

Dr. Melissa Ing – Mini Medical School

Dr. O'Keefe: Today, I welcome Dr. Melissa Ing, who's a faculty member at Tufts university school of dentistry in Boston, originally from Canada she is. And reading about her recently. I saw that she was involved with an initiative called Mini Medical School. So, Melissa, I'm absolutely fascinated by Mini Medical School. What is it?

Dr. Ing: Well John, it's a program that I designed and delivered and still am delivering since 2015 and basically, it's a program to give middle-school children an overview, if you will, of STEM-type career initiatives. Basically, to give them authentic learning experiences to encourage them to perhaps go into the health sciences. There's a specific focus in medicine and dentistry, but also, we introduce them to nursing, physical therapy, biomedical research, you know, emergency medical technician that even veterinary science. We do talk a lot, little bit about animals because everyone loves animals, especially children.

Dr. O'Keefe: So, do you go out to the children or do they come to you?

Dr. Ing: Well, originally when we started this program, um, we work with Boston museum of science and I still work with them, so I've been working with them, actually, I've been trying to design this program before 2015 so I still go there every summer. We just actually just finished two programs with them on both in July and August. But recently, two years ago I actually expanded the program and we also go to Nantucket Island public schools. So, we've been going there for the last two years.

Dr. O'Keefe: And you go out to the schools, what components do you put together for a day out in the school?

Dr. Ing: Well, actually on Nantucket, it's a two-day program that we did the last time we went out there. And what we do is we give them modules, learning modules, if you will. So, what we do is we either give them PowerPoint or we put together problem-based learning modules. I like to call them and problem-based learning modules similar to what we do with our dental students. So, for instance, we might do something, what we do is we'll do something based in Boston. For instance, at Logan international airport in Boston, a patient has a heart attack. So, then we teach the students, what do you do if the patient has a heart attack? How do you solve the problem? How do you deal with a medical emergency? For instance, CPR, blood pressure and pulse measurement. And then after that, the good Samaritan, a passenger that's helping with the medical emergency happens to trip over a piece of luggage. And then we need to teach them how to cast the broken arm. So, then we go into the second talking about broken arms, broken, you know, how do you cast a broken arm? And then we

talk about like, what are the differences between bones and teeth, things like that.

Dr. O'Keefe: Right. How is the program received?

Dr. Ing: Very well, as we know, we are trying to do many more measurables. Right now, we've gotten great feedback from the students themselves, from the teachers on Nantucket, from the administrators, from Boston Museum of Science and obviously from the children. We feel that if we get kids that give us really great feedback and they love it and they tell us they want to go into the health sciences, if they tell us, you know, I want to be a doctor, then we feel like we've done our job and almost every single time we get kids super excited and telling us that.

Dr. O'Keefe: Why do you think this program is particularly important?

Dr. Ing: I think there are several reasons why this is really important. First of all, we want to encourage STEM initiatives. We want to broaden kids' perspectives and get them ready for careers. And you want to give them some lifelong passion in perhaps some kind of career. And we're hoping that, you know, maybe we can encourage them to go into the health sciences. And then it's really important in rural areas. For instance, Nantucket is actually an Island that's somewhat remote. It's 30 miles out in the sea. So, the kids out there actually don't have access to a world science center, world renowned science center, like Boston Museum of Science. They can't get out there readily like the kids in Boston can. So, we go to them. And so, for places that are somewhat rural, it's really important.

Dr. Ing: And also, the families that are out there, live out there, they're not as wealthy as people might think it is because Nantucket is a resort, but the families, you know, can struggle a little bit. So it's more for us to go out there and encourage these kids, enlighten them and like I said, widen their horizons and maybe give them a passion that can become a lifelong passion to go into the health sciences and maybe they would come back to the Island one day and become the doctors and nurses for the Island.

Dr. O'Keefe: Can you envisage this program being expanded beyond the borders of Massachusetts, beyond the borders of the United States, more into dentistry?

Speaker 3: Yeah, absolutely. I'd like to, my goal is eventually to go into other States. Absolutely. I would love for this to go into New York's Museum of Natural History. I would love for it to go to Toronto because my family lives in Toronto, into the Royal Ontario Museum. I am trying to work on that, and I would absolutely love some collaboration with the University of Toronto, and also into more rural areas. I am working on a grant right now. I just actually just put it in



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and I'm actually, besides Nantucket Island, I'd also like to expand this to Martha's Vineyard as well. So, that's what we're working on.

Dr. O'Keefe: Melissa Ing, thanks for taking time to talk to us today.

Dr. Ing: Thanks for inviting me. I really appreciate it.