

Materials & Nanoscience Outreach News

Materials and Nanoscience outreach and education activities
in Nebraska

Recent Outreach Activities

STEM After School Program

Faculty members, and NCMN students and staff continued our 7 week Nanoscience After School Program to junior high students at Culler Middle School this fall. The one hour presentations were given to students who had limited knowledge of nanoscience. Information included videos, hands-on activities, giveaways and discussions about wave properties, ferrofluids, memory metals, hard drives, invisibility, liquid crystals, graphene, self-assembly, making nanotech safe, and a tour of the Nanoscience Center.

Presenters included:

Christian Binek (Physics), Prof. Valery Forbes (Director - School of Biological Sciences), Eva Franke-Schubert (Engineering), and graduate student Chris Marin (Chemistry). NCMN undergraduate outreach students provided support also.



Nanoscience Center Tours

Junior and senior high students, Arts and Science Red Letter Day parents and students, Big Ten groups, and the Alumni Association were but a few of the 700 plus visitors we've had this year tour the Voelte-Keegan Nanoscience Center!



NanoCamp 2013

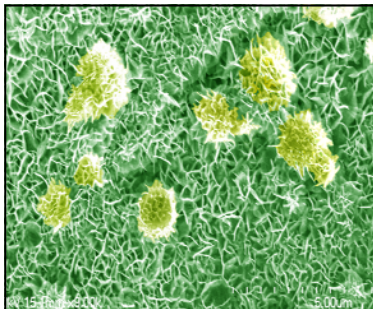
Students, 6-9th grade, participated in a week long Nanocamp held in June where UNL faculty and graduate students, NCMN and Bright Lights staff, future science teachers and the Department of Physics & Astronomy all worked together to present a mini-course about nanotechnology at UNL. Topics and supporting activities included nano and the environment, magnetism, graphene, hydrogels, metal organic polymers, stem cells, electronic circuits, nanocomposites, and smart metals and polymers. Resources and more information about the camp can be found at <http://www.unl.edu/ncmn/outreach-edu-nanocamp-2013>



Administrative Support Available for NCMN Member Outreach Activities

NCMN offers additional outreach help, including some administrative services to NCMN faculty members in fulfilling the Broader Impacts outreach component in NSF grants. **Contact:** Terese Janovec, Assistant Director and Education/Outreach Coordinator, 855 N. 16th Street, Room N201C, phone: 402 472-2716, fax: 402 472-6148, e-mail: tjanovec3@unl.edu.

Grant Award for Nanoscience Education and Outreach



NCMN recently received a 2014 grant from the Nanoscale Informal Science Education Network to partner with the Hastings Museum in bringing nanoscience programming to rural, underserved audiences in central Nebraska this summer. Nanoscience images, created by University researchers will be exhibited along with supportive hands-on activities and will be held in conjunction with the opening of a new National Geographic IMAX movie about nanoscience starting in June.



The Nanoscale Informal Science Education Network (NISE Net) is a national community of researchers and informal science educators dedicated to fostering public awareness, engagement, and understanding of nanoscale science, engineering, and technology. NISE Net makes available a limited number of small, one-time awards to support initiatives by NISE Net partners to engage their local audiences in nanoscale science, engineering, and technology topics. NISE net, originally launched in 2005, is funded by the National Science Foundation.

Women in Physical Sciences Conference 2013



NCMN provided support for the annual WoPhyS conference held in partnership with Nebraska Materials Research Science and Engineering

Center and the Center for Nanohybrid Functional Materials. Support was also provided by Nebraska EPSCoR and the AMO Program of Excellence.

The conference, held in October had over 106 participants from 26 different states, including Puerto Rico, Canada, and China and offered undergraduate women in physical sciences opportunities to present their research, to interact with their peers and with faculty, and to obtain career advice.

NCMN Outreach Upcoming Events

Nebraska Association for the Gifted Conference (NAG)
Prof. Axel Enders Presenting
February 20
Embassy Suites, Omaha

NanoArt Contest
Spring 2014

NanoDays
April 5, 1:00-4:00 pm
Gateway Mall

AIM Infotec Conference
April 16
Omaha

Hastings Museum
Nano Art Exhibit
June-August

Resources

NSF Career Grant Support

Faculty applying for NSF Career grants are invited to visit with us about how NCMN can support the education and outreach component in their grant proposal. We offer a variety of established programs for faculty participation as well as creating new outreaches tailored around each professor's proposal.

NISE Net "Prepackaged" Programs

Ready to use, fully documented, with complete lesson plans or activity guides, presentation materials, and other training and delivery tools at

<http://nisenet.org/programs>

Nebraska Center for Materials and Nanoscience *Bridging Nanoworld Opportunities in Nebraska...*

The Nebraska Center for Materials and Nanoscience (NCMN) at the University of Nebraska is a multidisciplinary research organization involving 85 faculty members from the Departments of Physics and Astronomy, Chemistry, Electrical Engineering, Mechanical and Materials Engineering, Chemical & Biomolecular Engineering, and others. The NCMN strives for excellence in research, graduate and postdoctoral education and service in materials science and engineering, and nanoscience. It is on the forefront of research in a high-priority national program, the National Nanotechnology Initiative. The NCMN also works with state and national industries in support of Nebraska's overall economic development.

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