THE STEM FOR BRITAIN AWARDS

We hear from the biomedical winners of a UK-wide science poster competition and exhibition.

IBMS sponsored the biological and biomedical science category at this year's STEM for Britain awards. Institute President Ian Sturdgess joined MP Stephen Metcalfe and Stephen Benn to present the awards at the Houses of Parliament.

The aim of the awards is to raise the profile of early-stage researchers by engaging members of both Houses of Parliament with current science, technology, engineering and mathematics research.

Across the five categories there were an estimated 500 entries, about a third of which were selected to be displayed in Parliament.

Ian Sturdgess said: "Entries for this year's event were of a very high standard and testament to the amazing talent and research we are seeing today in biomedical science in the UK. When they go on to become leaders in their field, I can say that I saw them first.

"As well as winning the prizes for best scientific poster, each award winner received a year's free IBMS membership.

"We look forward to welcoming Lauren, Natalie and Riya to the IBMS and following their careers and future successes closely."

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Gold: Lauren McNeill

I graduated with a biomedical science BSc in 2008 and decided to return in 2013 to complete my MSc Biomedical Science. In January 2016, I started my combined role at Manchester Metropolitan University, as a part-time Postgraduate Teaching Assistant and part-time PhD Researcher. I work with an amazing multidisciplinary supervisory team – Dr Kirsty Shaw, Dr Oliver Sutcliffe, Dr David Megson, and Dr Patricia Linton.

I was interested in this interdisciplinary research, as it highlights the current and timely requirement to develop a portable, disposable, cost-effective, and rapid detection method for New Psychoactive Substances (NPS). The device could be utilised by non-specialists for point-of-care testing in A&E departments and mandatory drug testing in prisons.

I previously worked as a Clinical and Forensic Team Supervisor, working with a range of drugs, including NPS. I began researching NPS and knew that this combined role would be an amazing opportunity to research developing a LOC for the detection of NPS.

I wanted my poster to have impact, highlighting why my research is important and be visually intriguing and captivating, ensuring that I had a good balance of figures and images to text. I also like to have a colour theme so that there are not too many conflicting visuals.

The STEM for Britain event enables early-career researchers the opportunity to present, highlight and discuss their novel and innovative research to members of both Houses of Parliament. I wanted to ensure that the key messages incorporated into my poster and highlighted in person were the potential impact of my research and why it is novel.

I plan to continue my research by investigating the cross-reactivity of structurally similar compounds and other compounds of interest.

My top tips for applying is to follow the abstract and poster guidelines, ensure you write in a manner suitable for the audience, make it intriguing and individual, highlight why your research is novel and the potential impact of your research. STEM for Britain is also an opportunity to interact and network with other interesting and inspirational researchers, who made the event even more rewarding.

Silver: Riya George

I am a PhD Psychology Researcher from the University of Leicester. My research aims to support curriculum development and evaluation of diversity training in healthcare educational institutions.

For my PhD, I gathered the valued perspectives of mental health patients, NHS healthcare professionals and medical educators on how to better teach and evaluate diversity education. My poster showcased the different phases of my PhD research and the new theoretical and practical contributions of the findings.

My research led to the development of a reconstructed "relationship-centred care" model and a situational judgement test to evaluate diversity training.

This piece of research provides clarity around how diversity education can be better theoretically informed and evaluated. It situates diversity within a wider framework that should be considered for achieving high-quality patient-centred care.

I am keen to widely disseminate the research findings at scientific conferences and through publications.

Bronze: Natalie Vaughan

I am a final-year PhD student in Dr Julien Licchesi's lab in the Department of Biology and Biochemistry at the University of Bath. My research project investigates protein degradation mechanisms in cell cycle regulation. Cell cycle dysregulation can lead to ageing disorders, such as cancer, and the wider impact of my research will try to address what we can learn from cell cycle related protein degradation in cancer.

In the poster for STEM for Britain, I had to explain the cell cycle and how proteins are degraded within the cell, both of which can be quite difficult concepts to explain. To achieve this I decided to make diagrams that could help explain the cell cycle and protein degradation in way that was accessible. I also tried to keep the layout simple and avoided having too much text on the poster.

Finally, I wanted to demonstrate via my poster the way the basic research could have an impact on understanding diseases such as cancer.

As I am currently in my final year of my PhD, my next focus is to get my research to the point where I am ready to write my thesis and publish my work. BMS