

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

February 17, 2017

President Simon called the meeting of the Board of Trustees to order at 9:35 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, Joseph Francese, Laura McCabe, Richard Miksicek, and Deborah Moriarty. Student liaisons present: Mariah Hill, Dee Jordan, Lorenzo Santavicca, and Angel Trevino.

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 Foster, supported by Trustee Mosallam, the **BOARD VOTED to approve** the minutes of the December 16, 2016 Board of Trustees Meeting and the January 11, 2017 Board of Trustees meeting.
3. President's Report

President Simon provided the following report to the Board.

A. University Achievements

Ten MSU faculty members were honored for their outstanding contributions to education and research with William J. Beal Outstanding Faculty Awards at the annual Awards Convocation on February 7, 2017.

The MSU College of Veterinary Medicine has received the largest single gift in its history: \$12.6 million from the estate of the late alumnus Albert C. Dehn. Initially, the gift will fund two new

endowed chairs in the Large Animal Clinical Science and the Pathobiology and Diagnostic Investigations Departments.

The American Bar Association recognized MSU Law's Legal RnD program on its list of top innovative law school programs and projects.

B. Student and Alumni Achievements

Rebecca Carlson, an Honors College senior majoring in Chemical Engineering, has been selected as a finalist for the Hertz Foundation Fellowship, which provides funding for the pursuit of doctorates in the STEM fields. Rebecca was also a 2015 Goldwater Scholar.

MSU's 2015-16 production of *A Room with a View* received top honors in the Division IV production competition of the National Opera Association. The win marks the fifth consecutive NOA honor received by the MSU Opera Theatre under the direction of Professor Melanie Helton.

MSU's first iGEM team earned a bronze medal in the International Genetic Engineered Machine Foundation competition. The iGEM competition challenges teams with two goals: to create a project with elements that will add characterized biological parts to the Registry of Standardized Biological Parts, and to incorporate community outreach and interactive education on iGEM and synthetic biology. The team was comprised of three undergraduate students and a team of professors and advisors.

Broad College of Business graduate Chef Kimberly Ryan was recently named the winner of the 16th season of Fox's *Hell's Kitchen*. Ryan, former event chef at Traverse City's Alliance Restaurant, also received a grand prize of \$250,000 and a head chef position at Yardbird Southern Table & Bar at the Venetian Hotel in Las Vegas.

C. Faculty and Staff Achievements

Elise Zipkin, an MSU assistant professor of Integrative Biology, has been named a 2017 Early Career Fellow of the Ecological Society of America. Zipkin is one of seven early career fellows elected nationally by the Society this year.

Terrie Taylor, internationally recognized malaria expert in the

College of Osteopathic Medicine, was recently awarded the Ben Kean Medal by the American Society of Tropical Medicine and Hygiene. The Ben Kean Medal is given every three years to a clinician or educator whose dedication to clinical tropical medicine keeps with the tradition established by Ben Kean, a renowned clinical professor of tropical medicine and professor of public health at Cornell University.

MSU researcher Yue Qi has been awarded a national 2017 Brinacombe Medal from The Minerals, Metals and Materials Society for significant contributions in multidisciplinary computational materials science. She was selected for her work advancing chemical-mechanical coupling and breakthroughs in the study of Lithium-ion battery failure.

D. Athletics

Former MSU All-American placekicker Morten Andersen has been selected to the Pro Football Hall of Fame. Andersen holds NFL records for most points scored and most games played. A four-year letterperson from 1978-81, Andersen closed out his career as MSU's all-time leader in field goals, extra points, and scoring.

E. MSU Climate

President Simon noted that MSU is currently dealing with several unrelated issues of sexual assault or harassment that people might associate because they have come to light at about the same time.

She stated that each case is different, each is taken seriously, and each is subject to separate investigative processes that deserve to be respected. Because there are multiple investigations surrounding any one incident, and because these take time to unfold, it can be confusing, and frustrating, for members of the MSU community and for the public. In all cases involving sexual assault or other forms of gender violence, there is both a law enforcement and Title IX investigation. Those investigations are separate and proceed independently.

President Simon said that it takes courage for victims to come forward and share details of personally traumatic events. She acknowledged them and assured the MSU community that the University will continue to look at every situation with integrity and diligence.

President Simon said that she understands many in the MSU community may be feeling anxious and frustrated by these recent developments. People might conclude these developments indicate a culture problem at MSU. President Simon affirmed that MSU is committed to creating a culture of accountability, safety, and responsiveness regarding sexual assault and harassment. There is no culture of tolerating sexual abuse or harassment on MSU's campus.

President Simon stated that no member of the MSU community should be threatened by any form of sexual violence. Simply put, it has no place in this community. She expects every University employee to cooperate fully with any law enforcement or Title IX investigation. Any interference with those investigations will not be tolerated.

President Simon concluded by acknowledging that, like all institutions, and society itself, MSU is not perfect. But the University is dedicated to being better tomorrow than it is today and is absolutely committed to the safety and security of every member of the MSU campus community.

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

Provost Youatt presented the following personnel actions:

Dorgan, John, AY – Professor, David L. and Denise M. Lamp Chair, Department of Chemical Engineering and Materials Science, \$210,000, with Tenure, effective February, 6, 2017.

Dantonio, Mark J., AN – Head Coach – Football, Intercollegiate Athletics, Subject to Contract, effective January 15, 2022 to January 14, 2023.

Trustee Mosallam **moved to approve** the recommendations, with support from Trustee Lyons.

THE BOARD VOTED to approve the recommendations.

6. Gift, Grant and Contract Report

Vice President Hsu presented the Gifts, Grants, and Contracts Report for the period of November 23, 2016 through January 19, 2017. The report is

a compilation of 436 Gifts, Grants and Contracts, plus 70 Consignment/Non-Cash Gifts, with a total value of \$133,538,686.

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

Vice President Hsu introduced Dr. Megan Donohue, professor in the Department of Physics and Astronomy in the College of Natural Science, who presented to the Board on the topic of Galaxies and Super-Massive Black Holes. (Appendix A)

7. Finance Committee

Trustee Foster presented the Trustee Finance Committee Report and the following recommendations and resolutions.

A. Fund Functioning as an Endowment—John A. Penner Fund

It was recommended that the Board of Trustees establish a fund functioning as an endowment to enhance the education of graduate students studying hematology, thrombosis, or inflammation.

BE IT RESOLVED that the Board of Trustees of Michigan State University hereby establishes a fund functioning as an endowment entitled "John A. Penner Fund."

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

THE BOARD VOTED to approve the resolution.

B. Greater Lansing Regional Committee for Stormwater Management

It was recommended that the Board of Trustees approve the continuation of the University's membership in the Greater Lansing Regional Committee for Stormwater Management and grant the Administration full authority to enter into all agreements and take all actions in connection with such membership.

BE IT RESOLVED that the Board of Trustees of Michigan State University hereby authorizes the President and the Executive Vice President for Administrative Services, individually, to enter into, and take any action required by, all agreements and other documents in connection with the University's membership in the Greater Lansing

Regional Committee for Stormwater Management, on such terms and conditions as they may deem acceptable; and

BE IT RESOLVED FURTHER that the President and Executive Vice President for Administrative Services may delegate the authority so granted, with such limitations and controls as they find necessary and appropriate; and

BE IT RESOLVED FURTHER that the authority and power conferred by this action shall vest in any individual appointed as successor to the President and Executive Vice President for Administrative Services, in any successor positions to the Executive Vice President for Administrative Services, and in any individuals appointed to these successor positions.

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

THE BOARD VOTED to approve the resolution.

C. Reconveyance of Animal Agriculture – Anthony Hall, Dairy Plant and Meats Laboratory.

It was recommended that the Board of Trustees ask the Michigan State Building Authority (SBA) to reconvey the property deeded to the SBA by the Board in connection with the financing of the Anthony Hall, Dairy Plant and Meats Laboratory project.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby adopts the attached Resolution of the Board of Trustees of Michigan State University Requesting Conveyance of Property for the Animal Agriculture – Anthony Hall, Dairy Plant and Meats Laboratory, Acceptance of the Same and Accepting Obligations for the Facilities. (Appendix B)

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

THE BOARD VOTED to approve the resolution.

D. Revised Investment Policy (*Revised Asset Allocation*)

It was recommended that the Board of Trustees amend the Statement of Investment Objectives for the Common Investment Fund (CIF) to combine the U.S. Equity and Developed Global ex U.S.

Equity Asset Classes into a single Global Equities Asset Class, replace the existing benchmarks with the MSCI World Index, and update the target and range for the new asset class.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves an amendment to Exhibit A of its Investment Policy, Board Policy 01-07-01. (Appendix C)

Trustee Foster **moved to approve** the resolution, with support from Trustee Ferguson.

THE BOARD VOTED to approve the resolution.

E. Revised Investment Advisory Subcommittee Conflict of Interest Policy

It was recommended that the Board of Trustees adopt a revised conflict of interest policy for external members of the Investment Advisory Subcommittee.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves the Investment Advisory Subcommittee Conflict of Interest Policy for External Members. (Appendix D)

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

THE BOARD VOTED to approve the resolution.

F. Campus Land Use Master Plan Update 2017

It was recommended that the Board of Trustees adopt the Campus Land Use Master Plan Update 2017 that addresses changing land use needs and regulatory requirements.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby adopts the Campus Land Use Master Plan Update 2017, including changes to the Campus Planning Principles, Land Use Recommendations, and University Zoning Ordinance.

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

THE BOARD VOTED to approve the resolution.

G. Project Approval – Authorization to Proceed – Spartan Stadium – Install Permanent Field Lighting

It was recommended that the Board of Trustees authorize the Administration to proceed with the installation of permanent lighting at Spartan Stadium.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled “Spartan Stadium - Install Permanent Field Lighting”, with a project budget of \$2,000,000.

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

THE BOARD VOTED to approve the resolution.

H. Project Approval – Authorization to Proceed – Spartan Stadium – South End Zone Addition

It was recommended that the Board of Trustees authorize the Administration to proceed with an addition to improve fan amenities at Spartan Stadium.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled “Spartan Stadium - South End Zone Addition”, with a project budget of \$13,000,000.

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

THE BOARD VOTED to approve the resolution.

I. Project Approval – Authorization to Proceed – Ralph Young Track – Replace Field Hockey Playing Surface

It was recommended that the Board of Trustees authorize the Administration to proceed with replacing the field hockey playing surface at the Ralph Young Track.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled “Ralph Young Track – Replace Field Hockey Playing Surface”, with a project budget of \$1,450,000.

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

THE BOARD VOTED to approve the resolution.

J. Project Approval – Authorization to Proceed – Instructional Space Improvements – Bessey Hall

It was recommended that the Board of Trustees authorize the Administration to proceed with renovation and technology improvements to Bessey Hall's instructional space as part of the University's commitment to student success. This project is one of several instructional space updates.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled "Instructional Space Improvements – Bessey Hall", with a project budget of \$2,900,000.

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

THE BOARD VOTED to approve the resolution.

K. Project Approval – Authorization to Proceed – Instructional Space Improvements – Veterinary Medical Center

It was recommended that the Board of Trustees authorize the Administration to proceed with renovation of, and technology improvements to, the Veterinary Medical Center's instructional space as part of the University's commitment to student success. This project is one of several instructional space updates.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled "Instructional Space Improvements – Veterinary Medical Center", with a project budget of \$1,500,000.

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

THE BOARD VOTED to approve the resolution.

L. Bid and Contract Award – Food Processing and Innovation Center
(*Budget Reduction*)

It was recommended that the Board of Trustees authorize the Administration to award a contract for renovations and an addition at the Engineering Research-Hulett Road building to support the Food Processing and Innovation Center.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby awards a contract in the amount of \$2,869,000 to DeMaria Incorporated and that the budget be reduced from \$6,400,000 to \$5,400,000 for the project entitled “Food Processing and Innovation Center.”

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

THE BOARD VOTED to approve the resolution.

M. Bid and Contract Award – IM Sports West – Selected Infrastructure System Upgrades (*Healthy Campus Initiative*)

It was recommended that the Board of Trustees authorize the Administration to award a contract to Laux Construction, LLC.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby awards a contract in the amount of \$2,816,000 to Laux Construction, LLC, for the project entitled “IM Sports West – Selected Infrastructure System Upgrades (*Healthy Campus Initiative*)”.

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

THE BOARD VOTED to approve the resolution.

9. Policy Committee

Trustee Byrum presented the Trustee Policy Committee Report and the following recommendations and resolutions.

A. Approval of Contract Terms

It was recommended that the Board of Trustees approve a contract between Michigan State University and *Kopess Ag Tech, LLC*, a

company in which MSU employees Dr. Kyung-Hwan Han and Okran Han hold a financial interest.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby approves an option agreement with *Kopess Ag Tech, LLC*, consistent with earlier public notice given at a Board meeting and with the "Option Agreement Term Sheet" presented to the Board. (Appendix E)

It was recommended that the Board of Trustees approve a contract between Michigan State University and *XG Sciences, Inc.*, a company in which faculty member Dr. Lawrence Drzal holds a financial interest.

BE IT RESOLVED, that the Board of Trustees approves a sponsored research agreement between Michigan State University and *XG Sciences, Inc.*, consistent with earlier public notice given at a Board meeting and with the "Sponsored Research Agreement Term Sheet" now presented to the Board for inclusion in its minutes. (Appendix F)

Trustee Byrum **moved to approve** the resolutions, with support from Trustee Mosallam.

THE BOARD VOTED to approve the resolutions.

10. Audit Committee

A. Reappointment of University's External Auditors for 2016-17

It was recommended that the Board of Trustees reappoint Plante & Moran as external auditors for the 2016-17 fiscal year.

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby reappoints Plante & Moran as the University's external auditors for the 2016-17 fiscal year at a fee of \$356,400 in accordance with the University's policy on the rotation of auditors

Trustee Lyons **moved to approve** the resolution, with support from Trustee Byrum.

THE BOARD VOTED to approve the motion.

Trustee Lyons noted that the Audit Committee met and received an overview of the key areas of risk mitigation, insurance, and liability costs for the University from the Director of Risk Management, Matt McCabe.

11. Trustee Comments

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

The Michigan State University Board of Trustees is deeply concerned about the allegations of sexual assault against former MSU doctor Larry Nassar connected to his work at MSU. We affirm sexual assault has no place in our Spartan community. Michigan State University has been responsive to this situation, taking active steps over the past months that have been articulated in various University statements.

The Board wants to make clear its commitment to actively monitoring this situation and working with the president to ensure appropriate action. The law firms of Skadden Arps and Miller Canfield have been engaged since October 2016 and January 2017, respectively, to represent the University in all aspects of this matter. This representation will include conducting the factual review necessary to address the allegations being made and to assess Nassar's former work at the University, including his work with MSU Athletics. The legal team, led by Patrick Fitzgerald, a former federal prosecutor and United States Attorney, has also been providing guidance on how the University can best conduct the factual review so as to not interfere with the separate investigations being led by the U.S. Attorney's Office and the Michigan Attorney General. These firms are keeping the Board and President Simon fully informed. We are meeting with these external counsels to ensure the work is conducted fully and thoroughly, and as facts are gathered and reviewed, we will ensure appropriate action is taken.

We support the administration's commitment to creating a safe community, improvements in Title IX process and compliance as well as efforts to create a campus where individuals feel supported in coming forward to report offenses when they do occur. We acknowledge and appreciate the courage of each person who comes forward to report. As these matters are the subject of criminal investigation, litigation, ongoing review, and various privacy laws, there are constraints on what the University can share publicly; however, MSU will continue to share key developments and information as appropriate.

Trustee Mosallam spoke of the obligation that he and the other Board members have to create an inclusive environment at MSU. He emphasized that he feel this is important because of MSU's status as a national and global leader, as well as an institution that receives public funds.

Trustee Kelly spoke of the merits of the Board, and that he believes they are acting in the University's best interest.

Trustee Foster spoke of the engagement of the Board.

Trustee Byrum spoke of the importance of appreciating different viewpoints, and concluded her comments by quoting the Faculty Senate Statement on Campus Climate, Diversity, and Inclusion, "MSU welcomes a full spectrum of experiences, viewpoints, and intellectual approaches because they enrich the conversation, even as they challenge us to think differently and grow." She also welcomed Deborah Moriarty, a member of the Faculty Liaison group and the Faculty Senate to share the Faculty Senate Statement on Campus Climate, Diversity, and Inclusion.

Ms. Moriarty said that the Faculty Senate has been discussing campus climate since its meeting last November, realizing that the faculty are the only people in the University who have access to every single student. It is important that the Faculty Senate issue a statement on campus climate and diversity. The Statement can be found on the Academic Governance website. The Statement was passed unanimously by the Faculty Senate on January 17, and it is as follows:

Spartans embrace the opportunity to learn from the differences and perspectives others bring. We the faculty place the highest value on the free exchange of scholarly ideas and points of view, with the understanding that those are open to challenge. We take pride in the strength of our diversity and our ability to work together with respect and equality.

Each of Michigan State University's three core values—quality, inclusiveness, and connectivity—is foundational to its land-grant mission. Together they support higher education's cherished traditions of scholarly inquiry and robust debate with the expectation of civility and mutual respect in a diverse, engaged learning community.

MSU welcomes a full spectrum of experiences, viewpoints, and intellectual approaches because they enrich the conversation, even as they challenge us to think differently and grow. However, we believe that expressions and actions that demean

individuals or groups compromise the environment for intellectual growth and undermine the social fabric on which the community is based.

As we move forward, we seek to maintain and defend the inclusive learning community that is MSU, and renew our commitment to MSU's core values.

Trustee Perles thanked President Simon for her leadership.

Trustee Lyons congratulated Morten Andersen on his election to the Pro Football Hall of Fame. He gave the following statement:

I don't want to extend this meeting any longer than necessary, but given that I am the reason many of you are here today, I would like to take this time to address a tweet that I made a few weeks ago. Many assumptions have been made as to what I was insinuating or intended to mean. Consequently, I have been called by some a xenophobe, an Islamophobe, and a bigot. I think the best way to address these assumptions is to address the impetus for my tweet in the first place in order to provide some context.

It was not about the executive order on immigration. I understand the push back on the scope of the executive order. I understand that it may not be the best way to accomplish what President Trump was intending. My tweet was an expression, ill conceived perhaps, of frustration. Frustration that a University statement regarding such a politically charged and divisive issued was issued without any dialogue beforehand with the Board. I recognize now that this frustration would have been better handled in-house, which it since has, to what I believe is the satisfaction of the President and the Board members.

Concerning the tweet itself, I welcome all immigrants to the United States. I understand that this country was founded and built upon the backs of hard-working peace-loving immigrants and that we should welcome those with the same intentions. Certainly more thought could have been given as to how some would interpret my comment. I am sorry that I did not give more forethought to that.

While recognizing that the executive order is debatable on many levels as to if it is the best method, I do agree with the President that border security is of the utmost importance to our nation to keep out those who wish to do this country harm and to let in those who want to live the American dream with the rest of us.

Unfortunately, many took my tweet as if I did not welcome international students to MSU's campus or that I think all Muslims are terrorists. Nothing could be further from the truth. What I am against and will continue to be is terrorism and whatever form it comes in.

In the case of the executive order it specifically targets countries that this administration and the previous administration have identified as risks—risk of terrorism. In this particular case, radical Islamic terrorists which would like nothing more than to bring terrorism to our shores much like 9/11 and much like we see all over the Middle East, Europe and elsewhere. I hope this sheds some light on what led to my tweet and what my actual thinking was.

Hindsight being 20/20 I should have handled this in a different manner. I am sorry that what was clear in my mind and the minds of others who share my views was not clear to all. Argue with me on the wording or whether I should comment on the topic at all, but do not argue with me on my intent. I know my intent and I know my heart. I am deeply sorry that my tweet brought negative attention to MSU. I love MSU and I always will. I love what MSU means to all of us. As Coach Izzo always says, and my wife, too, Twitter will only cause trouble. I have learned my lesson; I hope that you will forgive me for an unnecessary tweet and that together we can move forward from this point, and be stronger and better as a university.

Trustee Ferguson spoke of the trust the Board has in President Simon and its confidence in her leadership.

12. Public Participation on Issues Not Germane to the Agenda

A. Findings from the Keeling Report

Richard Mares, MSU graduate student, spoke about the findings of the September 2016 Keeling Report. Mr. Mares urged the Board and the Administration to act upon the findings of this report by hiring more counselors, and hiring them with 12-month appointments rather than 10-month appointments.

B. University Budget

Sara Bijani, the Vice President of Contract Negotiations and Enforcement for the MSU Graduate Employee Union, urged the Board

and the Administration to listen closely to the many issues raised by those addressing the Board.

C. Drop the Charges Against Seth Kalis

Tyler Wood, a member of By Any Means Necessary (BAMN), spoke of his opposition to Milo Yiannopoulos speaking on campus. Mr. Wood also urged that the charges against Seth Kalis, an MSU alumnus who protested against Mr. Yiannopoulos' appearance, be dismissed and that President Simon resign.

Seth Kalis, an MSU alumnus, spoke of the danger posed by Milo Yiannopoulos through incidents that have occurred at other locations where he has spoken. He also spoke of the negative and unsafe environment that he believes exists at MSU and asked President Simon to step down as president.

Caroline Wong, a member of BAMN, reiterated the comments of Mr. Wood and Mr. Kalis in urging President Simon to resign and asking that charges against Seth Kalis be dropped.

Danielle Dillon, an MSU community member, spoke of the need to drop the charges against Seth Kalis. Ms. Dillon also spoke of the values and beliefs she learned as a student in the Residential College in the Arts and Humanities. Ms. Dillon believes that allowing Milo Yiannopoulos to speak on campus demonstrates that MSU does not stand for those same values.

D. Support of International Students

Susan Masten, an MSU faculty member, spoke in support of the international students at MSU. She presented the following requests from the international graduate students:

Michigan State University has over 150 sister universities around the world. MSU shall set a policy that allows students who are legally unable to remain in the United States to complete coursework at one of these sister universities while also continuing to work with their MSU dissertation advisor. MSU shall provide these students with full scholarships, including living stipends equivalent to what they could have received had they been able to stay at MSU. If coursework that is a requirement for the degree is not offered at the sister university, an online option will be provided by MSU.

For impacted students who have completed coursework and are able to work remotely, the option to complete and defend their dissertation from abroad on full scholarship should be made available. MSU should provide reasonable technical support, including any necessary equipment for research to these students who are unable to continue their dissertation work without this support.

E. Optional Practical Training for International Students

Katie Carline, an international MSU student, urged the Board to assist international students. Ms. Carline referred specifically to ensuring that optional practical training visa extensions remain possible for international students after graduation.

F. Resources for International Students

Max Hughes, an MSU graduate student, spoke of a fee of \$645 that all engineering students pay each semester. Mr. Hughes suggested that, instead of this fee, the College of Engineering could create rates for specific projects. Grant money could then be used to pay for the accreditation of the College and other needs that the fee covers.

G. Representation of Lantinex Students

Maisie Rodriguez, an MSU student, spoke about the climate of campus and urged President Simon and the Administration to support minority students.

H. Campus Climate

Hiba Abdullah, an MSU student and member of No Lost Generation Initiative of MSU, spoke of the needs of refugees and their importance to this country.

I. University Values

Salaman Pervez, an MSU student, spoke of the need to allow immigrants and refugees to enter the United States.

J. Persian Students Association

Farzan Masrour, an MSU student, spoke of the recent executive order and the importance of international scholars at MSU. Mr. Masrour also

presented the following requests from the international graduate students:

MSU shall stabilize the admissions policy for at least three months using the average admissions over the last three years from countries impacted by changing federal policies and Visa access. If it is not possible for students to receive legal work status in the United States, the University shall guarantee replacement fellowships with identical benefits.

If the University cannot offer reasonable rates of admission due to these new federal restrictions, the University shall set a policy to rollover applications of students who were not admitted for one year, upon request of the applicant.

Faezah Hajiaghajani, an MSU graduate student, spoke about the importance of international students and of optional practical training (OPT) and about issues that have recently arisen with OPT. Ms. Hajiaghajani presented the following two requests made by international graduate students for students close to graduation:

MSU shall maintain an up-to-date list of students who have graduated or were scheduled to graduate in the past year and are currently in the process of applying for OPT. MSU shall assign a University representative or office to actively monitor the progress of these applications through USCIS. If any student application remains on this list for longer than 60 days, MSU representatives shall contact the office of U.S. Senator Debbie Stabenow to advocate on behalf of these students.

If students who have been assigned or who have a reasonable expectation that they will be assigned OPT are not able to work for reasons related to new federal rules, the University shall provide lost wages in the form of a scholarship. If a student's OPT is currently on hold, MSU shall provide legal assistance free of cost. To accomplish this, the University shall establish a new fund for legal assistance especially related to visa status and students who are impacted by the new federal policies

K. MSU Police

Jonas Higbee, an MSU student, advised the Board and Administration to investigate the priorities of the MSU Police department.

L. Fossil Fuel Divestment

Joseph Herbst, an MSU student and member of MSU Greenpeace, spoke about the negative impact that fossil fuels and climate change have on the environment, refugees, and those living around coal plants. Mr. Herbst also urged the Board to join the movement and divest from fossil fuels.

Alec Cherrin, an MSU student and member of MSU Greenpeace, spoke about the economic benefits of fossil fuel divestment. Mr. Cherrin elaborated on the danger presented to the environment by companies in the coal, oil, and gas sectors.

Claire Bogrow, an MSU student and co-President of MSU Greenpeace, spoke of the danger that climate change poses for the future and urged the University to divest from fossil fuels.

Jackie Zarzycki, an MSU student and co-President of MSU Greenpeace, spoke of the importance of divesting from fossil fuels and urged the Administration to divest.

M. Implication of Patents for MSU

Gregory Spencer spoke of his patent for sharpshooter basketball. He accused the MSU basketball teams of using his sharpshooter technology without payment, and requested that the Board and President Simon make payment immediately.

N. Student liaisons

Student liaisons to the Board Lorenzo Santavicca, Dee Jordan, and Mariah Hill read the following statement on campus climate:

Dear Fellow Spartans:

As your student leaders, we are in awe of your resiliency, your courage, and your Spartan Will. We see you boldly traversing in the struggling act of classwork, organizational requirements, jobs, and community commitments. We see you roll up your sleeves every day to join the chorus of others who want to make Michigan State University the best place for the safe, supportive matriculation of all its students and the best place on earth to cultivate the Spartan Will. This journey is not perfect. There are pitfalls, potholes, and obstacles along the way, but united we can overcome adversity.

The current political climate and the executive orders have created angst, frustration, and sadness across our campus, and we want to express our deepest empathy to the students, faculty, and staff from the impacted communities and countries. MSU has a core principle of upholding inclusion and an overarching philosophy that starts with a belief in the value of varying perspectives and the promise of mutual respect. We find the spirit of the executive orders and all rhetoric halting the free movement of refugees, refusal of entry, the unlawful detainment of immigrants and visa-holders, religious tests, walls, fences, and any other forms of exclusion to be the antithesis of our core values. We proudly embrace our international community, respect their academic and social contributions, and stand with them as fellow Spartans. Why? Because they are welcomed here.

13. Request to Adjourn

On a motion by Trustee Ferguson, supported by Trustee Mosallam, **THE BOARD VOTED to adjourn** at 11:45 a.m.

Respectfully submitted,



William R. Beekman
Vice President and
Secretary of the Board of Trustees

RESEARCH PRESENTATION

TO THE MSU BOARD OF TRUSTEES

FEBRUARY 17, 2017

MEGAN DONAHUE

DEPARTMENT OF
PHYSICS AND ASTRONOMY

Facilitated by the Office of the Vice President for
Research and Graduate Studies

Our research presenter today is Megan Donahue, professor in the department of physics and astronomy in the College of Natural Science.

A graduate of MIT with a bachelor's degree in physics, she went on to earn a PhD in astrophysics from the University of Colorado where her dissertation won the 1993 Trumpler Award from the Astronomical Society of the Pacific. She next served as a Fellow at the Carnegie Observatories and the Space Telescope Science Institute.

Since joining MSU in 2003, she has been recognized through a number of awards, including the Beal Outstanding Faculty Award in 2014.

Dr. Donahue is a fellow of the American Association for the Advancement of Science and the American Physical Society and she was recently elected to serve as President of the American Astronomical Society, and will begin her term in June.

Donahue, along with MSU professor Mark Voit, are co-authors of the best-selling undergraduate astronomy textbook series, The Cosmic Perspective. Her research centers around cosmology, clusters of galaxies, and galaxy evolution. I look forward to today's presentation.

PROFESSOR MEGAN DONAHUE
MICHIGAN STATE UNIVERSITY

GALAXIES AND SUPER- MASSIVE BLACK HOLES



Note: PDF annotations
replace slide text in this
document where the text
does not show up well in the
printed version.

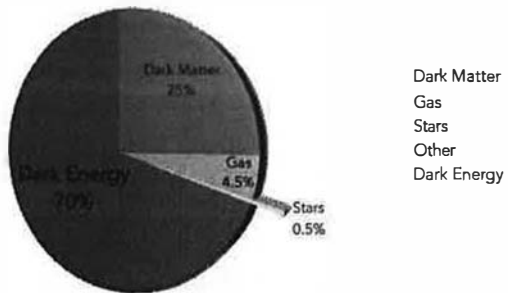
The Universe is full of Galaxies

GALAXIES ARE FULL OF STARS

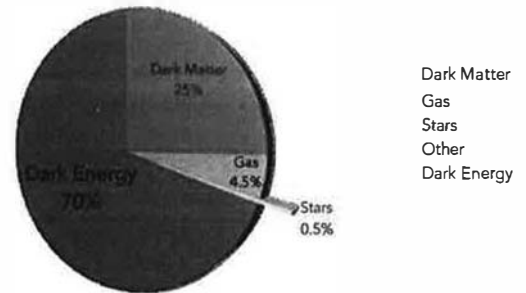
Galaxies are full of stars

WHAT IS THE UNIVERSE
MADE OUT OF?

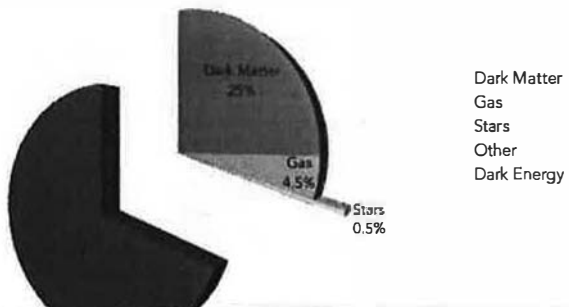
THE UNIVERSE'S MASS-ENERGY BUDGET



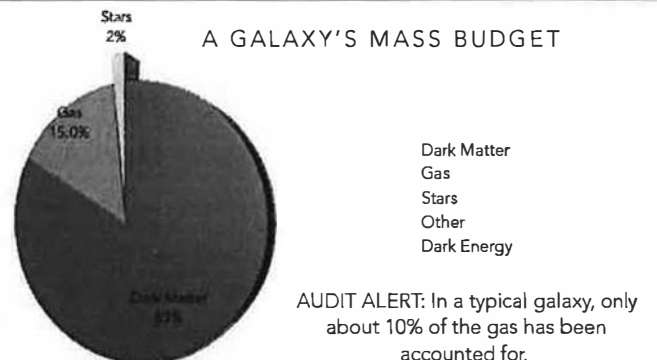
A GALAXY'S MASS BUDGET



A GALAXY'S MASS BUDGET



A GALAXY'S MASS BUDGET



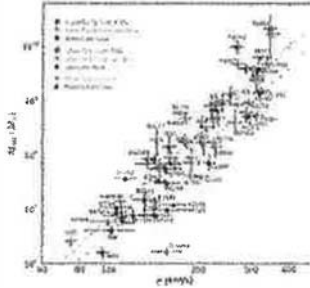
Most of the gas and heavy elements surround galaxies (and are not in stars or between the stars)

Where is MOST of the gas?



WHY ARE CENTRAL BLACK HOLES BIGGER IN BIGGER GALAXIES?

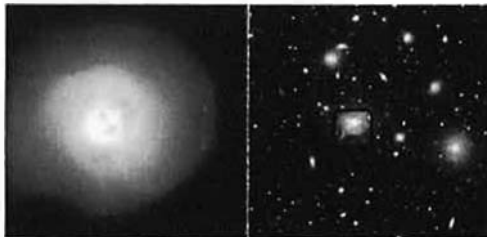
McConnell & Ma 2013



How these black holes interact
with the gas around galaxies
provides a clue.



CLUSTERS OF GALAXIES



High temperatures allow us to see all of the
gas in the most massive galaxies, in X-ray light.

Perseus Cluster

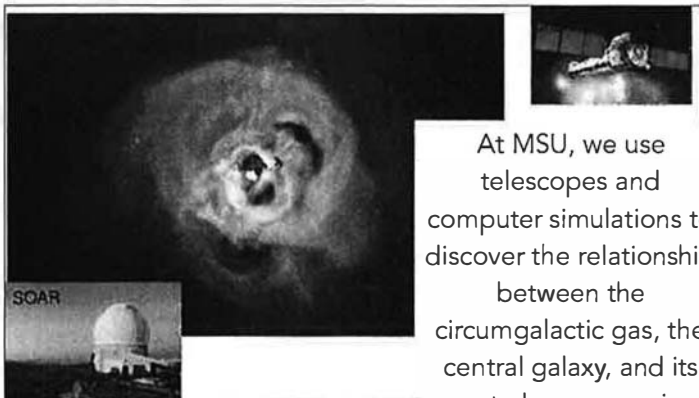
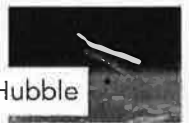
THE HEART OF A CLUSTER



Chandra X-ray
Telescope



Hubble



At MSU, we use
telescopes and
computer simulations to
discover the relationship
between the
circumgalactic gas, the
central galaxy, and its
central supermassive
black hole.

MSU GALAXY AND SUPERMASSIVE BLACK HOLE RESEARCH



- Tools: SOAR Telescope, NASA (Hubble, Chandra, Newton-XMM), NSF (ALMA, NOAO), South African Large Telescope
- Future SOAR Instrument: SAMOS (a multi-object spectrograph with adaptive optics), co-PI Donahue (MSU) with PI at JHU
- Faculty: Donahue (observations), O'Shea (simulations), Voit (theory/observations)
- Current Students: Dana Koeppel, Rachel Salmon
- Collaborator Locations: Johannesburg/NWU, Yale, Harvard/CfA, Caltech, San Francisco State, Alabama Huntsville, Chile, Stanford

APPENDIX B

A RESOLUTION OF THE BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY REQUESTING CONVEYANCE OF PROPERTY FOR THE ANIMAL AGRICULTURE - ANTHONY HALL, DAIRY PLANT AND MEATS LABORATORY, ACCEPTANCE OF SAME AND ACCEPTING OBLIGATIONS FOR THE FACILITIES

A RESOLUTION of the Board of Trustees of Michigan State University (the "Educational Institution") requesting and approving the conveyance of property and to provide for matters relating thereto.

WHEREAS, the State Building Authority (the "Authority"), a statutory body corporate created under provisions of 1964 PA 183, as amended, is authorized to acquire, construct, furnish, equip, own, improve, enlarge, operate, mortgage and maintain buildings, necessary parking structures or lots and facilities and sites therefor for use by the State or any of its agencies including institutions of higher education created pursuant to Sections 5, 6 and 7 of Article VIII of the Michigan Constitution of 1963; and

WHEREAS, the Educational Institution has been created and is maintained pursuant to Sections 4 and 5 of Article VIII of the Michigan Constitution of 1963; and

WHEREAS, the Authority has previously acquired the Animal Agriculture - Anthony Hall, Dairy Plant and Meats Laboratory and the site upon which it was constructed (the Animal Agriculture - Anthony Hall, Dairy Plant and Meats Laboratory and the site together are the "Facilities") and the Authority leased the Facilities to the Educational Institution and the State of Michigan (the "State") pursuant to a lease dated as of November 1, 1997 (the "Lease"); and

WHEREAS, under the terms of the Lease, the Authority agreed to convey title to the Facilities to the Educational Institution upon request by the Educational Institution after the Bonds which financed the Facilities (the "Bonds" as defined in the Lease) and any additional bonds or other obligations as provided in the Lease are paid in full or provision for the payment thereof is made as provided in the Lease for consideration of One Dollar (\$1.00) and the assumption by the Educational Institution of all monetary obligations and legal responsibilities for the operation and maintenance of the Facilities; and

WHEREAS, the Bonds have been paid in full and all conditions established by the Lease as conditions precedent to conveyance of title to the Facilities by the Authority to the Educational Institution have occurred.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE EDUCATIONAL INSTITUTION THAT:

1. The Educational Institution hereby requests that the Authority convey title to the Facilities by Quitclaim Deed to the Educational Institution.

Statement of Investment Objectives
Exhibit A: Michigan State University's Common Investment Fund

APPENDIX C

INTRODUCTION

This statement defines the investment objectives of Michigan State University's Common Investment Fund ("CIF"), which is composed primarily of the University's endowment funds. While other Institutional Funds (e.g., the Retirement Fund) may use the CIF as an investment vehicle, the separate statements of investment objectives for these funds shall govern their investment if their investment objectives are materially different from those of the endowment funds.

INVESTMENT OBJECTIVES

The investment objectives of the CIF are:

1. to achieve a total rate of return sufficient to generate the amount annually made available for spending by the University's programs supported by endowment funds and still provide a modest increase in the inflation-adjusted unit value, and
2. to achieve the desired return while assuming only moderate risk.

The University will seek to achieve these investment objectives by diversifying across major asset classes (e.g., marketable equities, private investments, hedge funds, fixed income) as well as within each asset class (e.g., by investment style, capitalization, industry).

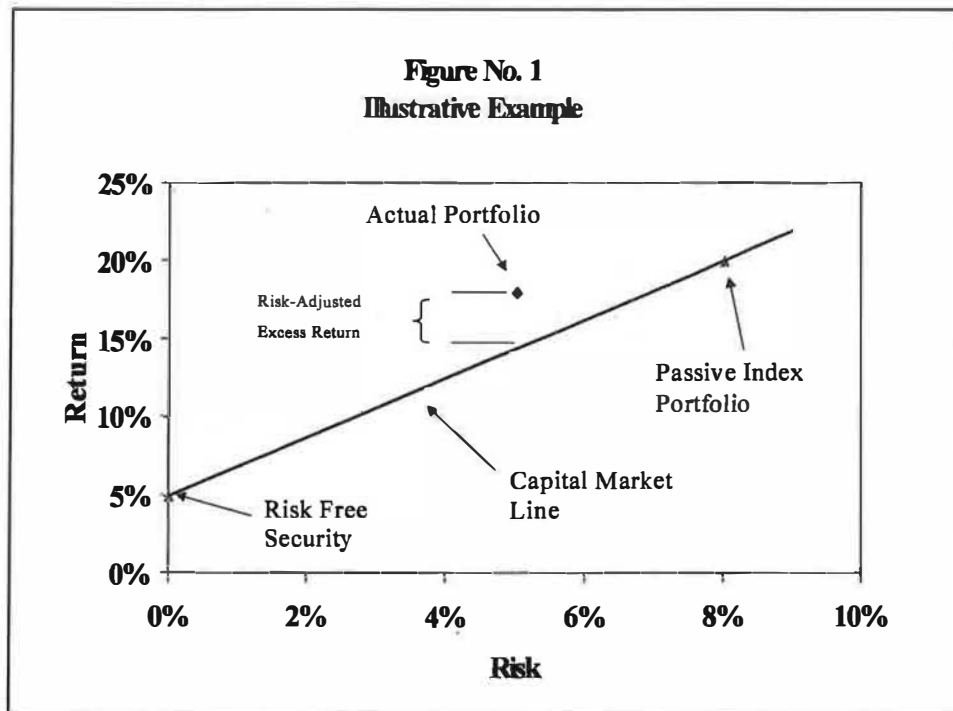
SHORT-TERM PERFORMANCE GOALS

Short-term performance goals for the CIF and for individual managers will be to outperform appropriate market and peer benchmarks over rolling three and five-year periods. Furthermore, adherence to the investment style for which individual managers were selected will be monitored. Private investments will be expected to outperform their respective median vintage year benchmarks.

LONG-TERM PERFORMANCE GOALS

The following long-term performance goals of the CIF are expected to be achieved over rolling ten-year periods:

1. A total annual return greater than the rate of inflation plus 6.0%, after fees and expenses.
2. To the extent an actively managed strategy is used, a risk-adjusted, excess annual return greater than 1.0%, after fees and expenses. Risk-adjusted, excess return is defined as a portfolio's actual return over and above that of the benchmark portfolio as predicted by the Capital Asset Pricing Model. (See Figure No. 1.) The Jensen measure is used to calculate the risk-adjusted return.



The passive index portfolio will be composed of benchmark indices, for which passive index funds exist, and weighted to reflect the CIF's asset allocation. It should be noted, however, for private investments for which passive index funds do not exist, well-established indices corresponding to marketable securities will be used.

Table No. 1 lists the benchmark indices and long-term performance goals for each major asset class. The long-term performance goal for each individual manager will be based on the asset class and investment style for which the manager was selected.

Table No. 1 Benchmarks & Long-Term Performance Goals		
Major Asset Class	Benchmark	Long-Term Performance Goals
Global Equities U.S. Equity	MSCI World Russell 3000	If passive, benchmark. If active, risk-adjusted excess return of 1.0% after fees
Developed Global ex U.S. Equity	MSCI EAFE	If passive, benchmark. If active, risk-adjusted excess return of 1.0% after fees
Emerging Markets Equity	MSCI Emerging Markets	If passive, benchmark. If active, risk-adjusted excess return of 1.0% after fees
Marketable Real Estate	FTSE NAREIT Equity Index	If passive, benchmark. If active, risk-adjusted excess return of 1.0% after fees
Other Marketable Real Assets	Real Asset Blended Benchmark (67% MSCI U.S. Natural Resources / 33% S&P GSCI)	If passive, benchmark. If active, risk-adjusted excess return of 1.0% after fees
Private Real Estate and Real Assets	Vintage year median IRR for asset class	Meet or exceed benchmark

Private Investments	Vintage year median IRR for asset class	Meet or exceed benchmark
Hedge Funds	HFRI Fund of Funds Diversified Index	Meet or exceed benchmark
Fixed Income	Barclays Aggregate	If passive, benchmark. If active, risk-adjusted excess return of 0.50% after fees

ASSET ALLOCATION

Table No. 2 sets forth the policy targets and ranges for each major asset class:

Table No. 2 Asset Allocation			
Major Asset Class*	Target	Range	Rationale*
<u>Global Equities</u>	<u>26.0%</u>	<u>19.0% - 47.0%</u>	Maximize real returns
<u>U.S. Equity</u>	<u>16.0%</u>	<u>11.0% - 27.0%</u>	
<u>Developed Global ex U.S. Equity</u>	<u>10.0%</u>	<u>8.0% - 20.0%</u>	Maximize real returns & diversification
Emerging Markets Equity	8.0%	4.0% - 12.0%	Maximize real returns & diversification
Real Estate	2.5%	1.0% - 5.0%	Real Asset & diversification
Other Real Assets	7.5%	5.0% - 12.0%	Real Asset & diversification
Private Investments	26.0%	12.0% - 32.0%	Higher returns than equities & diversification
Hedge Funds	22.0%	17.0% - 30.0%	Low volatility & moderate correlation with equities
Fixed Income	8.0%	3.0% - 17.0%	Deflation hedge & diversification

* See detailed descriptions of each asset class listed below.

U.S. EquityGlobal Equities. This asset class consists of marketable equity securities of primarily companies that are based in the U.S.-based companies and developed countries outside the U.S.- Managers may hold equity securities of non-U.S.-based companies which are traded as American depository receipts ("ADR's") on U.S. stock exchanges. Equity investments historically have provided investors with (1) a real return of about 7% subject to potential price volatility and (2) secondarily may hedge against inflation over longer time periods. Several sub-categories of this asset class include: large capitalization companies, small capitalization companies, value-style investing and growth-style investing. While the benchmark for this entire class is the Russell 3000 Index, individual managers may have specific benchmarks corresponding to their investment style and capitalization category.

Developed Global ex U.S. Equity. This asset class consists of marketable equity securities in developed countries outside the U.S. It is intended to provide long term performance and volatility similar to U.S. equities, but will provide some diversification due to imperfect correlation. This class will be diversified geographically.

Emerging Markets Equity. This asset class consists of marketable equity securities in emerging markets. It is intended to provide long-term performance and volatility similar to or slightly higher than U.S. equities, and will provide some diversification due to imperfect correlation. This class will be diversified geographically.

Real Estate. The University will seek to reduce the volatility of the CIF and provide a hedge against sudden, unanticipated inflation by investing a portion of its available funds in both public and private real estate. Risks related to the real estate investments will be minimized by diversifying through use of real estate investment pools or partnerships that are varied as to property type, location, investment life cycle and investment manager. This core real estate portfolio may be supplemented with less diversified specialty funds or direct investments.

Other Real Assets. The University will seek to reduce the volatility of the CIF and provide a hedge against sudden, unanticipated inflation by investing a portion of its available funds in both public and private natural resource investments, such as oil, gas, timber and minerals oriented investments. Risks related to natural resource investments will be controlled by diversifying among operators and acquisition prospects and by geography. This core real asset portfolio may be supplemented with less diversified specialty funds or direct investments.

Private Investments. The University will seek to enhance the total return of the CIF by investing a portion of its funds in private investments, which include distressed, private equity and venture capital investments. These investments are illiquid and higher risk/return assets than marketable securities. Risk will be controlled by diversifying across a number of fund managers and by geographic focus, industry emphasis, financing stage and vintage year. This core private investments portfolio may be supplemented with less diversified specialty funds or direct investments.

Hedge Funds. The University will seek equity-like returns while reducing the volatility of the CIF. The University will consider funds with a diversifier mandate (lower expected volatility and lower correlation to broad market trends) as well as funds with a growth oriented mandate (higher expected volatility and higher correlation to broad market trends). Managers with either type of mandate will employ risk management techniques intended to reduce downside potential, to a degree considered appropriate for their respective strategy. Managers employing "long/short" strategies invest primarily in equities and mitigate market risk by purchasing equity shares that are expected to appreciate in value and selling short equity shares that are expected to decline in value. Managers employing event-driven and arbitrage strategies seek to maximize returns by investing in publicly announced corporate transactions, such as mergers, tender offers, liquidations, bankruptcies and reorganizations or in arbitraging temporary discrepancies in securities pricing in the equity and fixed income markets. Distressed security managers invest primarily in bonds and bank loans trading at a significant discount to par value as a result of the debtor's troubled financial condition.

Fixed Income. This asset class is intended to reduce the portfolio's exposure to market risk and provide a hedge against sudden, unanticipated deflation. Foreign currency bonds may be held to enhance total return and provide diversification.

INVESTMENT GUIDELINES

- 1) Investment guidelines are provided in Exhibit C.

- 2) Additional guidelines may be adopted by separate Board action. They will be communicated to the affected investment managers.

Updated: 10/14/88, 6/8/90, 12/6/91, 12/11/92, 3/31/94, 7/14/95, 11/8/96, 9/22/00, 6/5/03,
11/14/03, 11/12/04, 6/17/05, 2/10/06, 5/18/07, 12/5/08, 6/19/09, 9/17/10, 10/21/11,
12/14/12, 4/12/13, 9/11/15, 12/18/15, 10/28/16, xx/xx/17.

**Investment Advisory Subcommittee
Conflict of Interest Policy for External Members**

APPENDIX D

The Investment Advisory Subcommittee (the “IAS”) is a subcommittee of the Finance Committee of the Board of Trustees of Michigan State University (“MSU”). The IAS is composed of individuals who are volunteers (each an “external member”) and Trustees. The roles and responsibilities of the IAS are defined in the Investment Policy (01-07-01). This Policy applies to the external members of the IAS. The Board of Trustees Conflict of Interest Policy (01-01-10) applies to the Trustees who are members of the IAS.

Purpose. The purpose of this Policy is to prevent conflicts of interest which could undermine confidence in the independence of the external members’ judgment when participating in the IAS or providing advice and guidance to the Finance Committee, President, Vice President for Finance and Treasurer (“VPFT”) or Chief Investment Officer (“CIO”), and to protect the reputations of MSU and of the volunteers who serve as external members.

Interpretation. This Policy is to be interpreted and applied in a manner that will best serve the interests of MSU. This Policy cannot describe all conflicts of interest and investment scenarios, and its application may be uncertain at times. MSU selects individuals with high ethical standards to serve as external members of the IAS, and consequently expects that the external members will use good judgment to apply the spirit of this Policy to conflicts or situations that may arise even if they are not described in this Policy. External members should err on the side of caution.

Conflict of Interest. An external member has a conflict of interest when MSU considers an investment or investment-related transaction with an individual or entity (collectively, a “third party”) that has, or at any time during the prior three years has had, a close association with (a) the external member; or (b) to the external member’s knowledge, a member of the external member’s family or household. An external member (or a member of the external member’s family or household) has a “close association” with a third party if he or she (i) owes a duty to the third party or one of its affiliates, for example, as a director, trustee, officer or employee; (ii) serves as a member of an advisory board or committee of the third party or one of its affiliates; (iii) holds a significant financial interest in the third party or one of its affiliates, for example, as a shareholder, vendor or other creditor; or (iv) receives (or could receive on account of MSU’s transaction) a significant personal benefit from the third party or one of its affiliates.

Disclosure. If an external member determines that he or she may have a conflict of interest, all facts and circumstances relevant to the potential conflict should be promptly disclosed in writing to the CIO. If the CIO determines that the potential conflict warrants further review, he or she will consult with the IAS Chairperson, President and General Counsel; they will determine if a conflict of interest exists and what actions (if any) will be taken, in addition to the recusal of the external member, with respect to the conflict.

Recusal. In the event of a conflict of interest involving an external member, the external member shall recuse himself or herself from reviewing and advising on the underlying transaction. Recusal means that an external member will not participate in IAS or other meetings during consideration of the transaction. The external member should avoid discussing the transaction with any IAS colleagues. If they deem it appropriate in the circumstances, the IAS Chairperson, President or CIO will convey the external member’s views to the IAS; they will try to insulate the external member, to the extent feasible, from any other influence over the transaction. The IAS Chairperson, President and CIO may waive all or part of the recusal requirements if they believe the direct participation of the external member is warranted. IAS meeting agendas will segregate matters that require recusal. If matters requiring recusal are to be considered, IAS meeting reports will describe the conflict of interest and compliance with these procedures.

Inside Information. If an external member acquires inside information from a source unrelated to the external member's work for the IAS, the external member should not share it with anyone at MSU. If the external member holds inside information that pertains to a proposed or intended transaction by MSU, the external member should not participate in any discussion or decision regarding the transaction. Depending on the facts and circumstances of the transaction, the external member may consider providing notice to the CIO regarding his or her possession of inside information regarding the transaction, without discussing the inside information, in order to prevent the appearance that MSU acted improperly.

Confidential Information. All confidential information that an external member may acquire in the course of his or her role as an external member should be kept strictly confidential and not used for purposes other than serving as an external member of the IAS.¹ If MSU enters into a nondisclosure agreement with a third party in order to receive confidential investment information, that confidential information is shared with external members and the external members are notified of the nondisclosure agreement, the external members will comply with the terms of such agreement.

External Member Investment Opportunities. Each external member will abide by applicable state and federal laws regarding investment opportunities considered by MSU.

If an external member first learns of an investment opportunity through his or her work with the IAS, the investment opportunity belongs to MSU. The external member may not invest or encourage others to invest if such an investment would adversely affect MSU's opportunity.

Conversely, MSU will refrain from an investment that would adversely affect an opportunity for an external member, or a third party with which the external member has a close association, if MSU first learns of the opportunity through the external member and the external member first learned of the opportunity elsewhere. An external member should promptly notify the IAS Chairperson and the CIO should such a situation arise.

An external member may not make a personal investment in anticipation of a related transaction by MSU if the related transaction will affect the value or market for an investment of the external member, a member of the external member's family or household or a third party with which the external member or a member of the external member's family or household has a close association.

Safe Harbor Investments. Nothing in this Policy prevents an external member from investing in any money market equivalents, government or agency securities, index futures, blind trusts or broadly-diversified mutual funds or similar investment pools that are generally open to retail investors.

Financial Benefit. External members, members of an external member's family or household, or third parties with a close association to an external member or a member of the external member's family or household should not receive a direct financial benefit on account of an external member's service as an external member, or MSU's selection or consideration of investment opportunities. A direct financial benefit includes, for example, a gift, finder's fee, placement fee, commission, or similar financial benefit.

Annual Acknowledgment. Each external member will affirm annually in writing that he or she has complied with this Policy during the previous year and will comply with this Policy during the next year.

BOT Approved—February ____, 2017

¹ For purposes of this section of the Policy, the disclosure prohibition will not extend to the external member's service to the Michigan State University Foundation.

OPTION AGREEMENT TERM SHEET

Party: Kopess Ag Tech, LLC

Option: Exclusive option to *Arabidopsis* (flowering plant often used as a model organism in plant biology) gene homologs claimed in the patents and a non-exclusive option to non-*Arabidopsis* gene homologs

Term: Initial term from the effective date to February 29, 2018 with extensions available for two additional one-year terms

Technology: MSU TEC2006-0049, and US Patents 7977535, 9371539, US Application Ser. No. 15/163033 and related foreign patents entitled: "DNA Encoding Ring Zinc-Finger Protein and the Use of the DNA in Vectors and Bacteria and in Plants" and TEC2013-0115, and US Patent Application Ser. No. 14/617,061 entitled: "Drought-Tolerance in Plants"

Payment Terms: \$1,000 for the initial term

Services Provided:

By MSU to Kopess Ag Tech, LLC: MSU will provide transgenic corn lines and research use rights for the option period.

By Kopess Ag Tech, LLC to MSU: None contemplated under the agreement.

Use of University Facilities/ Personnel: Under the terms of a related Sponsored Research Agreement, testing will be conducted under the supervision of Dr. Kyung-Hwan Han. Plant material will be planted and field tested on the south campus at MSU.

Organization Type: Michigan limited liability company

Personnel Interest: Dr. Kyung-Hwan Han, a Professor in the Department of Horticulture, and Okran Han, an employee in the Department of Horticulture, and members of their families own or have options to buy an ownership interest of more than 1% of the company.

SPONSORED RESEARCH AGREEMENT TERM SHEET

Party:	XG Sciences, Inc.
Term:	One year from the effective date of the agreement
Potential Commercial Application:	Lightweight polymer-reinforced composite products containing xGnP graphene for various applications
Payment Terms:	\$50,000 payable to MSU for expenses related to testing services
Services Provided:	<p>By MSU to XG Sciences, Inc.: technical testing services: fabrication, testing, characterization, and/or analysis of graphene platelets used in conjunction with plastics, and delivery of data generated</p> <p>By XG Sciences, Inc. to MSU: None contemplated under this agreement</p>
Use of University Facilities/Personnel:	Testing to be directed and conducted by Dr. Drzal in facilities in the Department of Chemical Engineering and Materials Science
Organization Type:	Michigan corporation
Personnel Interest:	Dr. Lawrence Drzal, a Professor in the Department of Chemical Engineering and Materials Science, and members of his family own or have options to buy an ownership interest of more than 1% of the company.