*Galtonia candicans*

# The Galton Institute

## NEWSLETTER

Issue Number 82

Spring 2014

### PROFESSOR SIR WALTER BODMER

Professor Sir Walter Bodmer has been President of the Institute for the last six years. This is the maximum period allowed by our constitution and, as from June 2014, he is being followed by Professor Veronica van Heyningen about whom information may be found elsewhere in this Newsletter.

The extent to which Presidents influence the institutions they serve is extremely variable as is the measure of benefit accruing to these bodies even in the case of very active Presidents. The Galton Institute has, however, been exceptionally fortunate in having Walter Bodmer as its President. The energy and commitment he has displayed, in this role, to developing the ability of the Institute to fulfil its central objective of promoting public understanding of human genetics and its impact on cognate disciplines is both formidable and effective. It is perhaps particularly in the planning of the annual confer-

ences that his influence has been of great value leading both to very high standards of scholarship and programmes attractive in composition and presentation of cutting edge knowledge. He has also been very active in promoting new thinking in approaches to the presentational aspects of the Institute's activities and in the financial support of promising young scientists.

In his career prior to becoming President Walter Bodmer had achieved high international distinction achieved through recognition of his outstanding ability as individual researcher, university academic, director of a large research organisation and head of an Oxford college. The Galton Institute has, in turn, also benefited greatly from the exercise of his manifold talents and he leaves the Presidency with our warmest thanks and best wishes for the future.

**John Beardmore**

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## **Professor Veronica van Heyningen - the next President of The Galton Institute**

Veronica van Heyningen has been elected as the next president of The Galton Institute and will take up this role following the AGM in June 2014.

Born in Hungary, Veronica was educated almost entirely in the UK, going to school in Leicestershire; followed by undergraduate studies (1965-1968) at Girton College, University of Cambridge in Natural Sciences with a final year focus on Genetics; a Master of Science degree from Northwestern University, Evanston Illinois; and a doctorate on early human gene mapping, completed in 1973, at the University of Oxford under the guidance of Walter Bodmer.

Supported by a prestigious Beit Memorial postdoctoral fellowship, Veronica was able to move in 1974 to Peter Walker's MRC Mammalian Genome Unit in Edinburgh when her husband was appointed University Lecturer in Biochemistry. Their son and daughter were born in 1975 and 1976 in Edinburgh.

In 1977 Veronica took up a tenure-track postdoctoral position at what is now the MRC Human Genetics Unit. Her early work there focussed on making and using monoclonal antibodies to explore the function of cell surface MHC class 2 proteins and also a number of other disease-related soluble protein markers.

In 1984, as a tenured junior group leader, she set out on a fruitful inter-

action with Nick Hastie and several international collaborators to identify the Wilms' tumour predisposition gene (WT1) and the aniridia gene which turned out to be PAX6.

PAX6 has remained a major focus of Veronica's work, starting with clinical and molecular observations in patients; the group has explored multiple aspects of the function of this gene: complex expression patterns and their control by distant non-coding conserved elements, evolutionary features and molecular interaction including those with SOX2 and OTX2, other eye malformation genes identified in the lab.

Another aspect of human disease pursued by the group is the underlying causes and mechanisms of phenotypic variation. The work has yielded over 200 peer-reviewed publications it was supported by MRC core funding as well as a number of additional grants, including from the European Union, the Medical Research Council, the Wellcome Trust and various eye charities.



Professor Veronica van Heyningen

An important early recognition and support was provided by a Howard Hughes International Research Scholarship for five years from 1993. Around this time, Veronica was appointed the Head of her Section (Medical and Developmental Genet-

ics) at MRC HGU. Other honours include election to Fellowships of the Royal Society (2007), Royal Society of Edinburgh (1997), Academy of Medical Sciences (1999); EMBO Membership (2002); and appointment as CBE (Commander of the British Empire) in 2010. Veronica was also President of the European Society of Human Genetics (2003) and of the Genetics Society (2009-2012).

Membership of the Human Genetics commission for its first six years, from 2000, provided an opportunity for Veronica to make contributions to the debate in public fora on important ethical issues around new genetic technologies, their applications in medicine and their societal impacts. These interests were consolidated by affiliation to the Edinburgh arm of the ESRC Genomics Network in the School of Social Sciences, including co-supervision of a PhD about perceptions of stem cell research. Veronica has given a number of public lectures, for example to the University of the Third Age, in Edinburgh.

At the end of 2012 Veronica officially retired from the MRC Human Genetics Unit, University of Edinburgh, but continues to pursue several ongoing projects there and also has established new ones at the Institute of Ophthalmology, University College London. She is Honorary Professor at both universities. She continues to serve on a number of committees (e.g. as Chair of the Muscular Dystrophy Campaign's grant committee; member of Council at the Academy of Medical Sciences) and on several scientific advisory bodies (e.g. Chair of the SAB at the Centre for Genome Research in Barcelona). She is also the Patron of the patient organisation Aniridia Network UK.

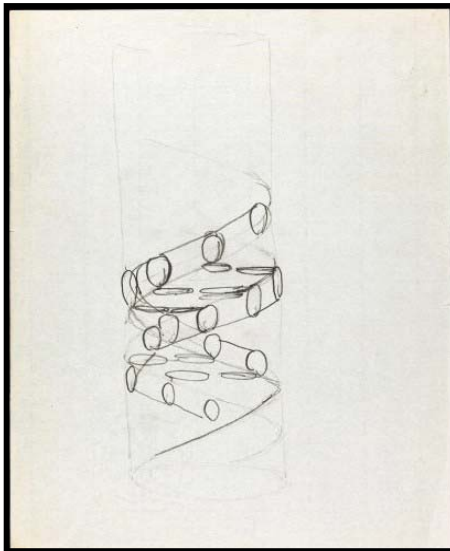
**Dian Donnai**

## Archival records of heredity and genetics

Lesley A. Hall  
Wellcome Library

A significant amount of material relating to the study of heredity and genetics has already been digitised and is now available online for the benefit of researchers. Charles Darwin in particular is well-represented on the World Wide Web. The University of Cambridge has undertaken a massive project to bring together his correspondence as a digital resource,<sup>1</sup> while Darwin Online provides access to texts of his published works, besides an image gallery of manuscript materials from the Darwin papers in Cambridge University Library.<sup>2</sup> Cambridge University Library holds the major collection of Darwin material, although some items are to be found in other repositories. The Natural History Museum has undertaken a similar project for the correspondence of Alfred Russel Wallace.<sup>3</sup>

The recently launched digital project, 'Codebreakers: makers of modern genetics',<sup>4</sup> draws not only on the rich resources of the Wellcome Library – books and journals of relevance as well as collections including the archive of the Eugenics Society,<sup>5</sup> the papers of Carlos Paton Blacker, and of Francis Crick, co-discoverer of DNA – but also the holdings of partner institutions: University College London, King's College London, Glasgow University, and Cold Spring Harbor Laboratory, Long Island, New York, USA, bringing together an impressive array of twenty important archival collections and making them digitally available via the Wellcome Library website. These include, besides Crick's papers, those of James Watson, Maurice Wilkins and Rosalind Franklin.



Francis Crick, sketch of the double helix of DNA, c. 1953, Crick papers, [Wellcome Library PP/CRI/H/1/16](#)

It provides a valuable starting point for the researcher, accessible from the comfort of their own home – providing they have registered (it is possible to e-register online) as Library users.<sup>6</sup> They may not only view the contents of these collections (apart from some items restricted under the Data Protection Act, which still have to be consulted in person in the Library), but download images as pdfs or high- or low-resolution jpegs. However, its coverage of the subject is as yet far from exhaustive and much material as yet remains undigitised.

The Wellcome Library holds a significant amount of archival and manuscript material on heredity and genetics,<sup>7</sup> not all of which has so far been included in Codebreakers – the Archives and Manuscripts catalogue, with further details, can be found at <http://archives.wellcomelibrary.org> – but it is far from the sole repository anyone interested in the history of these topics is likely to want to visit. For example, two major collections of early pioneers, the papers of Sir Francis Galton<sup>8</sup> and of his disciple Karl Pearson,<sup>9</sup> are both held in University College London but have not yet been made digitally available. There are also substantial groups of papers of J. B. S. Haldane held elsewhere than

UCL. Sir Walter Bodmer's papers have been acquired by the Bodleian Library, which also holds papers of E. B. Ford, C.D. Darlington, and J. R. Baker.<sup>10</sup> The papers of R. A. Fisher are at the University of Adelaide: although he had had no academic connection with this institution, he had retired to Adelaide in 1959, dying there in 1962. A digitisation project is in progress.<sup>11</sup>

A very substantial collection of materials relating to genetics in the American context is to be found the American Philosophical Society Library in Philadelphia,<sup>12</sup> which holds records of numerous notable US geneticists and influential organisations, and their interactions with UK counterparts, as well as some holdings of papers of British scientists. Cold Spring Harbor Laboratory also holds significant collections of personal papers of scientists associated with it,<sup>13</sup> as well as its own institutional archives and those of its predecessors.<sup>14</sup>

In many instances, records of an individual are most likely to be found among the special collections of the library of the institution at which they worked, although this is not necessarily a good guide in the case of those who had peripatetic careers, or papers may be scattered in several different locations. It is probable that the library of any institution which was a particularly noted centre of genetic research will include papers of individual researchers, the records of departments, laboratories and research units, and also possibly of relevant societies and associations. For example, the John Innes Centre Historical Collection not only holds the papers of several eminent individuals who were associated with it, including William Bateson and C. D. Darlington, but also the papers of the Nitrogen Fixation Laboratory and of the Genetical Society.<sup>15</sup>

The first resort for finding out about the papers of any specific individual or institution is the National Register of Archives, maintained by

the Historical Manuscripts Commission, which is now part of The National Archives. This is a central point for the collection and dissemination of information on the whereabouts of manuscripts and archives. It is searchable by personal and corporate names, and in the case of individuals, by the terms used in the description (e.g. 'geneticist').<sup>16</sup> The NRA is particularly useful as besides indicating the location of an individual's own personal papers, it lists significant groups of correspondence with family, friends and colleagues to be found among their papers.

tive, Department of Education and Science, the Agriculture, Fisheries and Food Department, the Ministry of Health and even the Foreign Office.

The Wellcome Library is currently engaged in an exciting new initiative to collect and preserve the records of the Human Genome Project. The preliminary steps of this involve identifying and locating individuals and institutions of interest and discovering whether historical records survive and if arrangements have already been made for their transfer



Eugenics Society exhibition stand, 1930s, Wellcome Library, Eugenics Society archives, SA/EUG/G.40

Besides the papers of individuals and the archives of institutions, societies and funding bodies, the records of central government held in The National Archives may also prove useful: the records of the Medical Research Council are a particularly rich resource for material on genetics in the twentieth century, even if they do not contain the records of specific MRC research units – the archives of the MRC Blood Group Research Unit, for example, are now in the Wellcome Library and form part of Codebreakers, along with the papers of Robert Race and Ruth Sanger. Additional relevant material can be found in the records of the Health and Safety Commission and Execu-

to suitable repositories for the benefit of future researchers, and to encourage both individuals and organisations to think about the records they are creating and to take measures for the preservation for posterity. This enterprise involves some specific challenges because of the significance of computing and digitally-born records in the study of the genome. A number of collections have already been transferred to the Wellcome Library or have been promised: the first is already catalogued and available to researchers (a special prefix, GRL, identifies Human Genome Project collections in the Archives and Manuscripts catalogue).

#### ENDNOTES:

- <sup>1</sup> <http://www.darwinproject.ac.uk/darwins-letters>
- <sup>2</sup> <http://darwin-online.org.uk/>
- <sup>3</sup> <http://www.nhm.ac.uk/research-curation/scientific-resources/collections/library-collections/wallace-letters-online/index.html>
- <sup>4</sup> <http://wellcomelibrary.org/using-the-library/subject-guides/genetics/makers-of-modern-genetics/>
- <sup>5</sup> For further information on this particular archive, see Lesley A. Hall, 'Illustrations from the Wellcome Institute Library: the Eugenics Society archives in the Contemporary Medical Archives Centre', *Medical History*, Vol. 34 no. 3, July 1990 <http://www.pubmedcentral.nih.gov/pagerender.fcgi?tool=pmcentrez&artid=1036145&pageindex=1> and 'The Eugenics Society archives in the Wellcome Library for the History and Understanding of Medicine', *Galton Institute Newsletter*, 45, Sep 2002 [http://www.galtoninstitute.org.uk/Newsletters/GINL0209/Eugenics\\_Society\\_Archives.htm](http://www.galtoninstitute.org.uk/Newsletters/GINL0209/Eugenics_Society_Archives.htm)
- <sup>6</sup> <http://wellcomelibrary.org/using-the-library/joining-the-library/>
- <sup>7</sup> Downloadable pdf available at : <http://wellcomelibrary.org/content/documents/31302/heredity-and-genetics-archives.pdf>
- <sup>8</sup> <http://www.ucl.ac.uk/library/special-coll/galton.shtml>
- <sup>9</sup> <http://www.ucl.ac.uk/library/special-coll/kpearson.shtml>
- <sup>10</sup> [http://www.bodleian.ox.ac.uk/bodley/finding-resources/special/western\\_rarebooks/scientific](http://www.bodleian.ox.ac.uk/bodley/finding-resources/special/western_rarebooks/scientific)
- <sup>11</sup> <http://www.adelaide.edu.au/library/special/digital/fisher/aims.html>
- <sup>12</sup> <http://www.amphilsoc.org/library>
- <sup>13</sup> <http://library.cshl.edu/personal-collections/about-personal-collections>
- <sup>14</sup> <http://library.cshl.edu/special-collections/about-special-collections>
- <sup>15</sup> <http://www.jic.ac.uk/corporate/services-and-products/library/historical-collections.htm>
- <sup>16</sup> <http://www.nationalarchives.gov.uk/nra>
- <sup>17</sup> <http://nationalarchives.gov.uk>

## Generational change in reproductive cultures

Fertility and Reproduction Studies  
Group seminars  
University of Oxford  
Autumn/Michaelmas term 2013

This timely seminar series, generously funded by **The Galton Institute** and the University of Oxford's Institute of Social and Cultural Anthropology, set out to examine inter-generational transmission in the bringing up of children.

In Britain, parenting has become increasingly prominent in political and social discourses. New Labour policies that aimed to reform the parenting practices of 'socially excluded' families have developed into Coalition policies aimed at redressing the inter-generational inadequacies of the '100,000 troubled families'. Amidst these policy-driven anxieties, this seminar series provided a corrective to assumptions about inter-generational continuities in 'problematic' parenting. The eight diverse papers demonstrated profound *changes* across generations, as parents chose to make selective and critical use of the practices, cultures and narratives with which they believed they had been brought up.

More importantly, many of the papers considered generational change not from the perspective of *cohorts*, but in terms of *interactions across generations within families*. The papers explored the *subjective processes* through which parenting practices and advice are resisted, taken on or negotiated. Studies of working class, minority and non-heterosexual British families provided new perspectives. Studies from non-western societies such as Amazonia, Japan and the Caribbean brought out the diversity of repro-

ductive cultures that cannot be subsumed under 'parenting culture'. Uniquely, the seminar series also brought together historians with sociologists and anthropologists working on inter-generational inheritances.

The paper by **Charlotte Faircloth** and **Ellie Lee** (University of Kent) set the stage by reviewing recent debates on 'parenting culture' in countries like Britain. Whilst adults have been caring for infants and children for millennia, there has emerged a new and particular language for bringing up children in the west: that of 'parenting'. The use of the noun 'parent' as a verb, 'to parent', used to mean 'to beget'. However, use of 'parenting' has escalated since the 1970s, according to Faircloth and Lee, and has shifted in meaning. Contemporary 'parenting', they argued, is characterised by its privatized focus on the mother and father, at the expense of allo-parenting; deference to expert authorities; child-centrism; labour intensity and emotional burdens; and expense. Importantly, this new culture of 'intensive parenting' is not undergirded by material concerns about children's health or safety, as children have, by all accounts, never been healthier or safer. Rather, it is because perceptions of children have changed. Children are seen as vulnerable and perfectible; the role of parents has taken on a concomitantly greater importance.

Building on this depiction of generational shifts towards 'parenting culture', **Rosalind Edwards** and **Val Gillies** (University of Southampton and London South Bank University) compared everyday accounts of parenting in the 1960s with contemporary ideas about a 'parenting deficit'. Whilst British politicians today claim that 'disengaged parenting' was not the issue in the past that it is now, Edwards and Gillies showed that these invocations of a 'golden age' of family in the 1950s and 60s are historically inaccurate. They have re-

analysed the archives of classic studies of working class British communities from the 1960s, such as Dennis Marsden's study of Salford slum rehousing. In the 1960s, babies were routinely left alone so that mothers could go to work; young children played outdoors, unsupervised, late into the night; and accidents were relatively frequent. By today's standards, the parenting practices revealed in the data would likely be condemned as irresponsible.

Other papers examined *inter-generational relations* as a nexus for analysis. Two of these papers focussed on *memories* or *constructions of one's own parents*. **Angela Davis** (University of Warwick) presented oral histories with British women who became mothers between the 1960s and 1980s, and explored how their relationships with their mothers influenced their mothering. Davis proposed the psychoanalytic theories of Nancy Chodorow to be useful in understanding how motherhood is reproduced across generations, in both its conscious and unconscious dimensions. Intriguingly, whilst Faircloth and Lee proposed that the 1970s were a crucial period for the emergence of 'parenting culture', Davis found that across the decades of her study there were some women who wanted to emulate the kinds of mothering practices that they had experienced in their own childhoods, but others constructed a narrative of distancing themselves from the model presented by their mothers and seeking to do things differently. The idea of cohort changes over this period thus seems to be much more complicated.

Similarly, **Punita Chowbey** and **Sarah Salway** (Sheffield Hallam University and the University of Sheffield) presented narrative data on South Asian fathers in London and Sheffield. They examined fathers' memories of their own fathers, and demonstrated their significance in providing a model against which they evaluated themselves. To date, South Asian fathers have been stere-

otyped in terms of a 'deficit' model. Existing work has suggested inter-generational transmission of 'deficits' as fathers replicate their own experience, such that, for example, fathers who didn't have resident fathers are found to be less likely to be living with their children. However, Chowbey and Salway found that the majority of fathers were actually *reconstructing* their role and identities in relation to their memories of their fathers. They recognized how their fathers had been constrained by their recent migration to Britain, ill-paid shift work as well as patriarchal models of fatherhood, but they wanted more involvement for themselves.

Moving on from memories to *communication* between generations, **Robert Pralat** (University of Cambridge) presented a study of the family planning ambitions of young non-heterosexual people in Britain. He demonstrated that it is not necessary for communication to be voluble for it to acquire great significance. Whilst there is an older cohort/generation of gays and lesbians who have become parents, making use of the new reproductive technologies, they were a far less significant influence on the thinking of young non-heterosexual people than their own parents. Memories of difficult conversations with their parents, or in some cases ambiguous silences held immense weight in their thinking about parenthood.

In a very different reproductive culture, **Ekaterina Hertog** (University of Oxford) examined illegitimate pregnancies in Japan. Whilst Japan has undergone similar trends of increased sex outside marriage and divorce as in the west, the proportion of children born outside wedlock has stayed at 2 per cent since the 1950s. Social surveys continue to demonstrate extensive moral disapproval for women who become pregnant outside marriage. In this context, the women Hertog worked with experienced extreme anxieties about telling their parents that they were pregnant, and most experienced a rupture in their relationships

with their parents after telling them that they were pregnant. However, in the context of limited state support for single mothers in Japan, the women felt caught in the moral bind that – having to support themselves and their child by going to work – they were simply unable to bring up a child without their parents' practical support.

The theme of *moral judgement* across generations was also brought out in the ethnographic work of **Elizabeth Rahman** (University of Oxford/Anglo-Spanish Foundation) on the Xie people in North-West Amazonia. She examined Amazonian practices of washing newborn babies and infants, which are morally valued to a high degree. A newborn is supposed to be bathed at home in a basin of cold water, by the maternal grandmother, every 4-5 hours, day and night, and for as long as 15-20 minutes; after the cord stump falls off, babies are bathed even more vigorously and lengthily in the waters of the Amazon. This practice is held to produce children who are cool-minded, hard and strong, "like women when they give birth", as one Xie woman explained. Rahman linked these bathing practices to origin myths and cosmologies about the founding of the Amazon by Naparuli, the 'great snake', who gave birth to the river itself. The Xie map a myth-scapes onto the landscape of the river and can point to places where Naparuli adventured with riverine spirits. According to the story of the first pregnancy, the baby emerged with a fish-like body. Today too, babies are born not-quite human, and are made into human persons through these bathing practices, as well as other forms of care. In this portrait of inter-generational transmission through *embodied practice* and the *narration of myth*, it is significant to note that health professionals now advise the Xie to bathe babies infrequently, and in warm water, in the interest of the baby's health; yet Xie women complain that "white people just don't know".

Whilst Rahman presented North-

West Amazonian culture as intensely focussed on reproduction, the Dominican grandfathers explored by **Adom Philogene Heron** (University of St Andrews) superficially seem to present an opposite case. In Caribbean ethnography men have been depicted as uninvolved in reproduction aside from getting women pregnant; families are matri-focal and the men are depicted as peripheral. However, Heron challenged these stereotypes by salvaging men's experiences of kinship, and specifically, the experiences of older men. 'Papa', in Francophone creole, is a respectful term for 'grandfather', but one that conveys informality, proximity and demonstrative practice. The 'papas' he worked with are, as they age, becoming more closely involved with their families than at any other stage in their life. They come to experience a powerful sense of moral responsibility, give up womanizing and take seriously their position as economic provider/protector and patriarch. They are hugely demonstrative and affectively close to their grandchildren; the strictness and distance they upheld with their children gives way to an *expressive, affective world*. Heron showed that the men were ambivalent about this transition and revisited their earlier selves as 'hot-boys', through exuberantly-told narrations about their earlier adventures, directed at younger men.

The seminars make an important intervention in our understandings of inter-generational inheritances. Communication across generations, moral judgements, emulation and distancing, and myths and memories emerged as central elements that are drawn upon in the bringing up of children, a picture which offsets policy discourses on inter-generational inadequacies and 'parenting deficits'.

Although all of the papers suggested that people sometimes grappled with fragments of 'parenting culture', the authority of these cultural expectations should be situated alongside – and often as a relatively minor influence in comparison to – other oral

and textual traditions and embodied practices.

Each of the seminars was attended by students and faculty from the Institute of Social and Cultural Anthropology, Institute of Human Sciences, Medical School and Institute of Ageing, as well as local health and family practitioners from the city of Oxford.

Five of the seminars were recorded as podcasts, and are being made available at:

<http://www.isca.ox.ac.uk/publications/podcasts/>

The convenors have submitted a proposal to the Fertility, Reproduc-

tion and Sexuality series of Berghahn Books, to bring out an edited volume on the basis of the seminars.

**Kaveri Qureshi** (University of Oxford) and **Siân Pooley** (University of Cambridge)

### **'Celebrating Genomics'**

*An A-level conference – sponsored by the Galton Institute*

The Nowgen Centre, Manchester  
9 December 2013

Over 80 A-level students from colleges around Greater Manchester came together to celebrate genomics at a conference last December. They met inspiring genetics scientists, who worked with small groups in interactive sessions to explore the latest research.

2013 marked the anniversaries of two momentous developments in genetics research: it was 10 years since the publication of the 'gold standard' human genome sequence, and 60 years since Watson and Crick identified the structure of DNA. To celebrate these events, the Galton Institute sponsored Nowgen – a centre of excellence in public engagement, education and professional training in biomedicine – put on a conference for young people studying A-level Biology.

The aim of the day was to give the students an insight into cutting edge genomics research, with visits to laboratories in The University of Manchester and Central Manchester University Hospitals NHS Foundation

Trust. This was complemented by the opportunity to try practical experiments in Nowgen's laboratory, to manipulate 'big' data in the bioinformatics suite, and also to discuss the ethical implications of genomics research. Over 25 geneticists contribut-

ed to the conference to share their expertise and enthusiasm for the subject; they talked about not only what they were working on, but also about their career paths and why they loved their work.

Students were given the opportunity to go 'behind the scenes' to visit



Practical experiments in the laboratory

ed to the conference to share their expertise and enthusiasm for the subject; they talked about not only what they were working on, but also about their career paths and why they loved their work.

The day began with a keynote lecture from Professor Bill Newman, Professor of Translational Genomic Medicine at The University of Manchester and Consultant Clinical Geneticist at St Mary's Hospital. This gave the students a fascinating overview of the impact genomics is making on the NHS. Professor Newman described some of his research and

various laboratories around the University and Hospital sites. This gave them a real insight into the world of genomics research. The laboratories included those working on arthritis research, childhood growth disorders, bacterial genomics and the NHS Genetic Diagnostic Laboratories. Splitting the students into small groups meant they had a chance for in-depth discussion and Question and Answer sessions with the geneticists.

The afternoon took the format of a 'genomics marketplace' where students visited three different 'meet the

researcher' sessions, including PhD students talking to small groups about their research, university life and possible career options. Other sessions included a discussion around the ethical implications of genomics research, particularly focussing on whether or not it was a good idea to have their genomes sequenced. Students tried out DNA extractions in Nowgen's laboratory, and used techniques not readily accessible to most A-level students. Students also used the software *Geneious* in the Nowgen bioinformatics suite to compare a

bitter taste receptor gene from different organisms, and to create a phylogenetic tree in order to develop understanding of genetics and evolution.

The concepts introduced during the day were specially chosen to complement the A-level syllabus and to stretch students thinking about genomics and its impact. Feedback from both students and teachers was excellent, with over 97% of the students reporting that they enjoyed the day and learned a lot. The laboratory vis-

its around the University and Hospital, together with the practical activities, were highlights of the day for most students. Teachers were extremely impressed with the content and organisation of the day, with one describing it as "a fantastic and inspirational day".

The event was organised by Emily White, Ruth Brignall and Kate Dack at Nowgen. **The Galton Institute** supported this A-level conference with a grant of £1,000.

## The Birth Control Trust of The Galton Institute

**The Trustees of The Birth Control Trust of The Galton Institute invite applications for funding of projects designed to improve birth control and related matters, such as sexual health. These projects can be either in the UK or overseas in developing countries.**

**Grants of up to £10,000 p.a. will be offered**

**Applications should be made to The General Secretary of the Institute, preferably by email to: [betty.nixon@talk21.com](mailto:betty.nixon@talk21.com).**

## The Galton Institute Conference 2014

To be held at The Royal Society on Tuesday, 4 November, 2014

### GENETICS IN MEDICINE

#### Speakers:

**Professor Sir John Burn** (Overview of Genetic Medicine)

**Professor Sadaf Farooqi** (Genetics and obesity)

**Professor Bobby Gaspar** (Gene therapy)

**Professor Andrew Hattersley, FRS** (Using Genetics to improve care in Diabetes)

**Professor Nazneen Rahman** (Genetics in cancer and treatment)

**Professor Sir David Weatherall, FRS** (What have we learned from genetics for medical care)

**Professor Andrew Wilkie, FRS** (Galton Lecturer: Lionel Penrose and the paternal age effect for mutations—sixty years on)

Admission is free but strictly by ticket  
available from The Galton Institute General Secretary  
[betty.nixon@talk21.com](mailto:betty.nixon@talk21.com)