

Expect the unexpected: presenting research leads to unforeseen gains

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Dan Lane is a first year PhD student at the University of Leicester, developing biochemical methods in non-adherence testing alongside Leicester Diabetes Centre. A pilot study he helped to conduct prior to the start of his postgraduate degree was accepted by Diabetes UK and so, with the help of a travel grant from the Biochemical Society, he travelled to Liverpool to present his work. The Biochemical Society provides General Travel Grants to support attendance at scientific meetings, training events or any other event relevant to your career. Postgraduate, Early Career, Full and Emeritus Members are encouraged to apply to further their lifelong learning.

What motivated you to become a scientist?

My parents would always tell me to pursue something I enjoy doing for a career as I'd "never have to work a day" in my life. Because my career as a professional footballer never quite worked out and becoming an Indiana Jones-esque archaeologist seemed fairly unlikely, I considered my options and pursued bioscience. My best and most enjoyed subjects at school were biology and chemistry, and my inability to decide which I preferred more lead me to read biochemistry at university. I never knew what specific role I wanted before or even during my undergraduate degree, but I knew as long as what I did benefitted society and helped people that were suffering I'd be happy.

What is your area of research and how did this grant enhance your understanding?

I am currently researching biochemical methods and analytical instruments for their application in non-adherence diagnosis in diabetes. Non-adherence, the term used to describe a patient not following their agreed upon medication regimen, is one of the biggest problems the healthcare system currently faces as the behaviour is linked with increased risk to hospitalization and all-cause mortality. My background in biochemistry and analytical chemistry is allowing me to explore and improve upon techniques that use analysers, like liquid chromatography tandem mass spectrometry (LC-MS/MS), to screen prescribed medications in urine and find diabetes non-adherence.

The grant money I received from the Biochemical Society gave me the opportunity to attend one of the largest UK conferences, where I was given an insight into the minds of leading physicians in diabetes, as well as invited public speakers who were involved in leading clinical trials. My understanding of both sides of the disease has exponentially risen, and the way I fundamentally consider diabetes and my research moving forward has irreversibly changed for the better. I networked and swapped details with a few clinicians interested in non-adherence detection, which will hopefully lead to collaborations I can use in my thesis. Unexpectedly, there were seminars specifically on the pathogenesis and biochemistry of diabetes, which are subjects I have longed for since my Bachelors graduation last year. Since this rekindling, I am motivated to pursue other biochemical conferences and seminars which can inspire my future research too.

Which speaker inspired you most and why?

In the opening plenary section of Diabetes UK, David Paul, a patient who rid himself of type 2 diabetes, spoke about his perspective following the DiRECT approach diet and his struggles since the start. It was a refreshing talk where he shared his journey highs and lows, and he was inspiring by the down-to-earth bluntness of his hardships during a strict weight loss regimen. Most research results are published numerically in journals, and it's easy to forget about the actual impact they might have on a person. Mr Paul demonstrated himself as an



outcome from the months and years teams have spent researching to better people's prognoses, and it was motivating to see that my research may one day influence someone in the same manner.

Why should other members apply for grants?

Financial aid is invaluable for those that need it. I have learnt content in the space of three days that would otherwise take me weeks to understand, and I have made helpful contacts from around the globe. The experience of presenting professionally for the first time was brilliant, and I now have the confidence to do the same at other conferences. This is something I couldn't recommend more to someone in a similar situation to myself. Furthermore, as I now want to pursue a career in research, demonstrating the ability to win grant money is an important trait and will be hugely beneficial for future fellowship and grant applications. ■

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