

Polymorphic Immune Molecules and Their Functional Diversity Across Species

Program 3 - 5 November 2025

Monday November 3rd

13:00 Registration open

18:00 Paul Norman Introduction

18:15 John van Rood Prize Lecture:
John Trowsdale FMedSoc
Immune Defence and Polymorphism

19:00 *Welcome drinks and dinner*

Tuesday November 4th

09:00 **Louise Boyle**
Peptides Controlling the Orchestration of Immune Responses

09:30 Griffin Kutler Dodd
Chimpanzees and gorillas lack an MHC-A peptide-binding specificity common in humans

09:45 Malcom Sim
High-throughput discovery of novel HLA-C bound peptide ligands for NK cell receptor KIR2DS4

10:00 Jim Kaufman
A tissue-specific helminth-inducible class II system in birds (and mammals?)

10:15 *Break*

10:45 **Jacek Radwan**
MHC Genes in the Red Queen Race

11:00 Joanna Różańska-Wróbel
Interplay between vertebrate adaptive immunity and bacterial infectivity genes: Bank vole MHC versus *Borrelia afzelii* OspC

11:15 Javier Avalos Nunez
Searching for signatures of natural selection within the regions encoding NK cell receptors

11:30 Tobias Lenz
T-cell repertoire diversity analysis in a small teleost as a natural model system for adaptive immunity

11:45 *Lunch*

13:00 **Natasja de Groot**
MHC Diversity in Great Ape Species: Evolution and Host-Pathogen Interactions

13:30 Thomas Goeury
Markov chain modelling of MHC sequences in 38 primates species reveals complex evolutionary events

13:45 Pascale Gerbault
Contrasting patterns of nucleotide diversity along MHC class I genes A, B and C in bonobos, chimpanzees and humans

14:00 Richard Natarajan
A quantitative characterisation of the extent of homopolymer and repeat region polymorphism within the MHC

14:15 *Break*

14:45 **John Hammond**
Combining Genomics and Single Cell Sequencing to Understand the Evolution of MHC and NK Cell Receptors in Non-Model Species

15:15 Avik Bhattacharya
High-resolution investigation of the LILR gene complex unveils extensive allele and allotype diversity

15:30 Jamie Winternitz
High-resolution genotyping of complex immune gene families in model and non-model species using hybrid target capture and long-read sequencing

15:45 Susan Ott
The characterization and annotation of the highly diverse genomic IG regions in rhesus macaques

16:00 Lightning talks (x6)

19:00 *Drinks and dinner*

20:30 Erik Rozemuller
A Royal Dessert

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Wednesday November 5th

09:00 **Josephine Pemberton FRS**

Maintenance of MHC Class II Variation in a Wild Sheep

09:30 Dorothea Heimeier

MHC diversity in the New Zealand southern right whale (*Eubalaena australis*; Tohorā nō Aotearoa)

09:45 Johannes Dijkstra

Extreme allelic MHC class I diversification in bony fish: evolutionary and structural perspectives of the salmonid example

10:00 Tony De Tomaso

Exceptional diversity of allorecognition receptors in a non-vertebrate chordate reveal principles of innate allelic discrimination and convergent evolution of mammalian immunity

10:15 *Break*

10:45 **Anna Savage**

MHC Polymorphism and Disease Susceptibility in Wild Amphibian and Reptile Populations

11:00 Magdalena Migalska

Major Histocompatibility Complex in Salamanders: annotation pitfalls and evolution of complex immune regions in giant genomes

11:15 Dimitri Monos

The complete haplotypic characterization of the swine MHC using ONT adaptive sampling and sequencing. Optimizing the swine xenotransplantation model

11:30 Saghar Kaabinejadian

Canine MHC Class I Molecules and their Human Homologs

11:45 *Lunch*

13:00 **Alexander Mentzer**

HLA, Hepatitis B and Viral Evasion: Unravelling Vaccine Immunity in Bangladeshi Infants

13:30 Keyi Zheng

Investigating the Role of Chromosome 14 IGH Locus in COVID -19 Vaccine Immunogenicity and Infection

13:45 Kristen Wade

Novel multiple sclerosis MHC risk loci impact expression of cellular homeostasis , innate immune and

14:00 Katherine Kichula

Dual effects of maternal killer cell immunoglobulin-like receptor genotype on preeclampsia risk in Ugandan women

14:15 *Break*

14:45 **Ed Hollox**

Copy Number Variation of Immunity Genes in the Age of Biobanks

15:15 Gabriela Sato Paes

Population-Specific Diversity of KIR2DS1 and KIR2DS4 Activating Receptors: Allelic Variation and Copy Number Patterns Across Global Ancestries

15:30 Joanna Malukiewicz

Organization, Diversity, and Copy Number Variation in the Major histocompatibility complex (MHC) region of Brazilian Marmosets (*Callithrix*)

15:45 Jesse Bruijnesteijn

Structural diversity and allelic polymorphism in the LILR gene cluster of humans and rhesus macaques

16:00 Closing Remarks

19:00 *Drinks and dinner*

Lightning Talks

Jonathan Beaumont

Clinton Azuure

Christopher Thorpe

Daniel Alvarez-Sirvent

Dominic Barker

Jonathan Downing