



## **Q&A with TanYa Gwathmey, Ph.D. 2008 K-12 Minority Outreach Fellow**

### **Who are you?**

*TanYa Gwathmey*

### **Where were you born?**

*In King William County, Virginia, a rural area that is home to both the Pamunkey and Mattaponi Indian reservations.*

### **What childhood experiences led to your interest in science?**

*Growing up, I had several pets (both dogs and cats, and even a few 'strays' that I had adopted). There were specific times of year when the animals would mate. I would watch the animals go through the entire period of pregnancy and then deliver the pups or kittens. That whole process was amazing to me and I really wanted to understand how it all worked.*

### **Why did you decide to study science?**

*My eldest sister went to school to study nursing. When she came home to visit, she would often share with me various things she had learned in her classes. I was so excited to learn that I could actually develop a career studying the things that interested me so much. My sister really had a profound impact on me and the career goals that I developed; she was a great role model for me.*

### **Where did you attend school/university?**

*I attended Hampton University for my undergraduate degree in Science. I obtained my master's degree from Eastern Virginia Medical School and my PhD from Cornell University.*

### **How did you decide on the school?**

*My selection of the institution for my undergraduate education was not made based on solid criteria. At that time, I was not focused on the quality of my education nor the program in which I was enrolling, but was more concerned with further developing my social life. Fortunately for me, the school was indeed a good one with a solid reputation, and helped me build a good foundation in science. As I moved further along my career path, I put considerable thought in choosing institutions that would help me to meet my career objectives.*

**How did you become interested in physiology specifically?**

*From the time I was a little girl, I often spent hours sitting in my uncle's auto repair shop and I became fascinated with mechanics. As my interests in science grew, I began to make the analogy of the human body behaving as a well-oiled machine. This stimulated my desire to understand the physiology behind the various processes that the body carries out. I suppose I have always been one of the little children that always asked, "Why?"*

**What is your current position?**

*I currently work as a post-doctoral research associate at the Hypertension and Vascular Research Center at Wake Forest School of Medicine.*

**How did you decide on your current career path?**

*After completing my PhD at Cornell, I wanted to obtain a post-doctoral position that would expand my repertoire of skills and broaden my perspective when approaching scientific questions. As my family and I moved from New York to North Carolina, I began looking for this type of position. The research focus of my current advisor was very intriguing to me despite the fact that it was far removed from my previous research training.*

**How did you get there?**

*I welcomed the opportunity to integrate my research training and previous experiences with the focus of my current lab. As I began to delve further into some basic areas of hypertension research and renal function, my personal research objectives began to change.*

**What do you do within that position?**

*I conduct research to understand the mechanisms by which hypertension develops in hopes of devising a means by which to prevent the development of hypertension as well as creating treatments for therapy. This level of research is essential because it creates the foundation by which physicians are able to treat illnesses.*

**Describe your work in lay terms?**

*When pregnant women are at risk for premature delivery of their baby, they are typically administered synthetic steroids to induce lung maturation of the fetus. Several studies have shown that these children are likely to develop hypertension in adulthood. My research examines the effects of synthetic steroids administered during prenatal development on kidney function and regulation of blood pressure as the children become adults.*

## **What are your outside interests?**

### **What do you do for fun?**

*One of my favorite past-times is driving through neighborhoods looking at the architecture and landscaping of homes. I am really interested in Interior Design and can become entangled in intricate design details for hours on end.*

### **Volunteer work?**

*Most of my time spent away from the laboratory is dedicated to working in our neighborhood outreach program, helping youth to develop goals and a plan to achieve them, as well as teaching life-skills to adults.*

## **What advice would you give...**

- **a precollege student considering a career in physiology?**
  - *Find an opportunity to spend time observing individuals who work in this area, and learn about the nature of their job and responsibilities to determine if that is indeed something that really interests you.*
- **an undergraduate student considering a career in physiology?**
  - *I would encourage an undergraduate student considering a career in physiology to try to integrate the information learned from all courses and educational experiences to formulate a "big picture".*
- **a graduate student in physiology?**
  - *Keep an open mind regarding how you can translate your interest in physiology into a viable career. Make note of your strengths as well as the things you have a passion for, then evaluate how you can incorporate these characteristics into a profession well suited for you.*
- **a postdoctoral fellow?**
  - *Start early to identify your career goals and objectives, being mindful of work/life balance. Decide "how" your profession can fulfill your personal goals. Be careful not to let others dictate the path you 'must' take to achieve your goals.*
- **a new investigator?**
  - *Be careful not to stifle the creativity of trainees working with you. Encourage their independent thought, while helping to keep them focused. Also, recognize that careers are not made over night, but rather by steady and continuous accomplishments, one after the other.*

## **Please list any recent publications you have had published in APS Journals.**

*I currently have no publications in APS journals.*