College of Science Board of Trustees Report
August 11-September 28, 2015

Students

UAH College of Science Graduate Students Receive 2015-2016 NASA Earth and Space Science Fellowship.

Anthony DeStefano, a graduate student in the Department of Space Science at UAH, and Yi-Yin "Ian" Chang, a graduate student in the Department of Atmospheric Science, were each awarded the prestigious NASA Earth and Space Science Fellowship, which provides up to $30,000 a year in funding.

UAH Biology and Chemistry Student Wins University of Virginia School of Medicine Summer Internship

Steven Doyle, an undergraduate minoring in biology and chemistry, won a summer internship at the University of Virginia School of Medicine, where he conducted research on cancer cell radiosensitivity.

UAH Chemistry Students Attend National Organization for the Professional Advancement of Black Chemists and Chemical Engineers Conference

Samuel Nkruma-Agyeefi and Geordan Burkes received an Advancing Science Travel Award and presented his research at the National meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) in Orlando, FL

Faculty

UAH Accepted into the Laser Interferometer Gravitational-Wave Observatory Scientific Collaboration

The UAH Center for Space Plasma and Aeronautic Research (CSPAR) applied on behalf of UAH and has been accepted into the Laser Interferometer Gravitational-Wave Observatory (LIGO) Scientific Collaboration, which aims to detect and discover gravitational waves.

UAH Biology Professor and Chair Receives NSF Grant to Research STEM Student Retention.

UAH Department of Biology Professor and Chair **Dr. Debra Moriarity**, in partnership with the HudsonAlpha Institute for Biotechnology, was awarded a $638,777 grant through the NSF Scholarships in Science, Technology, Engineering, and Mathematics, or S-STEM, program. This grant will be used for recruitment and retention of high school students interested in pursuing a career in biotechnology.

UAH Space Science Researcher Wins NSF CubeSat Award.
Dr. Michael Briggs won a $376,686 NSF CubeSat award, Observing Terrestrial Gamma-ray Flash (TGF) Beams with a Pair of CubeSats, in partnership with Auburn.

UAH College of Science Assistant Professor Edits a Conference Proceeding
Dr. Qiang Hu of the Department of Space Science served as the lead editor among a team of scientists for a special section appearing in the American Geophysical Union publication, the Journal of Geophysical Research - Space Physics. This collection contains contributions from the authors all over the world with a central theme on the Variability of the Sun and its Terrestrial Impact (VarSITI).

UAH Space Science Professor Receives Grant
Space Science Professor **Dr. Nikolai Pogorelov** received a $75,000 grant from the University of Illinois through the NSF Blue Waters Petascale Application Improvement Discovery (PAID)

UAH Researcher Flies Prototype Infrared Camera for Space Mission
Dr. James Adams, Principal Research Scientist at CSPAR, is in Fort Sumner, New Mexico to fly a component of the prototype instrument for the Extreme Universe Space Observatory mission on a stratospheric balloon as part of our continuing instrument development effort. The Extreme Universe Space Observatory is a planned space mission.

UAH Assistant Research Professors' Paper Selected by GenScript Scholars Program.
An article published by **Dr. Hannah McFeeters**, Assitant Research Professor for the Department of Chemistry, earlier this year in the *Journal of Analytical and Bioanalytical Techniques* has been selected by the biotech company GenScript to be showcased as part of their GenScript Scholar Program.

UAH Professor and Interim Chair Receives NSF Research Award

UAH Professor and Interim Chair of the Department of Chemistry **Dr. Carmen Scholz** received an NSF award of $199,878 for her collaborative research into biodiesel-derived butanol: \lipid membrane vesicle mediated extraction enables continuous fermentation process.

Outreach

UAH College of Science Researchers Plan National Workshop on Agricultural Sustainability.
Dr. Richard McNider, a distinguished professor of science at UAH's Earth System Science Center (ESSC), along with co-investigators **Dr. James Cruise** and **Dr. Maurice Estes**, are planning a national workshop on agricultural sustainability to be held October 21-23 in Boulder, CO.

UAH College of Science Partners with HudsonAlpha APPLE Program for Third Year.
Undergraduate and graduate students from the Department of Biology are volunteering to help HudsonAlpha Institute for Biotechnology conduct their APPLE outreach program with local high schools . This is the third year that UAH students have been assisting the Institute conduct 2 AP biology labs per school per school year to better prepare students for the AP exam.

UAH Chemistry Assistant Professor Part of Chemistry Outreach Collaboration with the Chemistry Education Foundation.
Assistant Professor of the Department of Chemistry **Dr. Bernhard Vog**ler is involved with planning of "You be the Chemist," an attempt to increase interest of middle school students in STEM fields, especially in chemistry. This is sponsored by the Chemistry Education foundation (http://www.chemed.org/).

Internal Awards

UAH College of Science Chemistry Associate Professor named Associate Dean.
UAH Chemistry Associate Professor **Dr. Emanuel Waddell** was named Associate Dean for the College of Science. Dr. Waddell began his duties as Associate Dean on August 18, 2015.

College of Science Publications

"Faltering Steps into the Galaxy: The Boundary Regions of the Heliosphere" **G.P. Zank**, 2015, *Annual Review of Astronomy and Astrop*hysics, vol. 53, p.449-500, doi:10.1146/annurev-astro-082214-122254

Coates L., Cuneo M. J., Frost M. J., He J., Weiss K. L., Tomanicek S. J., **McFeeters H**., Vandavasi V. G., Langan P., Iverson E. B., "The Macromolecular Neutron Diffractometer MaNDi at the Spallation Neutron Source", *Journal of Applied Crystallography*, 48, 4, 1302-1306, (2015).

"Composition and bioactivities of an (*E*)-β-farnesene chemotype of chamomile (*Matricaria chamomilla*) essential oil from Nepal." Prabodh Satyal, Samon Shrestha, and **William N. Setzer.** *Natural Product Communications*, **2015**, *10(8)*, 1453-1457.

"Hesperidin: A promising anticancer agent from nature." Kasi Pandima Devi, T. Rajavel, Seyed Fazel Nabavi, **William N. Setzer**, Amirhossein Ahmadi, Kowsar Mansouri, and Seyed Mohammad Nabavi**.** *Industrial Crops and Products*, **2015**, *76*, 582-589.

"A phytopharmaceutical survey of Abaco Island, Bahamas." **Mary C. Setzer**, Jennifer Schmidt Newby, **Debra M. Moriarity**, and **William N. Setzer**. *American Journal of Essential Oils and Natural Products*, **2015**, *2(5)*, 10-17.

"Chemical composition and biological activity of the leaf essential oil of *Callistemon citrinus* from Nepal." Samon Shrestha, Ambika Poudel, Prabodh Satyal, Noura S. Dosoky, Bhuwan K. Chhetri, and **William N. Setzer**. *American Journal of Essential Oils and Natural Products*, **2015**, *2(5)*, 29-33.

"Leaf essential oil composition, antimicrobial and cytotoxic activities of *Cleistocalyx operculatus* from Hetauda, Nepal." Noura S. Dosoky, Suraj K. Pokharel, and **William N. Setzer**. *American Journal of Essential Oils and Natural Products*, **2015**, *2(5)*, 34-37.