

EMBL-ESTONIA Workshop, 18 February 2021 Virtual (Zoom)

EMBL Speakers:

Edith Heard, EMBL Director General



Professor Edith Heard was introduced to biology while taking the Natural Sciences Tripos for her Bachelor's degree at the University of Cambridge in the 1980's. Inspired by her teachers at the time, she switched her focus from physics to biology and graduated in Genetics. Edith then went on to obtain her PhD from the Imperial Cancer Research Fund (later Cancer Research UK) at Lincoln's Inn Fields, in London. In 2001, she set up her own group at the Institut Curie and in 2010 became Director of the Institute's Genetics and Developmental Biology Unit. Edith was appointed as a Professor of the Collège de France in 2012, holding the Chair of Epigenetics and Cellular Memory. In January 2019, Edith started as Director General of EMBL. The Heard group at EMBL focuses on epigenetic processes such as X-chromosome inactivation, in order to learn more about the basic principles of gene regulation, and to explore the roles of chromatin modifications, chromosome organisation and non-coding RNAs on gene expression in development and disease.

Ewan Birney, EMBL Deputy Director General and Joint Director of EMBL-EBI



Ewan completed his PhD at the Wellcome Sanger Institute with Richard Durbin. In 2000, he became Head of Nucleotide data at EMBL-EBI and in 2012 he took on the role of Associate Director at the institute. He became Director of EMBL-EBI in 2015. In 2020, Ewan became the Deputy Director General of EMBL. In this role, he assists the EMBL Director General in relation to engagement with EMBL Member States and external

representation. Ewan led the analysis of the Human Genome gene set, mouse and chicken genomes and the ENCODE project, focusing on non-coding elements of the human genome. Ewan's main areas of research include functional genomics, DNA algorithms, statistical methods to analyse genomic information (in particular information associated with individual differences in humans and Medaka fish) and use of images for chromatin structure.

Ewan is a non-executive Director of Genomics England, and a consultant and advisor to a number of companies, including Oxford Nanopore Technologies, Dovetail Genomics and GSK. Ewan was elected an EMBO member in 2012, a Fellow of the Royal Society in 2014 and a Fellow of the Academy of Medical Sciences in 2015. In 2019, Ewan became a Board Member of the Biotechnology and Biological Sciences Research Council (BBSRC). He has received a number of awards including the 2003 Francis Crick Award from the Royal Society, the 2005 Overton Prize from the International Society for Computational Biology and the 2005 Benjamin Franklin Award for contributions in Open Source Bioinformatics.

Cath Brooksbank, EMBL-EBI Head of Training Programme



Cath Brooksbank completed her PhD in Biochemistry under the guidance of Robin Irvine. Before joining EMBL-EBI, she spent a decade as an editor of scientific review journals, gaining experience with the Elsevier Trends Journals before launching Nature Reviews Cancer. Cath joined EMBL-EBI in 2002 to develop the outreach programme, and extended her responsibilities to include training in 2006. Her team now coordinates a wide-ranging portfolio of training activities reaching tens of thousands of individuals each year. She contributes to a number of international projects including CABANA (which she leads), EOSC-Life, BioExcel and CINECA. She is co-chair of the Education Committee for the International Society of Computational Biology (ISCB) and sits on the Board of Directors for ISCB. She is a member of the advisory board for the Crick African Network.

Michael Zimmermann, Group Leader, Structural and Computational Biology Unit, EMBL Heidelberg



Michael obtained his PhD in 2014 from ETH Zurich, and proceeded to conduct postdoctoral research at Yale University. He has been a Group leader at EMBL since August 2019. The Zimmermann group combines high-throughput mass spectrometry, bacterial genetics and computational models to investigate how members of microbial communities alter their chemical environment and how this shapes metabolic interactions within the microbiome and between the microbiome and its host.

Detlev Arendt, Group Leader and Senior Scientist, Developmental Biology Unit, EMBL Heidelberg



Detlev received his PhD in 1999 from the Albert-Ludwigs-Universität in Freiburg, Germany. He became team leader at EMBL in 2002, and in 2007 was appointed as Group leader and senior scientist. Since 2012, Detlev has been an ERC Advanced Investigator. The Arendt group focuses on evolution of the nervous system in bilateria. By studying and comparing simple marine animals and their constituent cells, the Arendt group looks to understand the origin and evolution of the nervous system and of the entire animal body.