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the GRO Forum

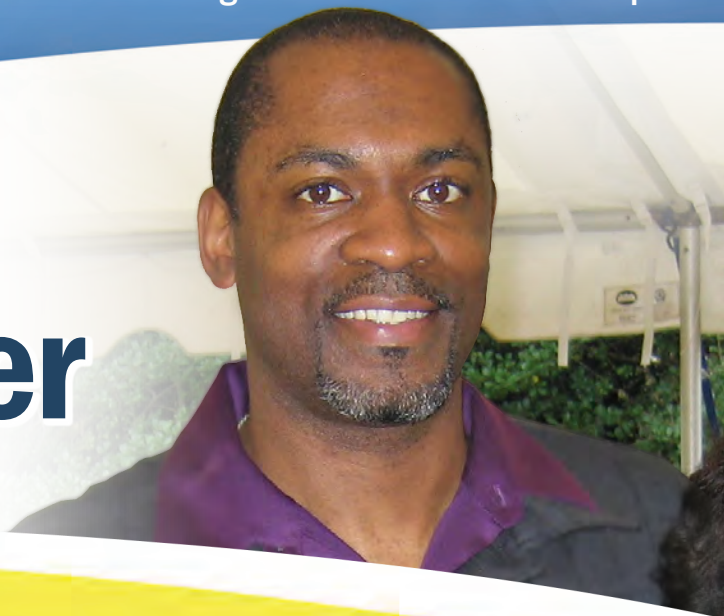


Environmental Protection Agency Greater Research Opportunities Undergraduate Student Fellowships

Issue 1, 2012

GROing a career

Catching up with GRO Alumni



Brandon Jones

Society faces a number of critical issues that are tied to the environment, including air quality and air pollution, natural and human-made disasters, the need for renewable energy, and the security of the Nation's water and food supplies. "We need to support the next generation of environmental professionals to help the Nation address these critical issues – not for the future, but for now," points out Brandon Jones, the Fellowship Programs Manager at EPA's National Center for Environmental Research (NCER) in Washington, D.C.

"Supporting the next generation of environmental scientists is the main focus of the program and is what drives me," Brandon says. Brandon has come full circle in his career journey. He received EPA's Minority Academic Institution (MAI) Undergraduate Student Fellowship – the precursor of the GRO (Greater Research Opportunities) Undergraduate Fellowship – in 1990. He now manages five student support programs that focus on increasing the United States' environmental capacity through science, technology, engineering and mathematics (STEM).

“The fellowship helped in providing a real-life experience. It wasn't just something that I read or watched on television.”

- Brandon Jones

"I've been given flexibility to be creative in the operations and outreach of the program," Brandon says. His duties include evaluating the direction, scientific quality and effectiveness of NCER's investment in long-term student investigator-initiated fellowships. He also works to develop the overall strategic direction of the program, linking program goals to EPA research programs and strategic goals.

Brandon received the MAI Fellowship while a student at Lincoln University, a Historically Black University in Pennsylvania. "I was already pointed in the environmental direction but the Fellowship helped in providing a real-life experience," he says. "It wasn't just something that

I read or watched on television." He credits the Fellowship for "planting something within me that helped propel me forward in my career path." Brandon received his B.A. in biology from Lincoln in 1991.

Brandon subsequently went on to earn an M.S. and a Ph.D. in marine science from the University of Delaware College of Earth, Ocean and Environment. As he was completing his doctorate, Brandon came to the realization that he wanted to explore options outside the academic setting. He began considering the option of working in a state or Federal government agency. Thanks to a networking opportunity with a colleague from the University of Delaware, Brandon learned about and was able to secure an EPA student contractor position. He was then hired as a project officer for a team working on ecosystem services.

For his internship, Brandon traveled some 4,000 miles to Anchorage, Alaska to research the use of natural wetlands for wastewater treatment in rural areas. "It was definitely an adventure," he says. "The Alaskan energy, at that time, was very laid back and relaxed. That fits my personality. I enjoyed the experience immensely." As part of the internship, Brandon spent two weeks doing field work with a team from EPA's Western Ecology Division and Oregon State University on the tundra in the Arctic Circle. The team collected mosses, lichens, lake trout and ground squirrels for toxicological analysis of Arctic atmospheric contaminants coming from Asia into North American ecosystems. Wilderness living was an adventure, Brandon says, especially getting used to the field alternative to morning showers. "Running outside from a really hot sauna and diving into an arctic lake will certainly wake you up in the morning," he says.

"Current and future Fellows shouldn't be afraid to take chances outside of their comfort zone," Brandon says. He also advises them to seek out mentors and coaches, not only when they are students but throughout their careers. "Focus on networking," he says. "It really is who you know that helps you get your foot in the door but don't forget that you have to perform once you're there."

GRO and MAI alumni follow diverse paths



This year marks the 30th anniversary of what is currently called the Greater Research Opportunities (GRO) Undergraduate Student Fellowship program. Originally called the Minority Academic Institutions (MAI) Undergraduate Student Fellowship, the GRO program provides support to students seeking bachelor's degrees in environmental fields.

Cynthia was awarded the GRO Fellowship in 2001, while attending Alabama A&M University in Normal, Ala. She has two graduate degrees from University of Maryland University College in Adelphi, Md.: an M.S. in environmental management and an M.B.A. Cynthia previously worked as the environmental regulatory specialist for NASA's Space Shuttle Program. "I was able to combine my passions for both the environment and space," she says. "I was sad to see the program end." Cynthia is now an engineer at the Missile Defense Agency, part of the U.S. Department of Defense. Her career choices may seem a stretch for someone who studied environmental issues. Cynthia says, "Thinking outside the box and learning to combine other interests with an environmental background can lead to an exciting career." She urges current GRO Fellows to keep this in mind as they consider what they might like to do after they earn their degrees.

Cynthia Williams ►



Currently a doctoral candidate at Auburn University in Auburn, Ala., Taconya embraces the opportunity to work with landowners and other stakeholders regarding conservation. Specifically, she enjoys being able to informally educate them about science. "Having the opportunity to interact with them and explaining the goals of our research, in a very relaxed atmosphere, makes them more comfortable and open to our research ideas," Taconya says. She was awarded EPA's STAR MAI Graduate Fellowship in 2001 while a student at the University of Maryland Eastern Shore in Princess Anne, Md. "The Fellowship helped to stretch my curiosity about science and gave me the opportunity to develop my research skills," Taconya says. "My experience as a Fellow taught me that I was capable of much more than I ever thought I could do."

Taconya D. Goar ►



"Make the most of all your experiences while you are in school and try to learn something from everyone that you encounter," Sherita advises current GRO Fellows. "Even if you have a solid plan for what you want to do in life, be open to change. You never know what experience may come along." A 2000 recipient of the MAI Undergraduate Student Fellowship, Sherita is now a labor and delivery nurse in Sugarland, Texas. "Every patient and every delivery is unique and special," she says. "I truly enjoy being able to be a part of such an unforgettable event in a person's or family's life." Sherita is currently continuing her education, working toward a Master of Science in Nursing degree. When she earns that degree, Sherita will be a women's health nurse practitioner.

Sherita Bennett Charles ►



Tahir received the MAI Fellowship in 1998 when he was an undergraduate at Texas Southern University in Houston, Texas, studying environmental engineering technology. He continued on as a graduate student, earning an MBA. As an MAI Fellow, Tahir says, "I honestly learned how to think out of the box." He discovered that he had an aptitude for doing research and reviewing grants, and finally decided to apply for a grant himself. This led to his starting his own business, Allen Medical Services, which provides financial management for children and disabled adults with autism and developmental delays. "Don't be scared to start your own business," Tahir advises GRO Fellows. "Learn how to own what you do."

Tahir Charles ►



Summer 2012 GRO Internship Projects

Aiden Irish Alternative Energy Best Practices in Region 10 Anchorage, AK	Amy Fischer Global Climate Change Effects on Coastal Wetlands Narragansett, RI	Andrew Reighart Global Affairs and Policy Internship Washington, DC	Brendan Galloway Pesticide Program Rulemaking Support Arlington, VA	Brian McConnell Tracking Program Successes in Water and Wastewater Energy Efficiency Boston, MA	Brooke Weigel Identifying and Preventing Nutrient Impairments in Pacific Northwest Estuaries Newport, OR	Cara Mayo Climate Change Effects on Coastal Marine Ecosystems: Species Vulnerability in the Pacific Northwest Newport, OR
Carlos Juan Cruz Tracking Effects of Nutrients from Multiple Sources Across Trophic Levels and Temporal Scales Using Stable Isotopes Narragansett, RI	Catherine Wise Real-Time Water Quality Monitoring in Urban Rivers North Chelmsford, MA	Clarice Esch Narragansett Bay Coastal Marsh Sustainability Narragansett, RI	Cory Ventres-Pake Environmental Justice Education and Food Justice Boston, MA	Dan Fultz Tide Channels as an Ecosystem Service for Estuarine Fish Newport, OR	Deirdre MacFeeters Regional and Bilateral Affairs Internship Washington, DC	Elyse Peters Environmental Justice Needs Assessment Project Atlanta, GA
Emily Seelen Identifying the Role of Urban and Isolated Wetlands in Maintaining Watershed Water Quality and Ecosystem Integrity Narragansett, RI	George Osei Health Physics Projects Assistance Las Vegas, NV	Gina Chaput Nitrogen Management Boston, MA	Hannah Coe Ecological Condition of Great Lakes Coastal Zones Duluth, MN	Holly Andrews Global Climate Change Effects on Coastal Wetlands Narragansett, RI	Jackie Blake-Hedges Pesticide Residue Analysis Fort Meade, MD	Jairo Guerrero Southeast New Hampshire Uranium Study North Chelmsford, MA
Jared Smith Human Impacts on Forest Ecosystem Services Corvallis, OR	Jessica Johnson Addressing Contamination from Abandoned Uranium Mines on the Navajo Nation San Francisco, CA	Katie Steele Global Climate Change and Its Effects on Terrestrial Ecosystems Corvallis, OR	Kelsey Morgan Tribal Grant Investments in Puget Sound: Analysis of Progress Toward Desired Ecosystem Outcomes Seattle, WA	Kevin Chen Synthesis and Testing of Materials for Drinking Water Treatment Cincinnati, OH	Kimberly Kiser Data Analysis Assistance with Oil & Gas Emission Measurements Denver, CO	Laura Terada Sustainable Water Infrastructure San Francisco, CA
Lisa McLaughlin Implications of the Proposed Watana Hydroelectric Project for the Channel Morphology and Ecology of the Susitna River Anchorage, AK	Mackenzie Billings Ecological Effects of Biofuel Plant Species Corvallis, OR	Max Lehner Adaptive Management Decision Framework Development and Support Annapolis, MD	Nessly Torres Using the Biomimicry Methodology to Solve Environmental Challenges Denver, CO	Nikki D'Alessio Economic Support for Pesticide Registration and Reevaluation Arlington, VA	Ravin Joseph National Lakes Assessment – New England Region North Chelmsford, MA	Roxanne Sanderson Green Chemistry Washington, DC
Sam Wallace Helicopter Monitoring Program Edison, NJ	Tiana Ramos EPA Green Building Research Symposium New York, NY	Tiorra Ross Green Chemistry Washington, DC	Tyanna Smith Assessing the Response of In-Stream Ecological Processes and Functions Along a Gradient of Environmental Perturbations Cincinnati, OH	Tyler Bleeker Human Impacts on Forest Ecosystem Services Corvallis, OR		

Hilda received EPA's STAR Culturally Diverse Academic Institutions (CDAI) Fellowship for Graduate Environmental Studies in 1999. Hilda says that the STAR Fellowship was key to her successfully earning a Ph.D. in environmental science and engineering from the University of Texas at El Paso. "When I learned that I had been selected as a STAR Fellow, I was beyond belief," she says. Hilda is now the Faculty Staff Coordinator for the Biology, Chemistry and Geology Departments at the El Paso Community College Northwest Campus, where she also teaches biology and anatomy & physiology courses. "The courses that I teach are very challenging," she says, "so most of my students struggle at first. There is nothing more rewarding than to see them achieve their academic goal." Hilda passes along this advice to current GRO Fellows: "You've proven that you have not only a promising research project but that you have the potential to carry your project to completion. This is a once in a lifetime opportunity, so make the best of it."

Hilda S. Taylor ▶





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GRO and MAI alumni members of the Fellowship peer review panel. Front row (L to R) Hilda Taylor, Cynthia Williams, Taconya Goar, Sherita Bennett Charles and Audrey Hernando. Second row (L to R) Tahir Charles, Ragene Conway and Brent Chavous.

EPA mentors' reflections

For GRO Fellows, summer internships provide a chance to explore new parts of the country, learn about new subjects, develop new skills, and make lasting personal and professional relationships. Internships are not just about the students, though, as EPA employees who open their offices and labs and give their time to mentor GRO summer interns will attest.

The Region 2 Laboratory in Edison, N.J., has hosted internships for nearly 20 years in environmental laboratories, environmental monitoring and assessment, and rapid bioassessment. Randy Braun and Helen Grebe frequently host a Fellow for the Helicopter Monitoring Program, which entails daily flights over New York and New Jersey Harbors. Helen considers working with GRO interns to be one of the highlights of her career. "Each student brings enthusiasm, energy and a fresh new perspective to the project at hand," she says.

Another long-time GRO intern host, Carol Farris, Ph.D., says, "EPA's Green Chemistry Program has been fortunate to have mentored a number of GRO Fellows, young people who have aided and enriched our efforts over the years." Green chemistry, or sustainable chemistry, is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. "By teaching Fellows the philosophy of green chemistry and sharing practical examples with them," Carol says, "we aim to influence their careers and their academic institutions to benefit human health and the environment, and we have not been disappointed."



“ GRO students infuse our workforce with young minds that provide innovative ideas. It is a win-win situation for both the student interns and EPA. ”

Randy Braun, EPA Region 2 Laboratory