

MSU PARTNERS

A PUBLICATION OF CORPORATE & FOUNDATION RELATIONS



\$4M FROM GATES FOUNDATION FOR FARM MARKET RESEARCH IN AFRICA

Supported by a \$4 million grant from the Bill & Melinda Gates Foundation, Michigan State University will lead a project designed to improve research and analysis of agricultural markets in sub-Saharan Africa.

Under the three-year project, MSU will analyze the region's small-farm markets and infrastructure and develop strategies to increase agricultural productivity and create more efficient, sustainable markets for small farmers.

MSU scientists will partner with African institutions, including the Common Market for Eastern and Southern Africa, or COMESA. The resulting research and guidance will help governments, funding agencies and private stakeholders develop policies and programs and provide the resources to improve living standards of the rural poor.

“Experience in Africa has confirmed many times over that effectively linking smallholder farmers to markets is a crucial element of poverty reduction,” said Thomas Jayne, project co-director and MSU professor, international development.

Specifically, researchers will investigate the structure, performance and future potential of staple food and horticultural markets, focusing on maize, cassava, sorghum, cotton and vegetables. They'll also assess the impact of investments such as rural road construction on market development and on poor households' access to those markets.

MSU has a rich history in Africa, with more than a half-century of research and development efforts across the continent. According to the Rockefeller Foundation, MSU has “one of the largest aggregations of individuals focusing on African agricultural development.”

Joining Jayne in leading the project are fellow MSU faculty members David Tschirley, Steven Haggblade and Duncan Boughton.



Along a roadside in Ethiopia, Daniel Molla, then-minister of economic development and planning, government of Ethiopia, and Thomas Jayne, project co-director and MSU professor, international development, interview farmers selling their maize.

The research will encompass eastern, western and southern Africa with a specific focus on five core countries: Kenya, Malawi, Mali, Mozambique and Zambia.

“There is a clear need for data to inform further investments for long-term agricultural market development,” said Rajiv Shah, director of the Agricultural Development initiative at the Bill & Melinda Gates Foundation. “This project is one tool that will help prioritize future investments to support millions of

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ALCOA CAMPUS PARTNERSHIP PROGRAM

MSU Associate Director of Corporate Relations Kyan Zeller (front left) accepts a \$40,000 contribution from the Alcoa Campus Partnership Program. On behalf of the parent company, Alcoa, Inc., the check was presented by Director of Human Services Amy Heisser. In November 2008, a group representing Michigan State University's recruiting, diversity and corporate relations teams visited Alcoa Howmet in Whitehall, Michigan. Alcoa, Inc. purchased Howmet in 2000. The Whitehall facility, a Power and Propulsion center for the global corporation, manufactures forged and cast parts primarily for the aerospace industry. Alcoa Howmet also has an active Industrial Gas Turbine business, which supplies to industrial customers. The nine representatives from MSU toured Alcoa Howmet, where they talked with MSU College of Engineering graduates working at the company and met with Operations Manager Marc Foster, Director of Manufacturing Operations Dave Punola, Purchasing Manager Terry LeForce, and Heisser.



GATES

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smallholder farmers to increase their incomes and lift themselves and their families out of poverty.”

In addition to COMESA, MSU's partners include Egerton University in Kenya, University of Malawi, University of Pretoria and CILSS, an international organization for drought control in Africa's Sahel region.

Project officials said the project will be successful if the research findings are collaboratively developed and disseminated to the public and private sectors for consideration in policy and private investment decision-making. Currently, only five percent of the food imported by countries in sub-Saharan Africa comes from other African countries. The other 95 percent comes from farmers on other continents.

“If this project succeeds,” Jayne said, “we'll see many more small farmers in Africa linked up to agricultural

markets. We'll also see more stability in the food system and more urban consumers in Africa getting the food that they need. It can happen, but the right kind of public and private investments need to be put in place to make it happen.”

Guided by the belief that every life has equal value, the Bill & Melinda Gates Foundation works to help all people lead healthy, productive lives. In developing countries, it focuses on improving people's health and giving them the chance to lift themselves out of hunger and extreme poverty. In the United States, it seeks to ensure that all people—especially those with the fewest resources—have access to the opportunities they need to succeed in school and life. Based in Seattle, the foundation is led by CEO Jeff Raikes and co-chair William H. Gates, Sr. under the direction of Bill and Melinda Gates and Warren Buffett.

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SKILLMAN FOUNDATION PICKS MSU FOR GOOD SCHOOLS RESOURCE CENTER

Dozens of Detroit schools striving to improve student achievement now have direct support from Michigan State University's distinguished pool of education researchers.

The Detroit-based Skillman Foundation selected the MSU College of Education to re-establish and operate its Good Schools Resource Center, starting January 1, 2009. By accepting the two-year, nearly \$2 million grant, MSU has committed to help increase the number of high-performing schools in Michigan's largest city.

"This is a significant opportunity to build and support the capacity existing in more than 100 schools," said Barbara Markle, assistant dean for K-12 outreach and executive director of the new resource center. "Our college is focused on helping principals and their teams improve teaching and learning across Michigan, and we pay special attention to the challenges of urban schools."

The Skillman Foundation's Good Schools: Making the Grade initiative provides direct grants to public, private, religious or charter schools located in the city of Detroit. During the application stage, schools are identified as "emerging," "aspiring," "improving" or "high performing" based on nine indicators such as academic performance, attendance and strong leadership. The resource center provides tailored guidance and training to teachers, administrators and parents as they work toward meeting goals outlined by each grant.

"Research is so crucial to the process," said Skillman program officer Detangle Alexander, noting that too many elementary, middle and especially high schools are not meeting standards or improving. "We need the brain trust at MSU to help us change the playing field in Detroit."

More than 15 MSU faculty and staff members plan to conduct seminars and workshops, visit schools, analyze data, maintain a Web site of resources and otherwise consult with educators as requested. The resource center currently is housed at YouthVille Detroit, a youth

development facility where the College of Education also works with Detroit teens interested in becoming teachers.

"This is an excellent opportunity to build on our enduring commitment to quality education for children in Detroit," said Sonya Gunnings-Moton, assistant dean for student support services and recruitment. "The Skillman Foundation has set the stage for MSU and Detroit educators to share and apply promising practices in support of students who truly deserve our best efforts."

"THIS IS A SIGNIFICANT OPPORTUNITY TO BUILD AND SUPPORT THE CAPACITY EXISTING IN MORE THAN 100 SCHOOLS. OUR COLLEGE IS FOCUSED ON HELPING PRINCIPALS AND THEIR TEAMS IMPROVE TEACHING AND LEARNING ACROSS MICHIGAN, AND WE PAY SPECIAL ATTENTION TO THE CHALLENGES OF URBAN SCHOOLS."

Barbara Markle
Assistant Dean for K-12 Outreach

Created in 1960, The Skillman Foundation is a private philanthropy whose chief aim is to help develop good schools and good neighborhoods for children. Though grants are made throughout metropolitan Detroit, most grants are directed at six Detroit neighborhoods—Brightmoor, Cody/Rouge, the Northend, Osborn, and Southwest Detroit (Vernor neighborhood and Chadsey/Condon neighborhood),—and toward innovative and successful schools throughout the city of Detroit.

MSU DUBAI

In the fall of 2008, classes began at MSU Dubai.

“There is a strong commitment, especially in the United Arab Emirates, to engage the world’s top universities in order to expand educational opportunities,” said MSU President Lou Anna K. Simon. MSU is now a part of that commitment, as the first United States university to be established in the Dubai International Academic City.

“As one of the top 100 research institutions in the world and a university with a long history of global outreach, Michigan State University is uniquely positioned to offer world-class academic programs in Dubai,” said Simon.

The eight degree programs offered in the first semester at MSU Dubai include four undergraduate programs—computer engineering, construction management, telecommunications, and family community services and four Master’s programs—human resource management, packaging, retailing, and educational technology. Executive development programs in hospitality business and supply chain management are also being planned.

“MSU Dubai combines the strengths of a top-ranked, not-for-profit, American university with the international perspectives available at the Dubai International Academic City,” said Executive Director Brendan Mullan. Prior to his assignment to lead MSU Dubai, Mullan served for 17 years on the sociology department faculty at Michigan State University

in East Lansing, where he helped launch and direct numerous international initiatives.

Mullan is joined in Dubai by faculty and staff from the surrounding region and from the MSU home campus in Michigan. Faculty and students in Dubai and East Lansing may visit the other site for research and study.

The programs offered at MSU Dubai are under MSU’s academic authority, which means all students are expected to uphold MSU’s academic standards, meet all regular program requirements, and complete the same graduation requirements as students on the home campus before receiving a degree.

Upon his appointment to serve as the first executive director of MSU Dubai, Mullan said, “I enter this position eager to see the first graduating class receive their diplomas. The MSU Dubai class of 2012 will establish a tradition of leadership excellence and civic engagement in Dubai and beyond.”

For more information on MSU Dubai, visit: www.dubai.msu.edu.



MSU Dubai is the first U.S. university established in Dubai International Academic City.



GRAND RAPIDS GROUP SEEKS CURE FOR CYSTIC FIBROSIS

(l to r) Deb Kailunas (Hunt for a Cure), Shane Moerdyk (HfaC), Charley Hasemann (director, Clinical & Translational Sciences Institute, MSU), Pete Odland (HfaC), Bruce Uhal (professor of physiology, MSU), Greg Paquin (HfaC), and Ian Gray (vice president, Research and Graduate Studies, MSU). In March, Hunt for A Cure, a group formed in Grand Rapids to support research that may lead to a cure for cystic fibrosis, presented a \$55,000 check to Michigan State University. The gift

will support research of Professor Uhal to explore the effects of hypertension medication (ACE inhibitors and ARBs) on the progression of the disease; and it will support research of Martha Mulks, professor of microbiology and molecular genetics, who is studying strategies to disrupt or block the formation of biofilms that can plug the airways of CF patients.

MSU EXPANDS ROLE IN NATIONAL CHILDREN'S STUDY WITH \$57 MILLION NIH CONTRACT; GROUNDBREAKING RESEARCH TO FOCUS ON CHILDREN'S HEALTH

Michigan State University has secured \$57 million in funding from the National Institutes of Health to expand its role in the largest research project ever to study children's health and the causes of ailments such as autism, cerebral palsy and asthma.

As part of an alliance with Michigan's top research universities, health care systems and state and local health agencies, MSU is leading the state's role in the National Children's Study, which will monitor more than 100,000 children from before birth to age 21. The \$57 million in funding announced today will allow MSU to study children in Genesee, Grand Traverse, Lenawee and Macomb counties. That money is in addition to an \$18.5 million NIH research contract announced last fall for work in Wayne County.

"This is the largest human health study ever undertaken," said Nigel Paneth, MSU professor of epidemiology and pediatrics and human development, and the project's principal investigator. "By following children from before birth and studying their environment, we will be able to seek out ways to prevent many of the diseases children now suffer from."

The project will follow about 1,000 participants in each of the five counties to study the environmental influences that affect them, including toxins, nutrition, physical living conditions and socioeconomic factors, Paneth said. Children will continually be assessed throughout their development, including before birth.

"MSU's leading role in this groundbreaking children's health study reinforces our commitment to work with other institutions and community partners to co-create solutions that improve the quality of life for children and families in Michigan," MSU President Lou Anna K. Simon said. "The additional funding expands the geographic reach of the study and enables the investigators to include thousands more children and families."

Project collaborators include MSU, University of Michigan, Wayne State University, Children's Hospital of Michigan, Henry Ford Health System, Michigan Department of Community Health, and the health

departments of each of the five participating counties.

Planning for this project began in 2002 when MSU and the other partners formed the Michigan Alliance for the National Children's Study. The idea, said Paneth, was that each institution brings unique skills to the table:



Dr. Nigel Paneth

- MSU will coordinate the overall work of the study and house the main study office at its East Lansing campus. MSU Extension will play a major role in developing community engagement in each of the five counties.
- U-M will be responsible for enrolling and interviewing study participants and assessing postnatal child development.
- WSU will oversee the assessment and care of pregnant women.
- Children's Hospital of Michigan will serve as the repository for biological samples.
- Henry Ford Health System will work with MSU Extension to develop community support for the survey, serve as the repository for environmental samples, and oversee medical examinations of children.
- MDCH will provide information related to live birth characteristics and locations in each of the five participating counties.

Participants for the study will begin being enrolled in 2010 in Wayne County; 2011 in Grand Traverse and Lenawee counties; and 2012 in Genesee and Macomb counties.

For more information, visit the Michigan Alliance for the National Children's Study Web site at www.epi.msu.edu/manacs/ or the NIH National Children's Study Web site at www.nationalchildrensstudy.gov.

GERSTACKER FOUNDATION SUPPORTS UNDERGRADUATE R&D

The Rollin M. Gerstacker Foundation has established a new endowment for undergraduate research and development at MSU. The \$600,000 endowment will fund a unique program for students from the science, technology, engineering and math (STEM) disciplines to develop and implement their own concepts. Through this program, students will gain an understanding of the entrepreneurial process related to research.

Students will submit a concept to an advisory board. If a concept is deemed promising, the student will be granted seed funding to develop the proposal further. The final proposal (including a realistic budget) will be presented to the board, who will determine if full funding is appropriate.

Funded students will address business and marketing needs of their project as well as any social, ethical and policy issues. While the focus will be centered on STEM research, these additional components will help students gain understanding of the many functions that contribute to a successful entrepreneurial effort.

In addition, a portion of the endowment is focused on implementing university wide initiatives to support the understanding and development of entrepreneurial thinking across multiple aspects of the curriculum. This support would be used to sponsor workshops and seminars focused on entrepreneurial innovation in curricular design, promoting active participation with industry and the academic community, and expanding students' knowledge about issues such as writing a business plan and business start-up.

"The benefits of an undergraduate research experience are unequivocal," said Doug Estry, associate provost for undergraduate education and dean of undergraduate studies at Michigan State University. "Participating students are more deeply engaged in their academics as a result of the opportunity to work closely with faculty and gain additional time to explore topics in greater depth."

Data clearly indicate the valuable contribution that research makes to student learning. In most cases, faculty take the lead in proposing the work and charting the course. This limits a student's ability to gain important learning outcomes that can optimally come from the opportunity to think critically about a problem and independently

"THE BENEFITS OF AN UNDERGRADUATE RESEARCH EXPERIENCE ARE UNEQUIVOCAL. PARTICIPATING STUDENTS ARE MORE DEEPLY ENGAGED IN THEIR ACADEMICS AS A RESULT OF THE OPPORTUNITY TO WORK CLOSELY WITH FACULTY AND GAIN ADDITIONAL TIME TO EXPLORE TOPICS IN GREATER DEPTH."

Doug Estry

**Associate Provost for Undergraduate Education
Dean of Undergraduate Studies**

propose research that could lead to exciting new answers and important additional questions. Accordingly, the ambition of the Gerstacker Foundation program is to provide an avenue for undergraduate students to move to the next level—student-generated innovation that flows from their enhanced ability to think critically, devise solutions to problems, and generate creative and testable solutions—to put students in the driver's seat with faculty and industry partners as the guides on the side.

Based in Midland, Michigan, the Rollin M. Gerstacker Foundation was established by Eda U. Gerstacker in 1957 in memory of her husband. Mrs. Gerstacker died in 1975. Family members continue to serve as officers and trustees of the foundation, whose primary purpose is to continue financial support of charities of all types supported by Mr. and Mrs. Gerstacker. Funding for educational purposes is an ongoing priority of the foundation.

COCA-COLA HELPS ESTABLISH CENTER FOR PACKAGING INNOVATION/SUSTAINABILITY

Improving the global sustainability of product packaging took a meaningful step forward with a new collaboration proposed by The Coca-Cola Company and Michigan State University. Coca-Cola awarded \$400,000 to MSU's College of Agriculture and Natural Resources to help establish a new Center for Packaging Innovation and Sustainability.

The planned center, to be housed in the MSU School of Packaging, will serve as a think tank for packaging innovation and sustainability and a research and education hub to measure and reduce packaging's environmental impact. The Coca-Cola grant represents the initiating gift in a campaign to establish the global center.

"The Coca-Cola Company is honored to collaborate with Michigan State University in its quest to bring corporate, academic and packaging professionals together to foster new ideas in sustainable packaging," said Ingrid Saunders Jones, senior vice president of global community connections for The Coca-Cola Company.

"Our company has set ambitious environmental goals not only to deliver quality products, but also to have minimal impact on the environment. Research and work generated through this collaboration with MSU will assist us in reaching our goals," she said.

Saunders Jones is well-known to the MSU community. A 1969 MSU graduate (BA, Education), she set up a \$1 million endowed scholarship in 2007, part of which will support the Multicultural Business Programs in the Eli Broad College of Business.

The center will involve the MSU colleges of Agriculture and Natural Resources (School of Packaging), Engineering, and the Eli Broad College of Business (Department of Supply Chain Management). It will provide a platform for both collaborative, nonproprietary research and proprietary work conducted by industry partners, both in partnership with and independent of MSU researchers, to develop innovative packaging solutions that reduce production costs and improve sustainability.

"The center will offer an entry point for industry to have easy access to MSU expertise. It will serve as a bridge between

corporate and packaging industry professionals and university scientists in engineering, packaging, business, the environment and other areas," said Satish Udpa, dean of the MSU College of Engineering. "The center will be a clearinghouse that disseminates information and encourages action that speeds the adoption and implementation of sustainable practices."



Back row (l-r): MSU Provost Kim Wilcox; Stephanie Rowbotham, supply chain consultant to The Coca Cola Company; Ian Gray, MSU vice president for research and graduate studies; Scott Vitters, senior manager of environment and water resources, The Coca Cola Company; Jeffrey Armstrong, dean, MSU College of Agriculture and Natural Resources. Front row (l-r): David Closs, chair, MSU Department of Supply Chain Management; Forrest Bayer, director of packaging, scientific and regulatory affairs, The Coca Cola Company; Shell Huang, director of packaging research, The Coca Cola Company; and Susan Selke, acting director of the MSU School of Packaging.

"By bringing together university and industry resources in supply chain, packaging and engineering, this center will be able to effectively address issues of sustainability, discover environmentally and economically operative solutions and consider new ways to manage environmental impact throughout the value chain," said Elvin Lashbrooke, interim dean of the Eli Broad College of Business.

The center will include state-of-the-art technology for bench research and testing of packaging materials and will offer academic, outreach and continuing education programs. It is anticipated to eventually expand its reach internationally

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MCCORD RESEARCH FOUNDATION GRANT GIVES HOPE TO WEST AFRICAN CHILDREN

Entomology professor Richard Merritt studies the causes and transmission routes of Buruli ulcer, a tropical disease that afflicts children in West Africa. Merritt is also turning his attention to the social aspects of the disease; in particular, how the stigma of it affects lives.

Merritt will use a portion of a \$143,000 grant from the McCord Research Foundation to develop education and family support programs aimed at teaching families how to identify and seek medical intervention for the ulcer in its early stages.



Dr. Richard Merritt, professor of entomology, Michigan State University, with children in a village in Ghana.

“Buruli ulcer is a devastating disease affecting thousands of children throughout West Africa, particularly in Ghana,” Merritt said. “The McCord Research Foundation’s generous grant will help to support research into how this horrific disease is transmitted. It also will allow us to work with staff in the country itself to establish an education program assisting parents to identify the early presence of the ulcer in their children and help support education for the children while they are in the hospital.”

The bacteria responsible for Buruli ulcer—*Mycobacterium ulcerans*—is a genetic cousin to the bacteria that causes leprosy and tuberculosis. As with leprosy, patients with Buruli ulcer can develop painful and unattractive

sores on their bodies that can eventually cripple and even kill them. About 70 percent of those with the disease are under 15 years old. Buruli ulcer mainly affects children in poor, rural areas. If left untreated, the ulcer can spread and painful scar tissue develops.

The disease also destroys the social and emotional lives of school-age children because they are isolated from family and friends. Most aren’t even allowed to attend school due to their condition.

“We’re hoping to eliminate the stigma associated with Buruli ulcer,” said Merritt, “and get families to take action early, reducing the often painful suffering and isolation that goes along with contracting the disease.”

The McCord Research Foundation grant enhances the funding provided by the National Institutes of Health and the National Science Foundation Emerging Infectious Disease section to conduct a five-year study investigating possible links among biting aquatic insects, water quality, landscape and Buruli ulcer transmission in Ghana. The NIH grant was awarded to MSU, with a subcontract awarded to the University of Tennessee.

“We are honored to fund the excellent work Dr. Merritt and his team are undertaking with regard to Buruli ulcer,” said the foundation’s founder Darlene McCord. “This disease ruins entire families’ lives, and the more we know about it, the better chance we have of stopping it.

“I have already invested my own research energy into creating a topical wound care product that can effectively treat and heal the ulcer once it’s established. My hope is that my treatment will become obsolete, and that no child will have to suffer the physical and social hardship associated with contracting Buruli ulcer.”

“The McCord Research Foundation grant will help ensure that Dr. Merritt, his students and other researchers have the resources needed to continue their work to eradicate Buruli ulcer,” said Jeffrey Armstrong, dean of MSU’s College of Agriculture and Natural Resources. “This partnership between MSU and the McCord Research Foundation will have a tremendous impact on the quality

of life in communities throughout Africa. It represents how universities and foundations can work together to effectively address a health crisis in ways that no one organization can do alone.”

BURULI ULCER DESTROYS THE SOCIAL AND EMOTIONAL LIVES OF SCHOOL-AGE CHILDREN BECAUSE THEY ARE ISOLATED FROM FAMILY AND FRIENDS. MOST AREN'T EVEN ALLOWED TO ATTEND SCHOOL DUE TO THEIR CONDITION. “WE’RE HOPING TO ELIMINATE THE STIGMA ASSOCIATED WITH BURULI ULCER.”

Richard Merritt
Professor of Entomology

The Merritt Aquatic Entomology Lab employs a group of undergraduate and graduate students, as well as postdoctoral and research associates, who study and research the ecology of aquatic insects under the direction of Richard Merritt. The lab functions under MSU’s Department of Entomology, where Merritt recently served as chairperson from 2002 to 2008. Mollie McIntosh, a postdoctoral research associate, and Ryan Kimbirauskas, a doctoral student, are members of Merritt’s team and committed to researching Buruli ulcer.

Established in 2008, the McCord Research Foundation is the philanthropic arm of McCord Research, supporting programs and causes close to the hearts of Darlene McCord, Ph.D., and James McCord, Ph.D. The foundation currently supports independent labs working on researching Buruli ulcer.

Coca-Cola

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through research, development, education and training facilities in Dubai and Shanghai.

“Packaging is ubiquitous throughout the food system and a critical component to the quality, safety and sustainability of the products we buy and eat,” said Jeffrey Armstrong, dean of the MSU College of Agriculture and Natural Resources. “Coca-Cola’s funding commitment to establish the Center for Packaging Innovation and Sustainability will move us toward an unprecedented level of industry collaboration that will have global implications for improving packaging performance and sustainability.”

Established in 1952, the MSU School of Packaging is the first and largest packaging program in the U.S. The school supports the packaging industry through education, research and outreach focused on solving problems and developing improved technology.

The Coca-Cola Company is the world’s largest beverage company, refreshing consumers with more than 450 sparkling and still brands. Along with Coca-Cola®, recognized as the world’s most valuable brand, the company’s portfolio includes 12 other billion-dollar brands, including Diet Coke®, Fanta®, Sprite®, Coca-Cola Zero®, vitaminwater, POWERade®, Minute Maid® and Georgia® Coffee. Globally, it is the No. 1 provider of sparkling beverages, juices and juice drinks and ready-to-drink teas and coffees. Through the world’s largest beverage distribution system, consumers in more than 200 countries enjoy the company’s beverages at a rate of 1.5 billion servings a day. With an enduring commitment to building sustainable communities, the company is focused on initiatives that protect the environment, conserve resources and enhance the economic development of the communities where it operates. For more information, visit www.thecoca-colacompany.com.

MOTOROLA FOUNDATION GRANT KINDLES K-12 EXPOSURE TO STEM DISCIPLINES

The MSU College of Engineering received a \$75,000 Innovation Generation grant from the Motorola Foundation in support of a program to introduce middle- and high-school teachers and students to innovative and inspiring engineering design concepts.

The Motorola Foundation's Innovation Generation grant program seeks to spark students' interest in science, technology, engineering and math (STEM) and to help develop critical-thinking skills for the long term. Providing \$4 million to K-12 programs across the United

States in 2008, the initiative supports hands-on, innovative after-school programs, science and math clubs, teacher training and mentoring programs.

"MSU's College of Engineering has been increasingly active in curriculum development, summer programs, and after-school, in-school and weekend robotics competitions during the past eight years," said Drew Kim, assistant to the dean for recruitment and K-12 outreach in MSU's College of Engineering. The Motorola Foundation grant will support MSU's newest program—Research Experience for Teachers—which will

immerse middle- and high-school teachers and students in engineering design projects, particularly during the college's Design Days.

At the end of each fall and spring semester, middle- and high-school students and their teachers throughout Michigan are invited to the MSU campus to participate in the College of Engineering Design Days. More than 500 students typically attend. These students not only interact with MSU students and observe their research projects, but they participate in hands-on activities designed specifically for them. At the same time, their



John Thon, Holt Junior High School teacher and program coordinator for the College of Engineering K-12 outreach initiatives, works with seventh-grader Caleb VanZee (seated) and eighth-grader Corey Hungerford during Design Days. More than 125 middle-school students from across Michigan attended.

teachers are exposed to real-world research projects, which will improve their understanding of engineering concepts, thus helping them in their classroom teaching. Design Days activities include building a wireless thermometer and programming an autonomous robot using a LEGO MINDSTORMS NXT robotics kit.

“This experience will provide teachers with tools to inspire future students to pursue engineering degrees and excite our next generation of thinkers so they will consider studying engineering,” said Kim.

“By showing students the real-world applications of concepts they learn in the classroom, Innovation Generation programs open their eyes to possibilities,” said Eileen Sweeney, director of the Motorola Foundation. “Programs like MSU’s Research Experience for Teachers ultimately develop students’ confidence and skills to succeed in a sophisticated world and a dynamic and competitive global marketplace.”

In 2007, the College of Engineering received two Innovation Generation grants from the Motorola Foundation to fund education programs that spark a love of science, technology, engineering and math in today’s youth: \$45,000 to fund Wireless Integrated MicroSystems for Teens (WIMS for Teens), a two-week summer residential program for 7th- to 9th-graders; and \$50,000 that supported a Youth in Energy and Environment Humanitarian Project, which involved working with 5th- and 6th-graders at Lansing’s Woodcreek Magnet School to develop a solar-heated worm-based composting bin, thermal solar collector demonstrator, and a global warming demonstrator.

Since 2000, the Motorola Foundation has contributed more than \$35 million to education initiatives with a focus on STEM. To learn more about Motorola’s Innovation Generation grant program, visit: www.motorola.com/giving.

MOTOROLA FOUNDATION GRANT FOR ENGINEERING DIVERSITY PROGRAM

The Diversity Programs Office (DPO) in the MSU College of Engineering has received a \$50,000 grant from the Motorola Foundation. DPO offers programs and activities that help students seeking to enter the engineering field. Since its inception in 1968, DPO has positively impacted the academic, professional and personal growth of tens of thousands of engineering students from various ethnic backgrounds, with a particular emphasis on those groups who are historically underrepresented in the engineering professions.

DPO programs and services include an orientation course for freshmen and sophomores; the Guided Learning Center, a hub available to the entire College of Engineering for academic skills development and academic assistance; the Michigan Louis Stokes Alliance for Minority Participation; supplemental advising; LEAD peer mentorship program; and pre-college outreach programs with a summer residential component.

“We are extremely excited and grateful that the Motorola Foundation has partnered with us to accomplish our shared goals of ensuring that there are enough trained engineers and scientists to address the challenges that face us all and that there is diversity represented among those individuals,” said Theodore Caldwell, DPO director and assistant to the dean for diversity. “We very much look forward to a long and fruitful relationship with Motorola and the foundation.”

DPO is committed to increasing the recruitment and retention of a diverse set of students in engineering; and encouraging greater understanding of national and international diversity to meet the needs of a multicultural and global society.

The Motorola Foundation seeks to benefit the communities where Motorola operates around the world. The company achieves this by making strategic grants, forging strong community partnerships, fostering innovation and engaging stakeholders. The foundation’s vision is to make a unique contribution to improving the world in which we live.



MSUFCU STUDY ABROAD IMPACT KEEPS GROWING

In February, the officers and board members of the Michigan State University Federal Credit Union were hosted at a luncheon in recognition of MSUFCU's unparalleled \$2.5 million endowment gift to provide Study Abroad scholarships. MSU President Lou Anna K. Simon expressed the university's appreciation, not only for the MSUFCU Study Abroad scholarship, but also for the credit union's significant contributions over the years to the Kresge Art Museum, the MSU Museum, WKAR public broadcasting, the MSU Horticultural Gardens, and most recently, a \$2.5 million pledge to endow the Institute for Arts & Creativity and to provide continued program support at the Wharton Center for Performing Arts. MSUFCU Study Abroad Scholarship recipients also spoke about their plans and their experiences with the Study Abroad Program. The group photo reflects the continuing growth of the MSUFCU Study Abroad Scholarship, which, since 2004, has helped hundreds of students experience an overseas educational opportunity.