



## **Advances in Genetics: a Second Teachers' Conference**

To be held

**Nowgen Centre  
29 Grafton Street  
Manchester M13 9WU**

on

**Wednesday, 28<sup>th</sup> June, 2017**

Admission is **FREE**, but strictly by ticket, available from:  
The General Secretary, The Galton Institute  
19 Northfields Prospect, London SW18 1PE  
[executiveoffice@galtoninstitute.org.uk](mailto:executiveoffice@galtoninstitute.org.uk)  
[www.galtoninstitute.org.uk](http://www.galtoninstitute.org.uk)

## Speakers and Organisers

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|--|---|
| Professor Graeme Black                     | Manchester Academic Health Science Centre, University of Manchester; Centre for Genomic Medicine, St Mary's Hospital, Manchester                          |
| Professor Dian Donnai, CBE                 | Manchester Academic Health Science Centre, University of Manchester; Centre for Genomic Medicine, St Mary's Hospital, Manchester and The Galton Institute |
| Mr Robert Johnston                         | The Galton Institute  |
| Dr Rhona Macleod                           | Consultant Genetic Counsellor and Honorary Senior Lecturer in the University of Manchester Centre for Genomic Medicine                                    |
| Professor Andrew Read                      | Manchester Academic Health Science Centre, University of Manchester, Centre for Genomic Medicine, St Mary's Hospital, Manchester and The Galton Institute |
| Professor Bryan Turner, FRS                | University of Birmingham, Institute of Cancer and Genomic Sciences  |
| Professor Veronica van Heyningen, CBE, FRS | President of The Galton Institute, Institute of Ophthalmology, UCL, London and MRC Human Genetics Unit, IGMM, University of Edinburgh                     |
| Dr Rob White                               | Reader in Developmental Biology, Department of Physiology, Development and Neuroscience, University of Cambridge  |
| Dr Andrew Wood                             | Sir Henry Dale Fellow and Chancellor's Fellow, Institute of Genetics and Molecular Medicine, University of Edinburgh                                      |

**Conference organisers:  
Professor Dian Donnai, Professor Veronica van Heyningen and Mr Robert Johnston**

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|-------------|---|
| 10.00-10.10 | Introduction Robert Johnston  |
| 10.10-10.50 | Graeme Black<br><i>Gene sequencing and genetic screening techniques</i>               |
| 10.50-11.10 | Coffee  |
| 11.10-11.50 | Rob White<br><i>Role of HOX genes and regulation of gene expression</i>               |
| 11.50-12.30 | Bryan Turner, FRS<br><i>Epigenetics: environmental and genetic factors</i>            |
| 12.30-13.30 | LUNCH   |
| 13.30-14.10 | Andrew Wood<br><i>Gene editing (CRISPR/Cas9): principles, current and future uses</i> |
| 14.10-14.50 | Rhona Macleod<br><i>Genetic counselling</i>   |
| 14.50-15.30 | Andrew Read<br><i>Precision Medicine</i>  |
| 15.30-15.50 | Nowgen – teaching resources etc.  |
| 15.50-16.30 | Tea and discussion  |

Mr Robert Johnston will chair the proceedings

**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 towards the role of 'nature' and environment in 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.

### **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 symposium 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 work on reproductive health and fertility control in the UK and elsewhere under the aims of the Artemis Trust.

[www.galtoninstitute.org.uk](http://www.galtoninstitute.org.uk)