



# Alumni On The Move

**Eric Boyd**, a postdoctoral research associate in Chemistry and Biochemistry at Montana State University, whose research has the potential to answer questions about the possibility of life on Mars as well as global climate change, has won a prestigious fellowship from NASA.



Photo by Eric Boyd

Boyd's NASA Astrobiology Institute Fellowship will allow him to explore the possibility that living organisms exist in subglacial ecosystems at very cold temperatures. The existence of these organisms in an environment that may be similar to conditions on Mars might mean that life could also exist on the Red Planet. In addition to what Boyd's find-

ings could mean about the possibility of life on Mars, the research also has implications regarding global climate change. "Methane is a greenhouse gas, and is far more potent than carbon dioxide. With approximately eleven percent of Earth's landmass covered by ice, there is a potential that methane-producing microbes could significantly impact Earth's climate. I learn something every day that humanity has never known before," said Boyd.

get a better idea when biopsies are absolutely necessary. The project is funded by a five-year grant from the National Institute of Biomedical Imaging and Bioengineering, part of the National Institutes of Health.

"This project has really allowed me to see how things come together from multiple facets of design," he said. "What I'm taking away from MSU is a general knowledge base that I can apply to any other situation."

**Chris Arrasmith**, a recent Montana State University master's graduate in Electrical and Computer Engineering, is working with doctors at Vanderbilt Medical Center in Tennessee to build a handheld laser microscope that could someday reduce the number of biopsies needed to diagnose skin cancer. The handheld microscope could help doctors

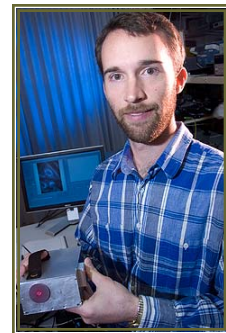


Photo by Kelly Gorham

## Janice Lucon Receives \$90,000 Fellowship From the National Science Foundation

**Janice Lucon**, a Montana State University graduate student in Chemistry/Biochemistry, and Molecular Biosciences Fellow, whose research has the potential to make a difference in how light is harvested for alternative energy applications, has won a \$90,000 fellowship from the National



Photo by Kelly Gorham

Science Foundation. Lucon will receive a NSF annual stipend for three years to fund her research at MSU. She won the Graduate Research Fellowship based on her abilities, accomplishments, and potential to contribute to strengthening the vitality of science and engineering in the U.S., according to the NSF. Lucon, who grew up in northwest Montana's Flathead Valley, is currently working toward a doctorate in inorganic chemistry.

cages to analyze platinum nanoparticles. She is working to determine how many platinum atoms to include inside a protein cage for maximum efficiency.

"This [award] is an outstanding confirmation of Janice's dedication to her research," Douglas said. "This is a very competitive program and she is one of the very few MSU students to have received it. We, her research team, are all very proud to have someone of her caliber in our group. She is a credit to MSU and Montana."

Lucon works in Dr. Trevor Douglas' laboratory and said her research involves using protein

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### Dates And Deadlines:

- **September 20** Last day for graduate students to file "Application for Advanced Degree"
- **November 30th** Last day for defense, approval of thesis, dissertation, or professional paper (if professional paper is submitted to the library) by Graduate Vice Provost.
- **Dec 11** Last day of classes
- **Dec 14-18** Final examinations

# Graduate Student Highlights

Photo by Jerry Jessee



**E. Jerry Jessee**, a Ph.D. graduate student in the Department of History and Philosophy, was recently awarded two research fellowships to support his dissertation investigating scientific concepts regarding radiation and

health during the atmospheric nuclear weapons testing period in the United States.

The James and Sylvia Thayer Research Fellowship at the University of California, Los Angeles Charles E. Young Special Collections Library awarded Jessee a \$2,500 fellowship for research in the summer of 2009. Jessee was also designated a John C. Slater fellow of the American Philosophical Society Library in Philadelphia, for which he was awarded \$2,000.

**Justin Tully** a recent Montana State University graduate student in Earth Sciences was instrumental in organizing the new Structural



Photo by Justin Tully

Geology and Tectonics Lab in Traphagen Hall bringing digital-modeling horsepower to graduate student hands.

The lab which is maintained by Dr. David Lageson, also gives students the ability to communicate complex 3D geometries, spatially reference data and rapidly iterate upon subsurface interpretations, all of which define cornerstones to structural geology research. Tully's thesis utilized the new modeling power to deliver not only detail mapping over 511 km<sup>2</sup> of rugged peaks in the Elk Mountains of southwest CO, but also to demonstrate a three-dimensional subsurface architecture for the fault systems of the region.

For more information, visit <http://www.montana.edu/wwwes/facilities/structurelab.htm>

Photo by Scott McLeod



**Scott McLeod**, a recent Montana State University graduate student in Earth Sciences, flew to his home town of Sydney, Australia, the day after commencement, and immediately began working on a poster based on his master's thesis for the American Geophysical Union's 2009 Joint Assembly in Toronto, to be held less than two weeks later.

"It was extremely fortunate that the first meeting after my defense included a special session called 'Great Enceladus Debates,' which was the moon of Saturn I studied for my thesis. This was the first scientific conference I'd ever attended, so by presenting a poster and co-chairing an oral session, I was jumping in at the deep end, but it was definitely worth it. The experience and feedback I received on my work was invaluable."

**Jennifer Grace**, a graduate film student, has won a College Television Award, also called a Student Emmy, for her 17-minute children's film about worldwide amphibian declines and environmental toxins. Grace's film, "Frog, Chemical, Water, You," won first place in the children's film category in the competition. Grace made the film for an exhibit at the Smithsonian Institution's National Zoo.

"The Emmy Award honors both Grace and the MSU Science and Natural History Filmmaking Program in which she made the film," said Dennis Aig, department head. "The MFA students and their work continue to gain recognition at the highest levels of our profession."



Photo by Kelly Gorham

Like many Montana State University graduate students,



Photo by Kelly Gorham

**Amy Gore** studies that which cannot be seen with the naked eye. But the things Gore studies cannot be seen with microscopes

or lab equipment either.

Gore studies Native American culture as it relates to literature, and rather than just looking at the words on the page, Gore is digging for something buried beneath those pages, a mostly silent minority "voice" that she believes has had a significant impact on America's literary identity.

"I think America has a rich identity, and learning about those other cultures that have fed into that identity will give us an even better understanding of ourselves," Gore said.

A Montana State University graduate student, **Joanna Gress**, drove from Polson to Bozeman with 50,000 honeybees in her car at the end of April.

"It was a four hour drive with a lot of bees, but it's what I do for science," said the plant sciences doctoral student.

Gress brought the bees to MSU to study a possible cause of, and develop a potential management strategy for, Colony Collapse Disorder (CCD).

"I've always thought CCD was interesting and this is a new field at MSU," Gress said. "We have done some bee research here, but not a lot, so it is exciting to spearhead this project."



Photo by Kelly Gorham

News articles excerpted from Evelyn Boswell, Carol Flaherty, Carol Schmidt, MSU News Jody Sanford, College of Letters and Science and Jerry Jessee, Justin Tully and Scott McLeod.

# Outstanding Graduate Students for 2008-2009

**Lark Real Bird Paz**, 2009 M.A. Native American Studies graduate, was nominated as the Outstanding Native American Student. She was also the first ever recipient of the President's Native American Excellence Scholarship for 2008-2009.



Photo by Lark Real Bird Paz

Lark believes that if we all took the time to understand one another's culture and history that we could make a difference in our attitude towards others who are different from ourselves. Lark's work on language revitalization will be a lifelong effort.

**Diego Riveros-Iregui**, 2008 Ph.D. Ecology graduate, was the recipient of the Outstanding Graduate Student Achievement Award in a doctoral program. "I greatly thank the MSU Foundation and the DGE at MSU for this award. I want to especially thank the entire Watershed Hydrology lab for all the wonderful experiences during my Ph.D. It was a privilege to work with such a great team." Riveros-Iregui's dissertation research focused on water-carbon cycle research at the Tenderfoot Creek Experimental Forest in central Montana.



Photo by Diego Riveros-Iregui

**Jerome Schleier**, 2008 M.S. Ecology graduate, was the recipient of the Outstanding Masters Student Graduate Achievement Award. Schleier currently has six scientific publications and also won the 2008 Hollandsworth Award for Best Student Paper Presentation at the annual meeting of the American Mosquito Control Association. "Receiving the Outstanding Performance in a master's program is a great honor which I will always be proud of. I want to thank my advisor, Dr. Peterson who always guided and helped me achieve my goals."



Photo by Jerome Schleier

## Online Learning Better than Face-to-Face? By Carl Fox, Vice Provost

Online learning, with roots that go back 100 years to early correspondence courses, is rapidly growing in popularity. The opportunity for "anytime and anyplace" access to content and instruction has greatly benefited those students who cannot or choose not to attend traditional face-to-face instruction. In the past, concerns were raised about the quality of the online learning experience and distance education in general. However, studies have generally



Photo by Garrett Shaw

concluded that distance education is not significantly different from regular classroom learning in terms of effectiveness.

A new report, "Evaluation of Evidence-Based Practices in Online Learning" just released by the U.S. Department of Education offers new insights into online learning. The report, based on a systematic analysis of more than a thousand empirical studies of online learning, provides important evidence reflecting the effectiveness of online learning. Several of the key findings from the report are as follows:

- Students who took all or part of their class online performed better, on average, than those taking the same course through face-to-face instruction.

- Instruction combining online and face-to-face was more effective than either purely face-to-face or purely online instruction.
- The effectiveness of online learning approaches appears quite broad across different content and learner types.

These and other findings in the report clearly suggest that online learning will continue to grow in popularity. This will certainly be true for graduate degree programs, particularly those focused on professional careers, post-graduate training, and lifelong learning. The Division of Graduate Education is working closely with MSU colleges and departments to expand our online offerings.

## 2009 T-Shirt Design Winner

The Division of Graduate Education received many great t-shirt design entries for the 2009 Graduate Education T-shirt Design Contest.

Students who entered the contest came from various departments across campus, including Civil Engineering, Physics, Plant Sciences, Plant Pathology, and English.

The winning design was submitted by Ryan Schumacher, a graduate student from the School of Architecture who graduated this past spring.

In order to distribute the t-shirts, the DGE is holding drawings every Friday for graduate students. T-shirts may also be acquired by making a \$10 donation.



Photo by Ryan Schumacher

## Graduate Writing Assistance

Welcome back graduate students! If you need assistance with writing projects this fall, please do not hesitate to contact Lauren Cerretti, the Graduate Writing Tutor at [msu.grad.tutor@gmail.com](mailto:msu.grad.tutor@gmail.com).

Lauren can help with any project, big or small, for any department, and can even assist with getting started and pre-writing.

For further information, visit our website at [www.montana.edu/gradwriting](http://www.montana.edu/gradwriting) for helpful articles, links, and contact information.

Have a great semester!



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