

# Faculty Spotlight

**UWO**  
UNIVERSITY OF WISCONSIN  
OSHKOSH



## Dr. John Chan, Ph.D., Chemistry

### **Could you tell us about your research interests?**

My lab is interested in how to kill parasitic worms. These worms cause many human diseases in the developing world, and also impact livestock and agriculture here in WI.

### **What research projects are you currently working on? What would you like your next project to be?**

Our projects involve searching for new druggable targets in the worms and screening for new chemicals that kill worms. The next project I'm just starting involves working with some collaborators that have various species of fungi or bacteria that make natural products which may kill parasites. I think the track record of drug discovery shows that nature is much better at figuring out how to make active molecules than people. I'm excited to see what type of activity they may have.

### **What challenges have you faced in your career to date? What have you learned from those experiences?**

As a new faculty member, there is far more limited time at the bench compared to when I was a graduate student or post-doc. I am finding that the biggest challenge is not just thinking of experiments that address important problems. Rather, potential projects need to accomplish these criteria but also factor in the additional requirement that they can be completed with limited experimental time. For me that has meant being selective about what problems to focus on and be restrained. Not to chase something down if I don't think I can complete it.

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### **What advice would you give UW Oshkosh faculty applying for grants?**

Don't reinvent the wheel and learn from others mistakes. If you are looking at applying for a given funding mechanism, know as much about it as possible before investing the time in writing a grant. An NIH R grant may take several months to write. Size up your chances. What are the paylines? What percent of applicants get funded? This is information I want to know for both internal and external grants. Get your hands on previous examples of funded grants to see how they're structured. Talk to people who have served as reviewers or on study section. For NIH grants, there is a book "The Grant Application Writer's Workbook – NIH Version" that lays out a simple template to follow for both the approach and admin documents (which take up a ton of time and are also score driving). Then once you have all that information you can gauge whether it's worth the time investment to write the grant, since time is the limiting resource of a lot of us.

At a place like UWO, I'm also finding good collaborations are very important. We are a smaller school and have more demands on our time, so it makes things a lot less stressful to not try and do all the heavy lifting myself. I have funding with co-PIs at UW-Milwaukee and UW-Madison. They also have additional resources that can boost the environment score.

Finally, each individual grant has quite a low probability of success even if you do everything right. To have stream of money coming in, it's necessary to be writing several grants a year for one to get picked up. During my short time as a faculty member, I do think I have spent as much or more time writing grants than doing experiments. But that's the name of the game I suppose.