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Interview with Wm. Brad O'Dell

Wm. Brad O'Dell is a 2009 UT graduate and received a B.A. in College Scholars Program with an emphasis in Structural Chemistry. College Scholars is a highly selective honors program major for students with interdisciplinary interests. Brad was also in the Chancellor's Honors Program and received numerous accolades for his academic achievement throughout his career at the University of Tennessee, including the prestigious Barry M. Goldwater Scholarship in 2008. Brad now lives between Cambridge, UK and Bethesda, MD as a student in the National Institutes of Health-Oxford-Cambridge Graduate Partnership Program.

Editor-in-Chief Todd Skelton recently caught up with Brad via email. The following are excerpts of their conversation:

Brad, congratulations on your place with NIH-OxCam. We are proud of you. So how is it?

Great. Busy, but great. I've been in the UK since October (minus a couple of weeks at Christmas), and I'm really enjoying it. My research keeps me moving quite quickly, and everyone I've encountered has been really welcoming and helpful.

You were one of only eighteen students in the US to be invited to be a 2009 member of this Scholar Program. Any pressure?

Definitely pressure. In fact, OxCam (as we call it) somewhat relishes the pressure that it's students undergo (but without any nefarious intentions, I'm assured). The whole point of this program is to complete a high quality and high impact research PhD fast. From start to finish we have four years in which time the program expects quite a lot from us in terms of publications, presentations at our respective society meetings, and professional development. But the program administrators tell us that they only pick students that they think can handle it, so they have a lot of confidence in us to go with the expectations.

So tell me more about researching at both the NIH campus in Maryland and Cambridge University? How frequently do/will you travel between the two locations?

My project divides me up between the US National Cancer Institute (NCI) and the Department of Biochemistry at Cambridge. Both places are amazing but in very different ways that make it nice to experience both. NCI, and all of NIH really, has a very "government" or "corporate" research feel to it in that you are surrounded almost entirely by people already well into their scientific careers. I think of the roughly 60,000 scientists and support staff on the NIH main campus, only about 750 are graduate students. So it does feel a bit more like a job instead of a research project. But the students there do try very hard to keep touch with each other both professionally and socially.

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In comparison Cambridge is entirely a university town. With the college system that both Oxford and Cambridge have, one can get intimately connected to the student life and ancient tradition that are less prevalent at NIH. It is quite common to have a labmate who comes in a little late in the morning because s/he was practicing on the Cam for bumps (type it into Wikipedia) or to have to leave early for a “formal” dinner in hall with suit, tie and gown.

As far as traveling between the two places, my current project plan has me moving across the Atlantic every September. It is much more common for programs to be divided into 2 year segments, but the work I am doing calls for a more iterative approach. I’m looking forward to it now, but we will see how I feel in October.

The scholarship allows you to investigate an area of biomedicine of your choice, correct? Tell me about your research in this program.

My supervisor at Cambridge focuses on molecular imaging for early detection of cancer treatment response, and my supervisor at NIH studies cellular signaling pathways in and animal models of prostate cancer. So I am trying to find something that integrates these two fields in a novel way. At the moment, this involves using magnetic resonance spectroscopic imaging to study treatment response detection in animal models of prostate cancer metastases in bones and in the brain.

Compare what you are doing now to the undergraduate research you did at UT.

My work now is completely different from what I did at UT, except that MRI is just fancy NMR [nuclear magnetic resonance]. Other than that, working with animal models of cancer is a total ‘about face’ from structural chemistry.

How well did your undergraduate work and the opportunities provided by UT prepare you for your work at Cambridge?

I think that UT gave me the opportunities and experience that made it possible for me to have any chance in a program like OxCam. As I said, the program expects a lot from its students and tries to select students with the background that shows they can live up to those expectations. If it had not been for numerous research advisors and academic mentors and programs like College Scholars and Chancellor’s Honors, I would not have gotten the meaningful early experience in science that I had; UT is a place where ‘real’ opportunities in science exist for undergraduates who go out of their way to find them.

What advice do you have for current UT students?

Work hard! (Duh!). Seriously, though, find something outside of lectures and Orgo lab that you enjoy so much that spending 40 hours a week doing it doesn’t feel like work (and leaves you ready for more). Research in any field can take so much out of you, but, if you really care about it, then you get even more in return.

Your work ultimately concludes with earning a Ph.D. Will you also pursue an MD or do you think you’ll stick with research?

Well, even if I should decide to go for an MD, I would still be planning on a career as a scientist first. But, for now at least, the PhD is enough to work toward.

I know you miss hearing Rocky Top. But... any favorite things to do in Cambridge?

Oh, I’ve played *Rocky Top* a couple of times since I’ve been here (just to make sure I don’t end up feeling “trapped like a duck in a pen”). But I would have to say that one of my favourite things to do here in Cambridge is having dinner (almost) every weeknight with the other postgrads in my college. Cambridge is an amazing place, and it fascinates me to listen

to other people talk about the great work they're doing with leaders in their field, whether it is solid state physics or mediæval history.

I also go out for curry quite often at this great place just around the corner from my lab; British food does live up to its reputation...

Brad, thanks so much for your time. I wish you the best of luck. Any closing comments?

Thanks, Todd.