Adebowale Ogunjirin's SWS Transcript

Stephanie [00.09]:

Hi, I'm Stephanie Hakulin. On today's episode of STEM Workforce Stories, we'll talk with Dr. Adebowale Ogunjirin, who, as a boy in Nigeria, faced fear and superstition, regarding his deafness…

Adebowale Ogunjirin [00.43]:

My whole family was hearing and nobody knew any deaf people before. So when I became deaf, it was considered an active and evil spirit or a curse upon me. So at first it was kept hidden. I was kept hidden at home for two years. They didn't want anybody to know in the public about having a deaf child and so I would say after two years, my family decided to let me go. Now, I was getting older.

Stephanie [1.22]:

We'll learn how his quest for knowledge led to an exciting career in Pharmacology, right now, on STEM Workforce Stories…

Adebowale Ogunjirin [01.47]:

Hello there, I'm Dr. Adebowale Ogunjirin. I'm an associate professor of biology here at Gallaudet in the school of sciences, technology, accessibility, mathematics, and public health.

Michael [02.05]:

Thank you so much for joining us this morning for this interview. I'm going to ask you first to tell us a little bit of background information about yourself, your upbringing, your education, your hearing status, your family.

Adebowale Ogunjirin [02.20]:

I was born hearing and then at a very young age, became deaf and attended a deaf elementary school. Now this all took place in South western part of Lagos area, which was the capital. I went to elementary school in the south western region. For about a third of my elementary education I was in a deaf school.

When I got into college, it was an interesting experience because colleges were not accepting deaf people. I was in a lot of pressure throughout my time in college. This was in a college in Nigeria where I was studying pharmacy and I think people were astonished. There was a lot of talk about a deaf person undergoing a degree in pharmacy without an interpreter, without anything like that. I was setting a record. All eyes were on me.

As I am talking to you, I am a professor at Gallaudet University, and I came to the U.S. because I was eager to achieve in the field of drug discovery. The whole reason I studied in the area of pharmacy studies was because in Nigeria, many of the tools and engineering tools, weren't present to further my pharmacology studies. So that's why I came here.

Michael [04:06]:

I see you're in your lab today. What sort of equipment do you regularly work with? Do you have anything you'd like to show us?

Adebowale Ogunjirin [04:15]:

To tell you a little something about drug development, people very often think it is a complicated course for the uniquely gifted. That's not true at all. In fact, developing a drug doesn't require as much as you would think in terms of computer science. For example, it's sometimes... It's very simple equipment and simple materials that we're using to alter known molecules and put together new components. What is important is your ability to think through the issues (disease, chemical, and treatment).

Michael [05.02]:

I'd also like to ask you about your experience growing up. What inspired you? What made you interested in pharmacy?

Adebowale Ogunjirin [05.12]:

So, my parents were spending all this money on different drugs to hopefully make me hearing again, right? They would go to different doctors (including what some will term witch doctor) and what I saw was most of the medications that they kept prescribing were the same thing, but the packaging was different every time. While in high school, I decided I wanted to be a doctor able to treat disease including drug invention. I assumed I had to start registering for medical school first. The bottom line is I picked my career because I really was eager to learn more about

how to cure disease and how these processes even worked. Plus, I knew it would give me an opportunity to become something in life.

Michael [06:17]:

Let's go back to your research now. What else do you have to share with us?

Adebowale Ogunjirin [06:23]:

So what you're seeing here, is my cooking pot, If you want to go with the metaphor, you are getting the idea, right? So, I put materials in there, a number of different kinds of materials and then I apply heat and motion to it. And I will continue to check on it given with the passage of time and gather data.

This is called a roto evaporator; this helps to dry out a material that might be harmed by heat. It could dry water without having to boil it. In fact, a lot of chemicals and drugs are heat sensitive. So they have to be dried at a very low temperature.

That device that you see there is another mechanism to dry things. It's an oven dryer. It's used to dry a solid, so you're taking a solid material and you can also adjust the pressure, and temperature, either low or high to achieve your purpose. It can also be used for drying glassware. Unlike rotoevaporator which can dry and collect materials in a mixture or solution one by one, this oven dryer is not designed for collection. It simply dries. And so you have to be very aware of the nature of temperature and pressure in that relationship, so you can work with the settings here and get it so that that material is perfectly dried out.

That's a desiccator, this keeps materials absolutely free of moisture. So that's used to preserve a material. And you can see a lot of different chemicals that we've made so far here in the desiccator.

Michael [09:01]:

Wonderful. It's fascinating to see all your different pieces of equipment that you use there. So I'm wondering about Black Lives Matter and how that impacted your research, your students, you and your family, your personal life. Was there an impact there?

Adebowale Ogunjirin [09:21]:

So when I have seen the BLM experience happening out in the world, I've learned from other people's perspectives on these issues. And I think the world is becoming more sensitive to other people's perspectives. When I am doing my research now, I would say, I think we're much more aware of being intentional about things and looking also at history. So I started to look back upon my own experiences with research and become more aware of somethings. Like, for example, in Africa, we have what here would be labeled witch doctors or witchcraft. So we have those. Here you would label it that, but is it really witchcraft? That's not really what they're observing. What they're observing is a kind of indigenous knowledge where people are speaking with plants. So today people communicate with their phones, but in reality people were communicating using natural materials and there is a belief that people could use a plant to speak to somebody at a far distance. If so, there's a lost knowledge. Indigenous knowledge is out there, and it's been replaced with what we call technology today. So from this perspective, I started to unpack a little

more, learn more about Black American's history and where people had come from. Growing up here in the US is different. Some people may not have a sense of Africa or feel a connection to that. So if I didn't tell you that I was from Africa, you might not know it, that wouldn't surprise me because I grew up there. BLM has really increased my knowledge of the social life of America. I would say America is blessed to be really diverse in its people. And I look forward to a future that enjoys the blessings of diversity in America.

Michael [12:10]:

And so I'm wondering what advice you have for young people, specifically deaf youth who are either in middle school or high school. And those who are thinking about possibly getting into the science field. Do you have any advice for them?

Adebowale Ogunjirin [12:26]:

My advice for young deaf people is not to think that a course is too much or that's it's only for hearing people. No, really, sometimes these are great fits for deaf people because what so many of these things require is a real visual understanding of principles. And so if you can observe things sometimes, and those large big classes, they're kind of good for deaf people. Sometimes in the lab, for example, you shut the door, everybody's masked and you're working. You don't really have to communicate with other people at the same time. You can work more independently.

My advice for young people is to meet with people who've made it. Learn from their journeys and pick up from where they left off. Life is all about learning from our older generations. We

learn what we can and then start our own journeys from there. So, every generation isn't starting from scratch, you're starting from where the other generation left off. It's really important that you believe in yourself. Gallaudet has a slogan saying, "We can, I can, you can." And that really is the truth. We are blessed here, but our world will not stay as it is. It will not. We need to act. Take advantage of every opportunity we have to act now. We see the field is ripe, now it's time to harvest, so that we are considered to be an important part of our society in the future. We have to continue to fight for our rights, which is good, but we also have to show the world that we can and make it a better world. I think that's the one bit of advice I'd have for younger people in education.

Michael [14:59]:

Wonderful. Thank you so much for your time, for sharing, for taking us on your journey and showing us around your lab.

Adebowale Ogunjirin [15:08]:

I appreciate being part of your interview, too. Thank you for giving me the opportunity to talk to people. And I rarely talk about myself, I'm a very private man generally.

Stephanie Hakulin [15.24]:

Hi, it’s Stephanie, again. Adebowale has such a positive outlook! He had great advice about learning all you can, then starting your own journey. Adebowale’s story is just one of many science journeys. Check more of them out on STEM Workforce Stories.