

2ND ANNUAL RESEARCH & INNOVATIONS SYMPOSIUM



HEALTH SERVICES
LABORATORIES

WEDNESDAY 16TH NOVEMBER 2016

For the second Research & Innovations Symposium, HSL have continued their excellent relationship with the Wellcome Collection as the venue. It is an institution steeped in science and medicine history and boasts a World-class array of exhibits and displays.

The venue is overseen by the Wellcome Trust who also run the Wellcome Library which is home to more than 750,000 books and journals as well as an extensive range of manuscripts, archives and films.

HSL are extremely grateful to the Wellcome Collection for their support and we hope that all delegates and sponsors enjoy their visit to the venue.

About the Trust

Sir Henry Wellcome (1853-1936), the founder of the Wellcome Trust, was one of the most fascinating men of his time. A businessman, collector and philanthropist, he was born in the American Wild West but ended his days as a knight of the British Realm. Wellcome co-founded a multinational pharmaceutical company that mastered modern techniques of advertising such as promotion, image and branding.

The wealth that Wellcome's company brought him was invested in amassing an astonishing collection of historical objects, which at the time of his death was larger than that of many of Europe's most famous museums. He also funded pioneering medical research. In his lifetime, scientists funded by Wellcome made great breakthroughs into understanding how our bodies work. After his death, Wellcome's will provided for the creation of the Wellcome Trust. Today, the Wellcome Trust is a champion of science, funding research and influencing health policy across the globe.

The Trust's Philosophy

Good health makes life better. We want to improve health for everyone by helping great ideas to thrive. Science and research expand knowledge by testing and investigating ideas. This new understanding can be applied to health and change medicine, behaviour and society.

That's why we support thousands of curious, passionate people all over the world to explore great ideas, at every step of the way from discovery to impact. Together, we can do more. We can drive reform to ensure that ideas can reach their full potential. And we can give focused, intensive support when we see real opportunities to transform lives. As an independent charitable foundation, we're willing to take risks. We combine the ability to act swiftly with long-term ambition.

That's how we make life better.



The human genome library on display at Wellcome Collection



"Medicine Man" exhibit at Wellcome Collection



Date: 16th November 2016

Dear Delegates,

I would like to welcome you to our 2nd Annual HSL Research and Innovations Symposium.

The Joint Venture is now over a year old and during that time there has been a great deal of activity in developing new laboratories. We are nearing the completion of the Halo building and we hope you will all have a chance to visit it soon. The IT staff have already moved in and the laboratories will open during the first six months of 2017.

During the last year we have developed the infrastructure to support translational research throughout the organisation. Two principles are required (1) the research must be carried out in a way that does not compromise the diagnostic accreditation in our labs and (2) the research has been adequately funded and ethically approved. With these guidelines in place we have now registered over 250 clinical projects or clinical trials and are working closely with the UCL Research Office on developing other research links.

The symposium today has presentations on both translational research and also presentations on some of the new areas of pathology which we are currently supporting. We hope you will enjoy the programme.

The success of the meeting depends as always on the feedback we receive. Please complete the CPD forms and leave them on the admissions desk at the close of the meeting and you will also be able to pick up your Certificate of CPD Credits.

Yours Sincerely

Professor Michael Patton

Group Medical Director
HSL Pathology LLP

Thank you for attending the HSL Research & Innovations Symposium, 2016. We hope this will be an educational and enlightening day - and that you'll use the information you obtain in your daily work. Although we intend today to run in a relaxed manner, we have several polite requests to ensure the smooth running of the event.

Registration Desk

The first desk you will see when entering the "Williams Lounge" is the event registration desk. This will be manned throughout the day so please visit here to pass on any feedback or to ask a question.

CPD Points

Attending the HSL Research & Innovations Symposium will earn 6 credits for RCPATH members. Recent changes to the IBMS system means that credits are no longer awarded. However you can still use your certificate of attendance towards your IBMS CPD diploma. It is important that you complete the CPD survey, which will be given to you when registering for the symposium, if you wish to obtain these points. Upon handing in your survey at the registration desk, you will receive your certificates.

Poster Competition

For 2016, HSL have asked for poster submissions by delegates and other HSL staff, to be displayed at the event. These demonstrations of the excellent work carried out by HSL staff and partners, will be judged during the lunchtime break with a prize awarded to the winner at the end of the day. Abstracts for each entry can be found next to each poster with the titles and authors also published within this show guide.

The judging panel consists of:

Wendy Leversuch, Head of Training for HSL.

Dr Stuart Liddle, Head of Genetics & Molecular Pathology, TDL/HSL

Dr Simon Edwards, Director of Central & North West London, Sexual Health & HIV.

Venue Times

We ask all delegates to adhere to the times shown on the itinerary. The Wellcome Collection are hosting another event directly after the HSL R&I Symposium has ended. Therefore we politely ask that all delegates, and staff have vacated the venue by 6:00pm.

Timings

The HSL Research & Innovations Symposium is a very busy event. There are 10 presenters as well as various exhibits and refreshment breaks to fit in during the day. May we politely ask that delegates arrive promptly at the venue to assist us in keeping to the timings of the event, which are printed on the back of this guide.

Photography

Both HSL and the Wellcome Collection ask that no photography is taken outside of the Auditorium or the trade show area. There will be an official photographer documenting the day. Some of these images will feature in the HSL newsletter and on the HSL website. If you wish to NOT be included in any photography, please mention this at the registration desk.



Professor Bryan Williams addressing the audience at last year's HSL Research & Innovations Symposium



Prof. Michael Patton - Group Medical Director HSL Pathology

Session Chair @ 9:15am & 4:30pm

Professor Patton has been the Medical Director of TDL Pathology since 2012, becoming Medical Director of HSL Pathology when the Joint Venture was established in April 2015.

Prior to this he worked at St Georges establishing the South West Thames Region Genetic Service (serving a population of 3 million) with outpatient services and diagnostic laboratories. He also established the Academic Department of Medical Genetics at St Georges University of London and supervised 12 PhD /MD students. Professor Patton can boast a vast number of publications

with over 200 peer reviewed papers to date and was also instrumental in the discovery of 10 disease genes.

Professor Patton was Dean of Enterprise and Innovation at St Georges and is also founder and Trustee for the Newlife Foundation (formerly Birth Defects Foundation) which has raised over raised over £30m to support medical research and specialist equipment for disabled children.



Dr Vanya Gant - Divisional Director for Infection, UCLH

Session Chair @ 1:25pm

Dr Gant studied medicine at the Middlesex Hospital in London and qualified in 1980. He then gained a decade of clinical experience in general hospital medicine, treating patients across several medical specialities. Following three years of intense research, he gained a PhD in cellular immunology and has since then focused his clinical work within the field of microbiology and infectious diseases.

For five years Dr Gant was a Senior Lecturer in Microbiology within Guy's and St Thomas' Hospitals, during which time he established a specialist clinical infection service, delivered at the bedside of patients in intensive care and in HIV inpatient units. He was also Clinical Director at the University College of London Hospital Trust.

He is currently Consultant in Microbiology and Infectious Diseases, and is also Divisional Clinical Director at University College London Hospitals NHS Trust, where he is responsible for an inpatient infectious diseases ward, which also houses the United Kingdom's Hospital for Tropical Diseases. He is also responsible for London's Tuberculosis Find and Treat Service, a unique London-based outfit which diagnoses TB and ensures treatment completion in the hard to access homeless, who are sometimes also drug and alcohol dependent.



David Byrne - CEO, Health Services Laboratories

Update on HSL Pathology @ 9:30am

David qualified as an accountant in 1987 and following many years in a corporate finance advisory role he joined the boards of a number of healthcare and engineering companies.

He joined the board of The Doctors Laboratory 20 years ago as finance director and has been the chief executive for over 14 years. In 2015 he was appointed as chief executive of Health Services Laboratories and, together with its senior management team, is overseeing the creation of one of Europe's largest and most innovative clinical laboratories.

David has formed and developed a number of businesses in the healthcare sector over the last 20 years and is a non-executive director of companies operating in a wide range of medical related businesses working in sectors such as clinical software, personalised medicine and biotechnology.



**Dr Wai Keong Wong - Consultant Haematologist, UCLH & HSL
Clinical Lead for Haematology, RFL**

The Digital Future in Pathology @ 9:45am

Dr Wai Keong Wong MRCP FRCPath PhD is a Consultant Haematologist specialising in Bone Marrow Diagnostics. He graduated from the University of Newcastle and in addition to a successful career in haematology he provided clinical leadership and innovation in many areas of medical informatics and IT. He has lead on several projects which improved clinical care with electronic prescribing and prescribing and order communications. He has developed "Cellcountr" which is a web based tool for diagnosing blood marrow disorders and is a founder of OpenCancer which coordinates software in oncology. He is co-chair of the National Pathology Informatics Advisory Panel and this year was selected to sit on the National Review of NHS IT which is chaired by Professor Robert Watcher and will report directly to the Minister of Health vaccines, and on innovative cell and gene therapy approaches for the treatment of viral infection, cancer and other diseases.



Dr Alexi Baidoshvili - Consultant Histopathologist, LabPON Netherlands

The Business Case for Digital Histopathology - The LabPON Experience @ 10:15am

Dr Baidoshvili is a Consultant Histopathologist at the Laboratory for Pathology East Netherlands (LabPON). It is one of the largest histopathology labs in Holland with 17 pathologists and 55,000 cases per year. He has lead the digital pathology project for the laboratory and after an initial trial in 2009 decided to completely digitise the histopathology service. This complex project required several stages and a lot of learning and development. The project has allowed the histopathologists have to option to continue to work with microscope slides, but although the option remains most of his colleagues prefer to work with digital images and enjoy the benefits of improved work flow and the facility of obtaining second opinions using electronic images. This is now leading to a national database where all images are stored with a network for data exchange within Holland.



**Prof. Martin Widschwendter - Head of the Department of Women's
Cancer, UCL & Consultant Gynaecological Oncology Surgeon, UCLH**

Female Cancer Prediction using Cervical Cell Omics to Individualise Prevention @ 11:15am

In 2001, having completed his training in Gynaecology and Obstetrics in Austria, Martin worked at the Norris Comprehensive Cancer Centre in Los Angeles (USA) and spent three years as the lead clinician and surgeon of a large breast cancer centre before embarking on a career at UCL/UCLH from 2005 where he undertook sub-speciality training in gynaecological oncology. As the Head of Department of Women's Cancer within the Institute for Women's Health at UCL, he established a research group focusing on the role of early detection, risk prediction and prevention of breast and gynaecological cancers within three major research programmes (EpiFemCare, FORECEE, BRCA PROTECT and BRCA PREVENT).

Martin is an author on more than 150 papers in high impact journals, has contributed to numerous text books and secured more than £16M of grant income in the last ten years. His work has been quoted around 10,000 times and his current H-Index is 48. He has also lectured widely on his research and clinical experience in the UK and abroad.



**Dr Martin Forster - Clinical Senior Lecturer in Experimental Cancer
Medicine & Honorary Consultant in Medical Oncology, UCL/UCLH**

Opening the Door to Clinical Trials in Oncology @ 11:45am

Dr Martin Forster graduated from the University of Newcastle upon Tyne and gained general medical experience in New Zealand, Australia and the United Kingdom, becoming a member of the Royal College of Physicians (UK) in 2000. Since then he has been working in cancer care, training in Medical Oncology at the Oxford Radcliffe and Royal Marsden NHS Trusts. During this time, he achieved a PhD at the Institute for Cancer Research, London, and was awarded the EORTC-PAMM Young Investigator Award in 2004. He completed his specialist training in Medical Oncology in 2008 and was appointed as a UCL Clinical Senior Lecturer and UCH Consultant in Medical Oncology in 2009. Since then he has been running a research-based practice and has been principal / chief investigator for more than 20 early and late phase clinical trials.



Rebecca Gorton - Senior Healthcare Scientist, HSL
Advances in Fungal Diagnostics @ 1:30pm

In 2008 Rebecca Gorton was appointed as a senior health care scientist in Microbiology at the Royal Free Hospital after completing the ACS clinical scientist training scheme. Rebecca's HCS role has focused on the diagnosis of invasive fungal disease after completing a diploma in Medical Mycology at University College London and is in the process of completing her PhD entitled molecular diagnosis of invasive fungal disease. Rebecca lectures at UCL and LSHTM and is an active member of the British Society of Medical Mycology. She has been appointed as the laboratory lead for the Candida group in the newly formed ISHAM Fungal PCR Initiative, aiming to standardise the molecular diagnosis of Invasive Candidiasis.



Prof. Judith Breuer - Professor in Virology, UCL
Changing Pathogen Genomics to Improve the Diagnosis & Management of Infection in Hospitals @ 2:00pm

Judy Breuer is Professor of Virology, Co Director of the Division of Infection and Immunity and Head of Infection at UCL and Clinical lead for Virology at Great Ormond Street Hospital for Children. Her current research interests include the development of high throughput pathogen sequencing directly from clinical material for monitoring drug resistance and outbreaks - allied to this, the development of models to predict clinical outcomes of infection. She has concentrated on applying the methods to hard to culture pathogens such as TB, chlamydia and viruses. At the same time she continues to work on the pathogenesis of varicella zoster virus (VZV), its vaccines and the relationship between viral variation, spread and pathogenesis of disease.



Dr Eleni Nastouli - Consultant Virologist & Clinical Lead for Virology, UCLH
Zika Virus - The Story so Far & What the Future Holds @ 2:30pm

Dr Nastouli is a paediatrician and a virologist by training, leading the Department of Clinical Virology and the UCLH and holds an Honorary Consultant post in Paediatric Infectious Diseases at Great Ormond Street Hospital. In her clinical work, she cares for patients with viral hepatitis, HIV and severe influenza. Her research interests include development of novel diagnostics in collaboration with the Wellcome Trust Sanger Institute and the London Centre for Nanotechnology. She also provides expert virological advice to the MRC/UCL Clinical Trials Unit and PENTAid, an international consortium running HIV clinical trials in children.



Dr Sheryl Homa - Consultant Clinical Lead, TDL Andrology
Service Innovations & Andrology Solutions @ 3:30pm

Sheryl Homa is an HCPC registered Clinical Scientist with a special interest in male fertility. She obtained her degrees in Biochemistry at Imperial College of Science and Technology and the Middlesex Hospital Medical School. She spent a large part of her career as an academic research scientist in the field of oocyte maturation, funded by the National Institutes of Health in the USA. For many years she served as Scientific Director of several fertility clinics in the UK working in both the public and private sectors. She has collaborated on many research projects including investigating calcium signalling in sperm and sperm aneuploidy. More recently her work has focused on oxidative stress, infection and sperm quality.



Prof. Atul Mehta - Consultant Haematologist, Lysosomal Storage Disorders Unit, RFL
Recent Advances in Lysosomal Storage Disorders @ 4:00pm

Professor Mehta is a Consultant Haematologist and Physician at the Royal Free Hospital in London, part of the Department of Haematology of University College London School of Medicine. He completed his undergraduate training at Cambridge University and King's College Hospital. He then trained in General Internal Medicine at King's College Hospital and Hammersmith Hospital in London and in Haematology at the Hammersmith Hospital. His Doctorate in Medicine was sponsored by the Medical Research Council spending two years examining molecular mechanisms underlying aplastic anaemia at the Imperial College, London. He has been in his current post since 1986. He is Clinical Director of one of the nationally designated Lysosomal Storage Disorders Units, which focus on enzyme replacement therapy for LSDs.

Validation of a test measuring oxidation-reduction potential to determine oxidative stress in human semen

A Vassiliou^{1,4}, C Martin¹, A Dawkins¹, C Dorsey², A Killeen¹ and S Homa^{1,3,4}

1 Department of Andrology, The Doctors Laboratory, Wimpole Street, London UK

2 AYTU Biosciences, Inglewood, Colorado 80112 USA

3 Andrology Solutions, Wimpole Street, London UK

4 Department of Biosciences, University of Kent, Canterbury UK

Clinical validation of a test measuring oxidation-reduction potential to determine oxidative stress in human semen

C Martin¹, A Vassiliou^{1,4}, A Dawkins¹, C Dorsey², A Killeen¹ and S Homa^{1,3,4}

1 Department of Andrology, The Doctors Laboratory, Wimpole Street, London UK

2 AYTU Biosciences, Inglewood, Colorado 80112 USA

3 Andrology Solutions, Wimpole Street, London UK

4 Department of Biosciences, University of Kent, Canterbury UK

Improving detection of CPOs in the diagnostic microbiology laboratory

H. Sharma², G. Vanstone¹, I. Balakrishnan²

1 Health Services Laboratories

2 The Royal Free London NHS Foundation Trust

Carbapenemase producing organisms: risk factors for infections and mortality at a London teaching hospital

K. Roulston², Y. Carter², V. Pang², G. Vanstone¹, I. Balakrishnan², D. Mack², R. Smith²

1 Health Services Laboratories

2 The Royal Free London NHS Foundation Trust

Finding the needle in the haystack: Screening for carbapenemase producing organisms (CPOs) at a large London teaching hospital

G. Vanstone¹, D. Mack², I. Balakrishnan²

1 Health Services Laboratories

2 The Royal Free London NHS Foundation Trust

The potential utility of QuickFISH™ on positive blood cultures to inform antimicrobial stewardship decisions

T. Bharucha*¹, R. Gorton², M. Hussein², A. Lyons², D. Mack²

1 Royal Free London NHS Trust, London

2 Royal Free London NHS Foundation Trust, London

Rapid differentiation of Staphylococcus aureus from coagulase-negative staphylococci directly from positive blood cultures: prospective comparison of four rapid methods

G. Satta¹, R. Gorton*², M. Hussein², A. Williams³, N. L. Alston¹, D. Mack²

1 North Middlesex University Hospital NHS Trust, London

2 Royal Free London NHS Trust, London

3 Royal Free London NHS Foundation Trust, London

Is target gene sequencing ready for use in a diagnostic setting? A pilot study of 391 samples from patients with myeloid disorders using TruSight Myeloid panel (Illumina)

E. Nacheva, L. Rai, N. Boneva, R. Dunn, D. Brazma, H. Mazzullo, C. Grace, P. Kottaridis, S. Mackinnon

Monitoring disease kinetics in Myeloid malignancy using Next Generation Sequencing. A Pilot study of 109 samples from patients with myeloid disorders using TruSight Myeloid panel (Illumina)

L. Rai, N. Boneva, R. Dunn, D. Brazma, H. Mazzullo, C. Grace, P. Kottaridis, S. Mackinnon & E. Nacheva

Genome Screening of CD138(+) Enriched Isolates in Multiple Myeloma

T. Boneva*, D. Brazma*, K. Gancheva, C. Grace & E. Nacheva

Molecular Karyotyping is a Cost Neutral Alternative to Fish SScreening for Detection of Clinically Relevant Genome Imbalances in CLL

D. Brazma¹, N. Boneva¹, H. Mazzullo¹, R. Dunn¹, C. Grace¹, M. Lawrie², E. Nacheva³

1 Health Services Laboratories

2 Cytocell Ltd, Cambridge

3 UCL Cancer Institute, London

Comparison of post treatment monitoring of new and old FVIII (FVIII) therapeutic products by on-stage clotting and chromogenic assays: Single centre experience

A. Riddell¹, T. Gandhi¹, S. Vinayagam¹, P. Lawler¹, T. Pollard², P. Chowdary^{*2}

1 Health Services Laboratories

2 Haemophilia & Thrombosis Centre, The Royal Free London NHS Foundation Trust

Human papillomavirus (HPV) DNA and mRNA testing for detection of high-risk and low-risk HPV genotypes in women with normal and abnormal cervical cytology

J. Hussain¹

1 Health Services Laboratories

Concerted Workflow Revision and Antibody Panel Consolidation Using Dry 10 Color Pre-Mixed Cocktails (DuraClone) Reduces Turn-Around-Time and Costs

N. Chavda¹

1 Health Services Laboratories

Immunohistochemical Validation of Oestrogen Receptor Clones EP1 & 6F11

M. Gandy¹, D. Allen¹, P. Jones¹, A. Saetta³, K. Miller¹, J. Linares¹, M. Falzon^{1,2}

1 University College London

2 University College London Hospitals

3 Bart's & The London School of Medicine & Dentistry

Intratumoural Heterogeneity in Breast Cancer - A HER2 Based Case Study

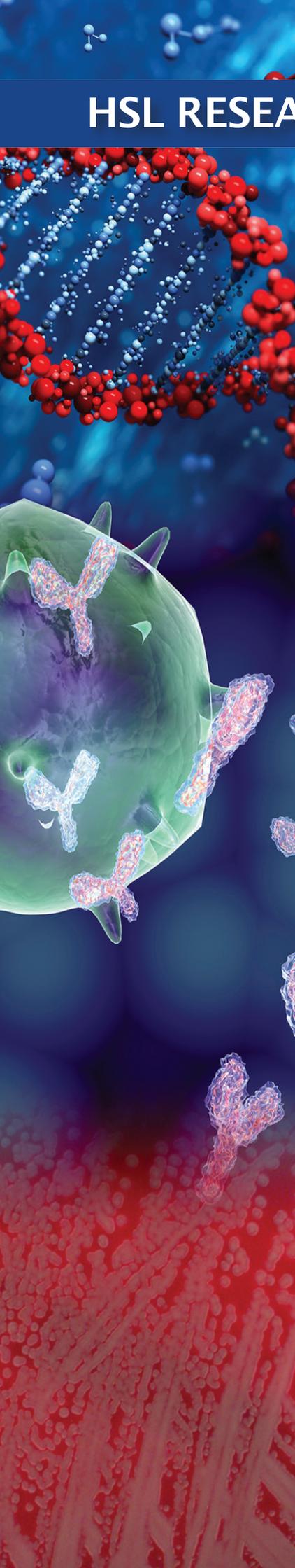
M. Gandy¹, R. Hamoudi¹, A. O'Grady³, D. Allen¹, J. Starcztnski⁴, E. Kay³, M. Falzon^{1,2}

1 University College London

2 University College London Hospitals

3 Royal College of Surgeons, Ireland

4 Heartlands Hospital, Birmingham



Diagnostic pathology services play a major part in the translational research pathway from discovery research through to clinical practice. In any development pathway the interface between research and clinical adoption is a crucial one, leveraging essential expertise on both parts.

New innovations at HSL are supported through key stakeholder representation at the newly established HSL Research and Innovations Board. The aims of this board are to help foster on-going translational activities within the existing HSL pathology labs and to horizon scan for new diagnostic concepts at the research and development and clinical interface.

The innovations team will support the HSL ethos of a strong, dynamic and clinically-led organisation always aiming to maintain the highest quality standards of care, while delivering substantial efficiencies to the NHS through:

- **Economies of Scale** • **Adoption of Best Working Practices**
- **Investment in Infrastructure and IT** • **Leading Edge Technology**

It will also prioritise research and educational opportunities ensuring the service stays at the forefront of patient care. The partnership will retain, recruit, motivate and develop the highest quality workforce by offering an excellent working environment, opportunities for personal and professional development.

In practice, innovations in pathology are often driven through two main overlapping pathways, firstly our continuing drive to improve service efficiency, clinical performance and patient outcomes, and secondly through our established links to academic and educational activities performed by laboratory, clinical and honorary staff members within our organisations.

HSL support of these activities is driven via investment not only in service, but also of equal importance, in workforce training and education. HSL has established links with a number of local Universities, specifically University College London and the University of Westminster which are located within easy reach of our core pathology laboratory campus.

The HSL Research and Innovations Board comprises of:

Chair

Prof Stephen Powis

Medical Director, Royal Free Hospital

Board Members

Prof Judith Breuer

Head of Infection & Immunity, UCL

Prof Anthony Schapira

Head of the Department of Clinical Neurosciences, UCL

Dr Vanya Gant

Divisional Clinical Director for Infection, UCLH

Prof David Lomas

Vice Provost – Health, UCL

Prof Hans Stauss

Director Institute of Immunity & Transplantation, UCL

Dr Raymond Prudo

Director, HSL

Prof Michael Patton

Medical Director, HSL

Dr David Brealey

Consultant in Anaesthesia & Intensive Care Medicine, UCLH

Mr David Byrne

CEO, HSL

Board Affiliates

Dr Martin Forster

Consultant Oncologist, UCLH

Mr Michael Gandy

Scientific Officer, HSL

EVENT ITINERARY

- 8:30am** **Doors Open, Registration, Coffee & Pastries**
- 9.15am** **Introduction to the Day**
Prof. Michael Patton - *Professor of Medical Genetics, Medical Director, TDL/HSL*
- 9.30am** **Update on HSL Pathology**
David Byrne - *CEO, Health Services Laboratories*
- 9.45am** **The Digital Future in Pathology**
Dr Wai Keong Wong - *Consultant Haematologist, UCLH & HSL Clinical Lead for Haematology*
- 10.15am** **The Business Case for Digital Histopathology - The LabPON Experience**
Dr Alexi Baidoshvili - *Consultant Histopathologist, LabPON Netherlands*
- 10.45am** **Coffee Break & Posters**
- 11.15am** **FORECEE (Female Cancer Prediction using Cervical Cell Omics to Individualise Prevention)**
Prof. Martin Widschwendter - *Professor in Women's Cancer, Head of the Department of Women's Cancer, UCL & Consultant Gynaecological Oncology Surgeon, UCLH*
- 11.45am** **Opening the Door to Clinical Trials in Oncology**
Dr Martin Forster - *Clinical Senior Lecturer in Experimental Cancer Medicine & Honorary Consultant in Medical Oncology, UCL/UCLH*
- 12.15pm** **Lunch & Posters**
- 1.25pm** **Opening Remarks from the Chair**
Dr Vanya Gant - *Divisional Director for Infection, UCLH*
- 1.30pm** **Advances in Fungal Diagnostics**
Rebecca Gorton - *Senior Healthcare Scientist, HSL*
- 2.00pm** **Changing Pathogen Genomics to Improve the Diagnosis & Management of Infection in Hospitals**
Prof. Judith Breuer - *Professor in Virology, Honorary Consultant Virologist, GOSH & Co-Director Division of Infection & Immunity, UCL*
- 2.30pm** **Zika Virus - The Story so Far & What the Future Holds**
Dr Eleni Nastouli - *Consultant Virologist & Clinical Lead for Virology, UCLH*
- 3.00pm** **Coffee Break & Posters**
- 3.30pm** **Service Innovations & Andrology Solutions**
Dr Sheryl Homa - *Honorary Senior Lecturer in Biosciences, University of Kent, Consultant Clinical Lead, TDL Andrology*
- 4.00pm** **Recent Advances in Lysosomal Storage Disorders**
Prof. Atul Mehta - *Honorary Senior Lecturer, UCL & Consultant Haematologist, Lysosomal Storage Disorders Unit, RFL*
- 4.30pm** **Closing Remarks**
Prof. Michael Patton - *Professor of Medical Genetics, Medical Director, TDL/HSL*
- 4.35pm** **Meeting Close & Drinks Reception**