



Dr. TanYa Gwathmey

In this podcast, **Dr. TanYa Gwathmey**, a health promoter at **Wake Forest University School of Medicine**, highlights the importance of perseverance and self-confidence for overcoming challenges and discusses how to find mentors and opportunities to help you gain experience in the world of science.

Break the podcast down:

00:57: Hello TanYa, welcome to the Futurum Careers podcast. How are you today?

I'm fine, thank you. I'm glad to be with you today.

It's good to have you with us. I'm going to start off by asking you three quick-fire questions, just so our listeners can get to know you a little bit better as a person. So, the first question is: what's your favorite meal to cook?

Wow! I thought that might be an easy question. Actually, I really do enjoy a variety of different cultures of food. But probably my favorite would be an alfredo with some kind of seafood, like maybe shrimp or something like that.

Nice, that sounds lovely. So, the next question is: what are you scared of? Or do you have any fears or phobias?

I am not fond of heights, especially if there's a likelihood that I may plummet from that height! So, I try to stay pretty stable, as low to the ground as possible.

That's very sensible, I think! Okay, and the next question is: if you could be any animal, what animal would you be and why?

I love sea and water activities. So, I would probably be some kind of fish. Or, well dolphins are mammals, but something that wouldn't be eaten so readily by other predators in the sea. But I would say maybe a dolphin.

02:20: So, to get into it a bit more – you're the co-lead of the Triad Pastors Network. Could you give our listeners a brief idea about what the project does and why there's a need for it?

Sure! The Triad Pastors Network is an organization that was designed to partner with faith leaders within the community – specifically the African American community – in order to bring about increased awareness around health and some of the challenges that individuals experience when they don't have health equity within their community. This partnership is between the Maya Angelou Center for Health Equity at Wake Forest University School of Medicine, and as I said, a number of faith leaders throughout the community that lead different types of worship centers. And the whole objective for this partnership is to develop what we call health ministries within the churches that these faith leaders oversee. And that health ministry is a means to disseminate health information to individuals in a way that is really lay friendly, that they can understand. Sometimes the science of things can become complicated for individuals when they're communicating with healthcare

professionals, and they may not necessarily understand information that's provided to them. So, we try to provide it in a way that anyone can take that information and then easily apply it to their everyday living.

03:48: Now if we could talk more about your personal career journey: from your time at school to where you are now, what has inspired you to get into this research?

I grew up in an area where I got to see lots of animals being born. We had puppies and kittens and things of that nature. And so, I always had an interest in reproduction, and I thought I would maybe one day become an obstetrician or even a pediatrician. But I loved the idea of helping babies come into the world. I had been fortunate enough to have some research experiences during my undergraduate education that allowed me really to get into research and really understand what happens in the laboratory versus what happens in a healthcare setting, and the information that's necessary to get from one place to the other. How do doctors know what kind of information to provide, what kind of care to provide to their patients, and where does that information come from? Well, there has to be a researcher that provides them with that kind of information. So, I started a career in research very early in my life, but then I began to think about individuals within my community, who often experience poor healthcare, or even a lack of healthcare. And that led me to a place where I started thinking about how can I set up programs where I can take science and healthcare information and share it with people who wouldn't have it otherwise. And so that's what led me to this space of promoting health, especially within communities and especially in underserved areas.

05:25: Have you had any particular challenges throughout your career, and if so, how have you overcome them?

Well, indeed, there are a number of challenges that probably anyone in the science field would experience. There's lots of competitiveness. And so, you have to have some resilience. You have to be able to persevere even when you've been told 'no'. And researchers, we are a unique being in that we may try a hundred ways to do something and may fail every time, but we persist in trying to find the answers to problems. For me in particular, I've had a number of different challenges because I'm an African American woman, and the science and medicine arena are often Caucasian male-dominated spaces. And so initially they have not been very friendly to women, but then on another level, they have not been very friendly to persons of color. I've experienced a number of different instances in which there was racism, there's even been sexism, and individuals made me feel as if I was in a place I didn't belong. And



while some individuals experience what we call ‘imposter syndrome’, meaning they feel they’re in a space where they don’t deserve to be, I didn’t feel that way. But there were many individuals who tried to make me feel that way – that I was there by some fortuitous chance, that I didn’t deserve to be there, I didn’t have the intelligence that my colleagues had. Overcoming those challenges has been quite an event. And unfortunately, those experiences lasted not only in my early education, but throughout my entire career and even now, as I ascend different ranks, there are unfortunately individuals who make it difficult for others. Everyone does not embrace diversity. Everyone does not embrace inclusion. Some people in order to, I think, secure their position, try to exclude others. And that’s unfortunate because we know, especially within science, but virtually everywhere, that the more diverse an environment is, the better able you are to achieve excellence because you have diverse thoughts and experiences that help us to better solve problems.

07:51: That must be so frustrating, knowing your own self-worth and knowing you deserve to be somewhere and having someone else tell you that you shouldn’t be there. How do you cope with that? How do you deal with that?

Fortunately for me, during my undergraduate education, I was at an HBCU – that’s a Historically Black College or University – where I was taught confidence, and I was allowed to embrace who I was. I think that helped me along the way because I actually did my doctoral degree in an Ivy League institution, which was quite the opposite kind of environment. And in fact, I was the only African American within my graduate program. It was challenging. You have to learn to feel comfortable in the skin that you’re in and be confident in who you are, no matter how others treat you. I learned to feel secure in however I looked, the things that I thought, the environment that I came from, and to be certain of the goals that I was trying to pursue, and not to let others allow me to feel inferior, or inadequate.

09:05: Did you have any mentors that helped you through that process, and that building up of your confidence in yourself?

Yes, you know, I’ve been fortunate to have some really outstanding mentors throughout my career. Early on in my career, in my education, I was fortunate enough that both of my mentors were women, and they themselves had encountered lots of sexism. From that perspective, it was very helpful to understand the experiences they had. That was very helpful to me because I had their support. They were traditional mentors for me, but along the way, I began to meet others. And they weren’t necessarily my formal mentors, but I saw attributes about them and their character that I admired or respected, and so I would approach them to develop a relationship with them, and eventually it became a mentoring relationship. I always encourage people to think about where you may find a mentor, and it may be in a space that you may not necessarily expect to find a mentor. But look at people who are doing things that you want to do. And really talk to them and understand how they got there. And ask if they’d be willing to mentor you.

So it’s reaching out to people who are doing things that you’re interested in to learn from them.

Absolutely.

10:31: What about practical experience and opportunities in the world of STEM, in science? How can students go about finding those?

I’m so excited about the opportunities that exist now versus when I was a much younger student. There seemed to be a lot fewer opportunities then, so you had to be very persistent in searching for those opportunities. But now there are learning opportunities or educational opportunities in virtually every educational institution. I encourage

individuals to think about where they want to be and the kind of work that they want to do and seek opportunities. And you can do that in very early stages. Even if you’re still in high school, there are summer opportunities that exist for high school students, so they have the chance to become exposed to see if this is even something that they really like. And there’s so many ways that you can become involved in STEM, and there’s so many diverse types of STEM careers that you can think about what you enjoy doing, and how it may fit into a STEM career. There are individuals who love sports, and I have a colleague who works for a very famous brand – I don’t know if I can mention the brand – and so, because they are an exercise physiologist, they assist in designing sneakers that some very famous athletes wear. So, they took something that they were very passionate about, an area that they really enjoy, and they were able to apply their interest to a STEM career as an exercise physiologist. My PhD mentor, she was an artist and loved drawing, and she was able to develop diagrams and renderings for an anatomy and physiology textbook. There’s so many ways you can take your interests and your hobbies and apply them to STEM careers. And we need all these different, diverse interests in order to make science as interesting as possible.

12:36: I think that’s great advice. You can often think that to do science, you have to just focus completely on physics, chemistry, biology and maths, and that’s it. But I think you’re right. It’s important for science to be intermeshed with all these other interests.

Indeed, and if you have a different personality type, if you’re someone who likes to work alone, or more to yourself, or you’re a little bit more introverted, there’s all kinds of analyses that you can do that require very little interaction with others. If you like to really think about data and view it from very different perspectives, you can analyze data, again, with very limited interaction with other people. If you’re a people person and you like to mingle and interact with others, you can be the type of scientist that goes to conferences and presents work and networks with others and forms all kinds of relationships as a member of different committees and things of that nature. So, there’s a role for every personality type even within science.

13:35: I guess it comes down to that diversity again – the more diverse perspectives and opinions in science, then the better off everyone will be. Absolutely.

Cool, well I think I’ve got everything that I need here. Unless there’s anything you wanted to add that you don’t think we’ve spoken about yet?

Nothing that comes to mind. Of course, I’m sure later today all these things are going to pop in my mind...



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