Polymorphic Immune Molecules and Their Functional Diversity Across Species

Program

2 - 4 November 2026

Monday, November 2nd

13:00 *Registration Open*

17:00 **Jill Hollenbach**
Welcome and introduction
Ronald Bontrop
Frans Claas travel awards

Jon van Rood Prize Lecture
Jim Kaufman
Genomic organisation determines function of the MHC

19:00 *Welcome Drinks and Dinner*

Tuesday, November 3rd

Session 1

09:00 **Yuko Ohta**
Evolution and origin of MHC
Susan E. Ott
Comparative genomics of T cell receptor diversity in humans and macaques
Katherine Martin*
Crawling across the genome: Distinct MHC lineages occur on different chromosomes in reptiles
Magdalena Migalska
Late adaptive immune system development in salamanders: A life-history trade-off?

10:30 *Break*

10:50 **Luis Barreiro**
Shaped by survival: Natural selection and immune variation across populations
Adam Shahine
Structural evolution of the CD1 family of lipid antigen presenting molecules across species
Tereza Almeida
Evolutionary diversification of classical MHC Class I-like genes in cartilaginous fish

12:00 *Lunch*

Session 2

14:00 **Paul Norman**
Selection and drift in HLA allele pools from Papua New Guinea
Avik Bhattacharya
Cross-population and cross-cluster analysis of the LILR complex reveals ancestry-structured diversity exceeding KIR
Da Di
HLA-DP as a constrained but non-redundant contributor to HLA class II functional diversity
Ipsa Mittra
Novel alternative splicing events identified across human leukocyte antigen class I genes

15:30 *Break*

15:50 **Melissa Smith**
Decoding adaptive immune receptor diversity to enable the promise of precision genomic medicine
Noah Cline
Development and application of tools to analyze novel IG and TCR germline polymorphism in the Tsimane hunter-gatherers of Bolivia
Chris Thorpe
Teaching AlphaFold about antigen presentation to improve its performance on peptide:MHC complex structure prediction

18:00 *Drinks and Dinner*

* Frans Claas Travel Award recipient 2026

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Wednesday, November 4th

Session 3

09:00 **Daniel Bolnick**
Evolutionary gain, and loss, of a costly but effective fibrosis response to tapeworm infections in stickleback
Martin Těšický
Immunome adaptive evolution is driven by protein function and localization
Tao Li
Adaptive evolution of cytosolic innate immune receptors in amniotes reveals common divergence with occasional signals of molecular convergence
Gábor Á. Czirják
The importance of immunology in conservation science: The example of cheetahs in Namibia

10:30 *Break*

10:50 **Harmit Malik**
Evolution-guided dissection and enhancement of antiviral proteins in mammals
Jacek Radwan
A key regulator of missing-self innate immunity is polymorphic and under diversifying selection
Tobias L. Lenz
How dynamic is host-parasite coevolution really? A discussion of evidence and (mis)conceptions

12:00 *Lunch*

Session 4

14:00 **Danielle Stevens**
Versatility of the leucine-rich repeat: Evolutionary foundations and bioengineering strategies for improved health across systems

Lightning Talks
Ramon Torreglosa do Carmo*
A comprehensive pipeline and database for accurate identification of HLA-1 somatic mutations
Sjoerd Creutzburg
Unraveling LILR and LAIR genes using long read hybrid capture and long-range PCR
Marte K. Viken
Challenges with HLA gene expression analyses
Manuel Lopes
Genetic diversity in neutral and non-neutral genes in an endangered shark species

15:30 *Break*

15:50 **Stephanie Gras**
Molecular blueprint of disease: Structural insights into viral immunity

Lightning Talks
Malcolm Sim
Association between HLA Class I and II alleles and risk of clinical Malaria in a malian cohort
Clinton Azuure
Characterization of human-identical peptides and peptide-HLA presentation patterns in M. africanum and Mycobacterium Tuberculosis lineage 4
Shima Mahmoudi
Phase-specific antigens of Mycobacterium Tuberculosis: Towards next-generation immunodiagnostic tests for Tuberculosis

16:30 **Summary Session**
Closing Remarks

19:00 *Drinks and Dinner*

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