

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

April 13, 2017

President Simon called the meeting of the Board of Trustees to order at 9:30 a.m. in the Board Room.

Trustees present: Brian Breslin, Dianne Byrum, Joel Ferguson, Melanie Foster, Dan Kelly, Mitch Lyons, Brian Mosallam, and George Perles.

University officers present: President Simon, Provost and Executive Vice President Youatt, Executive Vice President Udpa, Vice President and Secretary Beekman, Vice President and General Counsel Noto, Vice Presidents Burnham, Gore, Groves, Haas, Hsu, Maybank, Swain, and Zecher, and Senior Advisor and Director Granberry Russell. Faculty liaisons present: Phylis Floyd, Chris Hogan, Laura McCabe, Mariam Sticklen. Student liaisons present: Mariah Hill, Dee Jordan, and Lorenzo Santavicca.

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

1. On a motion by Trustee Ferguson, supported by Trustee Mosallam, the **BOARD VOTED to approve** the agenda.
2. On a motion by Trustee Ferguson, supported by Trustee Lyons, the **BOARD VOTED to approve** the minutes of the February 17, 2017 Board of Trustees meeting.
3. Board of Trustees Award Presentations

Trustees Breslin and Ferguson presented the Board of Trustees Award to the following students:

1. Emily Aron—Major: Education; Member of the Honors College; 4.0 GPA
2. Sydney Barosko—Major: Biological Science; Member of the Honors College; 4.0 GPA
3. Kristin Brandt—Major: Communications; Member of the Honors College; 4.0 GPA

4. Nicole Cappello—Major: Zoology; Member of the Honors College; 4.0 GPA
5. Rebecca Carlson—Major: Chemical Engineering; Member of the Honors College; 4.0 GPA
6. Kristyn Crippen—Major: Hospitality Business; Member of the Honors College; 4.0 GPA
7. Hayley Deindorfer—Major: Nursing; 4.0 GPA
8. Eamon B. Devlin—Major: Environmental Studies and Sustainability; Member of the Honors College; 4.0 GPA
9. Timothy Glew—Major: Accounting; Member of the Honors College; 4.0 GPA
10. Rebecca Gorz—Major: Human Biology; 4.0 GPA
11. Emily Grobbel—Major: Kinesiology; Member of the Honors College; 4.0 GPA
12. Thomas Grubb—Major: Mathematics, Advanced; Member of the Honors College; 4.0 GPA
13. Jeffrey Hall—Major: Mechanical Engineering; Member of the Honors College; 4.0 GPA
14. Danielle Homic—Major: Advertising; Member of the Honors College; 4.0 GPA
15. Taylor Joseph—Major: Mathematics; Member of the Honors College; 4.0 GPA
16. Jacob Krummrey—Major: Mechanical Engineering; Member of the Honors College; 4.0 GPA
17. Shelby Lonnerstater—Major: Social Work; 4.0 GPA
18. David McClendon—Major: Neuroscience; Member of the Honors College; 4.0 GPA
19. Elizabeth Michno—Major: Accounting; 4.0 GPA

20. Moriah Moore—Major: Human Biology; Member of the Honors College; 4.0 GPA
21. Harrison Quaal—Major: Genomics and Modular Genetics; Member of the Honors College; 4.0 GPA
22. Theresa Quaderer—Major: Kinesiology; 4.0 GPA
23. Elana Rasmussen—Major: Nutritional Sciences; Member of the Honors College; 4.0 GPA
24. Brigitte Schwager—Major: Food Science; Member of the Honors College; 4.0 GPA
25. Patrick Sedlmayer—Major: General Management; Member of the Honors College; 4.0 GPA
26. Karah Smith—Major: English; Second Major: Psychology; Member of the Honors College; 4.0 GPA
27. Milan Spampinato—Major: Criminal Justice; Member of the Honors College; 4.0 GPA
28. Matthew Vasher—Major: Biosystems Engineering; Member of the Honors College; 4.0 GPA
29. Samantha Ward—Major: Professional Writing; Member of the Honors College; 4.0 GPA
30. John Wondergem—Major: Special Education-Learning Disabilities; Member of the Honors College; 4.0 GPA

Provost Youatt acknowledged the Board of Trustees Award recipients who were not able to attend:

1. Paige Bruno—Major: Advertising; 4.0 GPA
2. James Carlstedt—Major: Accounting; Member of the Honors College; 4.0 GPA
3. Rebecca Clancy—Major: Psychology; Member of the Honors College; 4.0 GPA
4. Samuel Decker—Major: Zoology; Member of the Honors College; 4.0 GPA

5. Sandipta Haldar—Major: Human Biology; Member of the Honors College; 4.0 GPA
6. Kaitlyn Horner—Major: Neuroscience; Member of the Honors College; 4.0 GPA
7. Jayhau Hsia—Major: Supply Chain Management; 4.0 GPA
8. Shiqi Huang—Major: Supply Chain Management; 4.0 GPA
9. Brooklyn Idalski—Major: Human Biology; 4.0 GPA
10. Julia Kerwin—Major: Nutritional Science; Member of the Honors College; 4.0 GPA
11. Elissa Klopfer—Major: Materials Science and Engineering; Member of the Honors College; 4.0 GPA
12. Alana O'Mara—Major: Neuroscience; Member of the Honors College; 4.0 GPA
13. Christina Pastoria—Major: International Relations; Second Major: Economics; Member of the Honors College; 4.0 GPA
14. Christian Przeslawski—Major: Physiology; Member of the Honors College; 4.0 GPA
15. Alissa Rowe—Major: Education; Member of the Honors College; 4.0 GPA
16. Luke Schichtel—Major: Physiology; Member of the Honors College; 4.0 GPA
17. Lindsay Snyder—Major: Music Education; Member of the Honors College; 4.0 GPA
18. James Stathakios III—Major: Human Biology; Member of the Honors College; 4.0 GPA
19. Alina Tamborini—Major: Music Education; Member of the Honors College; 4.0 GPA
20. Angela Terranova—Major: Social Work; 4.0 GPA

21. John Wenzel—Major: Psychology; Member of the Honors College; 4.0 GPA

22. Tangyao Zhao—Major: Actuarial Science; 4.0 GPA

4. President's Report

President Simon provided the following report to the Board.

A. Hertz Fellow

Cynthia Jackson-Elmoore, Dean of the Honors College, introduced Rebecca Carlson as MSU's Hertz Fellow.

B. Commencement

Detroit Tigers legend Kirk Gibson will speak at MSU's undergraduate convocation on May 5 and receive an honorary doctorate of humanities. Also at convocation, Susan Avery, an atmospheric physicist, will receive an honorary doctorate of science. In addition, Joon-shik Shin, chairperson and founder of Jaseng Hospital of Korean Medicine, will receive an honorary doctorate of science.

Darren Walker, president of the Ford Foundation, will speak at the advanced degree ceremony, where he will receive an honorary doctorate of humanities. Also at the advanced degree ceremony, Dermot Desmond, chairperson of International Investment and Underwriting in Dublin, Ireland, will receive an honorary doctorate of humanities.

C. Student and Alumni Achievements

ASMSU was recently awarded Outstanding Student Government of the Year at the Conference on Student Government Associations.

ASMSU's Office for Governmental Affairs received the Outstanding Legislative Action award for its work on Michigan Senate Bill 332 from the Conference on Student Government Associations at Texas A&M University.

The MSU Debate Team finished in the top 16 out of 78 teams competing at the National Debate Tournament this year.

Created by MSU students, the game “Bunny Skate” was the 38th most downloaded application in the category “Kid’s ages nine to 11” in December 2016.

MSU Broad Alumna Priya Balasubramaniam was named the fifth most powerful female engineer of 2017. Priya is vice president of Apple’s iPhone Operations and is responsible for the organization that handles Apple’s supply chain and manufacturing for iPhones.

D. Faculty and Staff Achievements

James Dye, University Distinguished Professor Emeritus of chemistry, has been named a National Academy of Inventors Fellow. Dye earned the honor for demonstrating “a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and in the welfare of society.”

E. University Achievements

MSU’s College of Veterinary Medicine has retained its number one ranking among Big Ten schools for the second year in a row and is ranked fifth among veterinary schools nationwide.

Two more graduate programs, African History and supply chain management, claimed top spots in the latest U.S. News & World Report rankings, giving MSU seven number one programs across a broad range of disciplines. The top-ranked graduate programs also include Elementary and Secondary Education, Rehabilitation Counseling, Industrial and Organizational Psychology, and Nuclear Physics.

Times Higher Education has ranked MSU among its 53 “international powerhouse” universities. According to Times Higher Education, while the old elite have strong reputations and tend to perform strongly across all disciplines, a powerful new cluster—younger and strong in science—is emerging. Their research output is exceptional, but not reflected in their reputation scores.

Universities were ranked using the citation and reputation scores from the 980 institutions on Times Higher Education’s World University rankings. Nine of the 53 “powerhouse” universities are members of the Big Ten.

F. Athletic Achievements

MSU women's golf head coach Stacy Slobodnik-Stoll was one of six golfers selected to be inducted into the Michigan Golf Hall of Fame

G. Diversity Report

Senior Advisor and Director Granberry Russell presented the Diversity and Inclusion at MSU Annual Progress Report for 2015-16.

The full report can be viewed at:

<http://www.inclusion.msu.edu/about/annual-report/index.html>

H. MSU Climate

President Simon concluded her report with the following statement:

As victims continue to come forward to police regarding former MSU doctor Larry Nassar, I want to provide an update on our response to this critical situation.

During the past few months, much of our focus has necessarily been on the criminal investigation and ensuring justice is served for all victims. This will continue unabated. As you know, the MSU Police Department continues to aggressively investigate all allegations, dedicating more resources to this investigation than any other while working closely with the Michigan Attorney General and federal law enforcement officials in a case that spans jurisdictions, state lines, and even international borders.

Yet even as we examine--through both criminal investigations and a thorough internal review--how something so abhorrent happened here and went on for so long, we are taking action.

Already, we have completed an initial review of MSU HealthTeam policies and practices and have strengthened policies regarding informed consent and the role of chaperones. We are now engaging a comprehensive third-party quality and safety assurance review as we continue our commitment to achieving the highest patient care and safety standards across all MSU clinics, which are being consolidated administratively and financially under the MSU HealthTeam.

Second, I have been told it is virtually impossible to stop a determined sexual predator and pedophile and that they will go to

incomprehensible lengths to keep what they do in the shadows. That may be true, but we at MSU must do all we can not only to ensure the safety of our patients but to protect youth who come to our campus in all capacities. As part of a broader programmatic effort that began in 2013, we recently held a workshop for all MSU youth program directors that focused on promoting the safety of minors at MSU, and we will roll out an enhanced youth protection policy and additional education within the next 30 days.

Finally, we must continue to be resolute in our commitment that sexual violence has no place in the MSU community. As many of you know, we have dedicated significant resources to that commitment over the past few years, from introducing and revising our Relationship Violence and Sexual Misconduct policy to creating a new office to oversee Title IX and investigate cases to devoting more resources and personnel to our Sexual Assault Program. And just as important, our campus community has stepped up and is contributing greatly to these efforts. The Sexual Violence Advisory Committee and student leaders such as ASMSU and COGS are playing key roles, and we are grateful for their commitment.

While I take solace in the strong collective work of our community, this is no time to rest. Our progress is simply a reason to redouble our efforts. Sexual assault still plagues our campus and society at large. When we began the process of revamping our Title IX program in 2014, with guidance from both the federal government and external experts, we planned on revisiting our efforts once the program was running for a couple of years to gauge our progress and look at how we could continue to improve. Given all the issues surrounding sexual assault we face as a society and as a campus community, I feel it is prudent to move forward with this review on an expedited schedule. That's why I will be engaging independent experts to conduct a top-to-bottom review of our Title IX program this fall to accelerate our progress here at MSU.

In closing, I want to once again recognize the courage of each woman who has come forward in the Nassar investigation to share her story with police. On behalf of Michigan State University, I want to acknowledge the pain his actions caused and express how deeply we regret any time someone in our community is a victim.

People come to MSU for a valuable and positive experience, whether for a degree, a summer program, or medical care. Sexual assault must not be part of that experience. While we may recognize that sexual assault and child abuse are societal issues,

we cannot ever dismiss them as insurmountable. I am committed to making sure we do everything in our power to work together to try to prevent this kind of tragedy in the future, both in our community and the greater society.

5. There was no Public Participation on Issues Germane to the Agenda.

6. Personnel Actions

Provost Youatt presented the following personnel actions:

Kim, Jun-Hyun, AY – Associate Professor, School of Planning, Design, and Construction, \$ 93,500, with Tenure, effective August 16, 2017.

Arola, Kristin, AY – Associate Professor, Department of Writing, Rhetoric and American Culture, \$ 92,000, with Tenure, effective August 16, 2017.

President Simon presented the following personnel action:

Cole, Danton, AN – Head Coach – Hockey, Intercollegiate Athletics, Subject to Contract, effective April 12, 2017 to April 11, 2022.

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

THE BOARD VOTED to approve the recommendations.

7. Gifts, Grants, and Contracts

Vice President Hsu presented the Gifts, Grants, and Contracts Report for the period January 19, 2017 through March 15, 2017. The report is a compilation of 526 Gifts, Grants and Contracts plus 71 Consignment/Non-Cash Gifts, with a total value of \$78,775,395.

Trustee Foster **moved to approve** the recommendation, with support from Trustee Breslin.

THE BOARD VOTED to approve the recommendation.

Vice President Hsu introduced Dr. Bjoern Hamberger, an advisor to the MSU iGEM team. Dr. Hamberger introduced Lauren Tamm, an undergraduate student majoring in Food Science, and Pamela Himadewi, an undergraduate student majoring in Biochemistry and Molecular Biology/Biotechnology. Ms. Tamm and Ms. Himadewi gave a presentation on MSU iGEM 2016: Frosty the Cyano. (Appendix A)

Vice President Hsu introduced Dr. Nathaniel Ostrom. Dr. Ostrom introduced Ms. Kateri Salk, a PhD Candidate in the Department of Integrative Biology. Ms. Salk gave a presentation to the Board on Harmful Algal Blooms in Lake Erie. (Appendix B)

8. Finance Committee

Trustee Foster presented the Trustee Finance Committee Report and recommendations.

A. 2017-18 Housing and Dining Rate Recommendations

It was recommended that the Board of Trustees authorize the Administration to implement academic year 2017-18 room and board rates consistent with the projected rate increase presented in January 2013.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby adopts the basic residence hall double room and board rate of \$9,976 for freshman, transfer, and returning students who select the silver unlimited meal plan for the 2017-18 academic year.

Trustee Foster **moved to approve** the recommendation, with support from Trustee Breslin.

THE BOARD VOTED to approve the recommendation.

B. Fund Functioning as an Endowment: Kit Johnson Fund for WKAR Radio

It was recommended that the Board of Trustees establish a fund functioning as an endowment to provide support for the creation of programming on WKAR radio.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby establishes a fund functioning as an endowment entitled "Kit Johnson Fund for WKAR Radio".

Trustee Foster **moved to approve** the recommendation, with support from Trustee Mosallam.

THE BOARD VOTED to approve the recommendation.

C. Fund Functioning as an Endowment: Ann Clark Endowed Scholarship Fund

It was recommended that the Board of Trustees establish a fund functioning as an endowment to provide support for scholarships in the College of Engineering

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby establishes a fund functioning as an endowment entitled "Ann Clark Endowed Scholarship Fund."

Trustee Foster **moved to approve** the recommendation, with support from Trustee Breslin.

THE BOARD VOTED to approve the recommendation.

D. Sale of Saginaw Valley Research Property in Saginaw County, Michigan

It was recommended that the Board of Trustees authorize the sale of approximately 77 acres of vacant land in Blumfield Township, Saginaw County.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to sell approximately 77 acres located at 3368 South Reese Road in Blumfield Township, Saginaw County, Michigan to Ronald and Roxane Mossner for \$586,355 and upon such other terms and conditions as may be acceptable to the Executive Vice President for Administrative Services.

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

THE BOARD VOTED to approve the recommendation.

E. Long-Term Lease with the City of Detroit

It was recommended that the Board of Trustees authorize the Administration to negotiate and execute a lease with the City of Detroit for approximately 3.3 acres of vacant land located at 16745 Lamphere, Detroit, Michigan

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to enter into a lease

with the City of Detroit for a term of ten or more years and upon such other terms and conditions as may be acceptable to the Executive Vice President for Administrative Services.

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

THE BOARD VOTED to approve the recommendation.

F. Wharton Center - Cobb Great Hall and Pasant Theatre Seat Replacement

It was recommended that the Board of Trustees authorize the Administration to plan for the replacement of seating at the Wharton Center.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to plan for the project entitled "Wharton Center - Cobb Great Hall and Pasant Theatre Seat Replacement."

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

THE BOARD VOTED to approve the recommendation.

G. Cook Hall - Building Renovation

It was recommended that the Board of Trustees authorize the Administration to plan for renovations to Cook Hall.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to plan for the project entitled "Cook Hall - Building Renovation".

Trustee Foster **moved to approve** the recommendation, with support from Trustee Lyons.

THE BOARD VOTED to approve the recommendation.

H. Olin Health Center - Renovations for Student Health and Wellness

It was recommended that the Board of Trustees authorize the Administration to plan for renovations to Olin Health Center in

connection with the integration of student health, counseling, and related services.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to plan for the project entitled "Olin Health Center - Renovations for Student Health and Wellness."

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

THE BOARD VOTED to approve the recommendation.

I. Engineering Research Complex - Addition and Renovations

It was recommended that the Board of Trustees authorize the Administration to proceed with renovations at, and an addition to, the Engineering Research Complex.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled "Engineering Research Complex - Addition and Renovations (*Fraunhofer Center Expansion*)," with a project budget of \$6,700,000.

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

THE BOARD VOTED to approve the recommendation.

J. Wells Hall - Replace Induction Units in Building Sections C and D (*16-17 major maintenance*)

It was recommended that the Board of Trustees authorize the Administration to proceed with upgrades to the heating and cooling system in Wells Hall.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled "Wells Hall - Replace Induction Units in Building Sections C and D (*16-17 major maintenance*)," with a project budget of \$2,500,000.

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

THE BOARD VOTED to approve the recommendation.

K. Eli Broad College of Business - Addition No. 2 – Pavilion

It was recommended that the Board of Trustees authorize the Administration to proceed with demolition of the west wing of the Eppley Building and its replacement with a new pavilion.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled "Eli Broad College of Business - Addition No. 2 – Pavilion," with a project budget of \$62,000,000.

Trustee Foster **moved to approve** the recommendation, with support from Trustee Lyons.

THE BOARD VOTED to approve the recommendation.

L. Parking - Lot 92 - Reconstruction and Expansion

It was recommended that the Board of Trustees authorize the Administration to award a contract to Carol's Excavating for the reconstruction and expansion of Parking Lot 92.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby awards a contract in the amount of \$863,364 to Carol's Excavating and establishes a project budget of \$1,420,000 for the project entitled "Parking - Lot 92 - Reconstruction and Expansion."

Trustee Foster **moved to approve** the recommendation, with support from Trustee Lyons.

THE BOARD VOTED to approve the recommendation.

M. Trowbridge Road – Resurfacing

It was recommended that that the Board of Trustees authorize the Administration to award a contract to Michigan Paving & Materials for the resurfacing of Trowbridge Road.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby awards a contract in the amount of \$633,850 to Michigan Paving & Materials and establishes a project budget of

\$940,000 for the project entitled "Trowbridge Road - Resurfacing (16-17 major maintenance)."

Trustee Foster **moved to approve** the recommendation, with support from Trustee Breslin.

THE BOARD VOTED to approve the recommendation.

N. Wharton Center - Replace Roofs

It was recommended that the Board of Trustees authorize the Administration to award a contract to National Roofing & Sheet Metal Company for the replacement of deteriorated roof sections at the Wharton Center.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby awards a contract in the amount of \$1,289,327 to National Roofing & Sheet Metal Company, Inc., and establishes a project budget of \$1,750,000 for the project entitled "Wharton Center - Replace Roofs (16-17 major maintenance)."

Trustee Foster **moved to approve** the recommendation, with support from Trustee Kelly.

THE BOARD VOTED to approve the recommendation.

9. Policy Committee

Trustee Byrum presented the Trustee Policy Committee Report and recommendations.

A. Notice of Intent to Negotiate Contracts

Pursuant to State law, Trustee Byrum gave public notice of the University's intent to negotiate contracts with Dr. Richard E. Sherman. Dr. Sherman is a professor in the College of Music.

10. Audit Committee

Trustee Lyons presented the Trustee Audit Committee Report.

Trustee Lyons noted that the Committee met with Plante Moran and received a report on the scope of the annual audit. In addition, the auditors provided a review of a variety of secondary audits involving federal awards, reporting requirements for WKAR, and NCAA requirements.

The Committee also received an overview of the key areas of litigation for the University from the Vice President Noto and other members of the Office of the General Counsel.

11. Trustee Comments

Trustee Breslin read a statement on behalf of the Board regarding Larry Nassar:

The Michigan State University Board of Trustees is being regularly briefed on the allegations of sexual assault concerning former MSU doctor Larry Nassar, being kept generally apprised as appropriate regarding the criminal investigation, and receiving substantive updates on the progress of the internal review being led by Pat Fitzgerald of Skadden Arps.

As we have stated, sexual assault has no place in the MSU community. We are deeply concerned for the victims and their families and the pain Nassar has caused them. We continue to actively engage with MSU leadership to ensure we learn what happened and why and to take action in meaningful ways. We owe this to the victims and to all members of the MSU community.

We have confidence in the integrity, thoroughness, and rigor of the investigations and reviews underway and are committed to a disciplined process of gathering, reviewing, and understanding facts. Like the administration, we will approach responding to this situation with an open mind and a commitment to doing what is right based on the fullness of what we learn.

The University's response to this situation needs to be comprehensive, focused on helping to obtain justice for the victims, taking appropriate actions without undue delay, and engaging in long-term improvements that help reduce the risk of anything like this happening again. We are confident MSU is doing just that.

We endorse the initiatives President Simon discussed today. These initiatives, while not directly related to the allegations involving Nassar, ensure the University is taking steps to work even harder to create the safest campus and community possible.

On behalf of the Board, I too want to again acknowledge the bravery of each woman who comes forward to report. We know this is not easy. We thank you and continue to encourage any others who have information pertinent to the Larry Nassar investigation to contact the MSU Police.

Trustee Breslin also thanked Dee Jordan, President of the Council of Graduate Students, and Mariah Hill, President of the Residence Halls Association, for their service. Ms. Jordan and Ms. Hill introduced their respective successors.

Trustee Breslin introduced Lorenzo Santavicca, President of the Associated Students of MSU (ASMSU). Mr. Santavicca spoke about the many services rendered by ASMSU, as well as the new Safe Ride program.

Trustee Mosallam congratulated Danton Cole for his appointment as the new head coach of the MSU ice hockey team. He also thanked Dee Jordan and Mariah Hill for their service.

Trustee Kelly also congratulated Danton Cole.

Trustee Foster thanked Dee Jordan, Mariah Hill, and Lorenzo Santavicca for their service. She also congratulated Rob McCurdy for being appointed as the Chief Information Officer.

Trustee Byrum thanked the faculty liaison committee for its service.

Trustee Perles gave his best wishes to the Board of Trustees GPA award recipients.

Trustee Lyons congratulated spring graduates and Danton Cole.

Trustee Ferguson commented on the high number of GPA award recipients and the excellence of MSU.

12. Public Participation on Issues Not Germane to the Agenda.

A. Chicano and Latino Studies

Dr. M.J. Garcia III, an MSU alumnus, spoke about the Chicano Studies Program at MSU. Dr. Garcia mentioned his concerns with the curriculum as well as interdepartmental issues with the Chicano Studies program. Dr. Garcia believes the program has failed and needs to be revamped.

14. Request to Adjourn

On a motion by Trustee Byrum, supported by Trustee Ferguson, **THE BOARD VOTED to adjourn** at 11:20 a.m.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "W Beekman". The signature is written in a cursive, flowing style.

William R. Beekman

Vice President and Secretary of the Board of Trustees

RESEARCH PRESENTATION

TO THE MSU BOARD OF TRUSTEES

APRIL 13, 2017

STUDENT PRESENTATIONS

LAUREN TAMM
PAMELA HIMADEWI
UNDERGRADUATE PRESENTERS

KATERI SALK
GRADUATE PRESENTER

Facilitated by the Office of the President

**Principal Investigators
Undergraduate Mentors**

Introducer:

Dr. Bjoern Hamberger, Assist. Professor, Biochemistry and Molecular Biology

Role: Principal Investigator

As Chemist and Synthetic Biologist I am stoked about joining the first iGEM team at MSU, after just starting up my new group here in January. In the lab, we are cracking pathways to complex natural products and plant pharmaceuticals, which allow the biosynthetic production in biotech hosts. We hold a range of patents and have an industrial collaboration for the engineering of microbial production of drugs and precursors using glucose as starting material only.

Dr. Tim Whitehead, Assist. Professor, Chemical Engineering

Role: Principal Investigator

Tim's group develops general methods to engineer and design biological macromolecules for new and/or enhanced functions. These molecules can be useful as biocatalysts to deconstruct renewable biomass to jet fuel, as diagnostics or therapeutics for recognizing and destroying pandemic viruses, and comprise new metabolic pathways for the environmentally friendly production of medicines.

Dr. Michaela TerAvest, Assist. Professor, Biochemistry and Molecular Biology

Role: Principal Investigator

Michaela's lab works on understanding electron flows in bacterial metabolism with the ultimate goal of engineering bacteria to produce fuels directly from electricity and carbon dioxide. She's been involved with iGEM teams since 2012 when she advised the Cornell University team on creating a bioelectrochemical arsenic sensor using electricity-generating bacteria. Special note: Michaela is a Global Impact Initiative hire.

Dr. Danny Ducat, Assistant Professor, MSU-DOE Plant Research Laboratory, Biochemistry and Molecular Biology

Role: Principal Investigator

Danny's Plant Research Laboratory recently designed a strain of cyanobacteria that can export a significant fraction of the carbon it fixes (up to 85%) as sucrose. This approach is promising as a potential alternative to land-based crops for sugar production - this level of productivity could exceed sugar output from sugarcane or corn if it could be scaled. Ongoing projects in the lab aim to contribute broadly in the areas of alternative energy development, understanding mixed microbial communities, and photosynthetic metabolism.

Undergraduates

Pamela Himadewi

Role: Student Member

Favorite Band: Maroon 5

Greatest Accomplishment: Be part of MSU first ever iGEM team!

Dream Job: Pharmaceutical Scientist

Pamela is a junior studying in Biochemistry and Molecular Biology/Biotechnology at Michigan State University. She's so excited to be part of the first MSU iGEM team. She believes that synthetic biology is a field of the future that can enhance our life and environment, in a variety of different fields. Through this iGEM project, it also sparked her interests in developing new approaches to utilize cyanobacteria other than biofuel production, such as food industry, and medical applications. Outside of the lab, Pamela likes playing badminton, baking, listening to music, and hanging out with friends.

Lauren Tamm

Role: Student Member

Favorite Band: Bastille

Greatest Accomplishment: Sneaking into the general admission pit at a Bastille concert and crowd-surfing to their last song of the show, "Pompeii"

Dream Job: Food Technologist for NASA...or a vagabond (Who needs a job?...Or a home?)

Lauren is currently in her third year of working towards a Bachelors of Science in Food Science with a Leadership in Integrated Learning minor. When she isn't studying, working one of her two jobs, meeting with the e-boards of various clubs, or in the lab with the team, you can find her listening to Bastille (a.k.a. literally the best band ever), watching musicals, or eating. Possibly all three at once, but most likely eating. Too many wants and too many dreams - challenge accepted to reach each and every one. Far too ambitious for her own good, but adventure is out there and she can't wait to see where life takes her.

Darwin Warga Kane

Role: Student Member

Favorite Band:

Greatest Accomplishment:

Dream Job: To own and cook at a Wrap Deli

Not in attendance today.



MSU iGEM 2016: Frosty the Cyano

PAMELA HIMADEWI, LAUREN TAMM

MSU BOARD OF TRUSTEES MEETING PRESENTATION

APRIL 13TH, 2017

What is iGEM? (Genetically Engineered Machines)



- ▶ Synthetic biology competition for undergrad and graduate students
- ▶ Started by synthetic biology group at MIT in 2003
- ▶ Over 400 teams competed in 2016
- ▶ Teams spend the summer building a 'genetically engineered machine'

MICHIGAN STATE UNIVERSITY




2 **MENTORS/ADVISORS**

3 **UNDERGRADS**

4 **PRINCIPLE INVESTIGATORS**

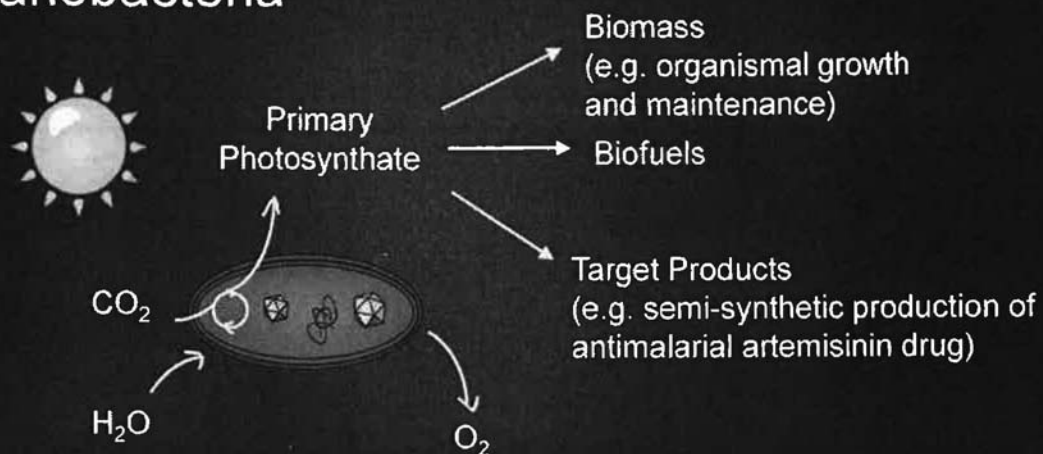
Frosty the Cyano – MSU iGEM 2016

MSU's first iGEM team!



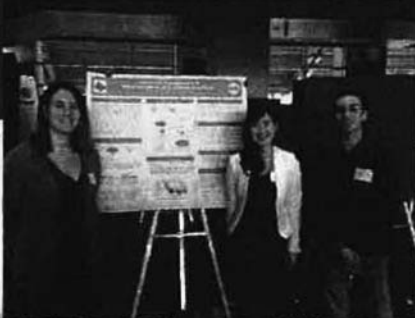
- ▶ Worked to engineer frost-tolerant cyanobacteria for applications on Mars
- ▶ Built photobioreactors to grow cyanobacteria
- ▶ Designed artwork and Wiki site
- ▶ Outreach event at Impression 5
- ▶ Presented at competition at MIT
- ▶ Bronze medal!

Utilizing Sunlight through Cyanobacteria



Our working
photobioreactor!

Activities



In the media: <http://msutoday.msu.edu/news/2016/msu-team-recognized-with-bronze-medal-in-synthetic-biology-competition/>

Thank you to our Sponsors!

This project would not have been possible without you!



- ▶ Ducat, Hamberger, TerAvest and Whitehead Labs
- ▶ Dr. Yuzuru Tozawa, Saitama University
- ▶ MSU Department of Biochemistry and Molecular Biology



College of
Agriculture and
Natural Resources

ThermoFisher
SCIENTIFIC

CORNING



RESEARCH PRESENTATION

TO THE MSU BOARD OF TRUSTEES

APRIL 13, 2017

STUDENT PRESENTATIONS

LAUREN TAMM
PAMELA HIMADEWI
UNDERGRADUATE PRESENTERS

KATERI SALK
GRADUATE PRESENTER

Facilitated by the Office of the President

Nathaniel E. Ostrom, Professor
Integrative Biology
Michigan State University

Nathaniel Ostrom graduated with a bachelor's degree in Biology, Chemistry and Marine Science in 1985 from the University of Tampa. He completed a masters and Ph.D. in Earth Sciences at Memorial University in 1992 and joined the faculty at MSU later that year.

He has been co-director of the Biogeochemistry and Stable Isotope Laboratory ever since and has researched projects that have ranged from understanding the impact of the Deepwater Horizon oil spill on hypoxia in the northern Gulf of Mexico to nitrogen cycling in the Antarctic Dry Valleys, Lake Vida; which at -13 °C is one of the coldest functioning cyroecosystems on the planet.

Over his career at MSU he has received 32 research grants totally over \$7 million from a variety of funding agencies including the National Science Foundation, National Oceanic and Atmospheric Administration, Department of Energy, the Environmental Protection Agency and National Institutes of Health.

A primary focus of his current research is on the role of the biosphere in regulating climate with current support from the Department of Energy's Great Lakes Bioenergy Research Center and the Geobiology and Low Temperature Geochemistry program at the National Science Foundation.

Kateri Salk

Kateri Salk (salkkate@msu.edu) is a PhD Candidate in the Department of Integrative Biology at MSU. Her research interests center on the biological, chemical, and physical transformations of nitrogen in lakes.

As a student of Dr. Nathaniel Ostrom, she uses stable isotope analysis as a tool to track these transformations, with a particular focus on how nitrogen influences harmful algal blooms (HABs) in Lake Erie.

Kateri will be graduating in May and plans to pursue an academic career that incorporates her passions for research and teaching.

Kateri Salk

PhD Student 2012-2017
Department of Integrative Biology

Michigan State University
Board of Trustees Meeting
April 13, 2017



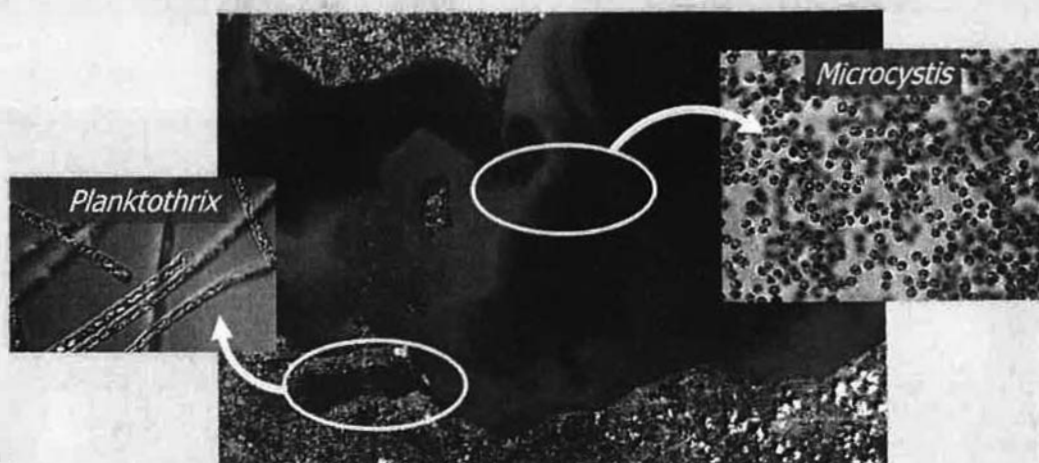
My Path to Graduate Research at MSU



ST·OLAF
COLLEGE



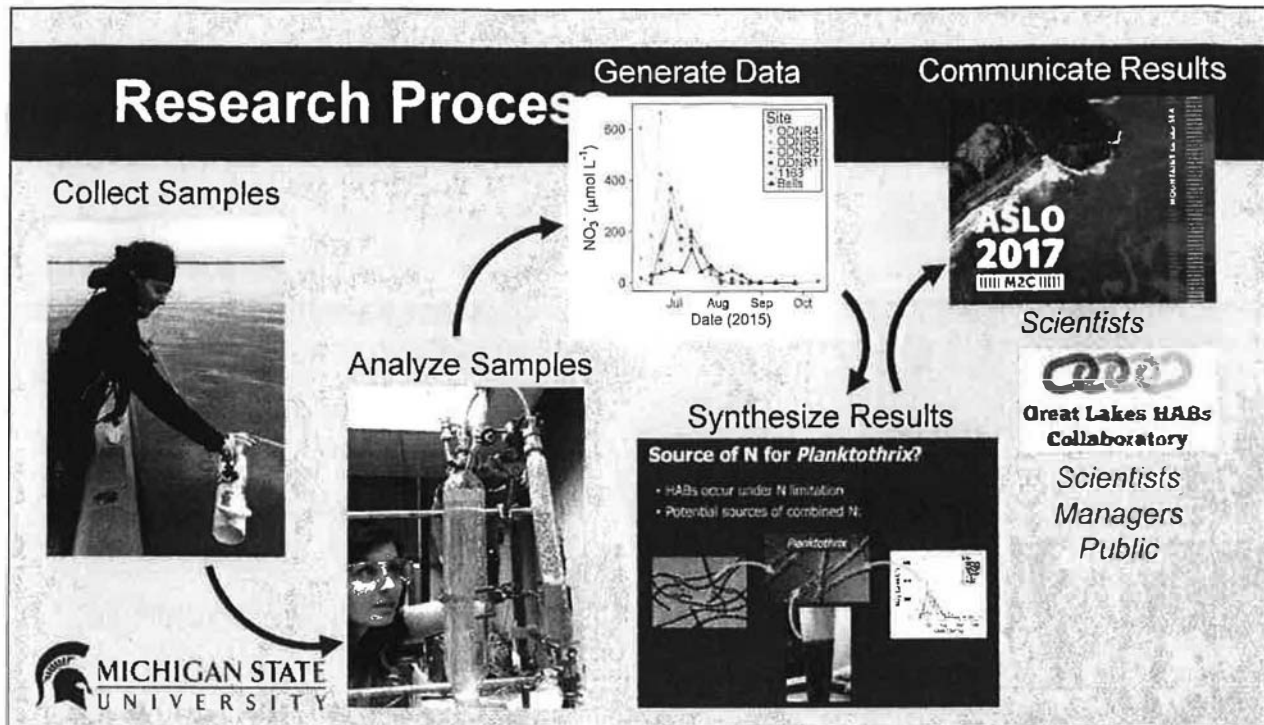
Harmful Algal Blooms in Lake Erie



Research Process

Collect Samples





Research Outcomes

- Nitrogen, in addition to phosphorus, influences the formation and persistence of HABs
- Nitrogen impacts competition between HAB species differently in nearshore vs. offshore
- Impacts could be more dramatic as climate change progresses
- Communicating with managers and the public is key!

MICHIGAN STATE UNIVERSITY

Unique Opportunities at MSU



WSN Water Science Network
MSU Michigan State University



- Network of Great Lakes scientists, policymakers, stakeholders
- Research support: Water Science Network
- Professional Development in teaching and learning
 - Latest instructional techniques
 - Classroom research
 - Innovations in STEM education
 - Leadership development



Thank you

