

# Quality Educators

## **Colorado/Wyoming Junior Academy of Sciences - Annual Spring Seminar**

*James Stevens, DVM PhD, University Veterinarian, 303-724-0424,  
[James.Stevens@UCHSC.edu](mailto:James.Stevens@UCHSC.edu).*

The School has hosted multiple K-12 outreach programs, which includes pre-college students and K-12 teachers. One shining example of a program developed by a faculty member several years ago is the Colorado/Wyoming Junior Academy of Sciences annual spring seminar. Over 400 high school students representing two dozen high schools are exposed to careers in the health professions, cutting edge research, molecular biology, clinical sciences, neurosciences and working biomedical scientists and clinicians.

## **Denver Museum of Nature and Science Informal Science Program Internships**

*Sharon Unkart, Polly Andrews, Michael Marlow- Associate Professor Education & Human Development 303-556-8111 [Mike.Marlow@cudenver.edu](mailto:Mike.Marlow@cudenver.edu)*

A partnership between the Denver Museum and UCDHSC SEHD (Michael Marlow) placing teacher interns in summer education program at the museum (Sharon Unkart, Polly Andrews).

## **High School Teachers Research Residency Program**

*Michelyn Lintz, Department of Pharmacology, 303-724-3618;  
[Michelyn.Lintz@UCHSC.edu](mailto:Michelyn.Lintz@UCHSC.edu)*

Through providing intensive summer training for teachers (many from Denver Public Schools) who teach in schools with high populations of minorities or who themselves are members of a minority group, the High School Teachers Research Residency Program recruits minority students into science and medical careers.

<http://www.uchsc.edu/sm/sm/Ktwelveinit.ht>

## **Junior Ranger Program**

*Lynda Lutz-Ryan, Michael Marlow- Associate Professor Education & Human Development 303-556-8111 [Mike.Marlow@cudenver.edu](mailto:Mike.Marlow@cudenver.edu)*

This program provides teachers as summer Junior Ranger Coordinators in National Parks and participates in program curriculum development for K-12 classrooms. NPS-Lynda Lutz-Ryan, SEHD-Michael Marlow.

## **Medicine Bow Project**

*Rocky Mountain Research and Inquiry Center*

*Joanna Wright, Deborah Thomas, Tom Jackson, Michael Marlow- Associate Professor Education & Human Development 303-556-8111 [Mike.Marlow@cudenver.edu](mailto:Mike.Marlow@cudenver.edu)*

A partnership between the UCDHSC SEHD (Michael Marlow) and CLAS (Joanna Wright, Deborah Thomas) working with teachers at Como Bluffs paleontology site to increase teachers' geology, geospatial and paleontology knowledge and experience.

## **P-20 STEM Redesign to Support Colorado's Workforce, Economy, and Innovation Capacity**

In addition to the Title II Math and Science Partnership grants, CASMIC has been named as one of five regional Compacts as part of a National Governor's Association grant led by Governor Ritter's office.

The role of the Compacts is to identify local challenges and assets around the alignment of K-12 outputs and expectations and support development and implementation of policy and promising practices at the local level. Overall the goals of the grant are to align P-20 STEM education requirements (standards, curricula, and assessments) and outputs (achievement) with postsecondary and workplace expectations for STEM competencies of entering students and employees; and develop the local capacity of public-private partnerships — among leading economic clusters and local businesses, K-12 districts, post-secondary institutions, state, county, and local government agencies, and the general public — to support the redesign of Colorado's P-20 STEM education system to help meet regional economies' needs for innovation

### **Rocky Mountain-Middle School Math Science Partnership (RM-MSMSP)**

*Carole Basile 303-556-3336 [carole.basile@cudenver.edu](mailto:carole.basile@cudenver.edu)  
[www.rmmsmsp.cudenver.edu](http://www.rmmsmsp.cudenver.edu)*

The University of Colorado Denver and Health Sciences Center (UCDHSC) in collaboration with four other institutions of higher education, seven school districts, one BOCES, and the National Science Foundation initiated the Rocky Mountain-Middle School Math and Science Partnership (RMMS-MSP) in fall 2004. The purpose of the partnership is to increase student achievement in grades 6-8. Through the partnership, teachers participate in professional learning development courses and thus increase their impact on student learning through increasingly effective instruction in mathematics and science. In addition, the teacher participants in the RM MSMSP professional learning will help create a cadre of mathematics and science leaders across Colorado. In addition to professional development of teachers, middle school students are able to participate in summer mathematics and science camps which will increase their understandings of central concepts in mathematics and science.

### **School of Education and Human Development (SEHD) Internship Program**

*Bruce Nash; Kristin Lucke; Michael Marlow- Associate Professor Education & Human Development 303-556-8111 [Mike.Marlow@cudenver.edu](mailto:Mike.Marlow@cudenver.edu)*

This project places education interns into the National Park Service 'Views of the National Parks' directed by Bruce Nash. Existing on-line modules- (1) Caves and Karst and (2) Glaciers (SEHD- Michael Marlow, Kristin Lucke). Funded by NPS grants.

### **Teacher-Ranger-Teacher Project**

*Michael Marlow- Associate Professor Education & Human Development 303-556-8111  
[Mike.Marlow@cudenver.edu](mailto:Mike.Marlow@cudenver.edu)*

This SEHD project (Michael Marlow) provides the national parks with a team of eight teachers to develop curriculum materials for a more diverse population for both

classroom and park use. These eight teachers work as rangers in eight national parks. Funded by NPS (Linda Lutz-Ryan).

### **Title II Math and Science Partnerships**

The Colorado Department of Education recently awarded three Title II Math and Science Partnership grants to Jefferson County School District, Denver Public Schools, and the South Central BOCES. UCDHSC's (CASMIC), is a lead partner in each of these grants. Approximately \$1.4M for three years across the three projects was awarded.

#### ***Northeast Front Range Mathematics /Science Partnership***

This grant funds 90 additional teachers from four school districts (St. Vrain, Platte Canyon, Fort Lupton, and Adams 12) to participate in the Rocky Mountain Middle School Math and Science Partnership summer institutes. In addition, funding will be used to develop an articulation team of Teacher Leaders and higher education faculty to work on issues of secondary-post-secondary articulation. The articulation team will analyze student work at the middle and high school levels and introductory college level for comparison and delineation of expectations. They will also make reciprocal classroom visits to view the secondary-college interface from the perspective of the "other" side.

#### ***Professional Learning Access in Science and Mathematics through Internet Delivery (PLASMID)***

*Carole Basile* 303-556-3336 [carole.basile@cudenver.edu](mailto:carole.basile@cudenver.edu)

This grant will utilize the coursework of the Rocky Mountain Middle School Math and Science Partnership and the online infrastructure of Colorado Online Learning to deliver a high quality middle school math and/or science certification program to teachers across Colorado. This grant partners with 11 rural school districts and will begin offering courses on-line Spring 2008.

#### ***The Scholars for Knowledge in Learning and Leadership (SKILL) Mathematics Science Partnership***

The Scholars for Knowledge in Learning and Leadership (SKILL) Mathematics Science Partnership draws on and focuses the commitment and expertise of Denver Public Schools (DPS) and the University of Colorado at Denver and Health Sciences Center (UCDHSC) to advance the science and math achievement of middle school students. The SKILL MSP targets the further development of middle grade science teachers through intensive summer research internships at the Health Sciences Center (HSC). The internships will increase the scientific knowledge base of the participating teachers while providing hands-on experience in inquiry-based research. Middle school science teachers will be paired with basic or clinical research faculty mentors at the HSC for a six-week period to conduct a research project. Graduate students/postdoctoral fellows from the HSC will serve as the lab advisors for the teachers and will host on-line discussion groups for participating teachers during the following academic year.