

Editorial Conference Report 6th Midlands Molecular Microbiology Meeting (M4) 2019, 9/10 September, Nottingham University Jubilee Conference Centre, UK

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The Midlands Molecular Microbiology meetings were started in 2014 to strengthen interactions and create opportunities for collaboration between Midland universities. The first M4 (Midlands Molecular Microbiology Meeting) was held at the University of Birmingham in September 2014, followed by the University of Nottingham (2015), University of Leicester (2016), University of Birmingham (2017) and last year the University of Warwick (2018). All meetings have been very popular with approximately 150 attendees mainly from around the Midlands.

The conference rationale is to provide talks and posters of broad, cutting-edge, interdisciplinary research on the molecular and cellular biology of microbes. This year's meeting focused on cross-disciplinary talks covering antimicrobial resistance and evolution, especially within microbiomes. In addition, molecular mechanisms which underpin cell envelope biogenesis, secretion, gene regulation, virulence and biofilms were presented.

As is tradition, the annual Midlands Molecular Microbiology Meeting was a hotbed of excellent science, and stimulated much interaction between the participants during the networking sessions. The conference attracted 166 delegates for exciting presentations from eight internationally renowned speakers. The meeting kicked off with James McNerney (University of Nottingham) discussing pangenomic models and co-occurrence, moved onto Lindsay Hall (Quadram Institute) presenting her extensive work on early life microbiota–host interactions and Simon Foster (University of Sheffield) discussing microbial crowdsourcing with a focus on the dynamics of *Staphylococcus aureus* infection, finishing the first day with Lesley Hoyles (Nottingham Trent University) and a talk on microbiomes investigated by microbiomics, transcriptomics and metabolomics. The second day included talks by Petra Dersch (University of Munster) on RNA regulators in gastrointestinal bacteria, Rikke Meyer (Aarhus University) on fundamental mechanisms of bacterial adhesion and biofilm formation, and Jacob Malone (John Innes Centre) on bacterial signalling during plant–microbe interactions. The final open lecture by Fernando Baquero (Ramón y Cajal

University Hospital) discussed individual-health, one-health and global-health in the context of antibiotic resistance. Interspersed amongst these were 16 excellently presented offered oral presentations that shared a broad range of high-quality and interesting data and included the winner of the Junior Awards in Microbiology (Liam Rooney; <https://thejamtalks.com/>). To support their professional development, early career co-chairs encouraged lively discussion of each talk. For the first time this year, 80 Flash poster presentations were sprinkled through this line-up, and everyone was impressed by the high standard of these three-minute presentations, which stimulated ongoing lively discussions in the networking breaks around posters and the sponsor stands (Appollo Scientific, Cambridge Bioscience, Constant Systems, Li-COR, New England Biolabs, SLS, Starlab, Starsted, ThermoFisher, VWR). Also new this year was the Early Career Researcher led panel discussion on 'Career Paths for Microbiologists'. Questions posed by social media were fielded by Lindsay Hall, Ben Swift, Jo Slater-Jeffries and Rachael Pearson from their viewpoints of academia, biotech, knowledge transfer and public engagement respectively. The users of the online platform voted for the questions and some of the most popular were:

- How difficult is it to move into a new field in academia from your PhD?
- How do you see the advent of social media changing the way science is disseminated and communicated?
- Do you ever feel under-qualified to be in the position you are in?
- What are the typical day-to-day activities in your role?
- The career market is tough. What one thing would you suggest for people to do to stand out from the crowd in your field?
- What pointers do you have for someone who wants to go and work in industry rather than academia?
- How do you balance work-life, particularly being away from academia for a while due to family circumstances?

The *Journal of Medical Microbiology* sponsored prizes were awarded to Ana Da Silva (University of Nottingham) and Joseph Wanford (University of Leicester) for their offered oral

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presentations and to Dean Walsh (University of Nottingham) and Alessandro Carabelli (University of Nottingham) for their posters. The M4_2019 prize for the most impactful Flash presentation went to Muhammad Aammar Tufail (Fondazione Edmund Mach) as he stopped us all in our tracks and made us realize how much our work can have a societal influence.

The meeting was generously supported by the Microbiology Society, Society for Applied Microbiology, National Biofilm Innovation Centre (NBIC <https://biofilms.ac.uk>) and EU Interfuture, and special thanks go to Azotic Technologies whose generous sponsorship enabled the delegates to enjoy a delicious conference dinner followed by entertainment from a local band (The Flow) that boasts a microbiologist amongst its line-up.

The organizers were a mix of people from the University of Nottingham and Nottingham Trent University, and whilst many delegates were from the Midlands, many ventured here from further afield.

If you would like to get more of a flavour of the meeting, please see the compilation of photos on our web page (<https://www.nottingham.ac.uk/conference/fac-mhs/lifesciences/m4/index.aspx>), listen to Rikke Meyer's presentation (<https://biofilms.ac.uk/>) or browse social media (#NottinghamM4 on twitter). We hope to see you next year in Leicester University, so look out for the dates in early September 2020.

Conflicts of interest

The author reports that she was on the organizing committee, but has not referenced the conference papers on which she was a co-author.

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