William Harvey Day 2019
Programme
qmul.ac.uk/whd2019
In 1785, Sir William Blizard established England’s first medical school, The London Hospital Medical College, and in 1843, John Abernethy founded St Bartholomew’s Medical College. These are two of Queen Mary University of London’s four founding institutions and they were established to improve the health and lives of the poor living in east London and the City of London. Their ethos of social justice and commitment to helping the less privileged continue to inform the work of Queen Mary and our faculty of Medicine and Dentistry, Barts and The London School of Medicine.

We are firmly embedded in East London, which is one of the most diverse communities in the UK. This, along with the diversity of our staff and students, is a driving factor behind our success as one of the top Schools of Medicine and Dentistry in the world.

Ranked 3rd in the world for citations in medicine, our pioneering approach to medical research and teaching is driven by the health needs of this local population who offer us a window to the world. This ensures that our ground-breaking research in cancer, cardiovascular, inflammation, trauma and population health not only dramatically improves the outcomes for patients in London, but also has a far-reaching global impact.

This is just one of the many ways in which Queen Mary University of London is continuing to push the boundaries of teaching, research and clinical practice, helping us to achieve the previously unthinkable.
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Welcome to the William Harvey Day 2018
Every year, this event provides a wonderful opportunity to showcase the best of the School’s research in medicine and dentistry, with presentations from outstanding researchers at all stages of their professional careers. Bringing together scientists, clinicians, and medical and dental experts from across the School and the University, William Harvey Day provides a forum for inspiring new projects and collaborations.

Welcome from the Vice Principal (Health) and Executive Dean
I am delighted that we are joined on this occasion by some exceptional guest speakers, all of whom are leaders in their respective fields. This year, our keynote lectures will be given by Professor Sir Nilesh Samani, Medical Director for the British Heart Foundation and BHF Chair of Cardiology at the University of Leicester; Timandra Harkness, a presenter, writer and comedian, who has brought the world of Big Data to millions through her radio shows and documentaries, publishing in 2016 her book Big Data: Does Size Matter?; and Professor Sir Greg Winter, a Nobel Prize-winning biochemist and Master of Trinity College, Cambridge.

I also warmly invite you to explore the poster exhibitions taking place throughout the day in the Great Hall and Pathology Museum. A much anticipated component of the event, the exhibitions are indicative of the breadth and impact of the School’s research, with over 100 posters on display.

Whilst the William Harvey Day is about innovation and developments in medical and dental research, it is also an opportunity to commemorate the historic religious and charitable underpinnings of the hospitals in the local areas, which now comprise Barts Health NHS Trust. This year, I am pleased to welcome Professor Reverend Sandra Eldridge, the School’s Associate Dean for Strategic Development, to preside over the Barts and The London annual St Luke’s-tide service in the Church of St Bartholomew the Great.

It gives me great pleasure to welcome you all to what I am confident will be a stimulating, immersive and highly enjoyable day.

Introduction by Fiona Miller-Smith
Barts Charity is proud to fund the remarkable staff and researchers at Barts and The London School of Medicine and Dentistry at Queen Mary University of London.

With an annual spend of approximately £30m, Barts Charity works closely with the School and Barts Health NHS Trust to provide strategic support for research, state of the art equipment and innovative healthcare projects. We see great drive, commitment and progress from researchers, staff and healthcare professionals to ensure that this funding is applied in ways that will deliver tangible impact.

Two recent projects that we are particularly excited about funding are our contribution of £6.5m to update the historic Charterhouse Square campus facilities and £6.1m to support the School’s lectureship programme, recruiting 16 early career researchers. We are confident that the impact of these grants will be felt both in the near future, and for many future generations.

We are delighted to celebrate some of the outstanding innovations developed at the School of Medicine and Dentistry in partnership with the Trust at the William Harvey Research Day. We anticipate an inspiring and energising day and are pleased you can join us for it.

Professor Fiona Miller-Smith
Chief Executive, Barts Charity

Professor Steve Thornton
Vice Principal (Health) and Executive Dean of the Barts and The London School of Medicine and Dentistry
Programme

All Lectures will be held in the Morris Lecture Theatre, Robin Brook Centre, St Bartholomew’s Hospital, West Smithfield. Posters will be in the Great Hall and Pathology Museum at Barts for viewing throughout the day. Detailed information about the venues can be found on page 10.

### 9am
Welcome
Professor Steve Thornton,
Vice Principal (Health) and Executive Dean

### 9.05-10.15am
Session 1: Professor Federica Marelli-Berg

### 9.05am
Introduction by Professor Sir Mark Caulfield

### 9.10am
Sir Anthony Dawson Lecture
Professor Sir Nilesh Samani
Medical Director of the British Heart Foundation and Professor of Cardiology at the University of Leicester
“Genetics of coronary artery disease - from discovery to practice”

### 9.45am
Dr Diego Villar
Lecturer
“Genomics of the mammalian myocardium across species and disease models”

### 10am
Professor Victoria Sanz-Moreno
Professor of Cancer Cell Biology
“Cytoskeletal dynamics: the Achilles heel of cancer”

### 10.15am
Dr Matthew Traylor
Lecturer in Statistical Genetics
“Insights from Genetic Association Studies in Cerebrovascular Disease”

### 11.15am-1.10pm
Session 2: Professor Frances Balkwill

### 11.15am
Introduction by Professor Frances Balkwill

### 11.20am
Schorstein Lecture
Ms Timandra Harkness
Writer, Broadcaster and Presenter
“Am I My Data?”

### 11.55am
Dr Isabel Lopez-Oliva
Academic Clinical Lecturer / Specialty Registrar in Periodontology
“Rheumatoid arthritis and periodontitis”

### 12.10pm
Dr Esther Murray
Lecturer in Health Psychology
“Understanding Moral Injury in the Context of Healthcare”

### 12.25
Dr Anna De Simoni
NIHR Clinical Lecturer
“Superusers in online health communities – a new force to promote self-care”

### 12.40pm
Dr Vicky Bird
Research Fellow
“It’s not just what you’ve got, but also how you use it! - Advancing resource oriented treatments in mental health”

### 10.30-11.15am
Coffee/Tea, Networking and Viewing Posters in Great Hall and Pathology Museum

6.qmul.ac.uk
12.55pm
Professor Peter Hajek
Director of Clinical Psychology
“E-cigarettes: nicotine delivery and effects on smokers”

1.10-2.10pm
Lunch, Networking, Viewing Posters (Great Hall and Pathology Museum)

1-3.30pm
Barts and the London Alumni AGM (Dean Rees House, Board Room)

2.10-3.10pm
Session 3: Professor Dan Pennington

2.10pm
Professor Phil Eaton
Professor of Cardiovascular Biochemistry
“Redox sensing and signalling – from molecular mechanisms to therapeutic opportunities”

2.25pm
Professor Kamil Kranc
Clinical Professor of Haematology
“Targeting cancer stem cells while enhancing healthy tissue functions – a novel paradigm for cancer therapies”

2.40pm
Dr Louisa James
Lecturer in Immunology
“B cell evolution in the human germinal centre”

2.55pm
Professor Simon Lucas
Professor of Artificial Intelligence / Head of School (EECS)
“The next steps in AI: a ‘game’ perspective”

3.10-3.30pm
Comfort break

3.30pm
Introduction by Professor Dan Pennington

3.40pm
William Harvey Lecture
Sir Greg Winter
Molecular Biologist, Noble Prize Laureate, Fellow of Trinity College Cambridge
“Harnessing Evolution to make New Medicines”

4.15pm
Professor Steve Thornton and David Rampton
Prize Giving Awards

4.25pm
Professor Steve Thornton & Professor Mauro Perretti
Closing Remarks

4.30-5.15pm
Afternoon tea served in the Great Hall

5.10pm
St Luke’s Tide Service, St Bartholomew the Great

The following prizes will be awarded at 4.15pm by David Rampton, Barts Charity Trustee and member of the Grants Committee:

£200 for best oral presentation from an internal candidate judged by members of the Research Deanery

£200 for best poster for each of the 3 themes:
• Discovery Science judged by Dr Pradeepa Madapura and Dr Elena Bochukova
• Population Health judged by Dr David Jolliffe and Dr Valentina Gallo
• Translational Medicine judged by Dr Andrea Malaspina and Dr Stephanie Kermorgant

£200 for best poster for Research Impact, selected by Mr Luke Cridland and Ms Jan Mackie
2 x £50 for best poster with photographic research image judged by Barts Charity representatives.
Biographies of keynotes

**Sir Gregory Paul Winter FRS**

Sir Gregory Paul Winter FRS is a molecular biologist best known for his work on protein engineering and developing technologies to make therapeutic monoclonal antibodies (mAbs). Previously, it had proved impossible to make human mAbs against human self-antigen targets, as required for treatment of non-infectious diseases such as cancer or rheumatoid arthritis - and the corresponding rodent mAbs had provoked immune responses when given to patients. Winter is credited with inventing techniques both to humanise rodent mAbs (1986) and to create fully human mAbs (1990). For his work on “harnessing the power of evolution” Winter was awarded the 2018 Nobel Prize in Chemistry along with George Smith and Frances Arnold.

Winter was cited specifically “for the phage display of peptides and antibodies”, the technology that led to the fully human antibody “Humira”, and which is now the world’s top-selling pharmaceutical drug. He founded three Cambridge-based start-up companies to help develop therapeutic drugs based on his inventions, and his research career has been based almost entirely at the MRC Laboratory of Molecular Biology and the MRC Centre for Protein Engineering, in Cambridge, England. He is a Fellow of Trinity College Cambridge and was Master of the College from 2012-2019.

**Professor Sir Nilesh J Samani**

Nilesh Samani is Professor of Cardiology at the University of Leicester and Honorary Consultant Cardiologist at the Cardiac Centre, Glenfield Hospital, Leicester. He was previously Head of the Department of Cardiovascular Sciences at the University (2003-2016) and Director of the NIHR Leicester Cardiovascular Biomedical Research Unit (2009-2016). His main research interests are in cardiovascular genetics and biological ageing, especially focused on understanding their contribution to coronary artery disease.

Since 2016, Professor Samani has also served as Medical Director of the British Heart Foundation. The BHF is an internationally-leading research charity which funds over £100 million of new research into heart and circulatory diseases each year. The Medical Director is responsible for overseeing the BHF’s research funding and medical activities.
Timandra Harkness is a writer, broadcaster and presenter.


Timandra is a regular on BBC Radio, writing and presenting BBC Radio 4’s FutureProofing series, and documentaries including Data, Data Everywhere, Personality Politics, and Supersense Me for BBC Radio 4, and Are You A Numbers Person? for the BBC World Service Why Factor series. She was also resident reporter on all 8 seasons of social psychology series The Human Zoo.

Since winning the Independent newspaper’s column-writing competition, she has written for many publications including the Telegraph, Guardian, Sunday Times, BBC Focus magazine, WIRED, Men’s Health and Significance (the journal of the Royal Statistical Society).

Timandra chairs and speaks at public events for clients including Cheltenham Science Festival, the Royal Society, the British Council, the Royal Geographical Society, the RSA, the Institute of Ideas, the Wellcome Collection and many others.

After performing improvised & stand up comedy, & touring with a tented circus, she formed the first comedy science double-act in the UK with neuroscientist Dr. Helen Pilcher. Since then she has written and performed scientific and mathematical comedy from Adelaide (Australia) to Pittsburgh PA.

In 2010 she co-wrote & performed Your Days Are Numbered: The Maths of Death, with stand-up mathematician Matt Parker (supported by the Wellcome Trust). They performed the show to average audiences of 100, achieving 3 and 4 star reviews at the Edinburgh Fringe, then toured it in the UK and Australia.

Timandra’s science comedy since then includes cabaret, gameshows, and solo live show Brainsex (also supported by the Wellcome Trust).

Timandra has a BA in Film and Drama with Art & Art History, and a BSc in Mathematics & Statistics.

She is a Visiting Fellow (Knowledge Exchange) in Big Data, Information Rights and Public Engagement with the Centre for Information Rights at the University of Winchester.

For more details, please see [www.timandraharkness.com](http://www.timandraharkness.com)
The Great Hall and Pathology Museum
The event registration desk and the cloakroom is located in the entrance foyer of the Robin Brook Centre. Coffee and lunch will be served in two separate venues: the Great Hall and the Pathology Museum to allow for comprehensive viewing of posters.

Robin Brook Centre
All lectures and oral presentations will be taking place in the Morris Lecture Theatre, which is situated in the Robin Brook Centre. Please note that once the lecture theatre is full you will be directed to either the Patterson Ross or Bainbridge Rooms where the sessions will be live-streamed.

St Bartholomew the Great
The St Luke’s-tide service will take place at 5.30pm in the Church of St Bartholomew the Great, which is located 2 minutes’ walk from St Bartholomew’s Hospital. If you are joining the academic procession, your gown will be available in the Great Hall from 16:45.
This event would not be possible without the generous support of Barts Charity to whom we would like to extend our immense gratitude. We would like to offer our sincere thanks to our keynote speakers, all of whom gave up their time to speak at the event. Finally, we would like to thank all those who have been involved the planning and delivery of the day, including the William Harvey Day Planning Team, Chairs, Judges, and students who have lent their support on the day.