### Lifecourse Biology: from development to disease and the clinic

**13–15 September 2017, The Edge, Sheffield, UK**

The Biochemical Society funded meeting on lifecourse biology sought to present aspects of studies on the arc of human existence: from the fertilized egg, through healthy childhood and adulthood and into ageing and degeneration. Talks were given that encompassed the changes that occur throughout life, particularly the processes of morphogenesis, tissue remodelling, degeneration and repair. The talks reflected the multidisciplinary nature of this field, built on whole organism physiology and in vivo imaging at the interface of developmental biology, cell biology, stem cell biology, imaging, mathematical modelling and translational biomedicine.

The meeting was divided into four sessions moving from basic science to translation, each bookended by keynote lectures from leading authorities in the field. Each session included 3-5 invited speakers and 3-4 talks selected from submitted abstracts. The meeting was structured so as to encourage discussion after individual talks and with ample time to provide opportunity to network and meet.

Feedback included thanks for an “engaging 3 days, filled with interesting talks and some mesmerising live imaging videos ...which gave me many fresh ideas to explore”.

**Vanessa Hainsworth** (University of Sheffield)

### Hydrogen Bonds & DNA: Commemoration of the 70th anniversary of the discovery by JM Creeth and colleagues at Nottingham in 1947

**10 November 2017, University of Nottingham, UK**

This one-day, joint meeting of the Biochemical Society with the Royal Society of Chemistry for 160 delegates was held to mark the 70th anniversary of the publication in the *Journal of the Chemical Society*, of the discovery of hydrogen bonds in DNA by PhD student J. Michael Creeth. This discovery paved the way for the double helix model by Watson and Crick 6 years later. After a welcome by Professor Sir Martyn Poliakoff and a brief history of the discovery by Professor Steve Harding, ten esteemed speakers brought us up-to-date with a snapshot of some of the latest research and findings in both DNA (structure and genetics) and hydrogen bond research. For example, Professor Sir Shankar Balasubramanian (University of Cambridge) gave an interesting talk on the structure and significance of G (guanine) quadruplexes and the DNA Quadruple Helix.

Fifteen posters were presented predominantly by younger scientists. Professor Anthony Watts of the British Biophysical Society presented the Poster Prize to postdoctoral researcher Dr. Richard Gillis for his poster on insulin self-interactions at clinical dosage concentrations. The Meeting closed with the unveiling by Mrs Pat Creeth of a plaque to commemorate the 70th anniversary of Creeth’s discovery.

**Stephen E. Harding** (University of Nottingham) and **Mary K. Phillips-Jones** (University of Central Lancashire)
Local Ambassador – David Timson

David Timson is a biochemist whose research focusses on protein structure and function. He is particularly interested in parasite proteins and how proteins fail to function in inherited metabolic disease. A graduate of the University of Birmingham, he has held post-doc positions in Oxford and Manchester before becoming a lecturer at Queen’s University Belfast. Just over two years ago, he took up his current post as Professor of Biochemistry and Head of the School of Pharmacy and Biomolecular Sciences at the University of Brighton.

What motivated you to become a scientist?
Both my parents are scientists and so I grew up in a world of experiments and figuring out how stuff worked. It seemed to be an amazing world and I wanted to be part of it. Apart from an early desire to be a binman, I have never wanted to be anything else.

What inspires you about molecular bioscience?
I love the way biochemistry explains biological problems at the most fundamental levels. Early on at school, biology was always my favourite subject. However, when I did my A-levels I began to really enjoy chemistry and physics. Biochemistry enabled me to use the tools of the physical sciences to address biological problems. Almost all my research and teaching has been at the more chemical end of biochemistry – protein chemistry, enzymology etc. I still get really excited to start with, for example, an interaction between two biomolecules and then build up the story from there to effects on the whole organism.

What are you reading at the moment?
The First Total War by David A. Bell. It’s about the French revolutionary wars. I read a lot of history, but I’m also a fan of the murder mystery writer James Patterson and the science fiction author Peter F Hamilton.

What’s on your desk right now?
All manner of things! Various papers and PhD chapters, a calculator I have had since I was eleven (and it still works) and various Biochemical Society notebooks, which I use for keeping notes on research ideas, admin etc.

What’s been the greatest challenge in your career so far?
Securing my first academic position. The pyramid narrows brutally from BSc to PhD through post-doc to academic posts. It took me about two years and I lost count of the number of applications and interviews.

Eventually Queen’s University, Belfast took a chance on me and I’ll always be grateful for that.

What is your advice for someone who would like to pursue a career in molecular bioscience?
Go for it (and don’t believe all the negative publicity). It is amazingly varied and often great fun. There will be times when you struggle to meet your goals (see above!) but I have rarely, if ever, seen someone fail to get where they want. I have seen it take some time and many attempts, but persistence normally pays off. My guess is that the best is still to come in molecular bioscience research and that biotechnology will transform this century like computers revolutionised the latter half of the twentieth century. So the demand for good biochemists isn’t going to decline any time soon.

What do you do in your spare time?
Spare time? What’s that? Actually, I’m lucky to live in a nice town by the sea and I have recently got married. So it’s easy to relax walking on the shore and we’re still trying out the local pubs and restaurants. I have tried baking, but I’m not very good at it.

Ambassadors are a key group of members that help us to raise awareness of the Biochemical Society, promote its activities, recruit new members and act as the Society’s point of contact at their institution. If you would like to get involved as an Ambassador, please contact: membership@biochemistry.org.

Synthetic Biology UK

27–28 November 2017, University of Manchester, UK

Synthetic biology has the capacity to transform the industrial landscape in sustainable manufacturing processes across all industrial sectors, including healthcare, sustainable energy, green chemistry and bioremediation.

The 3rd annual SynBio UK conference aimed to showcase UK research in this area and create a focal point for the community, embracing its diversity and fostering its growth and its engagement with society. This year’s conference, organized by the Biochemical Society, was hosted by The University of Manchester’s Synthetic Biology Research Centre, SYN BIOCHEM. The presentations from established and young researchers on a wide range of multidisciplinary topics were complemented with short industry talks.

The event kicked off on the theme of responsible innovation and public understanding of science as part of an end-to-end analysis of menthol production using synthetic biology. The topics, which we hoped would inspire new ideas and collaborations, provided a whirlwind tour from yeast metabolic engineering, standard enabled workflows, genetic reprogramming and analytics to microbial metabolism. SynBio approaches to new chemistry and genetic control of mosquitoes showcased how SynBio is providing an engine for the new biotechnological revolution. An impressive, energetic and well received number of flash poster presentations were also presented, strengthening the wide range of topics the meeting covered.

Ros Le Feuvre and Eriko Takano (University of Manchester)