



Conference on

Genome Editing

Wellcome Trust Lecture Hall

The Royal Society

6-9 Carlton House Terrace, London SW1Y 5AG

on

Wednesday, 31st October, 2018

Admission is free, but strictly by ticket, available from:

www.eventbrite.co.uk

or

The General Secretary, the Galton Institute
19 Northfields Prospect, London SW18 1PE

executiveoffice@galtoninstitute.org.uk

www.galtoninstitute.org.uk

Speakers and Chairmen

Professor Richard Ashcroft	Professor of Bioethics, Queen Mary University of London
Dr Elena Bochukova	Blizard Institute, Queen Mary University of London
Professor Austin Burt	Professor of Evolutionary Genetics, Imperial College London
Professor Jennifer Doudna, FRS	HHMI Investigator, Li Ka Shing Chancellor's Chair in Biomedical and Health Sciences, Professor Depts. of Molecular & Cell Biology and Chemistry, UC Berkeley
Professor Anne Ferguson-Smith, FRS	Arthur Balfour Professor of Genetics and Head of Department of Genetics, University of Cambridge
Dr Paul Hurd	School of Biological and Chemical Sciences, Queen Mary University of London
Professor Robin Lovell-Badge, FRS	The Francis Crick Institute, London
Professor Emma Morris	UCL Institute of Immunity and Transplantation, Royal Free Hospital, London
Dr Kathy Niakan	The Francis Crick Institute, London
Professor Veronica van Heyningen, FRS	President of The Galton Institute, Institute of Ophthalmology University College London and MRC Human Genetics Unit, IGMM, Edinburgh
Professor Daniel Voytas	Director of the Center for Precision Plant Genomics, Center for Genome Engineering, University of Minnesota

Conference organisers:

Professor Anne Ferguson-Smith, Drs Elena Bochukova and Paul Hurd

Genome Editing

- 10.00-10.05** **Chair and Introduction: Professor Veronica van Heyningen, FRS**
- 10.05-10.20** **Dr Kathy Niakan**
The hows and whys of genome editing
- 10.20-11.00** **Dr Kathy Niakan**
Exploring early human development using CRISPR-Cas9
- 11.00-11.30** **COFFEE**
- 11.30-12.10** **Chair: Dr Paul Hurd**
Professor Austin Burt
Manipulating mosquitoes for malaria control
- 12.10-12.50** **Professor Daniel Voytas**
Developing crops for sustainable agriculture and food security
- 12.50-14.00** **LUNCH**
- 14.00-14.40** **Chair: Dr Elena Bochukova**
Professor Richard Ashcroft
Societal considerations on genome editing
- 14.40-15.20** **Chair: Professor Veronica van Heyningen, FRS**
The Galton Lectures 2018
Professor Robin Lovell-Badge, FRS
Genome editing to study regulation and regulation of genome editing
Professor Jennifer Doudna, FRS
Genome Editing – history and future
This is a video presentation by Professor Doudna due to her unavoidable absence.
- 15.40-16.10** **TEA**
- 16.10-16.50** **Chair: Professor Anne Ferguson-Smith, FRS**
Professor Emma Morris
Exploring and treating human disease with genome editing

The Galton Institute was established in its current form in 1989 in memory of Sir Francis Galton (1822-1911), one of the UK's most distinguished Victorian scientists and a cousin of Charles Darwin. The scientific study of human heredity was one of Galton's many areas of endeavour, and The Galton Institute was set up to promote research and understanding in all aspects of this field.

There have been huge advances in the scientific understanding of heredity and genetics over the last century. Partly informed by these insights, there has been a concurrent revolution in social attitudes in considering the contributions of 'nature' and 'nurture' – Galton's terms for today's genes and environment – to human development and achievement. Consequently, the Galton Institute of today reflects the multidisciplinary nature of current research, with geneticists, clinicians, demographers, bioinformaticians, sociologists, psychologists, statisticians, teachers and other professionals working together with the aim of improving knowledge of our species and its challenges.

The Galton Institute is committed to stimulating and informing public debate on human heredity and associated questions, and seeks to promote public engagement with, and communication of, these topics.

Aims

The Institute promotes and supports the scientific exploration of all aspects of human heredity through:

1. Education and communication with all interested individuals and groups.
2. Stimulating and informing public debate on the social and ethical implications and relevance to human well-being.
3. The study and understanding of the historical origins and development of the topic.

Activities

The Institute has a wide range of interdisciplinary interests relating to the scientific study of human inheritance and promotes communication of these investigations through:

- An annual conference in which a topic of current and international importance relating to human heredity is explored by experts from different disciplines. The conference is the occasion for the delivery of the annual Galton Lecture by an eminent invited speaker.
- Support for conferences and other activities of kindred organisations relevant to its aims.
- Publication of the *Galton Review*, available on the website and received free of charge by Members, Fellows and most UK university libraries.
- Publication of occasional booklets on subjects relevant to its aims.
- Support for work on reproductive health and fertility control in the UK and elsewhere under the aims of the Artemis Trust.

www.galtoninstitute.org.uk