

# VMI Well Represented at Big South Research Symposium

VMI was well represented at the Big South Athletic Conference's second undergraduate research symposium at the University of North Carolina at Asheville in late March. The abstracts of 24 cadets were accepted for poster or oral presentations, and of the nine participating schools, VMI had the second largest representation, second only to the host institution.

VMI cadet projects accounted for approximately 20 percent of the total 140 presentations. The cadets were accompanied by Col. Vonda Walsh, professor of mathematics and computer science, and Patricia Hardin, instructor in modern languages and cultures and associate director for the Undergraduate Research Initiative.

In biology, Cadet Anna DeFrank presented "The Effects of Estrogen on the Development and Maintenance of the Cardiovascular System of Zebrafish (*Danio rerio*)" and was mentored by Col. Jim Turner; Cadet Alex Houser, "The Effects of Estrogen in the Neuromuscular System in Embryonic Zebrafish (*Danio rerio*), Turner; and Cadet Jonathan Brown, "Estrogen's Role in the Regeneration of the Optic Nerve in the *Carassius auratus*," Turner.

In chemistry, Turner mentored Cadet Ottie Allgood on "Estrogen's Impact on Cardiovascular Function in the Zebrafish (*Danio rerio*)," and Cadet Christina Stalnaker presented "Weaponizing Methyl Mercury" and was advised by Lt. Col. Judith Cain, Col. Wade Bell and Col. R.E. Burnett.

In civil and environmental engineering, Cadet Reza Eftekhari presented "Predicting the Depth of Weatherability of Rock Masses for Engineering Design" and was mentored by Col. Gary Rogers.

In English and fine arts, Cadet Gregory Hersh presented "Green Luxury A Viable Pair: Marketing the Chateau Lake Louise as Environmentally Responsible in an Effort to Capitalize on the Growing Green Consumer Demographic," and he was advised by Lt. Col. Roger Thompson. Cadet Even Rogers presented "Learning To See: The Black Mountain College Experiment" and was mentored by Col. Robert McDonald.

In history, Cadet John Curtis presented "George Marshall and the Politics of Command, 1906-June 6th 1944" and was mentored by Col. Malcolm Muir Jr.

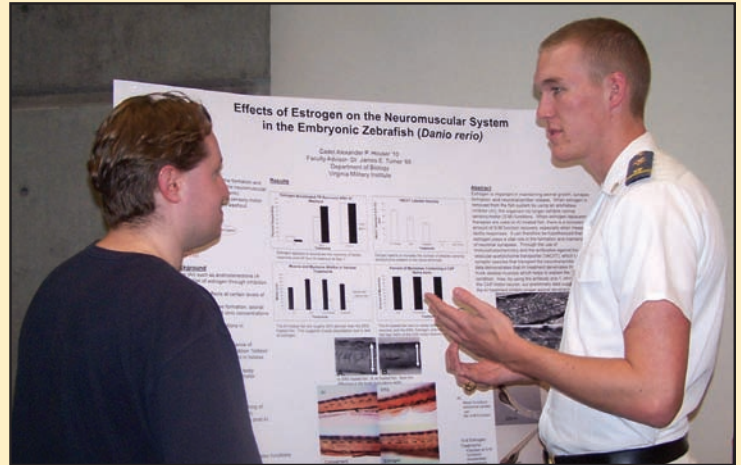
In international studies, Cadet Ava Schultz presented "The Aftermath of the A.Q. Khan Nuclear Network" and was mentored by Burnett and Robert Pringle; Cadet Richard Frantz, "National Guard Response to Chemical or Radiological Attacks and Disasters: the Role of CBRNE Enhanced Response Forces," Burnett and Lt. Col. Stanton Smith; and Cadet Michael Porter, "The South American Defense Council: An Analysis of the Threat to U.S. Hegemony by Brazil," Col. Richard Kilroy. Burnett advised Cadet Kevin Snevely on "Achieving Diplomacy with Iran" and Cadet Michael Cadice on "Pakistan's Alleged Support of the Taliban."

In mathematics and computer science, Cadet Christopher Leach presented "A Kinematic Model for Hand Movements" and was advised by Walsh; Cadet Grant Curell, "Wireless Security: How the Hackers Get In and How We Keep Them Out," Col. Mac Baker; and Cadet Thelmar Rosarda, "Usability Testing of Forensics Software by Naive Users," Col. Myke Gluck.

In mechanical engineering, Cadet Scott MacDonald presented "Thermal Distortion of a Subscale Membrane Mirror" and was advised by Col. Joseph Blandino; and Cadet Hsin-Sheng Lee, "Two Dimensional Transient Heat Transfer Experiment," Capt. Robert McMasters.

In modern languages and cultures, Cadet Daniel Johnson presented "Land of the Immigrants: The Story of Africans Trying to Reach Europe Through Morocco as Told in Their Own Words" and was advised by Mohammed Taifi, Khadija Bentouhami and Ali Faleh. Hardin advised Cadet Charles Range on "Wewelsburg Castle: History and Function 1933-1945."

In psychology, Cadet Paul Wojtas presented "Effect of Emotion on Memory" and was advised by Maj. Scott Frein, and Cadet Tanner



**Cadet Alex Houser discusses his poster during the Big South Undergraduate Research Symposium at the University of North Carolina at Asheville in March.** – Photo courtesy of Col. James E. Turner.

Sewell presented "The Cornerstone of Christianity: A Commentary on the Resurrection of Jesus," Duncan Richter, and "Quality of Paternal Relationship is Associated with Strength of Religious Faith," Maj. Glenn Sullivan.

## NCUR Offers Learning Opportunities for Cadets, Faculty

*By Wendy Lovell*

The 13 cadets who attended the 23rd National Conference for Undergraduate Research at the University of Wisconsin La Crosse in April weren't the only ones to learn from the experience. Maj. Howard Sanborn, assistant professor of international studies, was selected to attend the conference to learn more about the research activities available to undergraduate students.

"It was great to see what students at other colleges are doing and to realize that our cadets are doing research done at the graduate level," said Sanborn. "I think VMI's taking the lead when it comes to undergraduate research, and it will help our students no matter what they pursue."

Sanborn was impressed by the opportunities students had in making oral presentations and in the poster sessions.

"My department is designed to foster research opportunities, and going to NCUR and seeing what's being done elsewhere will help me in the work I'm doing here at VMI," he said. "I look forward to mentoring students at this level in the future."

Sanborn accompanied the following cadets, who represented five academic departments: Kyle Johnson, Ava Schultz, Alex Oliver, Michael Cadice, Rammy Barbarri, Kenneth Luxhoj, Richard Franz and Jose Andueza, international studies, political science and the science and security minor; Hsin-Sheng Lee, mechanical engineering; Joseph Johnson, electrical engineering; Tanner Sewell, psychology and philosophy; and Charles Range and John Curtis, history.

Col. Jim Turner, professor of biology and chemistry, and VMI's director for undergraduate research, attended, as well. At the conference, he was elected to a second term on the executive board of the NCUR Board of Governors, and he will serve as its secretary for the 2009-2010 academic year.