

Message from President Cook

November 17, 2023

Hello everyone. We're here doing another weekly video. I'm surrounded by a couple of great faculty members here at NDSU. We're going to start with Dr. Ying Huang. Tell us a little bit about yourself and where are we? So, this is Dr. Ying Huang. I'm a professor at Civil Construction and Environmental Engineering department and this is my lab, my research lab. Doing most of the things of coatings and pipeline safety.

All right, sounds great, and then over here to my left is Dr. Barney Geddes. Tell us a little bit about yourself. Sure. So, I'm an assistant professor in the Department of Microbiological Sciences and our work is really focused on microbial solutions for agriculture and improving agricultural sustainability.

So, both faculty here have some amazing fellowships and so we want to learn a little bit more about what they're doing there and this is a real priority for us at NDSU. Investing in faculty fellowships to allow them to really kind of advance their research and make amazing opportunities for students and their faculty colleagues and of course, our staff.

So, Dr. Huang, tell us a little bit about your fellowship. Yeah sure, so, I received the Welch Faculty Fellow and which was generally given by Tim and Donna Welch family. Wonderful, and we love the Welches they are great supporters of NDSU and they're big supporters of you, of course. Yeah, great.

Dr. Geddes, tell us a little bit about your fellowship. Sure. So, my fellowship came from a couple of wonderful philanthropists named Richard and Linda Offerdahl. And they, you know, they were just connected with me and we really connected on some of the end goals of our research and they kind of became passionate enough to support that through a gift to the university that sort of manifested in this faculty fellowship.

And so, that's part of the fun with all these fellowships it's usually about faculty doing amazing work and then we have someone who's probably an alum of the program or from the community who just absolutely loves and sees the potential and the great things that are happening. In both cases, we have a couple of great connections.

So, I'll go back to you Dr. Geddes. Tell us how your fellowship supports your academic pursuits. Sure. So, I think the big thing for me is this fellowship gives us the ability to dream a lot bigger than we might normally be able to. Kind of straying from grant to grant. It really lets us set our sights very far with kind of ambitious goals and a real kind of injection of support to try to push all of that forward. So, it's helped us with getting some cutting-edge equipment that's going to increase our throughput, supporting students and postdocs to do the work, of course. And all of that coming together just lets us, kind of, dream big, I think. Yep, you bet.

All right, Dr Huang, how about you? How does your fellowship support your academic pursuits?

That's a great support. You know, in civil engineering is very hard to get equipments grant. So, this fellowship support all the instruments in this space over here you see are surrounding us. And supporting postdoc and graduate students in my lab, as well. So, giving you some examples with numbers. So, before the fellowship I have about average three papers, journal papers, per year. After the fellowship right now I'm twenty papers per year. And then the grant wise before the fellowship which I got is about half a million about spendages. Right now I get nine million

grant spendages currently in my lab. And have about one and twelve grad students and six postdocs are working with me on ways to support from the plan. I really appreciate it.

You just mentioned students. So, tell us a little bit more about like how are students involved in the research and what do they do here behind us.

Sure. So, as I mentioned I do have six postdocs and twelve graduate students and three undergraduates working in this little space over here. So, what they're doing is basically do experiments, the project was leading by the students, particularly all the grants you know research were actually done by the students, lead by the mentor, by their faculty. So, we really appreciate the support from the fellowship and the students as well for their hard work and great work.

So, tell us one really cool research project they're working on and you're working on. If you just go back over here this is actually a small demo right here with some samples prepared by the students who actually is supported by the Army and they were doing some coatings with softer coatings which sprayed by hot coating and with you know, to surviving harsh environments which is kind of you can have the softer coating to stay for fire for few minutes but don't damage them. You have some more shock. So, this is actually one of the project the students currently working on and I show some samples free to see that afterward.

It'll be great. So kind of back to you Dr. Geddes. Same kind of question. You already touched on it. Tell us how students are involved a little bit and really what kind of project are you working on that you're really excited about?

Sure. Yeah, I mean we involve students sort of throughout the process. We have everything from high school, local high school students, that come and work in the lab all the way to, you know, really advanced student leaders that are kind of pioneering the projects by themselves. So, the fellowship is directly supporting three of these. We have thirteen graduate students in the lab. So, a real amazing team effort kind of across the science, right. Of course, the fellowship just fits in with all the other things we're doing as well. And so, what we're really thinking about, I guess the coolest thing we're thinking about with this fellowship is, looking at this real miracle of nature where these bacteria called rhizobium evolved to supply nitrogen to legume crops and it's an important tool for state of agriculture and we're kind of almost trying to recreate that evolution for crops that don't have that ability. So, yeah really looking forward to making progress on that.

Truly transformational work that you're going to be doing already but going to really change things in the future. Right. and I think, you know, philanthropy plays such an important role in these transformative ideas that take a little bit longer to get them to the level that they need to be. They maybe don't have this near-term impact but they have this powerful and transformative long-term impact.

Yeah, you bet. And you both kind of touched on this but this is the power of philanthropy. Allows us to really do the kind of research that we love to do and also recruit and retract top students and top faculty and you guys are both doing it every day. It's pretty amazing so, thank you both for what you do. We really appreciate it. I always got end like this so, everybody out there.

Go Bison!