

Outreach Fellows Bring Physiology to K-12 Classrooms

The APS K-12 Minority Outreach program seeks to foster communication between minority graduate and postdoctoral students and middle/high school minority life sciences students. Program activities include year-long outreach fellowships for senior graduate students and postdoctoral fellows to visit K-12 classrooms, help conduct teacher professional development workshops, and attend scientific meetings. The fellowship is supported by a grant from the National Institute Diabetes and Digestive and Kidney Disorders (NIDDK) at the National Institutes of Health (Grant # R13 DK39306).

This program helps students improve their teaching skills at all levels, reach out to the next generation of minority scientists, participate in outreach activities to K-12 students and teachers and become more comfortable talking about careers in physiology. To accomplish these goals, Outreach Fellows serve as a Physiologist-in-Residence for the Frontiers in Physiology Research Teachers during the Science Teaching Forum, receive funding to attend two Experimental Biology meetings as well as the ABRCMS and SACNAS meetings, and arrange to visit two K-12 classrooms and/or participate in PhUn Week. To be eligible, students must have been APS Minority Travel Fellows and/or Porter Fellows in the past.

Since its inception in 2006, the APS has awarded five fellowships:

The 2006-2007 Fellow was Mesia M. Steed, Univ. of Louisville. Steed is a graduate student in the Department of Physiology at the University of Louisville. Her research focuses on how homocysteine affects the three isoforms of nitric oxide synthase (NOS): endothelial, inducible and neural, in the develop-

ment of cardiovascular diseases. In October and November 2006, Steed visited five middle and high schools in Kentucky and Indiana. During those visits, she reached almost 400 students! Her presentations ranged from large groups in the cafeteria to small groups of students. She gave talks about careers in physiology and how she got to where she is today. She also led large group activities on exercise physiology using egg cartons and marbles to demonstrate how blood flow and oxygen delivery changes from rest to exercise and how it's related to hypertension and heart disease. Steed continues to do outreach with various groups, i.e., the Girl Scouts.

Steed attended EB 2006 and EB 2007. She also attended ABRCMS 2006 to promote the APS, its meetings, summer research opportunities and programs for minority students, and careers in physiology.

The 2007-2008 Fellows are Jessica A. Clark, Washington Univ. School of Medicine, and Clintoria Richards-Williams, Univ. of Alabama at Birmingham.

Clark is a postdoctoral fellow in the Department of Surgery. She is currently studying the role of the intestinal epithelium in the pathogenesis of sepsis. In September 2007, Clark visited three elementary school classrooms in Arizona and New Mexico. She taught almost 250 students about why digestion is important by dissecting owl pellets, talked about what it means to be a scientist, used hands-on activities to show the effect of exercise on heart rate and response rate, and discussed the cardiovascular system, the importance of exercise, and the scientific method.

Richards-Williams is a graduate student in the Department of Physiology.

Her research focuses on the role of ATP and zinc in pancreatic β -cell physiology. In October 2007 and January 2008, Richards-Williams visited two classrooms at an intermediate school, as well as at a Learning Center in the Birmingham area. She reached over 130 students. Richards-Williams worked with the teachers and students to discuss careers in physiology, learn what scientists do, learn that scientists come from different backgrounds, and discuss the scientific method. She engaged the students in a modified version of the "Elvis Experiments" (how the cardiovascular system responds to exercise).

Clark and Richards-Williams both attended EB 2007 and will attend EB 2008. Clark attended the SACNAS meeting and Richards-Williams attended ABRCMS 2007, both promoting the APS, meetings, the Undergraduate Summer Research Fellowship, careers in physiology and programs for minority students.

The 2008-2009 Fellows are TanYa Gwathmey, Wake Forest Univ. School of Medicine and Keisa Mathis, LSU Health Sciences Center.

Gwathmey is a postdoctoral fellow in the Hypertension and Vascular Research Center. Mathis is a graduate student in the Department of Physiology. They will attend EB 2008 and 2009, the 2008 Science Teaching Forum, and ABRCMS and/or SACNAS and will participate in outreach activities throughout the fellowship.

Questions regarding the APS/NIDDK K-12 Minority Outreach Fellowship, can be directed to Brooke Bruthers, Award Coordinator, at bbruthers@the-aps.org. For additional information about the program, please visit http://www.the-aps.org/education/minority_prog/stu_fellows/k-12_minor/ov_k12.htm. ❖

APS Presents Award for the Best Physiology Project at a New Mexico High School Science Fair

Scott Divett, a senior at Rio Rancho High School in Albuquerque, NM, received an APS reward for the best physiology project at the high school's Eighth Annual Fall Research Expo. Scott was also the second place overall winner at the Research Expo that was held on December 6, 2007. Scott is the first student to receive a science fair award packet from The American Physiological Society. APS members

Karen Sweazea and Jessica Snow of the University of New Mexico were judges on behalf of the APS and presented Divett with his award. He received an APS "Physiology: Life, Logic Study" t-shirt, an APS researcher pin, and a certificate for the best physiology project. The title of Scott's project is: "10,000 Steps a Day Keeps the Diabetes Away." His teacher and sponsor is Zenaida Ahumada.

Any APS member who participates as a judge in a local or regional science fair at an elementary, middle, or high school is eligible to apply and receive an APS award packet. For more information, visit www.the-aps.org/education/science-fair or contact Scarletta Whitsett (swhitsett@the-aps.org) in the APS Education Department. ❖