

Arnaud FONTANET, Hugues ASCHARD

The future of epidemiology in the big data era

Vendredi 24 mai 2019

Amphithéâtre Maurice Halbwachs

9:00 Introduction

Arnaud FONTANET, Collège de France/ Institut Pasteur / Cnam, Hugues ASCHARD, Head of the Statistical Genetics Group at Institut Pasteur / CNRS – USR3756, Paris

Chairs: Dominique COSTAGLIOLA, Sorbonne Université/INSERM and Thomas BOURGERON, Institut Pasteur / Université Paris-Diderot

9:10 The UK Biobank

Jonathan MARCHINI, Head of Statistical Genetics and Machine Learning, Regeneron Genetics Center, Tarrytown, USA

9:50 UK Biobank GWAS results for 2419 phenotypes

Raymond WALTERS, Post-doctoral fellow, Benjamin Neale's Laboratory (ATGU of the Massachusetts General Hospital / Stanley Center for Psychiatric Research at the MIT / Harvard Broad Institute), Boston

10:30 Break

Chairs: Alessandra CARBONE, CNRS/Sorbonne Université, and Fabrice CARRAT, Sorbonne Université/INSERM/APHP

11:00 Complex model inference from multivariate genetic data

Hugues ASCHARD, Head of the Statistical Genetics Group at Institut Pasteur / CNRS – USR3756, Paris

11:40 Machine learning for precision medicine

Jean-Philippe VERT, Professor at the Centre for Computational Biology at Mines ParisTech / Senior Researcher at Google Brain, Paris

12:20 Pharmacogenomics and precision medicine

Marie-Pierre DUBÉ, Associate Professor, Department of Medicine, University of Montreal and Director of the Beaulieu-Saucier Pharmacogenomics Centre at the Montreal Heart Institute, Montreal

13:00 Lunch break

Chairs: Jacqueline CLAVEL, INSERM / Université Paris-Descartes, and William DAB, Cnam

14:30 Environmental exposure assessment for population-based studies

Robert BAROUKI, Professor of Biochemistry, Université Paris-Descartes School of Medicine / Director of the INSERM Unit 1124, Paris

15:10 How do people interpret and respond to genetic risk prediction?

Adrienne CUPPLES, Professor of Biostatistics and Epidemiology, Boston University School of Public Health, Boston

15:50 Break

Chair: Jean-Claude DESENCLOS, Santé Publique France

16:10 Ethics and big data for health

Laure COULOMBEL, Research Director, INSERM U1130 / member of the Comité Consultatif National d'Éthique, Paris and Claude KIRCHNER, Emeritus Research Director, INRIA / member of the Comité Consultatif National d'Éthique, Paris

16:50 Polygenic risk scores: prognostic, predictive, practical?

David HUNTER, Richard Doll Professor of Epidemiology and Medicine; Director, Translational Epidemiology unit, Nuffield Department of Population Health, University of Oxford, Oxford

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