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Edinburgh Next Generation of Genomics Symposium

Monday 17th November 2025

Playfair Library, Old College

Programme

09:30 **Tim Aitman** (IGC) – Introduction and Welcome

09:35 Keynote Speaker – **Susan Johnston** (IEE) - *Crossovers and consequences: understanding recombination in wild and domestic species*

10:05 Session 1 (Chairs – *Chrissy Rochus & Silvia Shen*)

Zachary Bloxham (IQB3) - Metagenomic Discovery and Genome Assembly of a Novel Hydrocarbon-Degrading *Acinetobacter calcoaceticus* strain for Oil Bioremediation

Wenduo Qi (INCR) - Multi-omics reveal air pollution susceptibility in Alzheimer's disease mouse models

Lili Yu (Usher Institute) - The role of DNA methylation in the health associations with air pollution: a phenome-wide association and epigenetic Mendelian randomization study

10:50 Coffee/tea break

11:20 Session 2 (Chairs – *Kirsten Harper & Natalie Ring*)

Emilien Krempf (IMPS) - UAV-driven phenotyping and genomic analysis to identify yield-Related Loci in tomato breeding

Chrissy Rochus (Roslin Institute) - Livestock genetic diversity in the UK: a systematic review

Rebekah White (INCR) - Tissue-specific proteomics to reveal novel age-linked protein changes in *C. elegans*

12:05 Career Panel Discussion – **Exploring Careers in Genomics: From Research to Real-World Impact**

- **Daniel McCartney** (Lead Bioinformatician, BioXcelerate AI)
- **Melissa Jungnickel** (Business Development Executive, Edinburgh Innovations)
- **Caeli Richardson** (Consultant – Animal & Plant Breeding and Genetics, AbacusBio)
- **Monica Hoyos Flight** (Research Impact Manager (CSE), Edinburgh Research Office)
- **Paul Timmers** (Data Scientist, BioAge Labs)

13:05 Lunch and Posters

14:35 Session 3 (Chairs – *Rongrong Zhao & Chrissy Rochus*)

Natalie Ring (RDSVS) - Can we predict it? A systematic comparison of tools for predicting antimicrobial resistance from nanopore sequence data

Alexis Ioannou (IGC) - Benchmarking tissue- and cell-type-of-origin deconvolution in cell-free transcriptomics

Davide Greco (IRR) - Same model, better performance: the impact of shuffling on DNA Language Models benchmarking

15:20 Coffee/tea break

15:50 Session 4 (Chairs – *Melissa Eccles & Rebekah White*)

Andrii Iakovliev (IGC) - Identifying putative drug targets via aggregated genetic effects on distal gene function

Mukesh Lalwani (INCR) - MiR-143 and miR-145 Are Essential for Heart Regeneration and Regulate the Myocardial Injury Response in Zebrafish

Rashi Krishna (IGC) - Identification of drug response biomarkers for leiomyosarcoma

16:35 Prize voting

16:45 Keynote speaker – **Athina Spiliopoulou** (Usher Institute) - Towards a precision medicine approach for rheumatoid arthritis

17:15 **Joris Veltman** (IGC) - Closing Remarks and prize presentation

17:30 Drinks reception

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