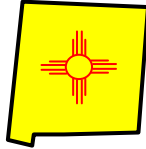




ASME International



New Mexico Section News

http://sections.asme.org/New_Mexico/

May, 2006

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May 17th DINNER-MEETING

THE SOCIETY OF WOMEN ENGINEERS (SWE) AND ASME NM SECTION PROUDLY PRESENT:

New World Hantavirus Infections: Recent Recognition of an Old Disease By Gregory Mertz, M.D.



When: Wednesday, May 17th: 5:30p.m. dinner, 6 p.m. speaker.

Where: **The Cooperage**, 7220 Lomas Blvd., NE, (east of Louisiana), Albuquerque. Phone: (505) 224-9013.

Cost: Come to The Cooperage and order individually from the menu.

Questions? Call Holly (505) 899-9551.

New world Hantaviruses cause a syndrome known both as Hantavirus pulmonary syndrome (HPS) and Hantavirus cardiopulmonary syndrome (HCPS). First recognized in an outbreak in the southwestern US in 1993, HCPS is now recognized throughout much of North, Central and South America. HCPS is uncommon, but the case fatality rate remains at 30-40%. Evidence shows that HCPS is ancient, and co-evolved with rodent reservoirs over tens of thousands of years.

In North America, Sin Nombre virus (SNV), acquired from the deer mouse, is the most common cause of HCPS. In Chile and Argentina, by contrast, Andes virus (ANDV) causes HCPS and is transmitted both from rodents to humans and from person-to-person. Studies in Chile have increased our understanding of person-to-person transmission as well as the natural history of Hantavirus infections.

Gregory Mertz, M.D. is Professor of Internal Medicine and Chief of the Division of Infectious Diseases at UNM. A graduate of The Johns Hopkins University in Baltimore and Rush Medical College in Chicago, he completed residency training in internal medicine and subspecialty training in infectious diseases at the University of Washington in Seattle. He is a member of the Editorial Advisory Board of the Journal of Infectious Diseases. Dr. Mertz served in the US Peace Corps in Thailand, and for the past 7 years, he has conducted research on Hantavirus infections in Chile.

UNM Mechanical Engineering Returns to Solar Energy



When it opened in 1980, the UNM Mechanical Engineering Building was topped off with an impressive rooftop array of gleaming solar collector panels. The four-story building on the southwest corner of campus was designed to be a showcase for energy conservation and renewable energy. But as energy costs inched down toward the end of the decade, the thermal solar system was abandoned and left to deteriorate. In the photo above, Andrea Mammoli, associate professor, stands among deteriorated solar energy collectors soon to be replaced.

Now, as energy costs are soaring, two faculty members see a golden opportunity to once again explore the potential of solar power. Andrea Mammoli and Peter Vorobieff, associate professors of Mechanical Engineering, have received a nearly \$200,000 grant from the New Mexico Energy, Minerals and Natural Resources Department to breathe new life into the 25 year old solar system.

“I want this to save energy, but I also want this to be an educational facility,” Mammoli said. “And I think the best people to make this work are engineering students.” The current project will restore and enhance the existing infrastructure, allowing about \$600,000 of abandoned equipment to be reactivated within the first year of operation.

The new system will include various solar collectors, large heat storage tanks, heat exchangers, a cooling tower, electric chillers and a water-powered absorption chiller.

In one year, Mammoli is predicting the cost of heating and cooling of the ME building will be reduced by 20 percent or more. He also believes the system will reduce carbon dioxide emissions by about 100 tons a year.

Mammoli has taught at UNM since 1998. On a recent sabbatical in Italy, he studied and researched modeling and monitoring of solar building concepts, including ventilated Trombe walls for passive cooling and heating. A result was he became focused on establishing a solar energy program at the UNM School of Engineering.

Funding will allow brand new panels, and some which were stored in the basement for years, to replace the broken equipment. New to the system will be an absorption chiller, which will help reduce cooling costs by operating during the summer peak cooling times of day. Existing heat storage tanks will be also repaired and upgraded.

Collaborators on the clean energy grant include Mechanical Engineering faculty Maurice Wildin and Arsalan Razani, and David Menicucci, a research engineer and manager of the Energy Surety Program at Sandia National Labs.

Frontiers in Biomedical Devices Conference to take place in Irvine, CA

The Frontiers in Biomedical Devices Conference will be held June 8–9 at the McDonnell Douglas Engineering Auditorium at the University of California, Irvine campus.

The conference, presented by the ASME Nanotechnology Institute, will feature leading authorities in the commercial and academic arenas and focus on these eight technical areas:

- Monitoring the Environment
- Imaging Diagnostics
- Simulation and Modeling
- Device Testing
- Bio-Sensors

- Device Development
- Therapeutic Devices
- Regulatory Issues

The technical sessions will comprise papers by mechanical device engineers, research scientists, government and academic personnel, as well as those involved in medical device research, discovery, clinical evaluation and delivery of medical devices.

The meeting's technical program will be chaired by Abe Lee of the University of California's Henry Samueli School of Engineering's biomedical engineering department, and co-chaired by Goran Matijasevic of the University of California's Henry Samueli School of Engineering's Integrated Nanosystems Research Facility.

The meeting also will include a combination reception/ exhibition/poster session, to be held June 8 at the University Club.

For details on registration, visit www.asmeconferences.org/NanoBio06/ConfRegistration.cfm.

For more information on the conference, visit www.asmeconferences.org/NanoBio06.

J. Andrew Baker Wins the 2006 Old Guard Early Career Engineer Essay Competition

J. Andrew Baker, PE, has been chosen as the 2006 winner of the Old Guard Early Career Engineer Essay Competition.

This competition, sponsored by **The Old Guard**, was developed to engage early career engineers in communicating advice and guidance based on their own personal/professional experiences and their relationship with ASME to new ME/MET graduates. Currently, Mr. Baker is a structural engineer with The Boeing Company. He graduated from Oklahoma State University

School of Mechanical and Aerospace Engineering with a B.S. in Mechanical Engineering. He has served ASME in many capacities, including Central Kansas Section Chair, Regional Representative for the Committee on Membership, and his most recent position as the Northern Plains Region Representative.

J. Andrew Baker provides valuable words of advice to our members just starting their engineering careers. **To read J. Andrew Baker's winning essay, "Enhancing Your Career -The Value of ASME", visit:** http://www.asme.org/NewsPublicPolicy/Newsletters/MechanicalAdvantage/J_Andrew_Baker_Wins_2006_Old.cfm

**New Competition!!
The FAA Airport Design Competition for Universities**



The **FAA Airport Design Competition for Universities** gives individual students or teams under the guidance of a faculty mentor the chance to address a number of technical challenges, which have mechanical engineering aspects, relating to airport operations and maintenance, runway safety/runway incursions, and airport environmental interactions. Students can win cash prizes for outstanding work and the opportunity to present their work in a professional forum.

Learn more at the competition website, http://www.faa.gov/runwaysafety/design_competition.htm.

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