

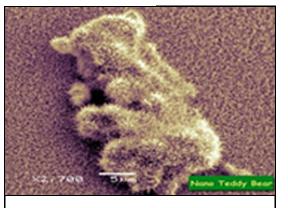
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UVM HOMEPAGE

NEWS BRIEFS



Nano Bear

Senior Scott Fusare performed an experiment that created a microscopic image in the shape of a teddy bear that won second place in a national "Science as Art" competition.

"Nano Bear" Places at National Competition

In November, a grilled cheese sandwich bearing the Virgin Mary's image went for \$28,000 at Internet auction. In March, a pretzel shaped like the Virgin Mary holding baby Jesus sold for \$10,600. Food-art wannabees have been popping out of snack bags and rising from dinner plates ever since.

Scoffers might sniff that something is slightly rotten, but in the fertile world of the imagination, all things are possible: a million angels fitting on the head of a pin or even a teddy bear so small it can only be seen by electron microscopy. A University of Vermont senior who will graduate this spring with a BS in Electrical Engineering saw exactly that.

Scott Fusare performed an experiment last summer under electron microscope in which he grew 50-nanometer diameter zinc oxide on a silicon wafer using solid-vapor phase process. Fusare expected plain, flat, uniform results. When, due to surface contamination, it instead formed a three dimensional form, he declared the surprise shape a teddy bear. A little sepia coloration helped everyone else see it too.

In fact, 3,000 conference attendees at the Materials Research Society Conference in San Francisco on March 30 not only saw the fuzzy apparition, they voted UVM's Nano Bear into second place in the conference's first-ever "Science as Art" competition. Fusare and his professors, Frederic Sansoz, and Walter Varhue of UVM's College of Engineering and Mathematics had submitted the image into the competition. Nano Bear was in very good collegiate company

Alumnus Returns Home to Help After Tsunami

When catastrophe struck his family and homeland, Saiful Mahdi G '01 put his doctoral studies at Cornell University on hold, left his wife and three young children in Ithaca and flew home to assist in the recovery. Mahdi, who earned his master's degree in statistics at UVM, suffered devastating personal loss, the deaths of 15 family members—including a brother, a sister, and his grandmother—in his home region of Aceh, Indonesia.

When he arrived in January, Mahdi quickly set to work not only assisting his own family but creating the Aceh Relief Fund, a grassroots, community-based effort to provide help where it is most needed. Backing for Mahdi's work came from an outpouring of donations from friends and the local Ithaca community. His original goal was simply to find help covering \$6,000 in personal travel expenses, but the fund is at \$75,000 and counting.

Approximately 4,000 people lived in Mahdi's village before the tsunami; he estimates that 700-1,000 survived the disaster. He acknowledges that his hopes for immediately mobilizing the community with the help of fellow teachers from the local university at first proved difficult. "Where to start? How to start?" Mahdi says in a phone interview while visiting his family in Ithaca during March. "When I got there I couldn't even motivate my colleagues."

But soon Mahdi's community began to move beyond the devastation with ARF dollars helping to establish a mobile clinic, distribute relief supplies and rebuild schools. "Things are getting better," says Mahdi, who anticipates returning to life as a doctoral student in July. "People show their resiliency."

To learn more about ARF and read Saiful Mahdi's "Journal from the Ground," visit <u>Aceh Relief</u>.

UVM College of Medicine in Top 10 for Primary Care

The University of Vermont College of Medicine ranked ninth for quality in primary care training among the country's top 125 medical schools according to *U.S. News & World Report's* latest graduate school rankings. The rankings appear in the April 11 issue of *U.S. News and World Report* magazine and in the book *America's Best Graduate Schools*, on newsstands this week.

"We're proud to have moved up to the top-ten

April 6, 2005 Text Size: <u>Sm</u> | <u>Med</u> | <u>Lg</u> alongside entries from California Institute of Technology and National University of Singapore, and just behind the first place tie between Sandia Laboratory and University of California at Santa Barbara whose <u>entries</u> look like scenes from a science fiction movie.

"It's dirt," Varhue says of Nano Bear. "That is, after all, what the phrase 'surface contamination' really means. "These conferences look for something fun in addition to the science."

"When nanotechnology goes wrong, it makes good pictures," laughs Sansoz who attended the conference to present a paper recently published in the journal "Acta Materialia" on the molecular modeling of deformation of materials.

The bear brought home \$200 for UVM, a sum that rivals the best food visages at Internet auction. NSF-Vermont EPSCoR supported the cost of the equipment used to observe the "Nano Teddy Bear."

Astronaut to Speak on Record-Setting Voyage

Captain Jerry Linenger, retired United States Navy flight surgeon and NASA astronaut, will speak on "The Sky Is Not the Limit: 132 Days Off the Planet" Wednesday, April 13 in Ira Allen Chapel. Doors will open at 3 p.m., and Linenger will speak from 4 to 5 p.m.

Linenger held the record for the longest time in space for an American male after completing a five-month mission aboard the Russian space station Mir. During his tenure there, he faced numerous difficulties including repeated failures of life-support systems, a near-collision with a massive re-supply spacecraft, several computer failures that sent the space station tumbling uncontrollably through space, and the most severe fire ever aboard an orbiting spacecraft. In spite of these life-threatening events, Linenger and his crewmates accomplished all mission goals, including shuttle docking and space walking.

Linenger received a bachelor of science degree in bioscience from the U.S. Naval Academy and holds several advanced degrees including a doctorate in medicine from Wayne State University. He was awarded the Meritorious Unit Commendation, a National Defense Service Medal, and a Navy Commendation Medal with gold star among other honors. He is the author of *Off the Planet*, which recounts his time in space, and *Letters from Mir: An Astronaut's Letters to His Son.*

The lecture is free and open to the public. However, tickets are required and are available at the <u>UVM Bookstore</u> or through the <u>Student</u> <u>Government Association</u>.

A UVM shuttle bus will transport those who use the overflow parking area at the Sheraton Hotel to Ira Allen Chapel. The shuttle will run from 3 to 6 p.m. For more information about Linenger's for primary care education—an area that's critical in the state of Vermont and across the country," said UVM College of Medicine Dean John Evans. "Our most important mission is to educate caring and compassionate physicians, so this recognition of our school is especially gratifying."

Each year, *U.S. News* ranks professional-school programs in business, education, engineering, law, and medicine, based on surveys of nearly 1,300 programs and almost 9,600 academics and professionals conducted in fall 2004. The medical school rankings are based on assessments by medical school deans and senior faculty, admission acceptance rates, test scores, faculty/ student ratios and other factors.

The primary care rankings include assessment of the percentage of medical school graduates who enter primary care residencies in family practice, pediatrics and internal medicine.

'Hidalgo' Screenwriter Coming to Everything Equine and Horse 2005

UVM Extension, Champlain Valley Exposition and Horse Works will join forces to create a Vermont's horse-lovers weekend, April 23-24 at the Exposition in Essex.

The second annual "Everything Equine and Horse 2005" will feature John Fusco of Stowe, an awardwinning screenwriter, novelist and movie producer with his horse, Oscar, the equine star of "Hidalgo."

"We're bringing a little bit of Hollywood to Vermont with John's appearance," said Betsy Greene, equine specialist at the University of Vermont Extension. Fusco, best know for his work on Native American subject matter, Western mythology and wild horses, is the author and creator of such popular movies and miniseries as "Thunderheart," "Dreamkeeper," "Hidalgo," and the animated hit "Spirit: Stallion of the Cimarron." He will be on hand to sign movie posters and Breyer models of his creations such as Hidalgo, Spirit, and Rain.

Meanwhile, equestrians can enjoy live demonstrations and seminars on biosecurity, training, business, barn safety, veterinary topics including nationally known experts Dr. Randel Raub, Bobby Atwood, Van Hargis, "animal communicator" Anita Curtis and Morgan horse bronze medalist Fred Merriam. In the new "kid's corner" a display of Breyer's model horses, hands-on projects, activities and games led by local 4-H members are planned.

"We're extremely pleased to be able to present the quality of workshops and clinics with these nationally-known horse experts," said Greene. "Everything Equine is a great way to bring together horse-related businesses, riding clubs and industry experts under one roof. People—the everyday horseperson, newcomers, professionals and serious competitors—will find something new and of interest at our expanding equine expo," she said.



lecture, call Denise Zang at 656-3875 or Zancy VonHooks at 656-2918. Sponsored by the Office of the Provost.

Jazz Students to Play with Pros

Created just three years ago, UVM's Jazz Studies Program has grown rapidly, attracting 30 undergraduate majors and countless students minoring in the discipline, sampling courses, or performing in jazz ensembles. Program Director Alex Stewart's knack for working top jazz performers into the teaching program has become a hallmark of Jazz Studies at UVM. Students have learned from and played side-byside with the likes of Clark Terry and Paquito d'Rivera.

Stewart's latest coup will give UVM students the opportunity to work and perform with the Chico O'Farrill Afro-Cuban Jazz Orchestra when the group visits Burlington for a Flynn Center concert on Friday, April 8. The current conductor, Arturo O'Farrill, will join the orchestra's percussionist to rehearse with UVM students in the afternoon on April 7 and April 8.

The UVM Jazz Ensemble, with O'Farrill taking turns on piano and conducting, will open the evening at the Flynn on April 8. Soloists from the O'Farrill orchestra will also sit in with students when the Jazz Ensemble plays "Manteca," one of the seminal works of Latin jazz.

For more details on the concert, see <u>Flynn</u> <u>Center</u>. An expected 150-plus exhibitors will have the latest products on display in 80,000 square-feet of indoor and outdoor exhibit space at the Miller Expo Centre complex.

Last year, the event turned the Vermont Equine Industry Summit into a much larger regional equine education event and drew more than 5,000 attendees from across New England, New York and Canada. It was held at Rutgers University in 2003 and Cornell University in 2002 and 2001.

Tickets are on sale at Horse Works in Williston; Guy's Farm and Yard stores in Williston, Barre and Morrisville; and Community Feed Store in Westminster Station, Vt. Advance tickets are \$6 per person. Daily tickets at the door are \$8 per person; two-day weekend passes are available for \$12. A family indoor horse show on Saturday evening is priced separately with very limited seating. Call 802-878-5545.

Sponsors are Poulin Grain, Inc., Guy's Farm and Yard, Purina Mills, WJOY, WOKO 98.9, KOOL 105, *The Equine Journal* and *Horsemen's Yankee Pedlar*.

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