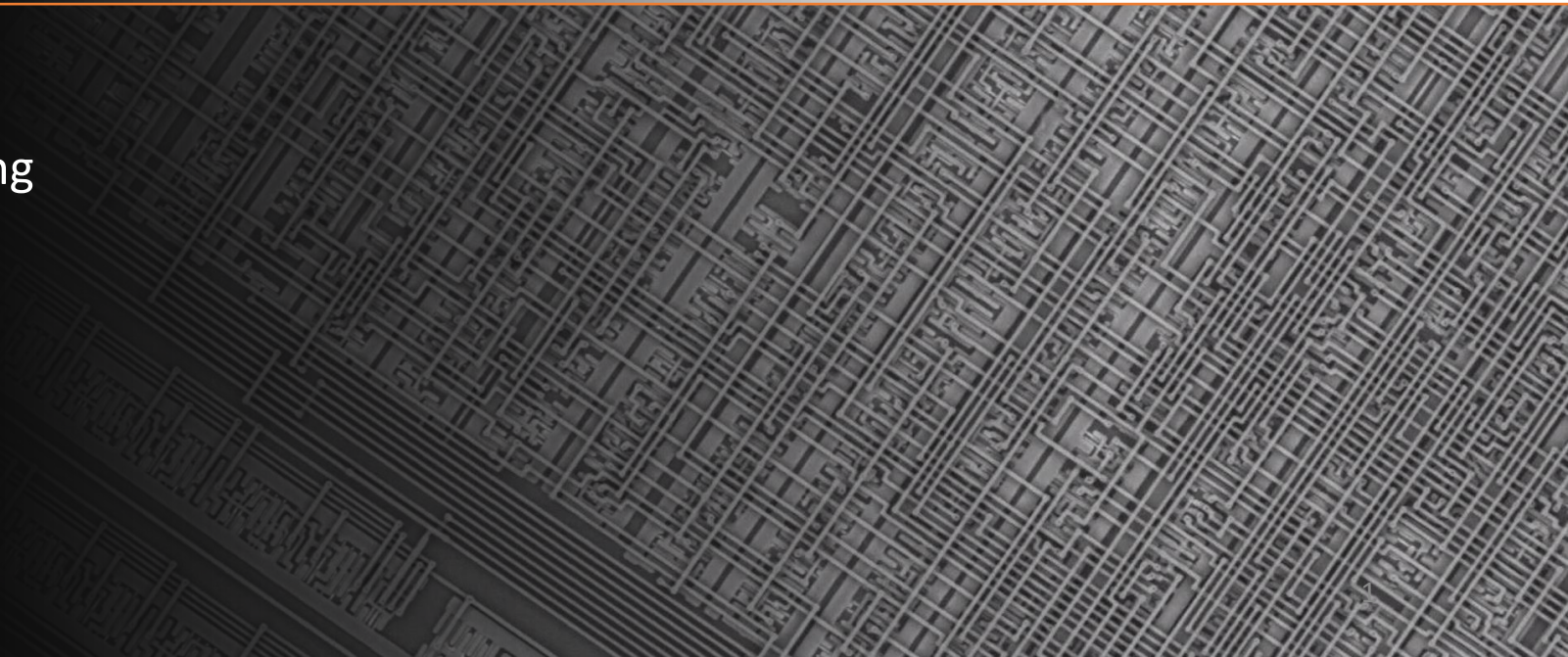


College of Engineering
MICHIGAN STATE UNIVERSITY

Modeling Nanoscale Electrical Contacts

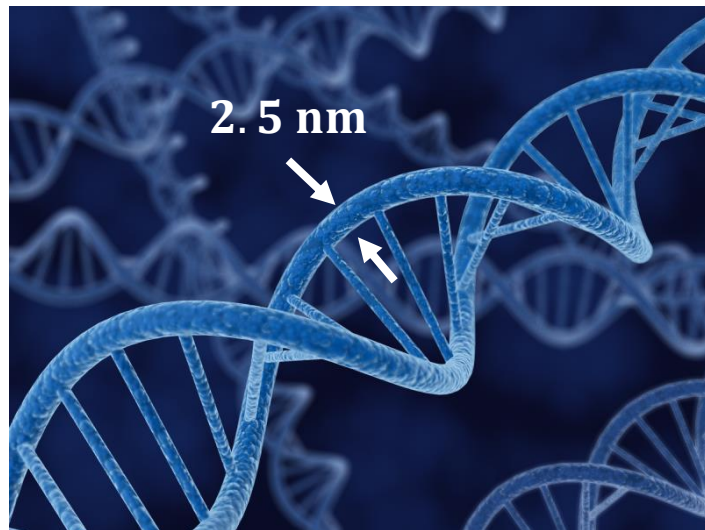
Sneha Banerjee, Peng Zhang

Department of Electrical Engineering

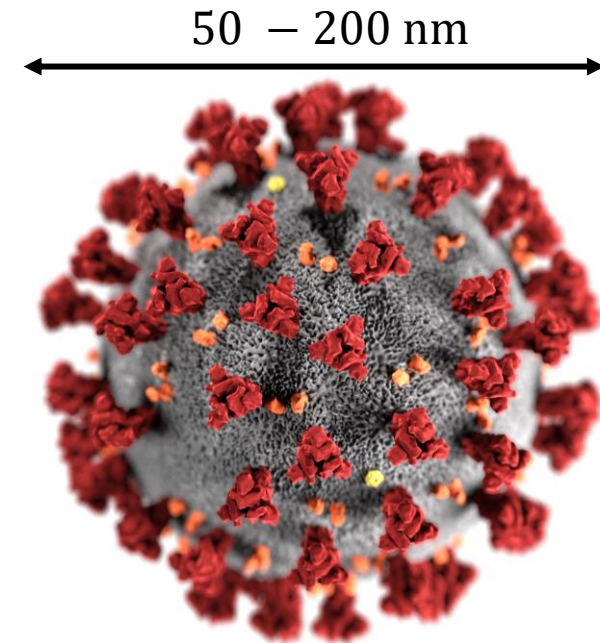


How small is a nanometer?

$$1 \text{ nanometer} = 10^{-9} \text{ meter} = \frac{1}{1000000000} \text{ meter}$$



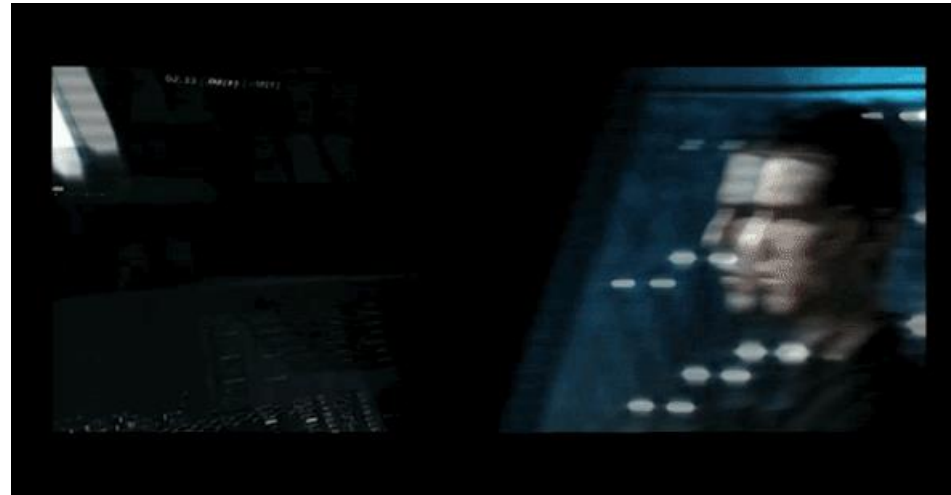
www.nist.gov/oles/forensics/images/DNA-Strand.jpg



Corona Virus

Motivation

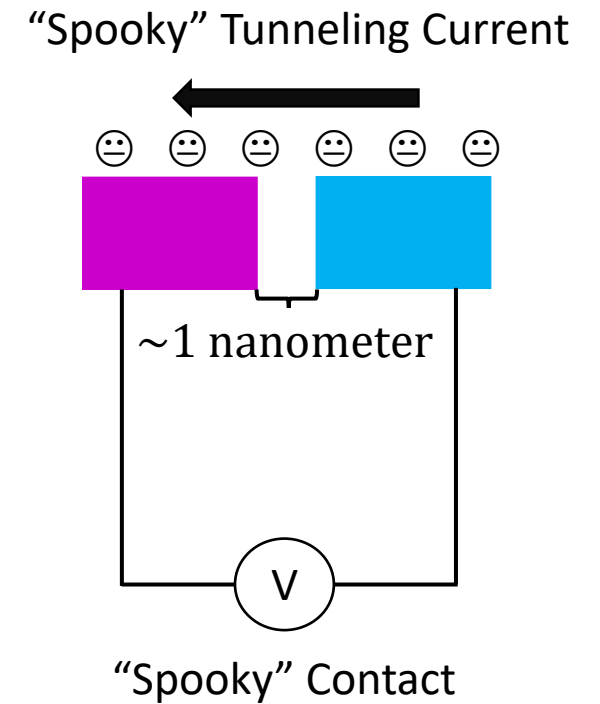
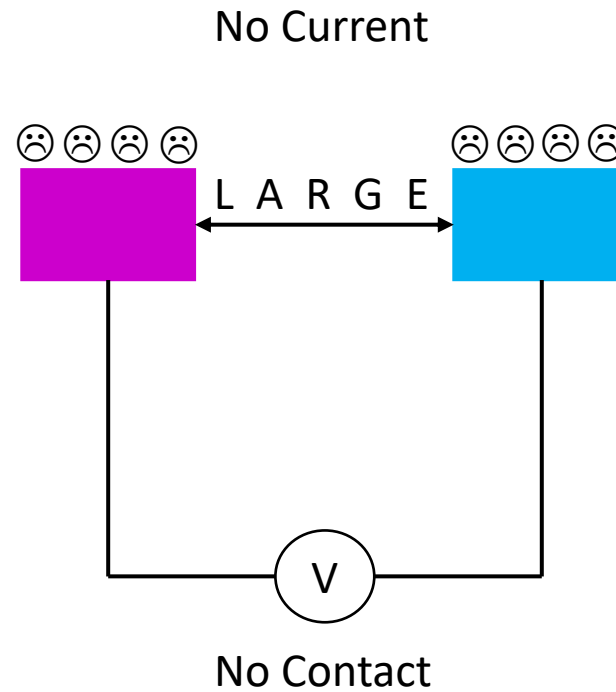
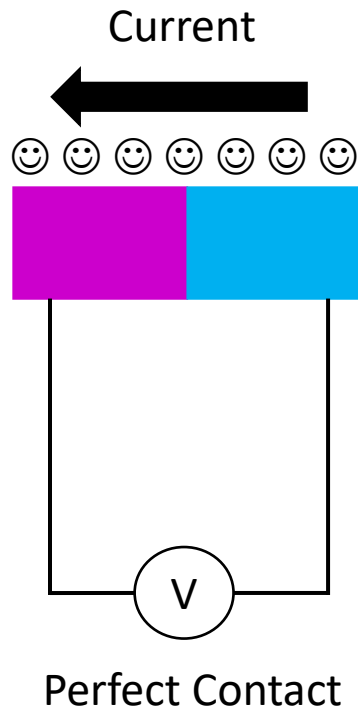
- Our ever-increasing demands for physical scaling down.
- Future gadgets – smaller, lighter, faster, and cheaper



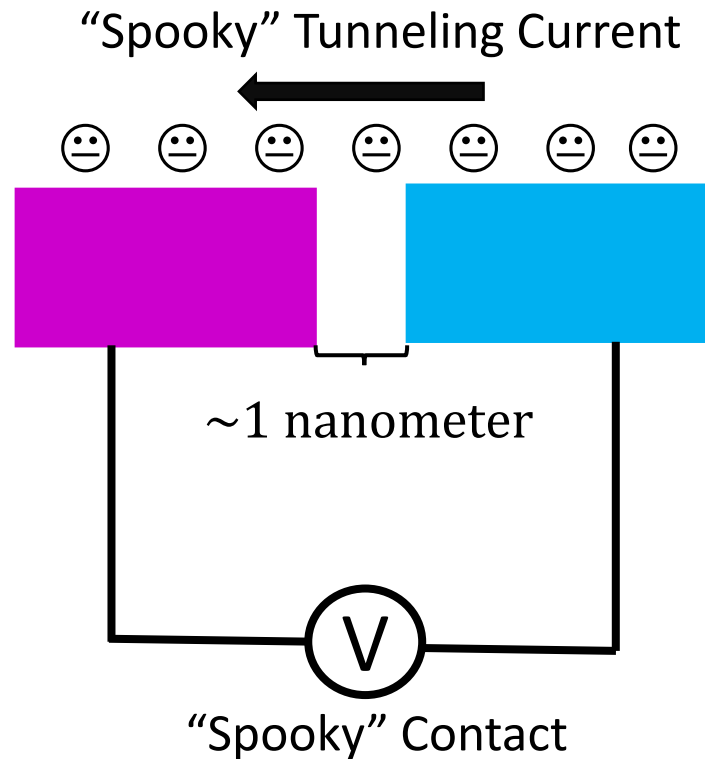
Source: Minority Report (movie)

- If electrical circuits are built in the scale of **nanometer** some spooky phenomena occur.

“Spooky” Contact

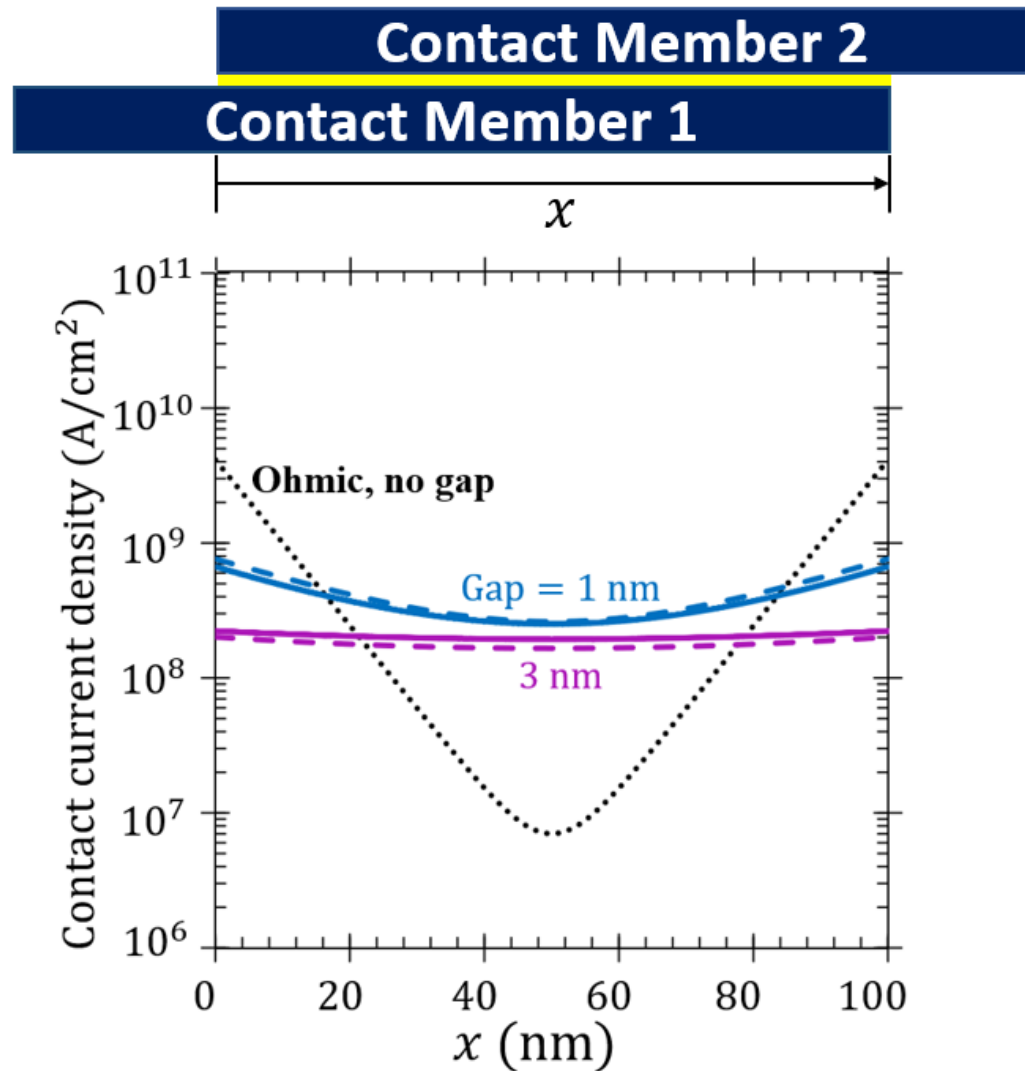


“Spooky” Quantum Tunneling Current



- Tunneling of electrons causes leakage current.
- On the other hand, it can be utilized to develop novel devices.

Tunneling Engineering



Highly conductive
ohmic contact

- Current crowding
- Thermal hotspots
- Device failure

Engineered
Tunneling Contact

- No current crowding
- Better thermal management

A generalized self-consistent model for quantum tunneling current in dissimilar metal-insulator-metal junction

Cite as: AIP Advances 9, 085302 (2019); doi: 10.1063/1.5116204
Submitted: 22 June 2019 • Accepted: 24 July 2019 •
Published Online: 2 August 2019



Sneha Banerjee and Peng Zhang^{a1}

OPEN

A Two Dimensional Tunneling Resistance Transmission Line Model for Nanoscale Parallel Electrical Contacts

Received: 14 March 2019
Accepted: 23 September 2019
Published online: 09 October 2019

Sneha Banerjee¹, John Luginsland^{1,2} & Peng Zhang¹



US010755975B2

(12) **United States Patent**
Zhang et al.

(10) **Patent No.:** US 10,755,975 B2
(45) **Date of Patent:** Aug. 25, 2020

(54) TUNNELING ELECTRICAL CONTACTS

(56) **References Cited**

PHYSICAL REVIEW APPLIED 13, 064021 (2020)

IOP Publishing

Journal of Physics D: Applied Physics

J. Phys. D: Appl. Phys. 53 (2020) 355301 (11pp)

<https://doi.org/10.1088/1361-6463/ab8fe0>

Contact resistance and current crowding in tunneling type circular nano-contacts

Sneha Banerjee, Patrick Y Wong and Peng Zhang^b

Reducing Contact Resistance in Two-Dimensional-Material-Based Electrical Contacts by Roughness Engineering

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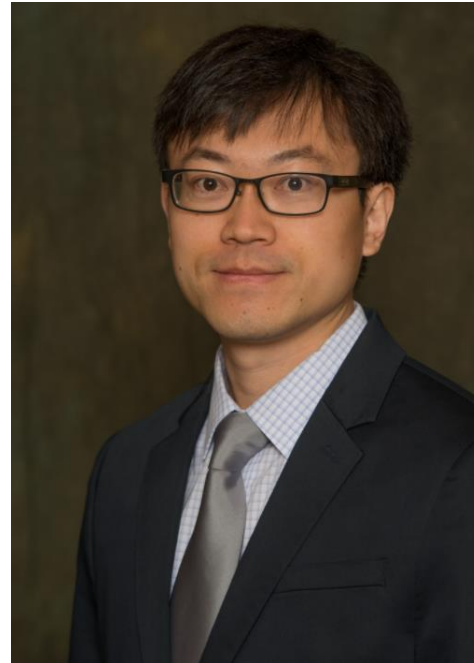
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NanoPATH Group

Nanoelectronics, Plasmas, & Accelerator Technology



Prof. Peng Zhang

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Thank you!

Proposed Amendments to Faculty Senate Procedures

3.3.3. Procedures of the Faculty Senate

- 3.3.3.1. The Chairperson of the Faculty Senate will preside at meetings of the Faculty Senate. In the absence of the Chairperson, the Vice Chairperson will preside.
- 3.3.3.2. The quorum for conducting the business of the Faculty Senate is 50 percent of its voting membership plus one.
- 3.3.3.3. The Faculty Senate shall normally meet at least once each month during the academic year.
- 3.3.3.4. The faculty members of The Steering Committee shall prepare the agenda for each regular Faculty Senate meeting. The agenda will be publicly available and circulated at least one week prior to the meeting to which it relates. Each meeting agenda will include an item enabling new business to be introduced from the floor. The Steering Committee may cancel a Faculty Senate meeting if there are no agenda items that must be considered.
- 3.3.3.5. A special meeting (“called meeting”) of the Faculty Senate to address urgent matters that should not await a regularly scheduled meeting may be called by the President, by The Steering Committee, or by a one-quarter petition of the membership of the Faculty Senate.
 - 3.3.3.5.1. Calls for a special meeting shall specify the purpose of the meeting. The only business that can be transacted at the special meeting is that which has been specified in the call for the meeting. The statement of purpose need not give the exact content of individual motions to be considered, if any. Motions from the floor shall be allowed.
 - 3.3.3.5.2. Notice of a special meeting shall be publicized to members of the Faculty Senate at least forty-eight hours in advance of the called meeting and shall include the date, time, venue, and agenda. Electronic attendance at special meetings shall be permitted.
 - 3.3.3.5.3. The Steering Committee and the Secretary for Academic Governance shall facilitate the convening of the special meeting.
- ~~3.3.3.5.~~ 3.3.3.6. Meetings of the Faculty Senate shall be open. Observers shall be seated separately.

Proposed Amendments to UCUE Representation

- 4.4.1. The membership of the University Committee on Undergraduate Education (UCUE) shall include a faculty member from each college, including a faculty member from the Honors College who is not currently serving as a committee member on another University Standing Committee and a faculty member from the non-college faculty. Colleges that do not offer undergraduate degree programs may opt out of electing a representative to UCUE by informing the Secretary for Academic Governance; should a college choose to forgo representation on UCUE, the college's seat will remain vacant for the duration of the regularly scheduled term. UCUE shall also have four undergraduate student members, of whom one must be the Vice President of Academic Affairs of ASMSU, and two graduate student members from COGS. The Provost shall be a member with voice, but no vote.

**Amendment to the Student Rights and Responsibilities Document
re: Definition of “Student”**

Article 11: Definitions and Acronyms

Student: ~~An individual is considered a student from the Semester Start Date of the first term for which the individual has enrolled until graduation, recess, dismissal, or withdrawal from the University or he/she fails to register¹ for more than one consecutive semester.~~ A student is a person enrolled or participating in a collegiate-level, University-sponsored program or course, regardless of program level; full-time or part-time status; credit, degree, or certificate awarded; location; or mode of instruction. A person remains a student until graduation or completion of the program, permanent dismissal, or non-attendance for three full, consecutive semesters (including summer semester). This definition includes a person who is on a leave of absence, withdraws, is on recess, or graduates after an alleged violation of student conduct policies.

Approval of Contract Terms, *Advertent Biotherapeutics, Inc.*

April 16, 2021

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OPTION AGREEMENT TERM SHEET

Party:	Advertent Biotherapeutics, Inc.
Agreement:	Exclusive option to acquire an exclusive, royalty-bearing, worldwide license to MSU technology, including patent rights and proprietary biological materials. Company shall be provided the right to evaluate the technology for commercialization opportunities.
Technology:	<p>MSU TEC2019-0064 - Novel Therapy for Reducing/Preventing Muscle Fibrosis and Fatty Infiltration After Rotator Cuff Injury; PCT patent application PCT/US2020/043119, entitled "Inhibiting Fatty Degeneration of Skeletal Muscle Tissue", filing date 7/22/2020</p> <p>MSU TEC2021-0009 - Novel second-generation biologic agent for reducing/preventing fatty degeneration in rotator cuff tears and other musculoskeletal injuries; provisional application to be filed</p> <p>Biological materials: TGFBR2-Fc fusion protein; TGFBR2-chimera-Fc fusion protein; Growth Factors including TGFb1, Activin A and B, BMP4 and GDF8/Myostatin</p> <p>The parties may add or remove technologies under the agreement, including improvements generated under a separate sponsored research agreement, provided the change does not affect the financial consideration of the parties or the nature or extent of any pecuniary interest of MSU personnel.</p>
Term:	18 months from the effective date of the option agreement
Potential Commercial Application:	The optioned technologies may provide potential therapeutic benefit in a patient's recovery from rotator cuff repair surgery. The

technologies may have expanded applications in other injuries to the musculoskeletal system, and in patients with neurodegenerative and neuromuscular diseases.

Payment Terms: \$1000 option fee; reimbursement of fees for nationalization patent filing(s)

Services Provided: None contemplated under the agreement

Organization Type: Michigan corporation

Personnel Interest: Dr. Erik Martinez-Hackert, Associate Professor of Biochemistry and Molecular Biology, has options to buy an ownership interest of more than 1% of the company.

Approval of Contract Terms, *West Central Michigan Horticultural Research, Inc.*

April 16, 2021

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LICENSE AGREEMENT TERM SHEET

Party:	West Central Michigan Horticultural Research, Inc. (the "Foundation")
Agreement:	<p>The Foundation owns and maintains a horticultural research station consisting of approximately sixty-five acres of land and a training, conference, and education facility in Hart, Michigan</p> <p>The Foundation grants to MSU a license to utilize all areas of the research center for MSU research, extension and teaching programs</p>
Term:	5 years from the effective date of the License Agreement, with the option to extend the term
Payment Terms:	The Foundation is providing the research center license in exchange for MSU's provision of its research, extension and teaching programs at the research center; there will be no monetary license fee
Services Provided:	<p>MSU will provide research, extension and teaching programs</p> <p>The Foundation will provide maintenance and upkeep of the research center</p>
Organization Type:	Michigan non-profit corporation
Personnel Interest:	Dr. Douglas Buhler, Director of MSU AgBioResearch, serves on the board of directors of the Foundation

SERVICE AGREEMENT TERM SHEET

Party:	Iaso Therapeutics, Inc.
Project Description:	Comparative studies of vaccine constructs
Term:	June 1, 2020 – May 31, 2021
Payment Terms:	A fixed price total of \$10,000 to MSU
Services Provided:	MSU to provide testing service
Use of University Facilities/Personnel:	MSU faculty member Zhen Qiu will provide service and the studies will be housed at MSU facilities
Organization Type:	Michigan corporation
Personnel Interest:	Dr. Xuefei Huang, a Professor in the Department of Chemistry, owns, or has options to buy, an interest in the company.

LICENSE AGREEMENT TERM SHEET

Party:	STEP for Success LLC
Agreement:	Non-exclusive worldwide license agreement
Technology:	TEC2019-0080 Assistive Social Skills and Employment Training (ASSET) and Employment Preparation and Skills Support (EPASS) Programs for Transition-age Individuals with Autism, Intellectual and Developmental Disabilities
Term:	12 years
Potential Commercial Application:	Company will use the ASSET and EPASS program curriculums to provide training to school districts and regional governmental agencies
Payment Terms:	5% royalty on net sales of products and services; \$100 annual minimum royalty payment starting in Year 3
Services Provided:	None contemplated under the agreement
Organization Type:	Michigan limited liability company
Personnel Interest:	Dr. Connie Sung, an Associate Professor in the Department of Counseling, Educational Psychology and Special Education serves as a director of the company

Approval of Contract Terms, *RedoxBlox, Inc.*

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cc: Board of Trustees, S. Stanley, M. Woo, T. Woodruff, N. Beauchamp,
N. Barr, M. Zeig, B. Mattes, B. Quinn, N. Stuart

OPTION AGREEMENT TERM SHEET

Party:	RedoxBlox Inc.
Agreement:	Worldwide option in all fields of use
Technology:	TEC2019-0035 Scalable Thermochemical Option for Renewable Energy Storage (STORES) TEC2020-0080 Electrodes for High Temperature Heating of Conductive Ceramics in Oxidizing Environments The parties may add or remove technologies under the agreement, including improvements generated under a separate sponsored research agreement, provided the change does not affect the financial consideration of the parties or the nature or extent of any pecuniary interest of MSU personnel
Term:	24-month option term
Potential Commercial Application:	Thermochemical energy storage solution
Payment Terms:	Option fee of Two Thousand Five Hundred Dollars (\$2,500)
Services Provided:	None contemplated
Organization Type:	Delaware corporation
Personnel Interest:	James Klausner, Professor in the College of Engineering, Joerg Petrasch, Associate Professor in the College of Engineering, Kelvin Randhir, Research Associate in the College of Engineering, Nima Rahmatian, Research Associate in the College of Engineering, and Alessandro Bo, a doctoral student in the College of Engineering, has or has options to buy, an interest in the company or are officers or paid employees of the company.

SERVICE AGREEMENT TERM SHEET

Party:	National Pesticide Safety Education Center
Project Description:	Executive Director, National Pesticide Safety Education Center
Term:	February 1, 2021 – January 31, 2022
Payment Terms:	\$128,335.76 to MSU in fees for service
Services Provided:	<p>By MSU to National Pesticide Safety Education Center: Provide Executive Director services including, but not limited to: (1) oversight, establishment and operation of the governance structure for the NPSEC; (2) development, implementation and management of a business plan and budget; (3) marketing and communication regarding services offered by NPSEC; (4) maintenance of quality control and efficiencies for NPSEC products and services; and (5) oversight of fiscal activities, budget management and financial practices</p> <p>By National Pesticide Safety Education Center to MSU: None contemplated under the Agreement.</p>
Use of University Facilities/Personnel:	Efforts of Mr. Tom Smith
Organization Type:	Michigan nonprofit corporation
Personnel Interest:	Mr. Tom Smith is the Associate Director of MSU's Institute of Agricultural Technology and is the Executive Director of the National Pesticide Safety Education Center.

SERVICE AGREEMENT TERM SHEET

Party:	Great Lakes Crystal Technologies, Inc.
Project Description:	Subcontract from Great Lakes Crystal Technologies, Inc. prime award from the US Department of Energy to MSU (IP00524176)
Term:	May 3, 2021 – May 2, 2023
Payment Terms:	\$366,000 payment to MSU for service
Services Provided:	By MSU to Great Lakes Crystal Technologies, Inc.: Large Diffraction-grade Single Crystal Diamond for Applications at New Generation Synchrotron and FEL X-ray Sources By Great Lakes Crystal Technologies, Inc. to MSU: None contemplated under this agreement
Use of University Facilities/Personnel:	Work is to be performed at MSU's Engineering Research Building. Personnel includes Dr. Sergey Baryshev (Principal Investigator) and Dr. Elias Garratt (Co-Principal Investigator).
Organization Type:	Michigan corporation
Personnel Interest:	Dr. Timothy Grotjohn, a Professor in the Department of Electrical and Computer Engineering, owns or has options to buy an interest in the company or is an officer or paid employee of the company.