



**CONNECTING
IMMUNOLOGY**
IN THE TIME OF COVID-19

BSI VIRTUAL CONFERENCE

1-2 DECEMBER 2020

Welcome



Gary Entrican

On behalf of the BSI's Congress Committee, I would like to welcome you all to the British Society for Immunology's virtual conference 'Connecting immunology in the time of COVID-19'.

This is the BSI's first ever virtual conference at this scale and our committee have worked hard to develop a diverse programme of plenary and parallel sessions covering many of the hot topics within immunology, which we hope will appeal to delegates. With our cutting-edge two-day agenda coupled with our interactive online platform, we aim to bring together immunologists from the UK and worldwide, providing attendees with the latest research developments from internationally acclaimed leaders in their field.

We're honoured to welcome a number of high-profile speakers including our two keynote presenters from the US, Garry Nolan and Akiko Iwasaki. Additionally, we are privileged to be joined by Sir Patrick Vallance, the Chief Scientific Adviser to the UK Government, who will speak in our COVID-19 themed plenary session alongside Paul Moss, the lead for the UK Coronavirus Immunology Consortium.

Among the many other highlights of our programme, I would particularly recommend you attend our Bright Sparks sessions on the first morning, featuring ground-breaking work from promising early career researchers. Additionally, our Coronavirus Panel Discussion on the second afternoon promises to be a fascinating exchange of views on how immunology has fed into the pandemic response. We also have a large poster exhibition – I highly encourage you to visit and learn more about all the innovative work being presented there.

While enjoying our outstanding scientific programme, we also have many features in place to help you network with peers and collaborators old and new. We have several themed chat rooms from the BSI and our sponsors where you can meet those with similar interests. Our innovative speed networking area allows you to be paired randomly with another attendee for a quick informal chat, just as you'd run into someone at a face-to-face conference. We also have a coffee break area where delegates can congregate, meet and network during the breaks.

We especially thank the sponsors and exhibitors who are supporting our virtual conference. I encourage you to visit their virtual booths in the exhibition area to find out more about their work. There are also exciting presentations from our industry partners within the programme for you to attend.

We look forward to welcoming you to our virtual conference for an exciting and innovative mix of the highest quality basic and translational immunological research from around the world.

Gary Entrican
BSI Congress Secretary
On behalf of the BSI Congress Committee



The BSI and you



Arne Akbar

There has never been a more important time to be an immunologist or to be a member of the British Society for Immunology. Our members are at the heart of everything we do. Now with a community of over 4,200 immunologists in 68 countries, the BSI is exceptionally proud of all that our members continue to achieve to advance the science of immunology – this is particularly true this year with the monumental efforts made by immunologists in the UK and worldwide into efforts to combat the COVID-19 pandemic. As BSI President, I am very proud of how our community has stepped up to this challenge. The BSI is here to support you as your community hub, at every stage of your career, no matter which sector you work in.

This is the first time that the BSI has held a virtual conference on this scale. While we all undoubtedly miss the face-to-face camaraderie, the BSI Congress Committee and staff team have been hard at work to ensure that this event is supported by an interactive platform that affords many networking opportunities to bring our community together in a safe environment. As well as bringing you world-class scientific content, this event also has a particular focus on showcasing the work of our wonderful early career researchers – I encourage you to attend the Bright Sparks sessions and to visit the poster area. My generous thanks go to our Congress Secretary Gary Entrican and the whole Congress Committee for putting together such an innovative and exciting programme.

While you are at the virtual conference, do visit the BSI virtual booth to find out more about the work we're doing to support our members throughout their careers and to represent immunology in the wider world.

I hope you enjoy our 'Connecting immunology in the time of COVID-19' virtual conference as much as I will! With optimism for better times ahead,

Arne Akbar
BSI President



Who we are

The British Society for Immunology is the leading UK membership organisation working with scientists and clinicians from academia and industry to forward immunology research and application around the world. Our friendly, accessible community consists of over 4,200 immunologists, giving us a powerful voice to advocate for immunological science and health for the benefit of society. Our staff of 19 work with our Trustees and members to achieve the organisation's aims.

Our mission

The British Society for Immunology's mission is to promote excellence in immunological research, scholarship and clinical practice in order to improve human and animal health. We accomplish this by:

- Working with our members to support current and future generations of immunologists
- Sharing our passion for immunology through meetings, publications and the media
- Building up an understanding of our work by engaging with the public and those working in the research and health environments
- Working with partners in pursuit of our mission, building on common interests.

Connect on Coronavirus

At the start of the pandemic we created an information hub on our website to keep you up to date with developments during the Coronavirus outbreak. It includes BSI actions taken to represent the immunology community to the wider world including policymakers and the public, our highly popular 'Connect on Coronavirus' webinar series, as well as useful information and links to external resources.

Regional & Affinity Groups

Our Groups are a central part of the BSI family, building subject-specific and geographical networks to allow immunologists to make connections and move the discipline forward. This year, we began a webinar series run by and for our Groups to offer an opportunity to come together and share some of the latest findings in their areas of interest.



Journals

The BSI is proud to work with our publishers Wiley and Oxford University Press to produce three official journals, *Immunology*, *Clinical & Experimental Immunology* and our new Open Access journal, *Immunotherapy Advances*. This year, we launched *Immunotherapy Advances* which joined our two established journals taking another step forward in the dissemination of scientific research to foster future innovation for the benefit of the immunology community and society as a whole. Our journals also provide a significant proportion of the Society's income.

Influence and impact

With a powerful voice to represent immunology, we're speaking up in public debates to make sure the voice of our community is heard. Be it in the policy sphere, in the media or through public engagement initiatives, the BSI is determined to put immunology centre-stage to advocate in support of our profession and act as a reliable, trustworthy voice for the discipline.

Building partnerships

We firmly believe that immunology is a central pillar of the life sciences and medical ecosystem, and as such, it's critical that we engage with like-minded organisations to collaborate on areas of common interest. We're building partnerships across the spectrum of immunology to strengthen and support the discipline and develop the infrastructure it needs to succeed.

Webinars

Providing access to credible, useful and informative careers resources is a key aim of the BSI. This year, we took our first foray into the world of webinars. We were particularly keen to trial this in our career development work to ensure that all members, no matter where they are based, had access to our career resources.



British Society for Immunology Annual General Meeting

Our AGM will take place on Monday 14 December at 11:00 GMT and will be held online.

All Society members will receive emails with information about this and we encourage you to attend to find out more about our work.

Congress Committee



Gary Entrican



Arne Akbar



Paul Bowness



James Brewer



Martina Collichia



Mark Coles



Fiona Culley



Colin Dayan



Deena Gibbons



Ian Humphreys



Sinisa Savic



Alexandra Spencer



John Tregoning



Irina Udalova



Linda Wooldridge



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General information

Communications guidelines

The British Society for Immunology welcomes and encourages all delegates to engage with and comment on activities taking place during the BSI virtual conference, both on the conference platform and via social media. Follow our official Congress account on Twitter at @bsicongress to keep up to date with the latest conversations. To ensure the needs of all parties are met, we ask that delegates comply with the following policy both for communications within the conference platform and on social media:

- Please keep all online discussions courteous and constructive.
- All speakers/poster presenters have the right to ask delegates not to disseminate their presentations and/or research findings online or through other forms of media. Delegates are asked to respect the wishes of speakers/presenters who make this request.
- Delegates are encouraged to include the conference hashtag #BSIvirtual in any social media posts they make about the virtual conference.
- If you plan to blog from the virtual conference, we respectfully ask you to inform us before the start of the conference at media@immunology.org.

Photography and recording

Please refrain from taking photos of any presentation slides/posters without prior consent of the speaker/poster presenter. Video and audio recording by delegates is not permitted during sessions. Any official photographs and/or films taken at the conference may be used by the organisers for promotional purposes.

If you have any concerns or queries about this, please visit the helpdesk within the conference platform or contact the BSI at media@immunology.org.



Code of conduct

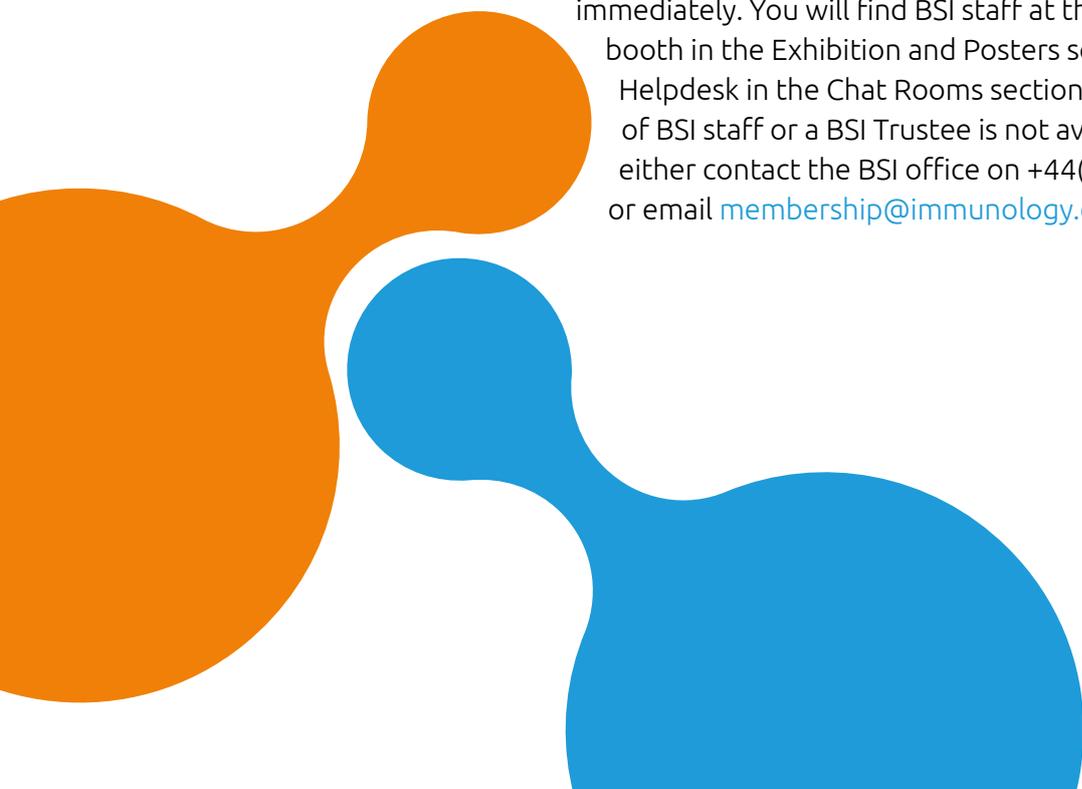
The British Society for Immunology values our staff, members, volunteers and supporters and we are committed to providing a safe environment for everyone we engage with. All staff, members, BSI representatives, event attendees, sponsors and volunteers are required to follow this Code of Conduct. This Code of Conduct applies to all of our events, other activities associated with the BSI, activities where people are representing the BSI and any other instances where the reputation of the BSI may be affected.

Everyone covered by this Code of Conduct is responsible for ensuring that the environment is safe and non-threatening for everyone, regardless of gender, gender identity and expression, age, sexual orientation, disability, physical appearance, race, ethnicity and religion (or lack thereof).

We will not tolerate harassment, discrimination or bullying in any form, at any time. This applies to behaviours at our events as well as on social media and other online platforms.

Any violation of this Code of Conduct will result in the BSI taking appropriate action against the individual(s) concerned. This may result in individual(s) not being admitted to an event, being removed from an event and/or being removed from the membership (if they are a member). The BSI reserves the right to take action as we deem necessary and appropriate.

If you are being harassed, discriminated against or bullied, notice that someone else is being harassed, discriminated against or bullied, or have any other concerns, please contact a member of our staff or BSI Trustee immediately. You will find BSI staff at the BSI virtual booth in the Exhibition and Posters section and at the Helpdesk in the Chat Rooms section. If a member of BSI staff or a BSI Trustee is not available, please either contact the BSI office on +44(0)20 3019 5901 or email membership@immunology.org.



Programme

Day 1 – Tuesday 1 December 2020

09:00 – 09:15 Conference welcome and introduction

09:15 – 12:10 Bright Sparks in Immunology 2020

09:15 – 10:30 Bright Sparks 2020 PhD session

Chair: Donald Palmer, Royal Veterinary College, UK

Bright Sparks 2020 PhD session

09:20 Failures in the recovery of thymus medulla function lead to loss of t-cell tolerance following bone marrow transplantation

Abdullah Alawam, University of Birmingham, UK

09:30 COVID-19 and rheumatoid arthritis share myeloid pathogenic and resolving pathways

Lucy Macdonald, RACE, University of Glasgow, UK

09:40 Heterogeneity of Tregs in helminth infection

Caitlin McManus, University of Glasgow, UK

09:50 Transcriptional rewiring of interferon responses by endogenous retroelements

Kevin Ng, Francis Crick Institute, UK

10:00 Deciphering the cellular and molecular immune response to COVID-19 using single cell multi-omics

Emily Stephenson, Newcastle University, UK

10:10 Akt modulates differentiation of distinct CD8+ memory T cell precursor populations but is dispensable for translational regulation in CD8+ T cells

Gabriela Virdzekova, University of Southampton, UK

10:30 – 11:00 Break and networking time

Please enjoy this break and if you have some time before the start of the next session, please do visit the posters, the booths and connect with others.

11:00 – 12:10 **Bright Sparks 2020 Postdoc session**
Chair: Donald Palmer, Royal Veterinary College, UK

Bright Sparks 2020 Postdoc session

- | | |
|--------------|---|
| 11:00 | Glioblastoma stem cells hijack myeloid-affiliated transcription factors via epigenetic immunoediting to elicit immune evasion
Leanne Bradley, University of Edinburgh, UK |
| 11:10 | A dual-purpose gene mediates subunit switching within mitochondrial cytochrome c oxidase during the macrophage inflammatory response
Sally Clayton, University of Birmingham, UK |
| 11:20 | MAIT cell phenotypic and functional heterogeneity reflects differences in tissue localisation and activation state
Lucy C. Garner, University of Oxford, UK |
| 11:30 | Insights into PD-1 blockade: how the Fc region can modulate the therapeutic activity of monoclonal antibodies targeting PD-1
Julia Moreno-Vicente, University of Southampton, UK |
| 11:40 | TREM2 promotes microglial reprogramming and resilience to subcortical white matter disease in a model of vascular cognitive impairment
Stefan Szymkowiak, University of Edinburgh, UK |
| 11:50 | The parasite cytokine mimic Hp-TGM fully replicates the regulatory effects of TGF-β on murine T cells
Madeleine White, University of Glasgow, UK |

12:10 – 13:00 **Lunch**
Please enjoy this break and if you have some time before the start of the next session, please do visit the posters, the booths and connect with others.

Parallel Session

13:00 – 14:30 Pandemic Vaccines

Chair: John Tregoning, Imperial College London, UK

13:00 Development of the ChAdOx1 nCoV-19/AZD1222 vaccine and measuring the immune response after vaccination

(Invited) Teresa Lambe, University of Oxford, UK

13:30 Bespoke alterations to HLA-DR1-presented epitopes from influenza A virus enhances T cell activation and viral control

Sarah Curtis, Cardiff University, UK

13:45 Mapping of the SARS-CoV-2 spike glycoprotein-derived peptidome presented by HLA-II on dendritic cells reveals a novel molecular signature for glycosylated antigens

Robert Parker, University of Oxford, UK

14:00 Developing a self-amplifying RNA vaccine against SARS-CoV-2; rapid response vaccines for this pandemic and the next

(Invited) Katrina Pollock, Robin Shattock, Imperial College London, UK

Parallel Session

13:00 – 14:30 Advances in Immunotherapy

Chair: Ian Humphreys, Cardiff University, UK

13:00 COVID – lessons from IMiD therapeutics?

(Invited) Iain McInnes, University of Glasgow, UK

13:30 Complement inhibition with C5 blocker LFG316 in severe COVID-19

Wioleta Zelek, Cardiff University, UK

13:45 Gene expression profiling in Inflammatory Bowel Disease identifies characteristics for anti-TNF-alpha response and targets for alternative therapies

Louisa Jeffery, University of Birmingham, UK

14:00 Inhibition of CDK4/6 promotes CD8 T cell memory formation

(Invited) Stephanie Dougan, Dana-Farber Cancer Institute, USA

14:30 – 15:30 Poster session 1, sponsor showcase, networking and chat room sessions

Join one or more of the following chat rooms for moderated discussions

14:30 – 15:00 From early careers to senior immunologists:

Maintaining a successful career in immunology

15:00 – 15:30 How have you been looking after your wellbeing?

Share your tips & tricks or find inspiration from others

15:00 – 15:30 Let's talk about diversity in science

Progress, barriers & potential solutions

15:30 – 16:00 Fluidigm and Miltenyi Biotec presentations

15:30 – 16:00 Remodelling the tumour microenvironment by targeting KRAS-G12C in lung cancer

Chair: Holly Ashcroft, Fluidigm

Speaker: Febe van Maldegem,
The Francis Crick Institute, UK



15:30 – 16:00 Novel research tools to investigate SARS-CoV-2 reactive T cells and antibodies

Chair: Elly Rankin, Miltenyi Biotec

Speaker: Marc Schuster, Miltenyi Biotec,
Germany



16:00 – 17:00 Keynote Presentation

Chair: Ann Ager, Cardiff University, UK

Mapping the dynamic architecture of immune cells in normality and disease

Garry Nolan, Stanford School of Medicine, USA

17:00 – 17:10 Bright Sparks in Immunology 2020 prize presentation and close of day one

Day 2 – Wednesday 2 December 2020

Parallel Session

09:00 – 10:30 Advancing our understanding of infectious disease immunology using challenge models

Chair: Gary Entrican, University of Edinburgh, UK

09:00 Pneumococcus human infection challenge models

(Invited) Daniela Ferreira, Liverpool School of Tropical Medicine, UK

09:30 Susceptibility to respiratory viral infection is driven by neutrophilic inflammation in the airway

Ryan Thwaites, Imperial College London, UK

09:45 HLA-B*27 is associated with enteric fever susceptibility in experimentally challenged human volunteers

Amber Barton, University of Oxford, UK

10:00 Large animal models for host-pathogen interaction studies and vaccinology

(Invited) Jayne Hope, The Roslin Institute, UK

Parallel Session

09:00 – 10:30 Translating tumour immunology

Chair: Mark Coles, University of Oxford, UK

09:00 L-selectin enhanced T-cells and their impact on cancer immunotherapy

(Invited) Ann Ager, Cardiff University, UK

09:30 Innate immune training of granulopoiesis promotes anti-tumour activity

Ioannis Kourtzelis, University of York, UK

09:45 Manipulating T cell signalling to improve anti-tumour immunity

Robert Salmond, University of Leeds, UK

10:00 Learning tumour immunotherapy from COVID-19

(Invited) Adrian Hayday, The Francis Crick Institute, UK

10:30 – 11:00 Break and networking time

Please enjoy this break and if you have some time before the start of the next session, please do visit the posters, the booths and connect with others.

11:00 – 12:00 Immunology and COVID-19

UK Coronavirus Immunology Consortium (UK-CIC)

Paul Moss, University of Birmingham, UK

Myeloid cell features associated with COVID-19

John Grainger, University of Manchester, UK

Invited talk by Sir Patrick Vallance, UK Government Chief Scientific Adviser

12:00 – 12:30 Lunch

12:30 – 13:30 Poster session 2, sponsor showcase, networking and chat rooms

Join one or more of the following chat rooms for moderated discussions

12:30 – 13:00 Teaching in the time of Covid-19

Join this chat room to discuss overcoming new hurdles in a remote working & learning environment

12:30 – 13:00 Bringing your public engagement ideas to life

Join this chat room to learn how the BSI can help you engage with the public

13:00 – 13:30 Multiomic Cytometry

Characterise complex cell suspensions: Profile hundreds of cell surface proteins along with gene expression simultaneously



13:30 – 14:30 Keynote Presentation

Chair: Arne Akbar, British Society for Immunology, UK

Immune response to SARS-CoV-2

Akiko Iwasaki, Yale School of Medicine, USA

14:30 – 15:00 Takeda Pharmaceuticals and Nanostring presentations

14:30 – 15:00 Hereditary Angioedema – Learnings from the Kallikrein Kinin System applied to COVID-19

Chair: Sinisa Savic, University of Leeds, UK

Speaker: Neil Inhaber, Takeda Pharmaceuticals, USA

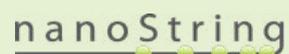
This Scientific Exchange has been initiated and funded by Takeda



14:30 – 15:00 Digital Spatial Profiling: Towards cures in COVID-19 and cancer

Chair: Anne van der Valk, nanoString

Speakers: Graham Taylor, University of Birmingham, UK
Matthew Pugh, University of Birmingham, UK
Kelly Hunter, University of Birmingham, UK



15:00 – 15:45 Break, sponsor showcase, networking and chat rooms

15:15 – 15:45 Moderated chat room on Immunoassay tools for SARS-CoV-2 research

Join the Merck Immunoassay team and join in on the discussion on SARS-CoV-2 antigen testing and the implications for COVID-19 epidemiology



15:45 – 17:00 Coronavirus panel discussion

Chair: Doug Brown, British Society for Immunology, UK

Panellists: Arne Akbar, British Society for Immunology, UK
Clive Dix, UK Vaccines Taskforce, UK
Deborah Dunn-Walters, University of Surrey, UK
Jo Jenkinson, Medical Research Council, UK
Paul Moss, University of Birmingham, UK

17:00 Close of Conference

Speakers & Chairs

Ann Ager

Ann Ager is Professor of Cellular Immunity and Immunotherapy and Theme Lead for Inflammation, Division of Infection and Immunity, School of Medicine and Systems Immunity Research Institute, Cardiff University, Cardiff, UK.

Ann gained a PhD from the University of Cambridge studying inflammatory responses in vascular endothelial cells. After training in microvascular biology with Professor Judah Folkman in Boston, she began her life-long interests in high endothelial venule (HEV) blood vessels and T-cell trafficking as a postdoctoral fellow with Professor Bill Ford at the University of Manchester. Ann gained an MRC Senior Fellowship before moving to a Senior Scientist position at the MRC National Institute for Medical Research in London where she began working on the homing receptor L-selectin/CD62L and its role in disease. Ann moved to Cardiff University in 2007 as Reader and was awarded a personal chair in 2018 where she studies how T-cells move around the body to protect against virus infections, control cancer progression and contribute to neurodegeneration, such as in Alzheimer's disease.



Arne Akbar

Arne Akbar obtained his BSc from King's College London and his PhD from the University of Southampton. He performed his early postdoctoral studies at the Sloan Kettering Cancer Centre and Cornell University Medical College in New York. He then returned to the Royal Free and University College Medical School in London. He is currently Professor of Immunology in the Division of Infection and Immunity at UCL. His research has focused on the understanding of T cell dysfunction, and how this may be reversed during ageing.

Professor Akbar's work involves studies at the interface between academia, industry and clinical practice. He is internationally recognised for his studies on mechanisms that control the differentiation and senescence of human T lymphocytes. His group was also one of the first to identify human regulatory T cells. He was closely involved in the development of Basiliximab (Simulect), used for the prevention of acute solid organ graft rejection (Akbar is a joint patent holder) that has been used to treat ~300,000 patients. His group have also developed cutaneous recall antigen challenge models in humans for the study of immunity *in vivo* that have been adopted by academic and biotech researchers worldwide. His research group consists of basic scientists and



clinicians facilitating the translational aspects of his work. The benefit of this combination is exemplified by the award of a highly competitive multidisciplinary MRC Experimental Medicine Grant (Akbar PI) to investigate whether blocking p38MAP kinase in older humans *in vivo* enhances their responses to recall antigen challenge in the skin. Prof. Akbar has a wide national and international collaborative network, with universities and research organisations in the UK, Europe, the United States and Singapore.

Doug Brown

Doug is the Chief Executive of the British Society for Immunology (BSI) and leads its mission to support and transform immunology research to the benefit of human and animal health.

Using the global reach of the BSI, they are building a best in class membership offer aimed at supporting research and immunologists at all stages of their career as well as leading national and international initiatives to create a thriving immunology research sector and ensure that research is translated into the clinic. Doug comes from an immunology background, having completed a PhD at the University of Cambridge in HIV research, followed by a postdoctoral position at NIMR, Mill Hill (now the Francis Crick Institute) on malaria and stem cells.

He subsequently worked for the MS Society leading their biomedical research programme, followed by the Alzheimer's Society where as Chief Policy and Research Officer, he led a number of high profile initiatives across research and policy including the establishment of the £300m UK Dementia Research Institute. He is a Trustee of the Association of Medical Research Charities (AMRC).



Mark Coles

Mark Coles is a Professor of Immunology, Senior Research Fellow and Director of Graduate Studies at the Kennedy Institute of Rheumatology and theme lead for cellular life at Reuben College at the University of Oxford.

His research interests include stromal (fibroblast) immunology and computational immunology. Half his group are biologists the other half physicists, mathematicians, engineers and computer scientists using interdisciplinary approaches to discover and develop new therapeutics for cancer and inflammatory disease. He is a member of the Arthritis – Therapy Acceleration Program, co-founder of three SMEs: Mestag Therapeutics, Lightox and Simomics (CEO). He is passionate about the BSI and is the incoming Congress Secretary.



Clive Dix

Clive has more than 30 years' experience in life science research, with over 20 years in senior pharmaceutical industry positions and a degree and PhD in Pharmacology. His expertise includes an in-depth understanding of all facets of drug discovery and development, a broad knowledge of the science and commercial landscape of a variety of therapeutic areas and solid experience of the pharmaceutical business and finance community supporting the sector.

Clive was co-founder and chief executive of Convergence Pharmaceuticals Ltd, which was acquired by Biogen in January 2015.

Clive was previously co-founder and chief executive of PowderMed Ltd, a vaccines development company acquired by Pfizer in November 2006. Before that he was senior vice president, research and development and a Board member of PowderJect Pharmaceuticals plc until its acquisition by Chiron Vaccines in 2003. Clive began his career in industry at Ciba-Geigy and then GlaxoWellcome, where he left as UK research director in 2001. Clive is a recent past chairman of the BioIndustry Association, is currently non-executive chairman of Touchlight Genetics Ltd and Centauri Ltd, and is a non-executive member of the Medicines Discovery Catapult Board. Clive is currently the Deputy Chair of the UK Vaccine Task Force.



Stephanie Dougan

Stephanie Dougan received her PhD in Immunology from Harvard University where she studied lipid antigen presentation by CD1d and NKT cell development. She then performed a postdoctoral fellowship with Hidde Ploegh at Whitehead Institute, where she became adept in somatic cell nuclear transfer and embryo manipulations for the purpose of generating transnuclear and CRISPR genome-modified mice.

Dr Dougan joined the faculty at Harvard Medical School and Dana-Farber Cancer Institute in 2014, where her lab uses unique mouse models to study the immune response to tumours. She is particularly interested in tumours that do not induce a CD8 T cell response at baseline, and has been using pancreatic cancer as a model to develop new immunotherapies for non-T cell infiltrated tumours. Dr Dougan is a Pew-Stewart Scholar in Cancer Research, a Bill and Melinda Gates Global Health Innovation Scholar, a Melanoma Research Alliance Young Investigator, and received a Pathway to Leadership Award from the Pancreatic Cancer Action Network and AACR. She is also dedicated to training young scientists, and received a Young Mentor Award from Harvard Medical School in 2019.



Deborah Dunn-Walters

Deborah Dunn-Walters is Professor of Immunology in the School of Bioscience and Medicine, Faculty of Health and Medical Sciences. Her group studies B cell activation and development in Health and Disease, taking a systems immunology approach to elucidate changes in humoral immunity with age and to discover antibodies useful in infectious disease. Her lab is currently working on improved tools to study immune repertoires, including novel methods for single cell analysis at a large scale and particularly as applied to elucidating the antibody responses to SARS-CoV-2 and other respiratory infections.

Deborah encourages interdisciplinary ways of working and is Theme Lead for the University of Surrey Lifelong Health Interdisciplinary Research Theme. She is a Trustee for the British Society for Immunology and currently chairs the BSI Expert Advisory panel on COVID-19. Deborah is also a Trustee with the Dunhill Medical Trust sits on



various strategy and funding panels and is visiting Professor of Immunobiology at King's College London.

Gary Entrican

Gary is an Honorary Professor within the College of Medicine and Veterinary Medicine within the University of Edinburgh.

His research background is veterinary immunology and vaccinology, with a focus on infectious diseases that affect livestock. He has been involved in global 'Immunological Toolbox' initiatives aimed at improving the capability to conduct high-quality immunology research in veterinary species and is a past Chair of IUIS Veterinary Immunology Committee. Currently he is a member of the UK DHSC Vaccine Network and BSI Congress Secretary.



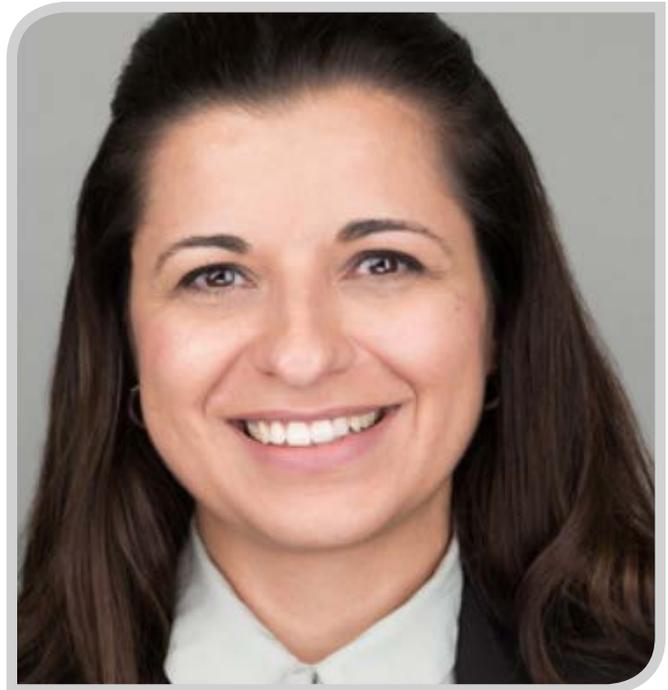
Daniela M. Ferreira

Daniela Ferreira is Professor of Respiratory Infection and Vaccine Immunity, Head of Clinical Sciences Department, Liverpool School of Tropical Medicine.

Prof. Ferreira obtained a PhD in Immunology in 2009 from the University of Sao Paulo (São Paulo, Brazil). From 2001 to 2009 she trained at Butantan Institute (Sao Paulo, Brazil) on development of novel vaccines against respiratory infections. Daniela joined the Liverpool School of Tropical Medicine in 2009 and was appointed as Head of department in 2018. She leads a programme of work on respiratory controlled human infection challenge models for vaccine development, with focus on pneumococcus at the moment. Her research focuses on:

- 1) mucosal (nasal and lung) immune responses and correlates of protection against bacteria and virus respiratory infections
- 2) development and testing of vaccines using controlled human infection challenge models
- 3) the effect of virus respiratory co-infections and host susceptibility (asthma, COPD, ageing, smoke) on immunity to pneumococcus

Dr Ferreira's innovative work on improving vaccines for respiratory infections is supporting the UK's COVID-19 vaccine development programme. Her team is providing expertise for the development and trialling of a number of vaccine candidates, including being a leading site for the Phase III trial of the Oxford Vaccine.



Webpages:

www.lstmed.ac.uk/about/people/dr-daniela-ferreira

www.lstmed.ac.uk/ehpc

www.lstmed.ac.uk/research/departments/clinical-sciences

John Grainger

John Grainger is a Senior Kennedy Trust Research fellow and Deputy Director of Lydia Becker Institute of Immunology and Inflammation at the University of Manchester. His research group is focused on myeloid cell biology and has a particular interest in communication between the gut, lung and bone marrow during infection-driven mucosal inflammation.

John co-established, alongside Prof. Tracy Hussell, the Coronavirus Immune Response and Clinical Outcomes (CIRCO) study, which longitudinally immunophenotyped COVID-19 patients from four hospitals in Greater Manchester during the first wave of the pandemic.

He is part of the UK Coronavirus Immunology Consortium (UK-CIC) and is leading the 500 Immunomes project that is using machine learning approaches to interrogate flow cytometry data acquired from multiple COVID-19 patient cohorts across the UK.



Adrian Hayday

Assistant Research Director, Francis Crick Institute
Kay Glendinning Professor of Immunobiology,
King's College London.

Lead, Clinical Academic Grouping in Genetics,
Rheumatology, Infection, Immunology and
Dermatology King's Health Partners.

Trained in biochemistry and with a PhD in molecular virology, Adrian Hayday took up immunology at MIT where, in 1985, he and his colleagues described the entirely unanticipated T cell receptor gamma chain genes. Since then he has shown gamma-delta T cell biology to be overtly distinct from conventional T cell biology, and provided the first evidence that gamma-delta T cells protect against carcinogens. Since then he has identified molecular mechanisms by which gamma-delta T cells discriminate tumours from normal tissue, and is committed to the cells' clinical application.

He is first or corresponding author on 120 publications out of a total of 220 of which 150 described original research. He has co-authored many patents. His awards include the William Clyde deVane Medal, Yale College's highest honour for scholarship and teaching; the UK Business of Science Award, 2017; and election as fellow of the Royal Society, and of the Academy of Medical Sciences. He was elected to lead the British Society of Immunology from 2005–09 and has organised



major meetings including the Gordon Conference in Immunochemistry and Immunobiology, 2014, and the scientific programme for the European Congress of Immunology, 2012.

He has chaired Wellcome Trust, CRUK, and ACS funding committees, and has served on many advisory boards, including the Pasteur Institute, Paris, and the University of Kyoto. In the private sector he was on the SAB of MedImmune and has co-founded three extant biotech start-up companies.

Jayne Hope

Professor Jayne Hope obtained a degree in Biological Sciences from the University of Birmingham in 1991, and a PhD degree from the University of Manchester in 1994. She then carried out postdoctoral research at King's College London and subsequently at the Institute for Animal Health, Compton.

Professor Hope joined The Roslin Institute, University of Edinburgh in 2011 and was awarded her personal chair in immunology in 2017. Her research group studies cellular immune responses in cattle with a particular focus on understanding the role of innate cells in driving immunity to mycobacterial diseases including bovine tuberculosis and Johne's disease.



Ian Humphreys

Ian Humphreys is a Wellcome Trust Senior Research Fellow and Professor of Viral Pathogenesis at Cardiff University.

His laboratory studies the mechanisms that regulate protective and pathological immune responses during infections with viruses such as cytomegalovirus, influenza and SARS-CoV-2.



Kelly Hunter

Kelly Hunter is the digital pathology specialist for the University of Birmingham Cancer Research UK Centre.

He is responsible for developing the application and expansion of digital analysis methods to immune-phenotyping within the Centre, supporting the identification and clinical validation of predictive biomarkers and facilitating the transition of academic studies into clinical trials.



Neil Inhaber

Global Medical Unit Head, HAE Medical Affairs, Takeda.

As Global Medical Unit Head, Neil leads HAE medical affairs strategy development with a focus on the planning of the HAE product and service launches in the US and internationally. The potential relevance of Takeda HAE products in the treatment of COVID-19 and the urgency of the need is an opportunity to further bring together the roles of healer and industry physician.

Neil brings to Shire 20+ years of academic and private practice experience as a critical care physician in the United States and Canada in addition to 10+ years of worldwide pharmaceutical, medical device, and biotechnology industry experience. In previous roles, Neil headed teams in clinical development from early stage through commercialisation and life cycle management and successfully engaged key stakeholders including the academic and scientific communities, payers, patient organisations, and key opinion leaders.

Prior to joining Takeda, Neil served as Chief Medical Officer of Sequana Medical AG based in



Zurich. Earlier in his career, he held positions in medical affairs and clinical development at Jazz Pharmaceuticals, Novartis, Baxter, and Boston Scientific. Neil received his B.Sc. in Biomedical Engineering from Rensselaer Polytechnic Institute in Troy, NY and an M.D. from McGill University in Montreal.

Akiko Iwasaki

Waldemar Von Zedtwitz Professor of Immunobiology and Molecular, Cellular and Developmental Biology; Professor of Molecular Cellular and Developmental Biology; Investigator, Howard Hughes Medical Institute.

Professor Akiko Iwasaki has made major discoveries in innate anti-viral and mucosal immunity that have resulted in paradigm shifts in the understanding of the immune response to pathogens as well as in vaccine design. Her research focuses on the mechanisms of immune defence against viruses at mucosal surfaces, which are a major site of entry for infectious agents. The knowledge gained in her lab can be used to design more effective vaccines or microbicides to prevent transmission of viral and bacterial pathogens.

Professor Iwasaki's research group developed a new vaccine strategy, termed 'Prime and Pull', that can be used to treat those infected with virus, unlike many vaccines that are given preventatively. This method is currently under phase 2 clinical trials for the treatment of high grade cervical lesions caused by infection with human papillomavirus (HPV).

Professor Iwasaki received her PhD in Immunology from the University of Toronto and completed her postdoctoral training with the National Institutes of Health before joining Yale's faculty in 2000. She has received numerous awards and honors, including the Burroughs Wellcome Fund Career Award in Biomedical Sciences, the Wyeth Lederle Young Investigator Award, the BD Biosciences Investigator Award, and the Seymour & Vivian Milstein Award for Excellence in Interferon and Cytokine Research. Professor Iwasaki has been a Howard Hughes Medical Institute Investigator since 2014, a prestigious honor that provides the researcher



long-term, flexible funding that gives them the freedom to explore new avenues of research. She was elected to the National Academy of Sciences in 2018, and to the National Academy of Medicine in 2019. Dr Iwasaki is also well known for her Twitter advocacy on women and underrepresented minority in the science and medicine fields.

Currently, Professor Iwasaki is directing a translational immunology team to investigate the role of immune response in COVID-19 disease outcome. She also co-directs the IMPACT (Implementing medical and public health actions against coronavirus in Connecticut) team to generate an extensive biorepository for specimens collected from patients and healthcare workers, as well as implementing viral testing in both groups.

Joanna Jenkinson

Joanna Jenkinson is Head of Infection and Immunity at the Medical Research Council (MRC), part of UK Research and Innovation (UKRI).

Jo has overall responsibility for this research portfolio and managing the Infection and Immunity Board (IIB) and its investments including the Units and Centres. IIB's current strategic priorities are infection and immunity through the lifecourse, global health and preparedness, interdisciplinary resistance and data and systems. In this role Jo led the DHSC/UKRI Rapid Response and Rolling calls for Covid-19 which ran from February to July and funded among others UK-CIC, the RECOVERY trial, ISARIC, the early phase of development for both the Oxford and Imperial vaccines as well as much of the modelling that has informed Government policy on Covid-19. These calls considered ~1000 applications from UK researchers.

Previously Jo was Head of Capacity and Skills with responsibility for all the MRC's PhD and fellowships schemes. In this role she led the development of the UKRI Future Leaders Fellowship scheme and developed the evidence and business case for this scheme which secured an additional £900m for UKRI from the Department of Business, Energy and Industrial Strategy.



Jo joined the MRC in 2008 and has since held a range of different posts within MRC Head Office, with responsibility for scientific areas ranging from genetics and cell biology through to neuroimaging, developmental neurobiology and brain banking. She previously led the MRC's mental health and addiction portfolio and wrote the MRC's 2017 Mental Health Strategy.

Teresa Lambe

Associate Professor Teresa Lambe is a Principal Investigator at the Jenner Institute, University of Oxford. Prof. Lambe has been involved in immunology research for over fifteen years with extensive knowledge in the assessment of naturally acquired and post-vaccination immune responses.

Professor Lambe's research programme focuses on developing innovative vaccines against emerging and outbreak pathogens. Outside of her most recent work on the ChAdOx1 nCoV-19 (AZD1222) vaccine, her group have progressed novel vaccine development against lethal haemorrhagic viral diseases such as Ebolavirus, Lassa fever virus and Crimean-Congo haemorrhagic fever. This experience proved to be a dry-run for her recent work developing a vaccine against SARS-CoV-2. As well as her role in the initial design of the ChAdOx1 nCoV-19 vaccine and leading the pre-clinical testing programme, Professor Lambe's group are leading critical laboratory studies evaluating the antibody response post-vaccination.



Iain B. McInnes

Iain McInnes PhD, FRCP, FRSE, FMedSci is Muirhead Professor of Medicine and Versus Arthritis Professor of Rheumatology at the University of Glasgow, Glasgow, United Kingdom. He is Director of the Versus Arthritis Centre of Excellence for Inflammatory Arthritis, led from the University of Glasgow that includes Universities of Oxford, Newcastle and Birmingham. He serves also as the Scientific Director of the Clinical Trials Unit for Greater Glasgow and Clyde Health Board.

He is immediate past chairman of the Forum (Foundation for European Rheumatology Research) Scientific Committee, leads the European Roadmap programme that is defining the research agenda for European rheumatology for the next decade and is currently President of the European League Against Rheumatism (EULAR), the leading trans-national society for rheumatology across Europe. Under these auspices he is creating the first pan-European Rheumatology Research Centre planning to launch in 2021.

His work is mainly focused upon the understanding of the pathogenesis of immune-mediated inflammatory diseases and encompasses basic discovery immunology through phase 1 and proof of concept experimental medicine clinical trials to leadership of pivotal phase 3 trials in the area of immune biology. His laboratory group performed



original discovery work leading to the therapeutic targeting of a several inflammatory cytokines.

More recently he has focused on the biology of myeloid cells in the pathogenesis of a number of immune diseases. He has published >400 peer-reviewed original and review articles with an h-index of >100. He is a Fellow of the Royal Society of Edinburgh and Fellow of the Academy of Medical Sciences. He was made CBE in 2019 by HM Queen Elizabeth II.

Paul Moss

Paul Moss is Professor of Haematology and Deputy Head of the College of Medicine at the University of Birmingham.

He runs an immunology research group with a focus on human viral immunology and holds MRC Programme Grant support. His expertise relates to T cell recognition of viral epitopes and the mechanisms and management of T cell immunity and immunopathology. He was previous Chair of the Infection & Immunity Board at the Medical Research Council and has chaired a range of national initiatives.

Professor Moss is Principal Investigator of the UK Coronavirus Immunology Consortium (UK-CIC) and he leads the National Core Studies Immunity theme.



Garry Nolan

Dr Nolan is the Rachford and Carlota A. Harris Professor in the Department of Pathology at Stanford University School of Medicine. He trained with Leonard Herzenberg (for his PhD) and Nobelist Dr David Baltimore (for postdoctoral work for the first cloning/characterisation of NF-B p65/ RelA and the development of rapid retroviral production systems). He has published over 220 research articles and is the holder of 20 US patents, and has been honored as one of the top 25 inventors at Stanford University.

Dr Nolan is the first recipient of the Teal Innovator Award (2012) from the Department of Defense (a \$3.3 million grant for advanced studies in ovarian cancer), the first recipient of an FDA BAAA, for 'Bio-agent protection' grant, \$3million, from the FDA for a 'Cross-Species Immune System Reference', and received the award for 'Outstanding Research Achievement in 2011' from the Nature Publishing Group for his development of CyTOF applications in the immune system. Dr Nolan has new efforts in the study of Ebola, having developed instrument platforms to deploy in the field in Africa to study Ebola samples safely without the need to transport them to overseas labs (funded by a new \$3.5 million grant from the FDA).

Dr Nolan is an outspoken proponent of translating public investment in basic research to serve public welfare. Dr Nolan was the founder of Rigel Inc. (NASDAQ: RIGL, BINA; a genomics computational infrastructure company sold to Roche Diagnostics), and serves on the Boards of Directors of several companies as well as consults for other biotechnology companies. DVS Sciences, on which he was Chair of the Scientific Advisory Board, sold to Fluidigm for \$207 million dollars (2014) on an investment of \$14 million.

His areas of research include haematopoiesis, cancer and leukemia, autoimmunity and



inflammation, and computational approaches for network and systems immunology. Dr Nolan's recent efforts are focused on a single cell analysis advance using a mass spectrometry-flow cytometry hybrid device (CyTOF) and nanoscale imaging with the 'Multiparameter Ion Beam Imager' (MIBI). The approaches use an advanced ion plasma source to determine the levels of tagged reagents bound to cells – enabling a vast increase in the number of parameters that can be measured per cell – either as flow cytometry devices (CyTOF) or imaging platforms for cancer (MIBI). Further developments in imaging are enabled by CODEX – a system that inexpensively converts fluorescence scopes into high dimensional imaging platforms.

Dr Nolan's efforts are to enable a deeper understanding not only of normal immune function, trauma, pathogen infection, and other inflammatory events but also detailed substructures of leukemias and solid cancers to enable new understandings that will enable better management of disease and clinical outcomes.

Donald B. Palmer

Dr Donald B. Palmer BSc (Hons), MSc, PhD, PGCAP, FHEA: Donald is an Associate Professor of Immunology at the Royal Veterinary College, University of London and Honorary Senior Lecturer in Immunology at Imperial College London.

Donald obtained his PhD at MRC Clinical Research Centre, Northwick Park Hospital. Prior to joining the RVC, Donald worked at Cancer Research UK and Imperial College London; in the latter he obtained an MRC Careers Development Award. His main research interest is focused on understanding the effect of age on the immune system. He is on the Editorial Board of various scientific journals and is currently Education & Careers Secretary of the British Society for Immunology.



Katrina Pollock

Dr Katrina Pollock is a Senior Clinical Research Fellow in Vaccinology and Honorary Consultant at Imperial College London. She is Chief Investigator for the Imperial COVID-19 RNA vaccine trials and Principle Investigator for the Oxford COVID-19 vaccine trials.

She read medicine as an undergraduate at Newnham College, University of Cambridge, and then at Imperial College School of Medicine before completing speciality training as a clinician scientist in genitourinary/HIV medicine and immunology. She now leads a series of experimental medicine, early phase and first-in-human trials for the development of novel vaccines and novel immunisation strategies against a broad variety of pathogens including HIV, chlamydia, Ebola, malaria and most recently SARS-CoV-2 infection.



Matthew Pugh

Matthew Pugh, an MRC Clinical Research Training Fellow, is a specialist trainee histopathologist with an interest in haematopathology currently taking time out of the programme to pursue a PhD at the University of Birmingham.

Dr Pugh was recently awarded an MRC Clinical Research Training Fellowship to study the role of latent human herpesviruses in immune checkpoint therapy adverse events, focusing on Epstein Barr virus and Cytomegalovirus. During the COVID-19 pandemic, his studies expanded to include the influence to checkpoint inhibition on SARS-CoV-2 immunity and the immune response to COVID-19 in tissue. Over the course of the pandemic, Dr Pugh has collated post-mortem tissue from COVID-19 patients with a view to describe the immune response to the virus in the lung and other organs. This work includes basic morphological investigations in addition to multiplex immunohistochemistry and gene expression profiling of SARS-CoV-2 infection in tissue.



Marc Schuster

Marc Schuster is an experienced immunologist and team coordinator in the chemical biology department of Miltenyi Biotec.

During his scientific career at various university hospitals in Germany and the Helmholtz-Centre for Infections Research, Marc acquired a profound understanding of the role of T cells in infectious diseases and cancer. As an assay developer at Miltenyi Biotec, Marc focuses on the detection of both cancer and pathogen-specific T cells.

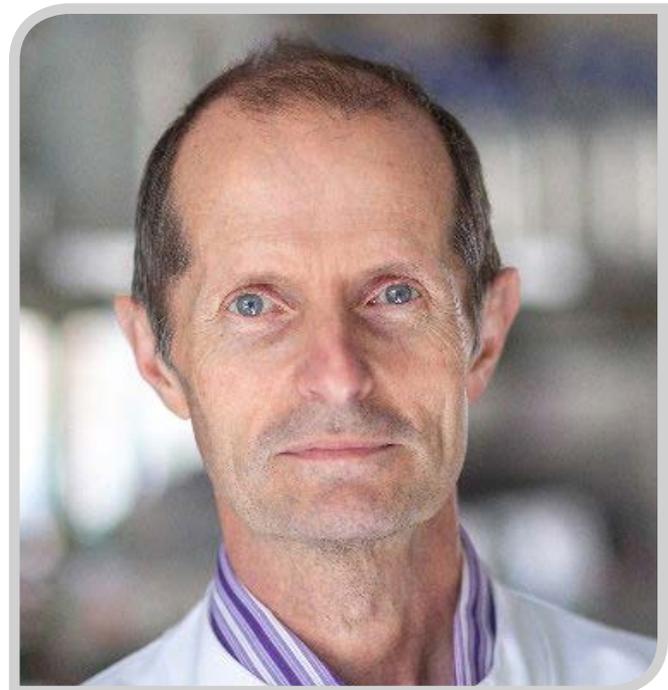


Robin Shattock

Robin Shattock is a Professor of Mucosal Infection and Immunity at Imperial College London. The main focus of his research is the investigation of the mechanisms of mucosal infection and development of novel preventative strategies.

His group has a strong interest in mucosal immune responses to infection and vaccination with active programmes on HIV, Ebola, Lassa, Marburg and Chlamydia. Prof. Shattock has secured funding from the MRC-UK, EPSRC, CEPI and European Commission. He is the scientific director of the European AIDS Vaccine Initiative (EAVI2020) that coordinates a programme of EU funded vaccine research across 22 institutions.

He directs the Future Vaccines Manufacturing Research Hub at Imperial College. His research team is leading a range of clinical trials of candidate vaccines including the development of a CoV2 self-amplifying RNA vaccine.



Prof. Shattock chairs the Research and Advisory Steering Committee of the International Partnership for Microbicides. He is the Founder of VacEquity Global Health and VaxEquity Ltd. He is an elected fellow of the Academy of Medical Sciences.

Graham Taylor

Graham Taylor is a senior lecturer in viral and tumour immunology at the University of Birmingham.

Graham's research primarily focuses on the Epstein-Barr virus and the several different cancers it causes, but has now widened to include SARS-CoV-2 (COVID-19). His interest in high dimensional analysis of complex biological systems started with mass cytometry and is now expanding to include spatial profiling of tissues.



John Tregoning

Reader in Respiratory Infections at Imperial College London.

Dr Tregoning has studied the immune responses to vaccination and respiratory infection for 15 years and has been an independent PI for 10 years.

The Tregoning group's research programme is focused on prevention of respiratory infections. Dr Tregoning has published over 60 articles in the area of immune responses to respiratory infection.

His group has developed a range of *in vivo* and *in vitro* models of infection and vaccination, including RSV, Influenza, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Acinetobacter baumannii*. He has also worked closely with clinical colleagues to move mechanistic studies in mice into experimental medicine human studies. Since 2015, He has been blogging about what it's like to be a principal investigator (drtregoning.blogspot.com) and has written for *Nature*, *Science* and *Times Higher Education*.



Sir Patrick Vallance

Sir Patrick Vallance FRS FMedSci FRCP is Government Chief Scientific Adviser (GCSA) and Head of the Government Science and Engineering (GSE) profession. His personal research was in the area of diseases of blood vessels and endothelial biology.

Patrick was President, R&D at GlaxoSmithKline (GSK) from 2012 until 2017. Prior to this, he was Senior Vice President, Medicines Discovery and Development. He joined the company in May 2006 as Head of Drug Discovery. He was a member of the GSK Board and the Corporate Executive Team. During his period as head of R&D over 14 new medicines were approved for use worldwide, for diseases ranging from cancer to asthma and HIV.

Prior to joining GSK, he was a clinical academic, Professor of Medicine and led the Division of Medicine at UCL. He has over 20 years' experience of basic and clinical research, and was a consultant physician in the NHS. His research spanned from work on medicinal chemistry and structural biology, through to cellular work, studies in humans and use of large electronic health record databases.

He was elected to the Academy of Medical Sciences in 1999 and to the Royal Society in 2017. He was on the Board of the UK Office for Strategic Co-ordination of Health Research (OSCHR) from



2009 to 2016. He is an Honorary Fellow at UCL and holds honorary degrees from Imperial College London, University of Glasgow, University of York and St George's, University of London. He was a non-executive director and board member for UK Biobank and a non-executive board member for Genome Research Limited but stepped down in taking up the GCSA role.

Febe van Maldegem

Febe aims to bring immunotherapy to a wider patient group by rendering the cancer more susceptible to immune attack.

Using preclinical mouse models of lung cancer, Dr van Maldegem tries to identify, characterise and target the immune suppressive mechanism, in order to shift the balance towards tumour rejection.



Company profiles

Fluidigm

Platinum Sponsor



Fluidigm is committed to empowering the immunology community with research tools to interrogate immune cell function and tissue microenvironments in high dimension. Using mass cytometry and genomics workflows, you can obtain unprecedented insight into cellular phenotypes and changes in rare cell populations.

Fluidigm technology can support the response to the global COVID-19 pandemic, enabling applications for SARS-CoV-2 virus detection and the monitoring of the immune system's response to COVID-19 disease. To that end, our technologies are well-positioned for use in providing a robust public research response in support of policies and treatments aligned with local, state and national recovery.

Fluidigm CyTOF® technology with the Maxpar® Direct Immune Profiling Assay™ provides best-in-class immune monitoring with the cost, flexibility, and consistency needed for standardized COVID-19 disease immune monitoring research. Imaging Mass Cytometry™ adds the capability of spatial visualization of immune response in tissue samples. This newly developed technology enables the study of clinical outcomes and changes in inflammatory or immune function directly from whole blood samples or tissues. In addition, labs around the world have leveraged the benefits of Fluidigm microfluidics for research and have implemented high-throughput lab developed tests (LDT) for SARS-CoV-2 detection.

Whether you seek to target new biomarkers and pathways or optimize the effectiveness of an immunotherapy or vaccine, Fluidigm can help you reach your next research breakthrough. Together we'll transform the future of care. Engage with us at fluidigm.com.

Miltenyi

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Miltenyi Biotec

Miltenyi Biotec is a global provider of products and services that advance biomedical research and cellular therapy. Our innovative tools support research at every level, from basic research to translational research to clinical application. This integrated portfolio enables scientists and clinicians to obtain, analyze, and utilize the cell. Our technologies cover techniques of sample preparation, cell isolation, cell sorting, flow cytometry, cell culture, molecular analysis, and preclinical imaging. Our 30 years of expertise spans research areas including immunology, stem cell biology, neuroscience, and cancer, and clinical research areas like hematology, graft engineering, and apheresis. In our commitment to the scientific community, we also offer comprehensive scientific support, consultation, and expert training. Today, Miltenyi Biotec has about 3,000 employees in 28 countries – all dedicated to helping researchers and clinicians around the world make a greater impact on science and health.

NanoString

Platinum Sponsor



NanoString provides life science tools from discovery to translational research.

The company's nCounter® Analysis System offers a cost-effective way to easily profile hundreds of genes, proteins, miRNAs, simultaneously with high sensitivity and precision, for basic research and translational applications, especially in the fields on Immunology and Oncology.

The innovative GeoMx™ Digital Spatial Profiler performs whole slide imaging to discover and profile biomarkers, in situ, by digitally quantifying from 1800 mRNAs to the full transcriptome, or >90 proteins simultaneously, on regions of interest on FFPE or Fresh frozen tissue slices.

Takeda

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Takeda Pharmaceutical Company Limited is headquartered in Japan and is a global, values-based, R&D-driven biopharmaceutical leader committed to bringing Better Health and a Brighter Future to patients by translating science into highly-innovative medicines. Takeda focuses its R&D efforts on four therapeutic areas: Oncology, Gastroenterology (GI), Neuroscience and Rare Diseases. We also make targeted R&D investments in Plasma-Derived Therapies and Vaccines. We are focusing on developing highly innovative medicines that contribute to making a difference in people's lives by advancing the frontier of new treatment options and leveraging our enhanced collaborative R&D engine and capabilities to create a robust, modality-diverse pipeline. Our employees are committed to improving quality of life for patients and to working with our partners in health care in approximately 80 countries and regions.

Additional information about Takeda UK Ltd. is available through its corporate website, www.takeda.com/en-gb.

10x Genomics

Gold Sponsors



The complexity of biology requires technologies to describe and experiment on biological systems at previously inaccessible scale and resolution. Multiomic cytometry is a powerful technique enabling ultra-high parameter cellular phenotyping at single cell resolution. Simultaneously measure hundreds of cell surface epitopes, thousands of mRNA transcripts, antigen receptors and their cognate antigens, and more, cell by cell. Multiomic cytometry uses biomolecules conjugated to oligonucleotide barcodes to detect and quantify cellular analytes, turning a next-generation sequencer into an ultra-high parameter cytometric detector. 10x Genomics Multiomic Cytometry Solutions feature a fast turnaround time, flexibility to choose either whole transcriptome or targeted gene expression, diverse sample compatibility, and an extensive compatible partner catalog of antibody and antigen specificity reagents. Explore and visualize multiomic data types with easy-to-use data analysis software. Collectively, these capabilities enable discovery of novel cell types, functions, and biomarkers; ultra-high resolution characterization of complex tissue types; identification of rare cell populations; regulatory relationships between genes; and tracking of cell trajectories through development, health, and disease. Single Cell Multiomic Cytometry Solutions from 10x Genomics can help push the boundaries of your research.

BD Biosciences

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BD Biosciences delivers innovative research discovery tools for drug discovery, diagnostics and disease management. Check our new educational gaming experience BD Labventure to learn more. Can you make the best choices and get published in the journal of your dreams? Maybe you'll discover the next big thing...or maybe you'll just blow up the lab. With real life rewards and secret endings, every playthrough of BD Labventure is different. Can you get a perfect score and win some BD prizes? There's only one way to find out.

Ready Player One?

Merck

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Merck's immunoassay portfolio offers a complete end to end solution for all immunoassay needs, from ELISA, multiple biomarker detection (Multiplexing MILLIPLEX® assays) to SMC™ (Single Molecule Counting) high sensitivity fg/ml biomarker detection. Our kits offer best in class validation and offer the broadest available selection of unique analytes.

Focusing on SARS-CoV-2, we have launched several important MILLIPLEX® and SMC™ assays to facilitate your research. These include the high sensitivity SMC™ Human SARS-CoV-2 RBD IgG Kit and our MILLIPLEX® kits for the detection of antibodies against SARS-CoV-2 antigens in human serum or plasma samples. These immunoassay kits facilitate COVID-19 research efforts for critical vaccine development, epidemiology, and population research studies. We also have an extensive range of cytokine/chemokine and related kits that have been used for cytokine storm studies. These kits are for research use only Not for use in diagnostic procedures

The Life Science business of Merck KGaA, Darmstadt, Germany, which operates as MilliporeSigma in the U.S. and Canada, has some 21,000 employees and 59 manufacturing sites worldwide, with a portfolio of more than 300,000 products focused on scientific discovery, biomanufacturing and testing services.

STEMCELL Technologies

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Driven by science and a passion for quality, STEMCELL Technologies supports immunology research globally with cell isolation products, specialized cell culture media, primary cells, and supporting reagents. Our popular EasySep™ platform is the fastest and easiest cell separation technology available for isolating untouched, highly purified, functional human and mouse immune cells. Learn more about how you can accelerate the pace of your research with our column-free cell isolation technologies by visiting www.EasySep.com, or get your questions answered directly by chatting with us at our booth!

anvajo GmbH

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anvajo GmbH is a Dresden-based technology company that develops, manufactures, and sells innovative solutions for the analysis of liquids. Their fluidlab R-300 combines an innovative cell counter and a powerful spectrometer in a worldwide unique small, portable format that fits “in your pocket”. With standard cuvettes as well as with glass sample carriers from anvajo a variety of analyses such as absorbance, automatic cell counting and label-free viability measurements can be performed.

Biomage

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At Biomage, our goal is to improve human health by building software to support biomedical research.

Are you trying to analyse a single cell RNA sequencing dataset? The Biomage Single Cell Analysis Platform empowers researchers to take ownership of their single cell analysis. Our user-friendly and intuitive platform guides researchers through data processing, provides data visualisation in interactive plots, and generates fully customisable publication-ready figures. Our platform cuts analysis time from months to hours, and completely removes the need for an expert bioinformatician.

Visit our booth to talk to Dr Vicky Morrison, our CSO, about your single cell analysis needs.

European Congress of Immunology (ECI)

Exhibitor



6th European Congress of Immunology (ECI) will be held in Belgrade, Serbia on September 1 – 4th 2021. In addition to the keynote lectures by Nobel Laureates, the 4-track programme will cover all aspects of modern immunology and workshop sessions will feature new research from young investigators. There will also be industry-sponsored sessions to highlight technological advances and innovations in immunological and biomedical research.

We hope you will join us for an outstanding science and entertaining social programme. See you at ECI 2021!

Check out our website (www.eci2021.org) for more information and updates.

Follow us on social media [ECI2021 \(@2021ECI\) / Twitter!](#)

yEFIS

Exhibitor



The youngEFIS Network (yEFIS) aims to gather all early career scientists in Europe working in Immunology. Within the different European Immunology Societies, self-organised 'Young Immunologist' (YI) groups have arisen in the last years. However, there has been limited contact between them. The aim of this network is to bring all these YI groups together and provide for the first time a European platform to do networking, exchange ideas and projects, bring more visibility to their research and, in general, defend their interests at both national and European level.