

PODCAST

Dr Jennifer Webster-Cyriaque

Dr Jennifer Webster-Cyriaque is Deputy Director of the **National Institute of Dental and Craniofacial Research, National Institutes of Health**, in the US. She tells us about her journey into dental science, the opportunities within dental research and the importance of mentorship.

Break the podcast down:

00.57: Jennifer, could you give us an idea of some of the exciting projects currently taking place at the institute?

Jennifer: That's a tough one, Joe! There are a lot of them because our research covers all the dental, oral, and craniofacial diseases, as well as the systemic illnesses that interface with these diseases, what it takes for people to get care of these diseases and health disparities and inequities, and how to rebuild for people who have lost portions of their face because of injuries, developmental challenges or other diseases.

There's a significant amount of regenerative medicine, and lots of infectious diseases because those are many bugs, viruses, fungi, and bacteria that cause oral disease. So, there are so many areas, and I have just scratched the surface. There's a lot to learn and a lot covered in dental, oral, and craniofacial research.

02.18: With such a wide range of research, you must have a wide range of researchers.

Jennifer: We absolutely do, and we actually need more. We're often trying to borrow from other fields. Engineers, for instance, in terms of how things come together, how our joints work, and how we can build replacements for things that may be missing. But also geneticists, neurologists, cell biologists physiologists, and biochemists. This is what I think makes the magic in this space. I don't know that there is a field that's not touched in this head and neck area.

03.03: The range is amazing and the cross-disciplinary research that you guys must do... how do you navigate that?

Jennifer: The rewards are innumerable. Science is a team sport. There isn't really a way to do it just as an individual. It's doing the science, sharing the findings, and bringing other people in to help answer the question. What we do is pose the question and then encourage people to find team members to help.

03.41: What advice can you give some of our listeners who may feel that being a dentist isn't for them because they don't see themselves represented?


Jennifer: I believe that being a scientist begins with having a question. If you have a question and want to pursue the answer, you are a scientist. I did not see myself as a scientist initially. I was just a person who wanted to know the answer. There are a lot of questions to be answered in terms of the diseases that affect the head and neck. If you're interested in pursuing the answer, welcome to the team.

04.36: When you were growing up, was it on your radar to become a dental scientist or did it develop later on?

Jennifer: It definitely developed later on. Early on, I was thinking about going to medical school so I had to read – I was taking a medical sociology course – a book called *The Unkindest Cut* by Marcia Millman. And after reading that book, it was a wrap. I knew that the medical side was not the one I wanted to pursue because – and it was a naïve view – telling people that their relatives were going to die or not really having cures for people...

That's why I started to think about dentistry because there was an instant gratification that occurs. You get someone out of pain or fix their smile for them. They feel better, look better, they're happy, I'm happy. And I was okay with people coming in with their clothes on, leaving with their clothes on... That's when I first started to think of dentistry as an option. I got a job shadowing a dentist and she hired me to become a dental assistant, so I had a real opportunity to see that I really enjoyed the dentistry part of it.

06.13: Could you go into some detail about the mentors you have had and what they taught you?

Jennifer: I have been very fortunate to have had wonderful mentors throughout my journey. That dentist was one, she provided me with 



that opportunity. I was just there to watch her, then she gave me a job; that was wonderful. I had Dr Tabak who also works here at NIH and is the current acting director of the NIH. He had a program that targeted minority dental students who had an interest in research.

It was really the summer program I did with him that opened the door that research was an avenue. So, I have been fortunate to have wonderful mentors and wonderful mentees.

07.29: What are some things you've learnt from your mentees?

Jennifer: I think different people have different perspectives. As I'm interfacing with the mentees, they share perspectives I may not have entertained before.

That's part of the process of becoming a scientist, learning different ways to think about problems and finding new ways to tackle questions.

Jennifer: That's right. And sometimes, it's outside of the way we typically think about things. So, if you don't embrace those diverse perspectives, we all lose out.

That's part of the magic, the wide range of disciplines that work in this research. You get all those different perspectives and everyone's working together to try and answer these questions.

Jennifer: Absolutely. It takes a team of people who sometimes come from different fields to help answer the question.

08.25: What advice could you give someone considering their next steps to take?

Jennifer: Keep an open mindset and talk to people about their experiences, but try to have as many experiences as you can. Shadow and ask people what it's like to work in the lab. Work in a lab if you can, work in a dental office and see what you like, see what you don't like. Think about what you're good at. Think about what you hate. Then think about the things you really like but you're not so good at. As you pull those things together, it really helps paint a path for you that's more concrete as you move forward.

09.38: It can be a difficult position to find what you really love if you don't have the confidence you'd be good enough for it.

Jennifer: But you have to try. You have to talk to other people who are doing it... talk to people who are just a little bit ahead of you and also people who've done it for a long time to see if this is something you really want to do and if it fits well with your own inclinations.

Be open to mentorship – when people share that they have an interest in you, open that door and keep in touch with them. People will open doors for you. You just have to be open to it.

10.28: It can be quite daunting approaching someone more senior. I guess it's just having the confidence to put yourself out there.

Jennifer: Well, there's that but sometimes, these people will come to you and it's just recognizing that. The other thing is they were young too. They've been on the same journey that you're on or something similar and are often very willing to share their experiences with you. I was at a meeting, I was a first-year graduate student and gave a presentation, and this gentleman came up to me after the presentation and was talking to me about it. He said, "I want you to come to this meeting at 5 o'clock..." I go to this additional meeting and he introduces me to all these other people from around the world who had an interest in oral medicine and pathology – and I became part of that group.

And every year for the next 20-something years, I met with that group of people, because he made that introduction to me and became a mentor for me. You never know, so be open. It is fine for you to talk to people about their journey and learn from it. People like to share.

11.56: It's about keeping your eyes open and your ears peeled for when those opportunities come about.

Jennifer: And I have to tell you, there are so many different questions to answer and so much work to do in terms of oral health and dental, oral, and craniofacial research. So, please, join us!

