



**College of Natural
Science Annual
Meeting
November 19, 2021**

College of Natural Science (NatSci)
Annual Meeting and Awards Ceremony
STEM Teaching and Learning Facility, Rm. 1130

AGENDA

Friday, November 19, 2021
3:00 p.m. Annual meeting

Items:

- 1) Approval of Agenda for November 19, 2021
- 2) State of the College—Phillip M. Duxbury
- 3) Other Business?

Awards Ceremony
(Reception immediately following)

College of Natural Science
NatSci Annual Meeting/Awards Ceremony
Meeting Minutes
November 20, 2020

Items of Business:

- Approval of Minutes:
 - The minutes of the Nov. 22, 2019, meeting were approved as distributed.
- State of the College
 - Dean Duxbury presented the State-of-the-College address.

Awards Ceremony:

- The NatSci Awards Ceremony followed the annual meeting.
- Award recipients were presented certificates acknowledging their award.

The meeting was adjourned at 4:00 pm.

Advancement Update

FY 20/21 - Raised \$6,591,931

- 90% of the \$7.31M goal.
- The ongoing pandemic and limitations on traveling continued to make engaging with alumni challenging.

Created 14 new endowments, including:

- 10 supporting student success
- 1 focused on our DEI efforts
- The first donor-funded endowment focused on emergency student funding

Advancement Update (con't.)

Current Priorities

1. Identify, implement and revisit DEI opportunities within our Advancement (engagement and fundraising) efforts.
2. Continue to fundraise for Student Success
 1. Undergraduate Scholarships
 2. Graduate Fellowships
 3. Undergraduate Research

Advancement Update (con't.)

3. Continue to fundraise for faculty support:
 1. Endowed Professorships
 2. Endowed Chairs
 3. Research
4. Develop a new comprehensive stewardship plan for the college.
5. Explore philanthropic opportunities and develop a fundraising plan around collaborative interdisciplinary research themes.

Advancement Engagement

Goal is to continue to connect and engage in a meaningful way with NatSci's 63,000 alumni via:

- NatSci/MSU Connect
- Virtual events and presentations
- Alumni events have been moved to a hybrid model when appropriate:
 - ✓ Hybrid Scholarship event (September 2021)
 - ✓ Classes without Quizzes (April 2022)

MSU/NatSci Enrollment Fall 2021

MSU overall – 49,659 students (38,574 undergrad)

NatSci Fall 2021 undergraduate majors 6,061

(plus 2,945 LBC coordinate majors)

NatSci Fall 2021 incoming freshmen 1,372

(plus 869 LBC freshmen)

NatSci Fall 2021 graduate students 955

(867 Ph.D. students, 88 M.S. students)

College of Natural Science (2020-21)

- General fund allocation: **\$81M** (\$1,446M): **5.6%**
- Tenure stream faculty FTE: **284** (1985): **14.3%**
- Tuition dollars generated: **\$195M** (\$1,010M): **19.3%**
- IDC from Grants: **\$19.4M** (91M): **21.3%**
- Federal Grant Income: **\$67.2M** (563M): **11.9%**
- Endowment: **\$106.8M**

From an ROI perspective, NatSci is a top performer at MSU!

NatSci 2021-22 Budget

Recurring Budget: \$72.1M – up 1.1%

\$ 475k	Salary increases
\$ -723k	1% program efficiency reduction
\$ -2.2M	3% base budget reduction
\$ 3.2M	University allocation (new funding) (\$2.3m program support and \$0.9m position support)

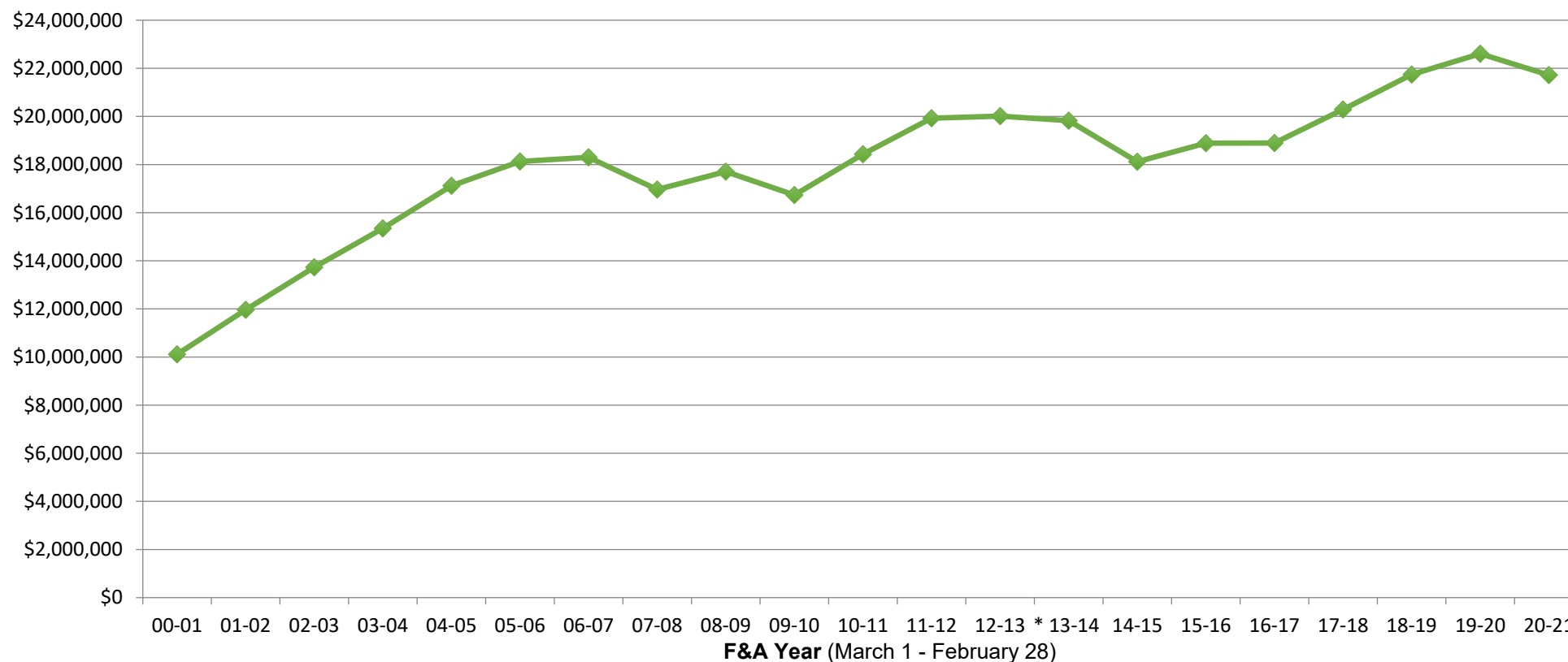
Non-Recurring Budget: \$9.5M – up 2.1%

\$ 673k	Program allocations (spousal salaries, retention support)
\$ 4.3M	Off-campus & online instruction (no change) \$1.7M lost due to “revenue freeze”
\$ 4.0M	F&A (down \$0.1M)

F&A Generated

00/01 through 20/21

(Bv NatSci Departments under all MAUs)



** 13-14 through 19-20 have been reconciled to RFA trend and exclude FRIB and GLBRC*



Department Leadership Changes

Ed Brown

Interim Chair

Department of Computational Mathematics,
Science and Engineering



Department Leadership Changes

Jiming Jiang

Interim Chair

Department of Plant Biology



Department Leadership Changes

Lyudmula Sakhanenko

Interim Chair

Department of Statistics and
Probability



Department Leadership Changes

Timothy Warren

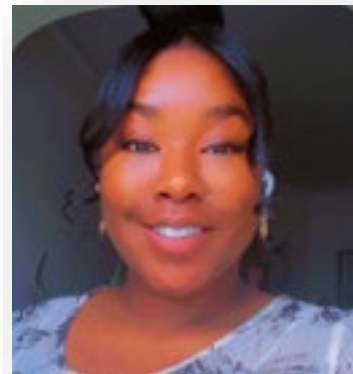
Chair

Department of Chemistry

New People in NatSci Dean's Office



- **Amber Benton**, Assistant Dean, Center for Inclusion, Community and Belonging



- **JeSonja Lee**, DEI assistant, Center for Inclusion, Community, and Belonging



- **Kendra Pyle**, DEI coordinator, Center for Inclusion, Community and Belonging

NatSci Dean's Office promotions



- **Heidi Purdy**, Assistant Dean, Academic and Student Affairs



- **Janae Lawler**, Director of Academic Advising & Strategic Initiatives, Academic Student Affairs



- **Danielle Flores Lopez**, Director of Academic Advising & Student Success Initiatives, Academic Student Affairs

NatSci Faculty & Academic Staff (26)

Biochemistry & Molecular Biology

- **Evelyn Grace**, Specialist-Advisor
- **Josh Vermass**, Assistant Professor TS (computational science)
- **Shannon Walsh**, Assistant Professor FT (gene regulatory networks in stem cells)

Chemistry

- **Brittany Busby**, Specialist-Teacher
- **Thomas O'Halloran**, MSU Foundation Professor (also MMG) (inorganic chemistry)
- **Kim Seokhyoung**, Assistant Professor (nanomaterials, photonics, solar energy)
- **Timothy Warren**, Barnett Rosenberg Professor (inorganic chemistry)
- **Mengqi (Veronica) Zhang**, Specialist-Teacher

NatSci Faculty and Academic Staff (cont.)

Computational Mathematics, Science and Engineering

- **Tom Finzell**, Assistant Professor FT (computational science education research)
- **Rachel Frisbie**, Assistant Professor FT (computational science education research)
- **Paul Hamerski**, Assistant Professor FT (computational science education research)
- **Santhosh Karnik**, Assistant Professor FT (signal processing)
- **Yann-Meing Law-Kam Cio**, Assistant Professor FT (computational physics)

Dean's Office

- **Jun Fu**, Specialist-Curriculum Dev (EDLI)
- **Paul Nelson**, Instructor FT (Human Biology)
- **Juli Uhl**, Instructor FT (Human Biology)

NatSci Faculty and Academic Staff (cont.)

Earth & Environmental Sciences

- **Julie Elliot**, Assistant Professor FT

Integrative Biology

- **Scott Fitzpatrick**, Specialist-Advisor

Kellogg Biological Station

- **Anne Bronikowski**, Professor TS (also IBIO); (life history evolution, physiological ecology of animals)
- **Kadeem Gilbert**, Assistant Professor TS (also Plant Biology); (physiological ecology, community ecology)
- **Elizabeth Kochmanski**, Specialist-Outreach

NatSci Faculty and Academic Staff (cont.)

Mathematics

- **Laure Flapan**, Assistant Professor (algebraic geometry, Hodge theory)
- **Francois Greer**, Assistant Professor/Van Haften Professor (algebraic geometry, moduli spaces)

Microbiology & Molecular Genetics

- **Bong Jin (Bill) Hong**, Assistant Professor FT (analytical methods to probe cellular metal content)
- **Keith MacRenaris**, Associate Professor FT (trace element analysis and imaging)

Physics & Astronomy

- **Jonas Becker**, Assistant Professor TS (condensed matter physics)

2021 Faculty Honors

National Academy of Science (2021)



Dean DellaPenna

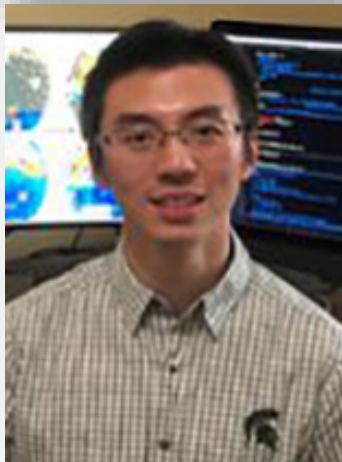
University Distinguished Professor, MSU Foundation
Professor
Biochemistry & Molecular Biology/MSU-DOE Plant
Research Laboratory

DellaPenna joins 10 current MSU faculty who are
members of NAS.

2021 NSF Early CAREER Award Winners



Arjun Krishnan
Assistant Professor,
CMSE, Biochemistry &
Molecular Biology



Shawn Wei
Endowed Assistant Professor
of Geological Sciences,
Earth & Environmental
Sciences



Foundation/Agency Awards

Morgan Stanley Institute for Sustainable Solutions Collaborative Prize

- **Bruno Basso**, Earth & Environmental Sciences

Institute of Mathematical Statistics Annals quadfecta

- **Frederi Viens**, Statistics and Probability; Interim Director, Actuarial Science Program

Fulbright Senior Scholar Fellowship

- **Elise Zipkin**, Integrative Biology; Director, Ecology, Evolution and Behavior Program

Professional Society Awards

American Astronomical Society – Bruno Rossi Prize (IceCube Collaboration)

- **Claudio Kopper**, Physics & Astronomy
- **Nathan Whitehorn**, Physics & Astronomy

American Mathematical Society Fellowship

- **Misha Shapiro**, Mathematics
- **Sasha Volberg**, Mathematics

American Phytopathological Society Fellowship

- **Frances Trail**, Plant Biology

Professional Society Awards

American Society for Microbiology – Distinguished Lecturer Program

- **Shannon Manning**, Microbiology & Molecular Genetics
- **Kristin Parent**, Biochemistry & Molecular Biology

American Society for Microbiology – Alice C. Evans Award; editor-in-chief, Applied and Environmental Microbiology

- **Gemma Reguera**, Microbiology & Molecular Genetics

American Society for Cell Biology – Mentoring Keynote Lecture Award

- **Beronda Montgomery**, Biochemistry & Molecular Biology, MSU-DOE
Plant Research Laboratory

Professional Society Awards

Association for the Sciences of Limnology and Oceanography - G. Evelyn Hutchinson Award

- **Elena Litchman**, Integrative Biology; Kellogg Biological Station

Mycological Society of America – Weston Award for Excellence in Teaching

- **Frances Trail**, Plant Biology

Society for the Study of Evolution's Lifetime Achievement Award

- **Richard Lenski**, Microbiology & Molecular Genetics; Integrative Biology

Endowed NatSci Faculty



Jerry Cowen Chair of Experimental
Physics

Tyler Cocker

Physics & Astronomy

Van Haften Professor

Francois Greer

Mathematics



Endowed NatSci Faculty



MSU Foundation Professor

Thomas O'Halloran

Microbiology & Molecular
Genetics; Chemistry

Barnett Rosenberg Professor

Timothy Warren

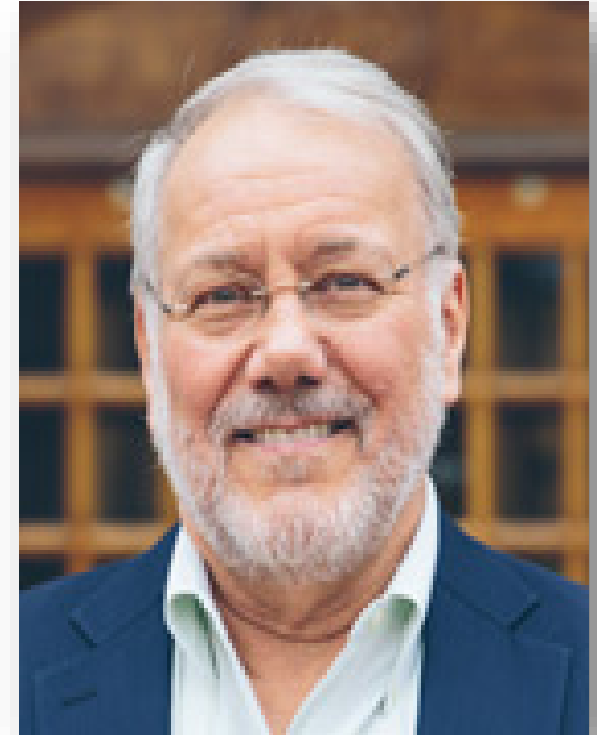
Chemistry



University Distinguished Professors



Federica Brandizzi
Plant Biology



Joseph Krajcik
CREATE for STEM

University Distinguished Professors

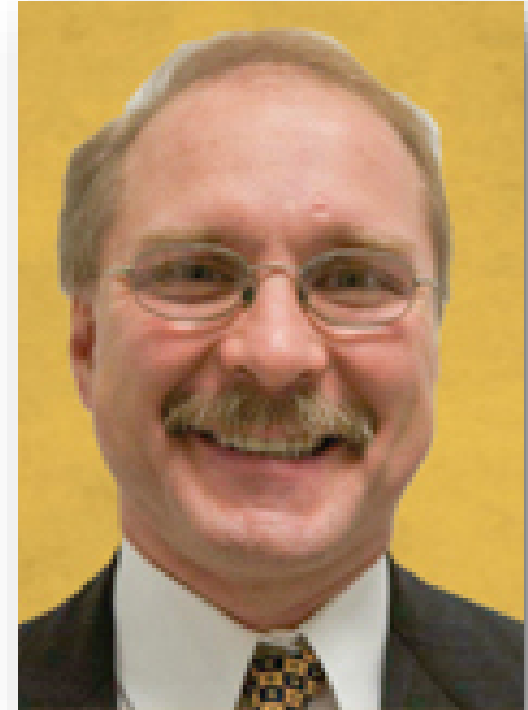


Robert Last

Biochemistry & Molecular
Biology; Plant Biology

Kenneth Merz

Chemistry; Biochemistry
& Molecular Biology



Other University Wide Honors



Beal Outstanding Faculty Award
Zhiyong Xi
Chemistry

President's Distinguished
Teaching Award
Teena Gerhardt
Mathematics



Other University Wide Honors

MSU Teacher-Scholar Award

- **Willie Wong**, Mathematics

Excellence-in-Teaching Citations

- **Darren Incorvaia**, Integrative Biology, CISCs, EEB
- **Christopher Warneke**, Plant Biology

Donald F. Koch Quality in Undergraduate Teaching Award

- **Erica Wehrwein**, Physiology

Recent Grants



College of Natural Science
MICHIGAN STATE UNIVERSITY

Recent Grants

DOD

Real-Time Detection of Contaminants in Biopharmaceuticals by AI-Enabled Quantum Coherence Spectroscopy (DOD, Defense Threat Reduction Agency) **PI: Elad Harel**, Chemistry, \$2.5 million (2021-2026)

DOE

TRAIN-MI Program: High Energy Physics Instrumentation Traineeship in Michigan (DOE) **PI: Kendall Mahn**, Physics & Astronomy, \$1.97 million (2021-2026)

NIH

Transport, substrate specificity and regulation mechanisms of the ZIP transition metal transporters (NIH MIRA) **PI: Jian Hu**, Biochemistry & Molecular Biology, \$1.72 million, (2021-2026)

Enabling synthesis and biological studies of homogeneous heparan sulfate and chondroitin sulfate glycopeptides and proteoglycans (NIH RO1) **PI: Xuefei Huang**, Chemistry, \$1.22 million (2021-2024)

Recent Grants

NIH (con't.)

Determining the evolutionary forces shaping genotype-by-environment interactions (NIH MIRA) **PI: Emily Josephs**, Plant Biology, \$1.91 million (2021-2026)

Neuroimmune interactions regulating the balance between remission and relapse of pain (NIH RO1) **PI: Geoffroy Laumet**, Physiology, \$2.03 million (2021-2026)

Bacteriophage interactions with enteric pathogens (NIH MIRA) **PI: Kristin Parent**, Biochemistry & Molecular Biology, \$2.03 million (2021-2026)

Quantitative top-down proteomics of human colorectal cancer cells and tumors (NIH RO1) **PI: Liangliang Sun**, Chemistry, \$1.93 million (2021-2026)

Exploring cyclic di-nucleotide signaling across the tree of life (NIH MIRA) **PI: Chris Waters**, Microbiology & Molecular Genetics, \$2.62 million (2021-2025)

Recent Grants

NIH (con't.)

The contribution of novel cytidine deaminase regulatory systems to bacterial evolution (NIH RO1), PI: Chris Waters, Microbiology & Molecular Genetics, \$2.87 (2021-2026)

NSF

Collaborative Research: HDR DSC: Increasing Accessibility through Building Alternative Data Science Pathways (NSF) PI: Andrew Christlieb, Computational Mathematics, Science and Engineering, \$1.02 million (2021-2024)

Translational regulation and novel translated small ORFs in Arabidopsis ABA responses (NSF) PI: Yingshan Hsu, Biochemistry & Molecular Biology, \$1.2 million (2021-2026)

TRTech-PGR: Connecting sequences to functions within and between species through computational modeling and experimental studies (NSF) PI: Shinhan Shiu, Plant Biology, \$1.4 million (2021-2024)

Recent Grants

NSF (con't.)

Research PGR: The Temperature-Immunity Nexus: Activation of Immunity by Low Temperature (NSF) PI: Michael Thomashow, Microbiology & Molecular Genetics/PRL, \$1.8 million (2021-2025)

USDA

Integrating strategic sampling with an ensemble multi-model approach to quantify and scale soil carbon stocks and climate benefits in CRP (USDA, Farm Service Agency) PI: Bruno Basso, Earth & Environmental Sciences, \$3.37 million (2021-2026)

Digital Agriculture to Enhance the Sustainability of U.S. Cropping Systems (USDA, Natural Resources Conservation Services) PI: Bruno Basso, Earth & Environmental Sciences, \$2.57 million (2021-2025)

Strategic Priorities



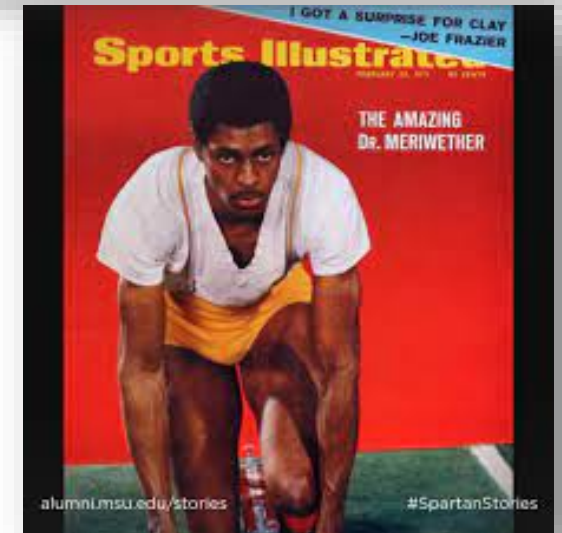
University Strategic Priorities

1. Student success
2. Staff and faculty success
3. Innovation for global impact
4. Sustainable health
5. Stewardship and sustainability
6. Diversity, equity and inclusion



NatSci Strategic Priorities

1. Grow and support a diverse NatSci community
2. Train students to think like scientists
3. Maximize research excellence
4. Pursue scientific discoveries and technical innovations that address global grand challenges and opportunities
5. Cultivate the college's internal and external connections to maximize impact
6. Demonstrate transparency, accountability, professionalism, and respectful communication



College of Natural Science Annual Awards November 19, 2021



College of Natural Science Annual Awards November 19, 2021

These awards are based on nominations from across the college. Most are evaluated by the NatSci Awards Committee or Center for Integrative Studies in General Science staff.

NatSci Outstanding Faculty Award 2021-2022

These awards go primarily to senior faculty members in recognition of outstanding contributions in scholarly research and teaching to the college and the university.

NatSci Outstanding Faculty Award 2021-2022



Jeffrey Conner
Plant Biology

NatSci Outstanding Faculty Award 2021-2022



Gemma Reguera
Microbiology &
Molecular Genetics

NatSci Outstanding Faculty Award 2021-2022



Jetze Tepe
Chemistry

NatSci Outstanding Faculty Award 2021-2022



Hongbing Wang
Physiology

NatSci Research Leadership Award 2021-2022

Research Leadership Awards are given each year to recognize NatSci tenured full professors for outstanding, impactful research and internationally recognized leadership in the field.

NatSci Research Leadership Award 2021-2022



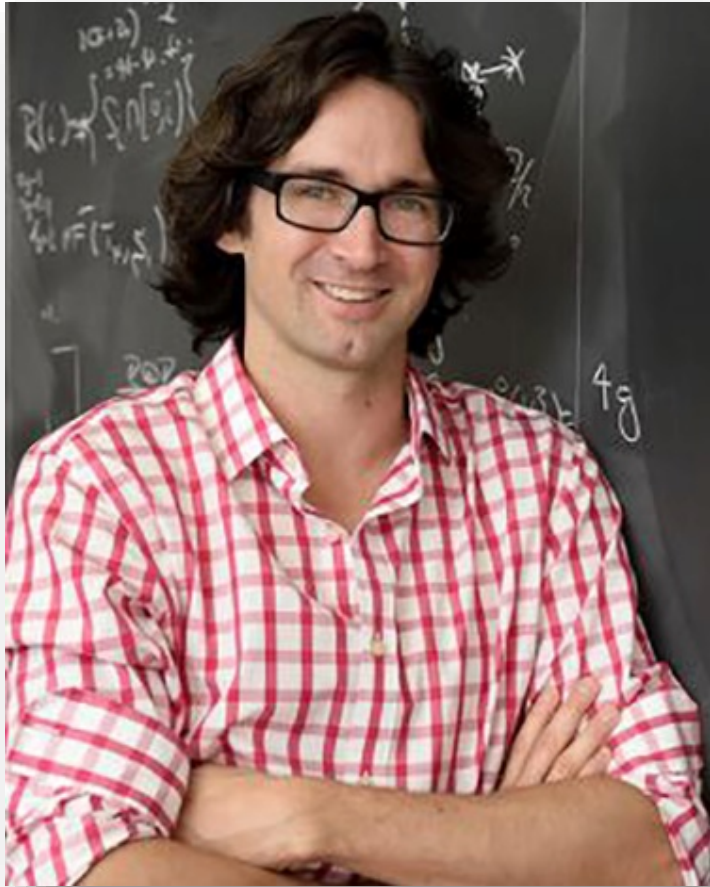
Mark Dykman

Physics and Astronomy

2021 Mid-Career Award Winner

Mid-Career Research Awards are given each year to recognize NatSci tenured faculty for outstanding research. The award is based on success and impact of publications, funding, and other criteria that demonstrate excellence in the awardee's field

2021 Mid-Career Award Winner



Matthew Hedden
Mathematics

2021 Early Career Research Award

Early Career Research Awards are given each year to recognize NatSci tenure-track faculty for outstanding research. The award is based on success in publications, funding, and other criteria that signify excellence

2021 Early Career Research Award



Huey-Wen Lin
Physics and Astronomy

2021 Early Career Research Award



Jay Strader
Physics and Astronomy

NatSci Teacher-Scholar Award 2021-2022

These awards go to assistant and associate professors for their outstanding contributions to teaching and scholarly research.

NatSci Teacher-Scholar Award 2021-2022



Johannes Pollanen
Physics and Astronomy

NatSci Teacher-Scholar Award 2021-2022



Marjorie Weber
Plant Biology;
Ecology, Evolutionary Biology
& Behavior Program

NatSci Undergraduate Teaching Award 2021-2022

These awards go to faculty members who have demonstrated outstanding contributions to, and continuing involvement in, creative and engaging ways to foster student learning and instruction.

NatSci Undergraduate Teaching Award 2021-2022



Michael Brown
Mathematics

NatSci Undergraduate Teaching Award 2021-2022



James (Ned) Jackson
Chemistry

NatSci Junior Faculty Mentoring Award 2021-2022

This award goes to faculty members who have made outstanding contributions to mentoring junior faculty members throughout their academic career.

NatSci Junior Faculty Mentoring Award 2021-2022



Heather Eisthen
Integrative Biology

NatSci Postdoctoral Mentoring Award 2021-2022

This award goes to faculty members who have made outstanding contributions to the effective mentoring of postdoctoral researchers in both professional development and holistic balance.

NatSci Postdoctoral Mentoring Award 2021-2022



Melanie Cooper
Chemistry

NatSci Distinguished Academic Staff Award 2021-2022

This award goes to academic staff members for outstanding contributions to improving the success of students in the college.

NatSci Distinguished Academic Staff Award 2021-2022



Todd Lydic
Physiology

Undergraduate Academic Advisor Award 2021-2022

This award goes to faculty members or academic staff for their outstanding service as advisors. It is awarded by the NatSci Student Advisory Council.

Undergraduate Academic Advisor Award 2021-2022



Susan Hill
Integrative Biology

Graduate Academic Advisor Award 2021-2022

This award goes to faculty members or academic staff for their outstanding commitment and dedication to student success. It is awarded by the NatSci Student Advisory Council.

Graduate Academic Advisor Award 2021-2022



Tammy Long
Plant Biology

NatSci Support Staff Award 2021-2022

These awards go to staff members who have exceptional job performance and contributions that have improved the university's ability to fulfill its missions.

NatSci Support Staff Award 2021-2022



Val Osowski
Dean's Office

NatSci Support Staff Award 2021-2022



William Park
IT Services

NatSci Excellence-in-Teaching Citation 2021-2022

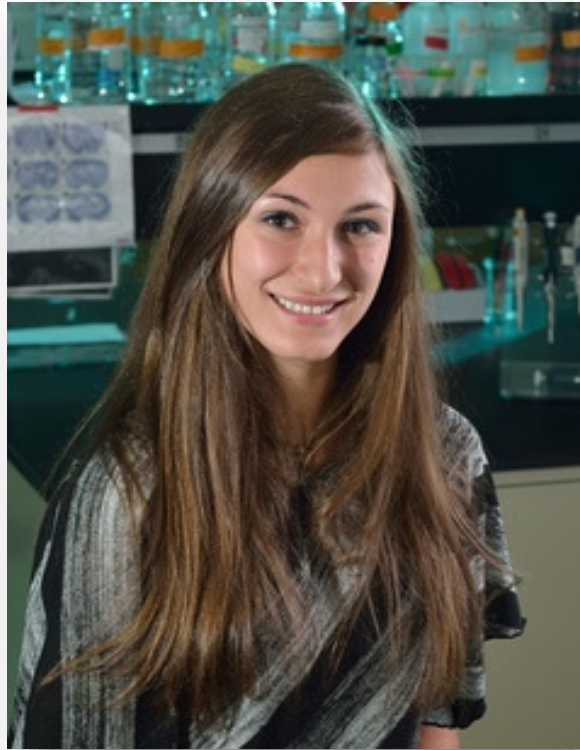
These awards go to graduate teaching assistants who have distinguished themselves in undergraduate classroom teaching.

NatSci Excellence-in-Teaching Citation 2021-2022



Nicholas Rekuski
Mathematics

NatSci Excellence-in-Teaching Citation 2021-2022



Olivia Spagnuolo
Integrative Biology

NatSci Undergraduate Learning Assistant Award 2021-2022

This award is given in recognition of the care given and the skill shown in meeting classroom responsibilities in the College of Natural Science.

NatSci Undergraduate Learning Assistant Award 2021-2022



Alexandra Korabiewski
Chemistry

NatSci Faculty Teaching Prize 2021-2022

NatSci Faculty Teaching Prizes are made to fixed term and tenure system faculty in recognition of excellent teaching. Nominations are made by department chairs during the annual faculty raise process.

NatSci Faculty Teaching Prize 2021-2022



Dirk Colbry

Computational Mathematics,
Science & Engineering

NatSci Faculty Teaching Prize 2021-2022



Susannah Dorfman
Earth and Environmental Science

NatSci Faculty Teaching Prize 2021-2022



Camille Fairbourn
Statistics & Probability

NatSci Faculty Teaching Prize 2021-2022



John Keane
Statistics & Probability

NatSci Faculty Teaching Prize 2021-2022



Katie Krueger
Biological Science Program

NatSci Faculty Teaching Prize 2021-2022



Ryan Maccombs
Mathematics

NatSci Faculty Teaching Prize 2021-2022



Jane Rice

Center for Integrative Studies
in General Science

NatSci Faculty Teaching Prize 2021-2022



Elizabeth Tinsley-Johnson
College of Natural Science

NatSci Faculty Teaching Prize 2021-2022



John Zubek

Center for Integrative Studies
in General Science

College of Natural Science Annual Awards November 19, 2021

The next four awards are given by the college's
Center for Integrative Studies in General Science:

Lorena V. Blinn Endowed Teaching Award 2021-2022

This award goes to faculty members who exhibit expertise in teaching and in advancing pedagogy and the education offered by CISGS.

Lorena V. Blinn Endowed Teaching Award 2021-2022



Matt Grieshop
Entomology

James D. Hoeschele Endowed Teaching Award 2021-2022

This award recognizes outstanding teaching in integrative studies.

James D. Hoeschele Endowed Teaching Award 2021-2022

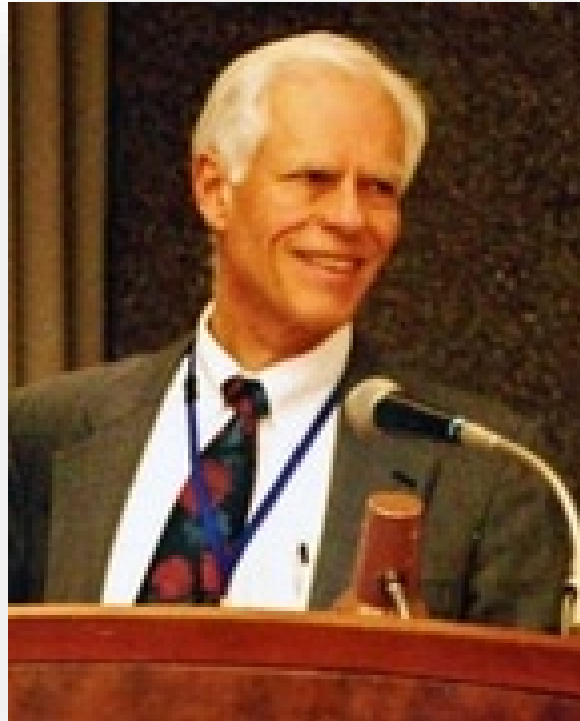


Susie Jackson
Center for Integrative
Studies in
General Science

Ronald W. Wilson Endowed Teaching Award 2021-2022

This award goes to a faculty or staff member for outstanding contributions to teaching and scholarship in integrative studies.

Ronald W. Wilson Endowed Teaching Award 2021-2022



Bill Hartmann
Physics and Astronomy

Harlo Mervyn Mork Memorial Excellence in Teaching Award 2021-2022

This award is given to teaching assistants in recognition of outstanding contributions to the improvement of undergrad education in integrative studies.

Harlo Mervyn Mork Memorial Excellence in Teaching Award 2021-2022



Ashley Wright
Plant, Soil and
Microbial Sciences

Norman L. and Olga K. Fritz Excellence in Teaching Award 2021-2022

This award is open to teaching faculty of any rank, fixed term or tenure, and recipients are selected by the College of Natural Science award committee with student input. The Fritz Award was established to honor and encourage individuals who have exhibited excellence in teaching in the college, especially in physics and mathematics, at Michigan State University.

Norman L. and Olga K. Fritz Excellence in Teaching Award 2021-2022



Morten Hjorth-Jenson
Physics and Astronomy

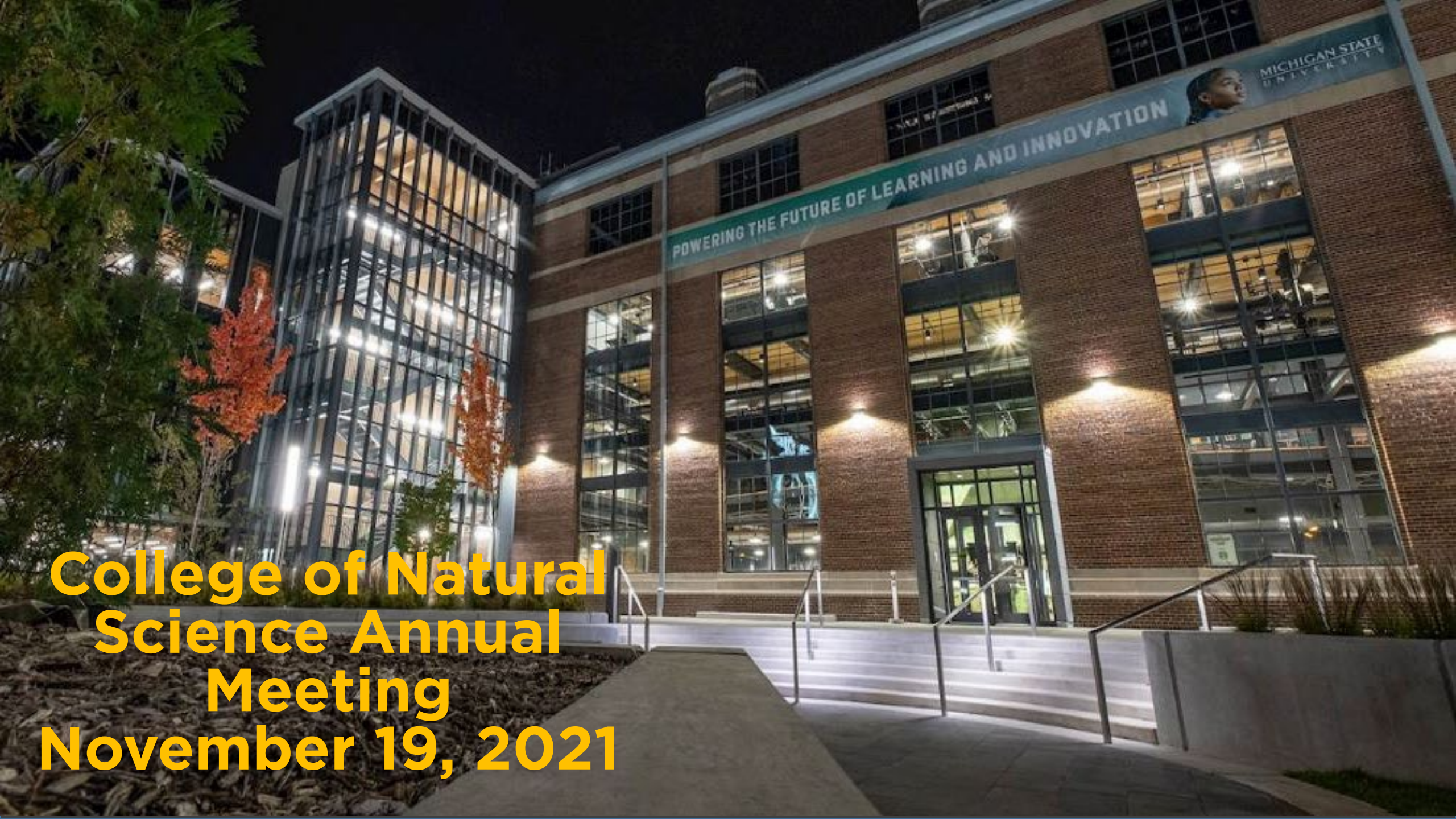
Norman L. and Olga K. Fritz Excellence in Teaching Award 2021-2022



Jane Zimmerman
Mathematics



THANK YOU!



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