Physical concepts and computational models in immunology

Poster Presentation

P1: **Signal Integration in Immune Regulatory Networks**

Enas Abu-Shah, Omer Dushek, Michael Dustin

P2: **Multiomic analysis of human CD4 regulatory T cells provides functional insights into immune disease associated variants**

Lara Bossini-Castillo

P3: **Characterising antibody repertoire ageing in a short-lived vertebrate model**

William Bradshaw

P4: **Coevolution based inference of allosteric architectures**

Barbara Bravi, Riccardo Ravasio, Carolina Brito, Matthieu Wyart

P5: **Multi-omics characterisation of the response of naïve and memory CD4+ T cells to Th17 and iTreg differentiation**

Eddie Cano-Gamez, Blagoje Soskic, Deborah Plowman, Nikolina Nakic, David Tough, Wendy Rowan, Chris Larminie, David Willie, Ernest So, Theodoros Roumeliotis, Paola Bronson, Karol Estrada, Jyoti Choudhary, Gosia Trynka

P6: **VDJ recombination shapes the frequency distribution of the naive T-cell receptor repertoire**

Peter de Greef

P7: **Predicting the spectrum of TCR repertoire sharing with a data-driven model of recombination"**

Yuval Elhanati

P8: **The role of T cell stimulation intensity in the expression of immune disease genes**

Dafni Glinos

P9: **Modelling of T cell co-inhibitory pathways to predict anti-tumour responses to checkpoint inhibito**

Céline Hernandez, Aurélien Naldi, Wassim Abou-Jaoudé, Guillaume Voisinne, Romain Roncagalli, Bernard Malissen, Morgane Thomas-Chollier, Denis Thieffry

P10: **Enchained growth and cluster dislocation : a possible mechanism for microbiota homeostasis**

Claude Loverdo

P11: **V-gene insertions and deletions during the affinity maturation process in BCR repertoires**

Cosimo Lupo, Thierry Mora, Aleksandra Walczak

P12: **Pathogen diversity drives the evolution of promiscuous peptide binding of human MHC-II alleles**

Mate Manczinger, Gabor Boross, Lajos Kemeny, Viktor Muller, Tobias Lenz, Balazs Papp, Csaba Pal

P13: **Statistical mechanics of viral immune co-evolution**

Jacopo Marchi

P14: **Regulation of T cell expansion by antigen presentation dynamics**

Andreas Mayer

P15: **Alterations in TCR repertoire after yellow fever revaccination**

A.A. Minervina, M.V. Pogorelyy, E.A. Komech, I.Z. Mamedov, T. Mora, A.M. Walczak, Y.B. Lebedev

P16: **A model for affinity maturation under different immunization schemes. Numerical results and theoretical insights**

Marco Molari

P17: **RepSeq of identical twins TCR repertoires after yellow fever vaccination**

M.V. Pogorelyy, A.A. Minervina, M. Puelma Touzel, A.L. Sycheva, E.A. Komech, I.Z. Mamedov, T. Mora, A.M. Walczak, Y.B. Lebedev

P18: **Adaptive traits of Influenza proteins**

SImone Pompei, Torsten Held, Michael Lässig

P19: **Ensemble response of immune repertoires to vaccination**

Maximilian Puelma Touzel

P20: **Fooling the classifier: adversarial examples and ligand antagonism**

Thomas J. Rademaker, Emmanuel Bengio and Paul François.

P21: **A prolonged eclipse phase enhances Dengue virus sensitivity to innate immune response**

Soheil Rastgou Talemi, Alessia Ruggieri, Bartenschlager, Thomas Höfer

P22: **Fine-mapping autoimmune disease variants in cytokine induced cell states**

Blagoje Soskic

P23: **Quantifying the impact of treatment history on plasmid-mediated resistance evolution in human gut microbiota**

Burcu Tepekule

P24: **Immune Repertoire Diversity: Making Similarity Count**

Milena Vujovic, Thomas Lars Andresen and Joseph John Kaplinsky

P25: **Could T cells learn English? Learning the language of "self" and "foreign" during negative selection**

Inge M.N. Wortel, Can Keşmir, Rob J. de Boer, Judith N. Mandl, Johannes Textor