



News / Meeting Report

Biomedical Science Conference

Friday 17th April 2015; Anglia Ruskin University (ARU) Cambridge Campus, UK

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Attendance

This meeting brought together staff, postgraduate students taking ARU's MSc in Biotechnology (led by Philip Warburton), and finalists taking either ARU's BSc in Biomedical Science (led by Claire Pike) or University Centre Harlow's (UCH) BSc in Bioscience (led by Linda King and Matt Webster). Approximately 135 students and 22 staff attended. The conference included undergraduates taking the module Current Advances in Biomedical Science (led by Richard Jones) and MSc students taking the module Professional and Ethical Practice in Industry (led by Benjamin Evans).

Aims and ambitions

The aims of this conference were as follows: to provide good value for grant money; to improve course communities; to strengthen relationships between staff and students; to help integration between UK and international students; to strengthen links between ARU, UCH, the Biochemical Society and the Institute of Biomedical Science; to encourage interest in exciting research; and to add to the learning on the courses. Knowledge accumulated during the conference will be assessed at the end of the modules during written examinations.

Plenary lectures

Speakers explained cutting-edge research techniques, their results and what they mean for biomedical science. Dominika Gruszka (Department of Chemistry, University of Cambridge) gave a lecture on studies of protein folding, misfolding and aggregation performed with Jane Clarke (Department of Chemistry, University of Cambridge) and Jennifer Potts (Department of Biology, University of York). Dominika outlined the following: the basis of the protein folding problem; factors that can lead to protein denaturation; examples of experimental techniques used to study protein folding; the process of protein misfolding and aggregation including causes and examples of amyloidosis; and the formation of biofilms on implanted medical devices. Mike Harrison (School of Biomedical Sciences, University of Leeds) outlined how the rotary ATPases function as nano-scale motors that drive biology. His lecture illustrated the physiological roles of the rotary ATPases, their structure and organisation, how they work, their regulation and control, and inhibitor binding and therapeutic potential. Philip Warburton (Department of Biomedical and Forensic Sciences, ARU) explained high-throughput sequencing methodologies, and how advances in DNA sequencing could lead to hospital-based whole-genome sequencing at birth and personalised medicine within healthcare. Benjamin Evans (Department of Biomedical and Forensic Sciences, ARU) discussed how modern molecular and computational tools are enabling us to prepare for, and react to, outbreaks of infectious diseases.

Students' contributions

Students presented coursework posters that reflected their own developing and wide-ranging biomedical and industrial science interests. The posters were assessed by staff on the day. For the undergraduates, first prize was awarded to the poster entitled, "Gene therapy for cystic fibrosis: can lentivirus deliver?" created by Sandra Sullivan, Milagrosa Sparrow, Nicola Brown and Alice Mussett. Second prize was awarded to the poster, "Can poly glycerol sebacate (PGS) be used to produce bio-compatible corneal stroma substitutes?" by Ashleigh Mitcham, Glenda Fellows and Charlotte Thomas. Third prize was awarded to the poster, "Could three-parent babies be the future for prevention of mitochondrial disease?" by Azhar Mohamudally, Dan Jiang, Susan Chizema and Roxana Buruiana. For the postgraduates, first prize was awarded to the poster, "AquaBounty: a case study," by Joshua Kerr. Second prize was awarded to the poster, "Case study: Vernalis," by Charys Presland-Palmer. A special prize was given to David McQuarrie for representing the finalists on University committees. Joseph Batchelor took photographs on the day.

Jocelyn Pryce (Acting Head of the Department of Biomedical and Forensic Sciences at ARU) said that, "The conference was a fantastic opportunity for students to showcase their work. They applied the knowledge they have gained throughout their degree to their specialist interests, as each group selected their own poster topic. This resulted in enthusiastic presentations of high quality posters."

Anonymous comments regarding the conference provided by students in module evaluations included the following: "It's great to be taught about the practical reality of research, and to hear from guest speakers. The conference day was very enjoyable. Presenting the poster was really fun."; "Fantastic – great speakers."; "I liked the opportunity to attend the conference day. There was a good mix of speakers and lectures were informative."

Funding

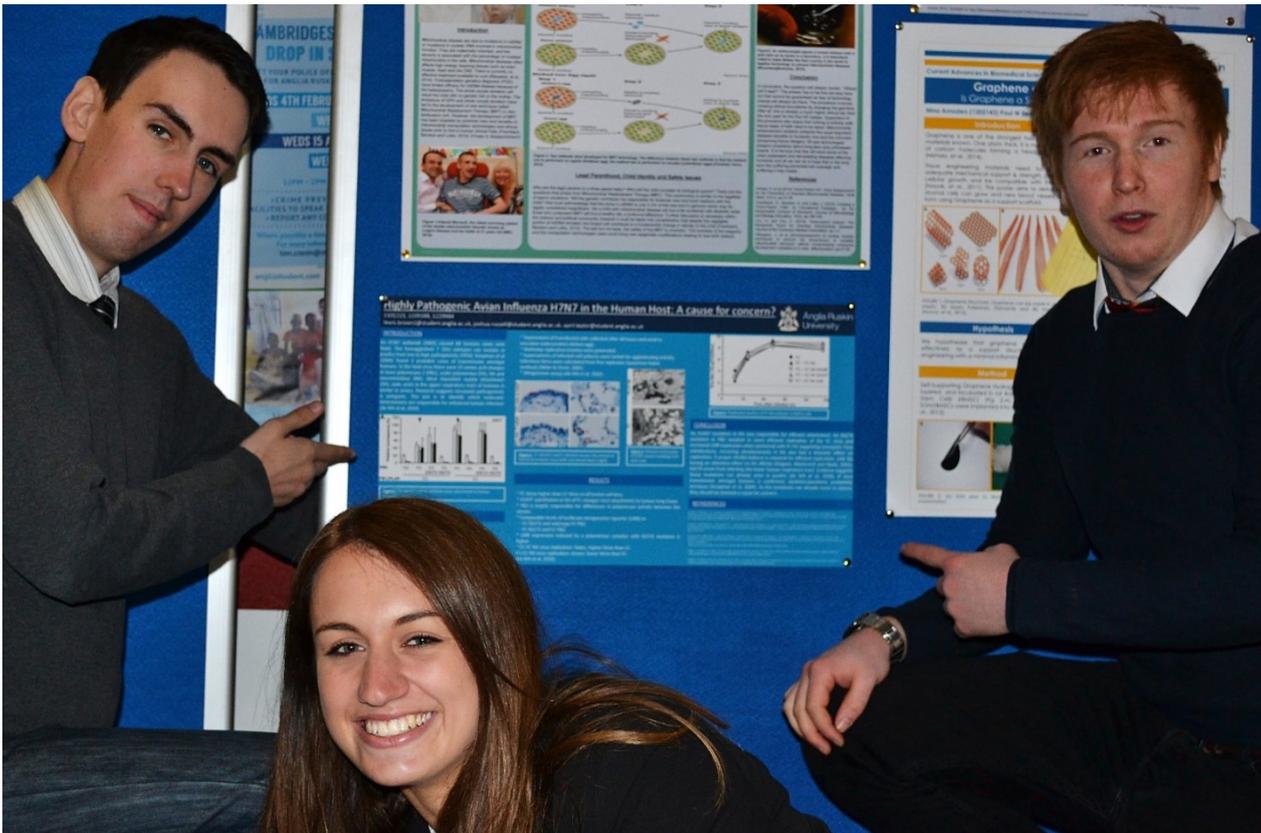
Jocelyn Pryce and Richard Jones thank the Biochemical Society for a Sponsored Events Grant (£500) and Julie Walking and Helen Valentine for allocating an ARU Extra Curricula Event Award (£1500). These awards supported student poster prizes, packed lunches, light refreshments during session breaks, and travel costs for the external visiting speakers.

Photographs



Caption

Left to right: Akacia Clarke, Krishna Gnanaseelan, Prince Ikeru, Laureen Djanga, Sayeed Ali, Mariam Nori, Elima Kalagbor, and Thelma Djanga enjoy the conference. Photograph taken by Joseph Batchelor.



Caption

Left to right: Lewis Brown, April Taylor and Joshua Russell with their poster. Photograph taken by Joseph Batchelor.