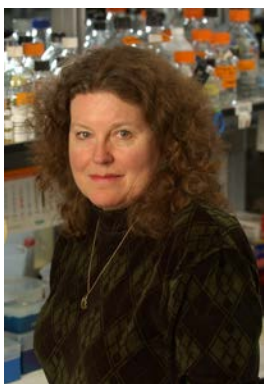


The American Physiological Society  
**Physiology Workshop for Life Science Teachers and Students**  
Renaissance Boston Waterfront Hotel – Pacific Ballroom E  
Monday, April 22, 2013

- 8:30 a.m. **Check-in, Tour Group Assignments, and Physiology Demonstrations**  
*APS Member Physiologists and ADInstruments*
- 8:50 a.m. **Welcome and Introductions**  
*J. Michael Wyss, Ph.D., APS Education Committee Chair, Professor,  
Department of Cell Biology, University of Alabama, Birmingham, Birmingham, AL*
- 9:00 a.m. **Keynote Address: "Redefining Snake Oil: Cardioprotective Mechanism in Burmese Pythons"**  
**Dr. Leslie Leinwand, Ph.D** Professor and Chair of the Department of Molecular Cellular and Developmental Biology, University of Colorado, Boulder
- 10:00 a.m. **Break**
- 10:10 a.m. **Careers in Physiology: Panel Discussion**  
Physiologists share their experiences as students and researchers
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| <i>Robert Manriquez</i><br>Panel Moderator | <i>APS Teacher Mentor/Instructor<br/>Shreveport, LA</i>  |
| <i>Leslie Leinwand, Ph.D.</i>              | <i>Professor of Molecular, Cellular and Developmental Biology &amp; Chief<br/>Scientific Officer of the BioFrontiers Institute at the University of<br/>Colorado, Boulder.</i> |
| <i>Colin Young, Ph.D.</i>                  | <i>Postdoctoral Fellow<br/>Department of Biomedical Sciences<br/>Cornell University</i>  |
| <i>TanYa Gwathmey, MS, , Ph.D.</i>         | <i>Assistant Professor<br/>Wake Forest School of Medicine</i>  |
- 11:00 a.m. **Lunch with Physiologists and a Guided Tour of Posters & Exhibits**  
Boston Convention Center, East Registration
- 1:15 p.m. **TEACHER In-service Workshop** **Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3**  
*"Kidney Under Pressure" led by APS Education Committee Members Barb Goodman Ph.D. and  
Kim Henige, Ph.D., and assisted by other APS Member Physiologists. The 2012 APS Frontiers in  
Physiology Teacher Fellows will be participating in this workshop.*
- 1:15 p.m. **STUDENT Workshop** **Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1**  
*"Junkyard Digestion," led by APS Mentor Teachers Robert Manriquez & Charlie Geach along  
with APS Education Committee Member Jessica Dominguez, Ph.D., and other APS Member  
Physiologists.*
- 3:15 p.m. **Complete Feedback Survey Forms**
- 3:30 p.m. **Depart**

For more profiles of Physiologists, visit: <http://www.the-aps.org/K12careers>  
Visit the APS K-12 Education Programs at: <http://www.the-aps.org/mm/Education/K-12>

*Profiles of Keynote Speaker, and Career Panelists*



**Leslie Leinwand, Ph.D.** is a Molecular, Cellular, and Developmental Biology (MCDB) Professor and the chief scientific officer of the BioFrontiers Institute at the University of Colorado, Boulder. The interests of Dr. Leinwand's laboratory are the genetics and molecular physiology of inherited diseases of the heart and how gender and diet modify the heart. Her laboratory's efforts are well-funded by multiple grants from the National Institutes of Health and her teaching is recognized by funding from the Howard Hughes Medical Institute's (HHMI) Professor Program. She is the principle investigator of the HHMI's Biological Sciences Initiative, which supports undergraduate research, K-12 outreach and educational programs for high school teachers. She was elected as a fellow of the American Association for the Advancement of Sciences. Previously, Dr. Leinwand served as a faculty member of the Albert Einstein College of Medicine. While at Albert Einstein, she was also the director of the Cardiovascular Research Center. She is a co-founder of the University of Colorado Cardiovascular Institute, Myogen, Inc., which was recently sold to Gilead Pharmaceuticals, and Hiberna, Inc.

Dr. Leinwand received a bachelor's degree from Cornell University and Ph.D. from Yale University. She completed her postdoctoral training at Rockefeller University.



**Colin Neal Young, Ph.D.** was born and raised in Lancaster County, Pennsylvania – surrounded by cows, farmland and Amish. He received his Bachelor and Master of Science degrees from the University of Delaware where he majored in exercise physiology. He earned a Ph.D. in physiology from the University of Missouri in 2010 where his research was focused on human subjects and was aimed at understanding how the nervous system contributes to diseases such as hypertension, diabetes and chronic kidney disease. Dr. Young is currently a Postdoctoral Associate at Cornell University in the Department of Biomedical Sciences where he uses mouse models to study the molecular and genetic mechanisms in the brain that lead to cardiovascular and metabolic diseases. Throughout the years, Dr. Young has received numerous awards and honors for his scientific endeavors at the local, national, and international level. Recently he was the recipient of the APS Physiological Genomics Fellowship and was named a Cornell University Genomics Scholar. Dr. Young currently serves on the APS Career Opportunities in Physiology Committee, is committed to enhancing

physiology education and also educating the public about difficult scientific concepts. Outside of lab Dr. Young enjoys spending time with his wife Catharine and their three dogs, Jake, Kingston and George.



**TanYa Gwathmey, MS, PhD**, is a native of Virginia. After growing up in a small rural town, she earned a Bachelor in Science degree from Hampton University, where she majored in Molecular Biology, with a minor in Chemistry. She was a Howard Hughes Medical Institute Research Fellow throughout her undergraduate education, and was fortunate to participate in several summer research internships, including the National Heart, Lung, and Blood Institute (NHLBI), and at the State University of New York at Buffalo School of Medicine, where she was first exposed to a translational research project that was conducted in collaboration with the Children's Hospital of Buffalo. This experience played a pivotal role in sparking her interests in translational and clinical research. She then received a M.S. degree in Endocrinology and Reproductive Biology from Eastern Virginia Medical School before obtaining her PhD in Reproductive Physiology from Cornell University. Dr. Gwathmey completed her post-doctoral training at the Hypertension and Vascular Research Center at Wake Forest School of Medicine, where she is currently an Assistant Professor in the Division of Surgical Sciences, and in the Maya Angelou Center for Health Equity. Dr. Gwathmey has a strong commitment to outreach, mentoring and training, and has participated in several APS-sponsored activities, including service as an APS K-12 Minority Outreach

Fellow, outreach with local elementary, middle and high schools, and serving as a mentor and judge in several local science fairs. Dr. Gwathmey is the Co-Director of the Wake Forest Post-baccalaureate Research Education Program (PREP) that helps to prepare students for graduate training, and she has mentored several students through the PREP and the Excellence in Cardiovascular Sciences training programs. She is an avid supporter of the APS; serving on the APS Career Opportunities in Physiology Committee, participating annually in the Frontiers in Physiology workshops at Experimental Biology meetings, and serving as an APS Early Career Advocate for Science Policy. Dr. Gwathmey has received numerous awards, honors and distinctions throughout her career, including the Carolyn tum Suden/Francis Hellebrandt Professional Opportunity Award, the APS Cardiovascular Clinical Sciences Young Investigator Award, the APS Endocrinology and Metabolism Research Excellence Award, and several APS travel awards. Dr. Gwathmey's research focuses on racial and gender disparities in the development of high blood pressure and kidney disease, and she has recently been accepted as a Research Scholar in the Translational Science Institute Research Academy.

*Special thanks to AAAS, ADInstruments, Howard Hughes Medical Institute for donating additional contributions to today's workshop program.*