

[◀ Back to CST Home](#)[Printer Friendly](#)

## Learn more about us...

- ▶ [About CST](#)
- ▶ [From the Dean](#)
- ▶ [Our Mission](#)
- ▶ [Quick Facts](#)
- ▶ [CST Awards for Outstanding Teaching](#)
- ▶ [CST in the News](#)
- ▶ [Contact Us](#)



Central Michigan University's Mini Baja car team is maintaining its momentum with its high placement in April 2007 in a national competition in Ocala, Florida. CMU student members of the Society of Automotive Engineers placed 14th out of 74 teams nationally in the Baja SAE at the University of Central Florida.

## CST in the News

## Infertility research takes CMU students to Capitol Hill



CMU biology professor and adviser Jennifer Schisa looks on as her students, Mariah Hanson, right, and Cynthia Aguirre, left, explain elements of their research, which involves tiny worms named *C. elegans*.

Photo by Robert Barclay  
CMU Public Relations and Marketing

A pair of Central Michigan University undergraduate students recently shared their research with national lawmakers in hopes that one day their efforts will lead to a better understanding of treating infertility in women.

Mariah Hanson, a CMU junior, and Cynthia Aguirre, a CMU senior, were selected from among 400 applicants to present their research findings at the 13th annual "Posters on the Hill" in Washington, D.C. About 60 undergraduates from universities across the country were chosen to participate, which provides students the opportunity to showcase their research and visit with congressional representatives and senators.

"Mariah and I are both very passionate about this research, and it feels really good to be able to share what we've been working on and why it is important," said Aguirre, an international student from Ecuador.

Hanson and Aguirre conduct research with hundreds of tiny worms named *C. elegans* to help them better understand fertility in women and how to best preserve aging eggs. These worms made headlines in recent years after they survived the space shuttle crash in 2003, and later became the first animal to have all of its genes identified and mapped, which established a key foundation for research.

"Working with a particular model organism like *C. elegans* either really attaches you to the project or really turns you away from it," Hanson explained. "I fell in love with the worms, even if that sounds a bit weird, and I enjoy doing my research with them because they are fairly easy to work with, not to mention pretty darn cute."

As women age, fertility rates decrease and the rate of birth defects increases. Since women are born with all of the eggs they will have during their life, eggs have to maintain themselves -- up to four decades in some cases, said CMU biology professor and adviser Jennifer Schisa. This research identified several genes that regulate the assembly of large protein granules, which may help protect these old-aged eggs.

"Now, Mariah and Cynthia can test that hypothesis," Schisa said. "Overall, this is an important step for understanding fertility."

## Posters at the Capitol



Senior Elizabeth Wilson talks with Rep. Bill Caul about her research that she hopes will ultimately have a positive impact on the future gemstone exploration in pegmatites. "This research is the first of its kind," Wilson said. "Using the advanced fluid inclusion laboratory at CMU has given me valuable research experience, which I can further apply to other fundamental questions of earth science as well."

CMU students traveled to Lansing on April 21 to participate in CMU's annual Posters at the Capitol event.

Students presented research that ranged in topic from star measurements and their significance, to the mercury in coal plants, to how the U.S. can reduce its dependency on foreign oil.

"I came into college assuming I would do research at some point," said freshman Samantha Brennick, who was presenting research on a form of *E. coli* found in waters. "I just didn't think it would be this soon, and now I'm here at the Capitol presenting my findings."

"I've really had the opportunity at CMU to jump right in to research," the 18-year-old from Stanwood said. "It's very exciting to be here."

## Students showcase research and creativity

April 21, 2009 - On Wednesday, April 15, several CST students participated in CMU's Student Research and Creative Endeavors Exhibition. SRCEE celebrates the innovative work of its students by providing them with an opportunity to share their research and scholarly and creative endeavors with the university community.



Student Sarah Mills (left) explains how the Wireless User Controlled Robotic Arm works, as student Rachael Lutsic and their advisor, Brian DeJong of Engineering and Technology, look on.



Student Thomas Higgins (right) explains his research in the Vehicle Design program from Troy Center off-campus programs to faculty member Terry Lerch of Engineering and Technology.

### Recent Meteorology Student Successes

April 21, 2009 - Several meteorology students have recently been awarded scholarships, internships, assistantships, and coveted job positions:

- **Sarah Trojniak** (sophomore) is among 100 students selected from a pool of 600 applicants nationwide to receive an **NOAA Hollings Scholarship**. Sarah will receive up to \$16,000 in scholarship monies for the next two years, conduct a paid summer internship at a NOAA location of her choice, and present her work at a national conference.
- **Megan Babich** (junior) and **Rachel Kulik** (senior) have been selected to participate in the **Student Career Experience Program of the National Weather Service Internship Program**. Out of 100 applicants, 11 were selected over the 14 state Central Region. Megan and Rachel will complete 640 hours of paid work over the next year at the Detroit forecast office. Upon completion of the program and graduation, the students may be offered a full-time position within the NWS on a non-competitive bid basis. A total of 5 meteorology students have taken part in this program over the last 4 years.
- **Kimberly Hoogewind** (senior) has accepted a **teaching assistantship in meteorology at Purdue University**. She will be continuing research she began at CMU on forecast verification with one of the leading researchers in this area.
- **Michael Heitz** (December 2008 graduate) has been offered a **research assistantship in meteorology at the University of North Dakota** and a **teaching assistantship in meteorology at Creighton University** in Omaha, Nebraska.
- **Michael Estime** (December 2008 graduate) is working as the **morning meteorologist at WMGT in Macon, Georgia**. Michael was selected from over 100 applicants for the position.
- **Catherine Bodak** (junior) will be working as an on-air fill-in meteorologist at **9 & 10 News in Cadillac** throughout her last year at CMU.

### CMU students to take talent to the State Capitol



CMU junior Steve Witte looks through a specialized microscope searching through millions of cells for ones that are expressing a particular gene he has added to them.

Photo by Robert Barclay  
CMU Public Relations and Marketing

By the time Steve Witte graduates from Central Michigan University, his name will be published in at least three medical journal articles that highlight his research on Huntington's disease and other neurodegenerative disorders. Witte, a junior majoring in biomedical science and neuroscience at CMU, will be among 24 other CMU undergraduates representing a wide range of research during the **ninth annual "Posters at the Capitol."** The event provides an opportunity for visitors and lawmakers to view student research poster exhibits that range in topic from star measurements and significance, to the mercury in coal plants, to how the U.S. can reduce its dependency on foreign oil.

The projects will be on display from 10 a.m. to 2 p.m. April 21. A 1 p.m. awards program with CMU's top administrators will honor the students. **Legislators, alumni, parents and other visitors are invited to attend the exhibits and reception.**

- [Click here to read the full article and view the list of participating students](#)

### 2009 CMU Baja Team completes vehicle build



April 14, 2009 - Engineering students on the CMU Baja Team recently completed the design and build of the off-road vehicle they will use in upcoming Society of Automotive Engineers (SAE) competitions, with the first one being the Baja SAE Alabama 2009 that will be held April 16-19, 2009 at Auburn University.

The challenge of the competition is to use lightweight materials while maintaining structural integrity to create an all-terrain vehicle. Students must function as a team to not only design, build, test, promote, and race a vehicle within the limits of the rules, but also to generate financial support for their project and manage their educational priorities.

- [Click here to see images of the 2009 CMU Baja vehicle](#)

### Laser proposal endorsed by Rao as a CMU 2010 Vision Fund Project

April 9, 2009 - "Leaping ahead by Laser," a project proposed by David Matty (Geology) has been selected to receive \$175,000 in funding support from the Institutional Strategic Planning Committee. The CMU 2010 Vision Fund was established by President Rao to demonstrate commitment to the outcomes of **CMU's 2010 Vision Plan**. Through a highly competitive process, seed money is distributed to innovative projects that will move CMU toward

achieving the plan's five institutional priorities.

As one of six projects selected to receive funding beginning in July 2009, "Leaping ahead by Laser" will allow a group of faculty from geology, biology, and chemistry to purchase a laser ablation system to accompany a newly acquired ICP-mass spectrometer. The instrument will enable cutting-edge research in fields such as ecological and environmental investigations, materials science research, and mineral resource studies, as well as improve student research.

#### Famoye named Fulbright scholar; headed to Nigeria



4/6/09 - Kiya Felix Famoye, professor of mathematics, has been selected as a Fulbright scholar grantee to Nigeria. The Fulbright Program, the U.S. Government's flagship international exchange program, is designed to "increase mutual understanding between the people of the United States and the people of other countries." Famoye joins the ranks of distinguished participants in the program, which has provided almost 300,000 participants - chosen for their academic merit and leadership potential - with the opportunity to study, teach and conduct research, exchange ideas and contribute to finding solutions to shared international concerns.

#### Robertson to intern at ESRI

4/2/09 - Kenneth Robertson, a graduate student in the Accelerated Masters of Geographic Information Sciences program, has been offered a summer internship with ESRI, the world leader in geographic information system (GIS) modeling and mapping software and technology. Internships from ESRI are extremely competitive and only offered to a small number of outstanding undergraduate and graduate students in GISci.

#### Schisa receives CMU Woman of Excellence honor



3/31/09 - The CMU Network for Women, the university's chapter of the American Council on Education Network for Women Leaders in Higher Education, recently named Jennifer Schisa, interim chair of CMU's biology department, as a CMU Woman of Excellence. Schisa has served as a catalyst in the development of policy changes that benefit women and men, faculty and students. She succeeds in maintaining a work-life balance as she raises two sons and is described as an inspiration to the women with whom she works.

#### Jagniecki to be published in *Sedimentology*

3/23/09 - Elliot Jagniecki, a 2008 CMU geology graduate, was recently notified of acceptance of his manuscript "Criteria for the recognition of acid-precipitated halite" in the journal *Sedimentology*. This paper was based on Elliot's senior thesis. The international leader in its field, *Sedimentology* publishes ground-breaking research from across the spectrum of sedimentology, sedimentary geology and sedimentary geochemistry.

#### Jud wins Honorable Mention for 2009 MAGS Award

3/23/09 - Molly Jud, a CMU alumna who studied biology under the direction of Dr. Jennifer Schisa, has won Honorable Mention for the 2009 Midwest Association of Graduate Schools (MAGS) Distinguished Master's Thesis Award. Her thesis was "Conservation and Composition of *Caenorhabditis Elegans* Oocyte RNP FOCI." Jud will be recognized at the annual meeting and banquet on April 1, 2009 in Kansas City, MO. This is the first time that CMU has won a MAGS award.

#### CST faculty recognized for research and teaching excellence

3/18/09 - Congratulations to the following CST faculty members who have earned recognition for outstanding research and teaching:

Kathleen Benison (Geology) - 2009 President's Award for Outstanding Research  
Juan Peralta (Physics) - 2009 Provost's Award for Outstanding Research  
Bradley Swanson (Biology) - 2009 CMU Excellence in Teaching Award

In addition, faculty members receiving Research Excellence Funds grants are:

- Steven Juris (Biology), "Structure-function analysis of the actin crosslinking domain of RTX toxin from *Vibrio cholerae*" (\$60,000)
- David Zanatta and Daelyn Woonough (Biology), "Towards the recovery of Michigan's aquatic biodiversity: understanding freshwater mussel population structure using landscape genetics" (\$60,000)
- Micheal Libbee (Geography), "National Geography Curriculum Center" (\$60,000)
- David Matty and James Student (Geology), Dillip Mohanty (Chemistry), and Don Uzarski (Biology), "The CMU Center for Elemental and Isotopic Analysis" (\$75,000)



#### 2009 CMU Baja team takes first place

2/23/09 - The CMU Baja Team is proud to announce that they placed 1st at the 2009 Michigan Tech Winter Baja on February 14. This is the second consecutive year that CMU has taken top honors.

For race photos, visit [http://www.doe.mtu.edu/news/2009/winter\\_baja/photos/index.html](http://www.doe.mtu.edu/news/2009/winter_baja/photos/index.html)  
For video coverage of the race, search for "2009 MTU Winter Baja" at [www.youtube.com](http://www.youtube.com)



#### Biology undergraduate students to present research on Capitol Hill

Biology undergraduate students Mariah Hanson and Cynthia Aguirra have been selected to present their research on Capitol Hill on May 5, 2009 as part of the Council on Undergraduate Research's Posters on Hill event. This event allows lawmakers and federal agencies an opportunity to see what findings and innovations investments in young researchers can yield. The students selected to present posters have done research funded by the National Science Foundation, the National Institutes of Health, NASA, the Environmental Protection Agency, the Department of Health and Human Services, and/or other federal agencies, as well as state, local, and private sector entities.



#### Students finish strong at IMAGIN Poster & Paper Competition

CMU geography students had a very strong showing at the 2009 Student Poster & Paper Competition sponsored by IMAGIN (Improving Michigan's Access to Geographic Information Networks). Students won 1st and 3rd place in the Undergraduate Poster Competition, and 2nd and 3rd place in the Graduate Paper Competition.

The results are as follows:

##### Undergraduate

**1st Place: Kenny Robertson**, *Central Michigan University*. GIS Development for Small Business Solutions: A Look at Detroit's Eastern Market  
**3rd Place: Amanda Lee**, *Central Michigan University*. Characterizing Urban Land Use Change in Laingsburg, MI: 1992-2005.

##### Graduate

**2nd Place: Ray Johnson**, *Central Michigan University*. Object Oriented Classification Differentiating Plantation from Natural Growth Pine Forests.  
**3rd Place: Erika Espeland**, *Central Michigan University*. Using Digital Elevation Models to Rectify Landsat Imagery.



#### Robert wins Marble-Boyle Undergraduate Achievement Award

Kenneth Robertson, a student in the Accelerated Masters of Science in GISci, has been selected as one of the recipients of the inaugural Marble-Boyle Undergraduate Achievement Awards from the Association of American Geographers (AAG). These awards aim to recognize excellence in academic performance by undergraduate students from the U.S. and Canada who are putting forth a strong effort to bridge geographic science and computer science. Robertson will officially receive the award at the AAG Awards Luncheon to be held in Las Vegas on March 27, 2009.



#### Espeland to join Berrien County's GIS Mapping Department

2/12/09 - Erika Espeland recently accepted the position as GIS Coordinator for Berrien County's GIS Mapping Department, where she will coordinate activities of the mapping personnel - including daily operations of GIS and land description for the entire county. Erika is currently finishing her masters thesis under the supervision of Dr. Xiaolan Wu.



#### Sirbescu earns international recognition for research

CMU Geology Associate Professor Mona Sirbescu has been awarded a competitive grant to collaborate with scientists at the GFZ German Research Centre for Geosciences as a visiting researcher starting in May 2009. She will work with Max Wilke, Rainer Thomas, and Christian Schmidt, who are associated with the the Department of Chemistry and Physics of Earth Materials at the GFZ. Sirbescu's collaborative study will focus on "experimental investigation of fluxed granitic melts." This award is quite an honor and strong international recognition of her outstanding work related to the genesis of pegmatites and their relationship to granite magmas.

#### Feig to publish papers



GSA Books, the publishing arm of the Geological Society of America, has approved a proposal for a Special Papers volume to be co-edited by CMU Geology Assistant Professor Anthony D. Feig. The volume, titled "Qualitative Inquiry in Geoscience Education Research," will provide the first opportunity of its kind for geoscience education researchers to fully explore qualitative theory and methods, and to present case studies documenting both the application of these methods and the contribution made by qualitative inquiry to geoscience education and cognition. This publication will present an overview of the qualitative methods and approaches currently applied in geoscience education and geocognition research, with wider consideration of the role of qualitative inquiry in understanding the ways in which learners develop knowledge and expertise in the geosciences.



#### **Engineering senior attends prestigious program**

Engineering senior Andrew J. Lisabeth was selected to attend the 2009 Society of Automotive Engineers Leadership Development Program in Orlando, Florida from January 21-23, 2009. Lisabeth's selection is a very prestigious honor - SAE selects only 25 student members nationwide who have exhibited outstanding leadership skills through SAE student activities on campus. The annual conference helps to further develop these skills for future leadership roles in SAE and in a professional engineering career. This is the fifth year in a row that a CMU/SAE member has been chosen to attend the SAE Leadership Development Program.



#### **ITM Program in Engineering is NAIT Accredited**

As of November 2008, the Industrial Technology Management (ITM) program in the Department of Engineering and Technology is now officially accredited by the National Association of Industrial Technology (NAIT).