

**North Carolina GlaxoSmithKline Foundation Women in Science Scholars Program**  
March 21, 2014 Spring Conference Highlights



*Dr. Jason Cryan welcomes the scholars, mentors, faculty and staff representatives from 28 of the 30 colleges and universities participating in the North Carolina GlaxoSmithKline Foundation Women In Science Scholars Program.*

The [North Carolina Museum of Natural Sciences](#) deputy museum director for Research & Collections, **Jason R. Cryan, Ph.D.** welcomed guests to the Women in Science Scholars Program Spring Conference, held at the museum's Nature Resource Center in downtown Raleigh. He provided an overview of the museum's mission and activities, which include research, exhibits, conferences and seminars, teacher workshops, camps and laboratories. Dr. Cryan highlighted the value of women in science, research and technological advances and encouraged all participants to take full advantage of the museum.

**Marilyn Foote-Hudson**, executive director of the North Carolina GlaxoSmithKline Foundation, shared the North Carolina GlaxoSmithKline Foundation's achievements in 2013, noting that the Foundation paid \$2.96 million in grants that advance health, science and education. The grants include those made under the traditional grant program as well as Ribbon of Hope grants. Marilyn encouraged all attendees to spread the word about the Ribbon of Hope program, which provides one-time \$25,000 grants to nonprofits for programs that promote health, science and education. Information is online at [www.NCGSKFoundation.org](http://www.NCGSKFoundation.org). Marilyn thanked the students and faculty in attendance, and recognized the GlaxoSmithKline mentors for volunteering their time and for their dedication in making the Women In Science Scholars program so successful over the past 20 years.

*Marilyn Foote-Hudson stated "Selecting the museum as the venue for our conference provided the optimal environment for learning and networking."*



The keynote “Fearsome Continent: A Dinosaur Hunter’s Journey through the Cretaceous” by **Lindsay Zanno, Ph.D.**, director of Paleontology & Geology Research Laboratory, North Carolina Museum of Natural Sciences, and research assistant professor, Department of Biology, North Carolina State University, talked about her research of dinosaurs and their evolution into birds. Dr. Zanno said “we dig in the past to learn where we are going in the future,” and talked about how expeditions help scientists learn how ecosystems respond to change by allowing them to examine fossils at different ages of extinction. Zanno said technology, like 3-D scanning and software, is having a profound effect on science, allowing us to discover injuries and diseases in fossils and to research soft tissue. This “technology allows us and helps us to think outside the box,” she said.



*Dr. Lindsay Zanno sharing her passion for science.*

Dr. Zanno said the best part of her job is connecting with school groups and the community in new ways through the museum, allowing her to engage people of all ages in science. While out on desert expeditions, she is able to use Skype and blogs to connect to the community about her work. She said she has reached this point in her career through “sheer perseverance and passion,” and advised scholars to be confident in themselves and not let obstacles stand in their way. Dr. Zanno advised, “There will be many challenges, but know what your dream is and what you’re capable of.”

After lunch, attendees were divided into groups and visited three labs and the museum’s research collection.



*Johnson C. Smith University scholars Shaketa Jones and Norma Zuniga-Jimenez stopped for a photo before heading to the Earth Observation and & Biodiversity Lab.*

### **Earth Observation & Biodiversity Laboratory**

Scientists in the Biodiversity Lab study plants, animals and microbes to discover the ecology and evolution of the planet. Some popular features include cameras placed in the wild to photograph animals in their habitats, GPS tracking devices placed on birds and mapped on a computer that show the birds’ paths, and a current study of all of the insects found in people’s homes.



### [Genomics & Microbiology Research Laboratory](#)

Scientists in this lab investigate the connection between genotype (DNA sequence) and phenotype (traits and characteristics) that make flora and fauna unique. Research in the lab uses genetic and genomic techniques to address a wide variety of evolutionary and taxonomic topics that have relevance to health, disease, and conservation. An interesting project underway is examining the mites that live in the pores of our skin (face mites) to determine whether there are geographical or ethnic differences or in people with diseases.

*Julie Urban, Ph.D.,  
assistant director,  
Genomics &  
Microbiology  
Research Lab shares  
her research at the  
museum with the  
Women In Science  
Scholars group.*



### [Micro World Investigate Laboratory](#)

This hands-on lab, which is funded in part from a grant from the North Carolina GlaxoSmithKline Foundation, allows visitors to discover nature using state-of-the-art scientific tools and techniques. Some areas include micropipetting, DNA extraction, DNA manipulation, and magnetization.

### **Teaching & Research Collection**

This behind-the-scenes tour gave scholars and mentors a peek into the museum's vast research collection, which includes 3.5 million specimens of birds, mammals, reptiles, fish and fossils, some dating back to the 19<sup>th</sup> century. Software and technology are used to analyze all aspects of the specimens. The collection is catalogued and stored, and is made available to scientists, artists and other researchers.

*(Right to left) GSK mentor Michelle Staben Wobker, UNC Wilmington scholar Hannah Lineberry, and Western Carolina University scholar Margaret Pearce enjoyed the eggs on display in the teaching and research collection.*



**Allison Florance**, director of statistics in the Oncology Early Development Clinical Statistics Group at [GSK](#), led the feedback session, asking scholars and other attendees about the highlights of their day at the museum. Many attendees said they were impressed by the interactive exhibits, the extensive research collection and the extensive use of advanced technology to provide scientific analysis. Allison promoted the value of networking, encouraging scholars to “foster your relationships because they will open doors that you never expect, and you will be amazed to see where it might lead someday.”



*(Left to right) GSK volunteer mentor Susan McDonald, UNC Asheville scholar Maggie Booterbaugh, and GSK mentor Lisa Miller share their work at GSK during a break at the conference.*

For more information about the North Carolina GlaxoSmithKline Foundation programs call 919 483-2140 or visit our website [www.ncgskfoundation.org](http://www.ncgskfoundation.org).