



Women In Science Scholars Annual Meeting – Monday, October 2, 2017

Embassy Suites by Hilton, 201 Harrison Oaks Blvd, Cary

Marilyn Foote-Hudson, Executive Director of the North Carolina GlaxoSmithKline Foundation, welcomed attendees to the Women in Science Scholars Program annual meeting. She talked about the importance of networking and making connections, and encouraged the scholars to get to know each other and the volunteer mentors.

She outlined the Foundation's work, explaining the traditional and Ribbon of Hope grants programs and Child Health Recognition Awards program. The Child Health Recognition Awards program credits public health professionals around the state for their hard work, dedication and creativity in serving children and their families. The Ribbon of Hope provides \$25,000 grants to nonprofits for programs promoting science, health and education. She urged attendees to promote the Ribbon of Hope grant program with nonprofits in their counties.

Vani Vannappagari, MBBS, MPH, PhD, Global Head, Epidemiology and Real World Evidence for ViiV Healthcare, a joint venture between GlaxoSmithKline and Pfizer, provided the keynote and she is a former Women in Science volunteer mentor. She is also an adjunct faculty at UNC- CH School of Public Health. She has authored or co-authored numerous research papers, and continues to present at national and international conferences.

She grew up in a small town in India with a high school teacher father, so education was emphasized. She came to the United States to study after she completed her medical degree, and became interested in public health. Dr. Vannappagari earned a doctorate, a masters of public health, both in epidemiology, from the University of North Carolina at Chapel Hill, and holds a bachelor of medicine and bachelor of surgery from Karnataka Medical College in India.

In her keynote, "Embrace the Serendipity" she defined serendipity as "a happy accident, fortunate accident, pleasant surprise," and "finding something when you're not looking for it." Some examples of serendipitous discoveries include Columbus' discovery of America, Newton's discovery of gravity, Fleming's discovery of penicillin and Nobel's discovery of dynamite.

However, she told the scholars that this does not mean you are sitting around, just waiting for things to happen. You must be actively participating in life and making decisions about the direction you are taking, but recognize that things will change and "always open yourself to the changes."

Some of her tips include:

- Pick a thesis topic that is interesting to you but that you can do in reasonable amount of time.

- Finish your degree and get a job, because that is where you can do projects you've always wanted to do.
- Talk to mentors and senior colleagues, and make sure they know you well enough to provide guidance and serve as reputable references. "It's not the number of people you know, it's the quality of relationships that matter."
- Create networks that matter: formal and informal mentors, professional networks, social networks (the support of family and friends who will nurture you and help you through).
- Stand up for yourself: speak up when you have something valuable to say, don't doubt yourself.
- Have a strong work ethic.
- Financial stability can make your life easier, and provide peace of mind and the ability to use your money to do good for others.
- Practice kindness, toward strangers, friends, colleagues and yourself.
- Manage expectations for both yourself and of others. Ask for clarifications from managers to find out what they really want/need.
- Practice mindfulness: try to live in the moment and awaken to new experiences. Carve out time for work and for yourself.

Ultimately, she said, serendipity is important and should be embraced, but it still accounts for a very small amount of the blessings we receive in life, work and love. The majority is due to our own efforts.

The afternoon sessions included **Bethany Lake** a senior at Elon University who plans to graduate in May of next year with degrees in biostatistics and public health. In addition to being a Women in Science scholar, she was named a Kenan scholar as a freshman and a Lumen scholar when she was a junior, receiving Elon's premier financial prize to support research and other scholarly pursuits. She has conducted independent research on the migrant health experience in Alamance County as it relates to community-based health care. She also studied abroad, including Turkey in 2015 and more recently, spent a semester in Copenhagen, Denmark.

She shared her experiences in "Denmark" in her session. Highlighting living with a family in Copenhagen, and talking about helping the host mom and teen daughter with English skills, and about excursions to art museums and castles. She was able to experience and use Denmark and the rest of Europe as her classroom, studying epidemiology and immigrant health issues. Her favorite class was on health care strategies for at-risk populations (sex workers, drug users, undocumented migrant populations). Danish citizens get free health care but others don't, so the Red Cross has established a clinic for undocumented migrants. This showed her the differences between clinics such as that, which try to stay under the radar, and community health centers in North Carolina, which do more outreach to at-risk populations.

She said that Denmark not only helped her understand the complexities of health care but showed her that she is more capable than she thought, taught her to be more spontaneous and independent, and to take risks and to live more fully present in the moment. She shared the Danish concept of *hygge* (hoo ga), which is the art of building sanctuary and community; inviting closeness; paying attention to what makes us feel open hearted and alive; creating well-being, connection and warmth; and celebrating the everyday.



The afternoon session consisted of speakers representing graduate programs at the University of North Carolina, East Carolina University and Duke University in the session titled **Considering Graduate School?**

Alison Regan: Assistant Director, UNC MD/PhD Program

Ms. Regan said the program's purpose is to integrate training in both medicine and research. It is specifically designed for students who want to become researcher/physicians and transform the nation's health.

Interested applicants should have solid research experience, outstanding academic records and experience in caring for others. The timeline is eight (8) years, including 18 months of preclinical coursework, two months on the U.S. Medical Licensing Exam; four months of research or clinic work; four years of doctoral studies and thesis preparation/defense; and the final two years are spent on clinic rotations and internships.

The UNC program encompasses a wide range of interests, with students completing coursework in areas such as biochemistry and biophysics, pharmaceutical sciences, health policy and management, nutrition, toxicology, pathology and lab medicine, and philosophy (medical ethics).

Ms. Regan also said the UNC program is not just a training program, but a community of learners who hold seminars and workshops, and pursue other interests. One such project is the Advocates for MD-PhD Women in Science (AMPWIS), started in 2014 to promote the success and excellence of women in medical research. The group has been nationally recognized for this, and other institutions have started similar programs using this model.

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Brett Keiper, Ph.D., East Carolina University, Biochemistry & Molecular Biology Concentration PhD Program

Dr. Keiper has been at ECU since 2003 and director of the Ph.D. program at ECU since 2010. He said the program emphasizes critical thinking skills, ability to synthesize concepts, writing and speaking skills, publishing in reputable journals and competing for funding (fellowships).

The program requires minimal coursework, offers small class sizes, and requires no teaching assistantship but students receive a \$25,000 annual assistantship stipend, fully paid tuition, health care coverage and one-on-one training with established mentors.

The school offers several different areas of research interests: enzyme kinetics and mechanism, muscle contraction, membrane potential; regulation of normal metabolism, metabolic disease, diabetes; altered gene expression in growth reproduction differentiation and disease, to name a few.

The program breaks into phases: initially, it includes coursework and research rotations (students work in different labs to determine research interests); at the end of year 2 is the candidacy exam (prepare and defend a full grant proposal, NIH-style). As a Ph.D. candidate in phase 2, the student focuses on research, presentations, seminars, publications, travel to meetings and finally, dissertation writing and defense. In years 4-5, they seek postdoc or industry positions.

Apply online under “Biomedical Science, PhD” at <http://www.ecu.edu/cs-acad/gradschool/Doctoral-Degrees-Deadline-Dates.cfm>; will need GRE scores, transcripts, letters of reference, statement of purpose. Some research experience, GPA 3.2, GRE average 153V/154Q, and good verbal/presentations skills are generally needed.

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www.ecu.edu/gradschool

Molly Matty and Monica Gutierrez, University Program in Genetics and Genomics (UPGG) Ph.D., Duke University

Molly Matty went to North Carolina State University, and begged to be allowed to work in labs. She started in physical chemistry, then worked in a biochemistry lab and then a mouse lab, where she fell in love with genetics and now studies host pathogen interactions.

Monica Gutierrez came to the U.S. from Colombia, thinking she wanted to be a medical doctor. She instead ended up in a lab studying Alzheimer’s disease and the effects of aging at the University of South Florida in Tampa. She is interested in epigenetics and currently studies how chromatin assembles following genome duplication.

The UPGG program at Duke offers a doctorate in genetics and genomics. Outside of their research lab, the students volunteer for program-related committees to do science outreach in the community and organize distinguished lecturer series. The program takes about 5 to 6 years to complete.

Molly highlighted that she has done a lot of travel during her time at grad school. She uses the stipend, and has even purchased a car, and her travel includes 10 countries, including one for research collaboration. Monica shared that she has visited her family annually since starting the program and encouraged the audience to take advantage of travel opportunities while attending grad school, including conferences and courses offered at other institutions.

Their tips include to be sure that references can speak about you as a scientist but also as a person; when interviewing for acceptance into the program, learn about the people interviewing you; be yourself, be genuine and don’t oversell yourself or misrepresent knowledge, skills or experience. They also recommended that students gain research experience to speak scientifically about that they are doing.

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All of the graduate program representatives recommended that students talk to current doctoral students to learn about their experiences with the program as a way to gain information about whether a particular program is a good fit for them.

Marilyn Foote-Hudson thanked all of the speakers, staff and the mentors and university faculty who accompanied scholars to the Women in Science annual meeting. She encouraged them to keep building their networks with fellow students, mentors and faculty. Please **SAVE THE DATE: Women in Science spring meeting is Friday, March 2, 2018!**