



INTERNATIONAL BIOMEDICAL  
RESEARCH ALLIANCE



# NIH OXFORD-CAMBRIDGE SCHOLARS PROGRAMME

## GUEST SPEAKERS

ANNUAL WORKSHOP  
26 - 27 JUNE 2019

KEBLE COLLEGE  
OXFORD



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# DR MANUEL BERDOY



## DIRECTOR FELASA-ACCREDITED TRAINING PROGRAMME

Manuel Berdoy was born in France and has had the privilege to work with animals such as primates in Africa, reptiles in America and penguins in Antarctica.

He then climbed up the alphabet by moving to Britain, settling in Oxford in particular where he completed his D.Phil and worked with wild small mammals (the hardest of them all).

Manuel is director of the FELASA-accredited training programme on Animal Management and Welfare at Oxford University with responsibility for the competence of the large team of biomedical researchers at Oxford.

His interests have ranged from animal behaviour to parasite manipulation and, in the last 15 years, animal welfare, experimental design and statistics, and education in some fields of biomedical sciences. He was awarded the RSPCA Sir Peter Moore award for outstanding contribution to animal welfare science in 2016.

MANUEL WILL BE GIVING A TALK ON:  
THE DESIGN OF EXPERIMENTS: HOW NOT TO RUIN A PERFECTLY GOOD  
IDEA

SUMI WILL BE A PANEL MEMBER OF THE:  
ENTREPRENEURSHIP AND BUSINESS SPINOUTS PANEL SESSION

## ASSOCIATE PROFESSOR SUMI BISWAS



CO-FOUNDER, CHIEF EXECUTIVE OFFICER AND CHIEF  
SCIENTIFIC OFFICER: SPYBIOTECH  
ASSOCIATE PROFESSOR OF IMMUNOLOGY

Recently named as a 'Rising Star' in BioBeat's 50 Movers and Shakers for 2017 list of 50 inspirational women in the BioTech industry.

Sumi is the Co-founder, Chief Executive Officer and Chief Scientific Officer at the new start up SpyBiotech and Associate Professor of Immunology at the Jenner Institute, University of Oxford, leading the Transmission Blocking Malaria Vaccine Group.

Her academic research interests include pre-clinical and clinical development of vaccines against malaria primarily focussing on vaccines to block the sexual development of the malaria parasite in the mosquito vector and block transmission. Other vaccine targets being researched include Ebola virus and Zika virus.

Vaccines currently in clinical development are a nanoparticle vaccine targeting the sexual stage of the malaria parasite. With collaborators in malaria endemic areas including Kenya and Burkina Faso, the

objective is to facilitate malaria vaccine testing where the disease is endemic as early as possible in development.

In recent years, her research group at Oxford University has developed various platforms for generating recombinant protein and virus-like-particle (VLP) vaccines for the induction of high titre functional antibody responses. This research contributed to the formation of spin out company SpyBiotech in early 2017, having won £5 million of early-stage backing from Google's venture capital arm GV and Oxford Sciences Innovation (OSI). SpyBiotech has developed a 'biochemical superglue' that can enable rapid development of robust and highly effective vaccines, making it possible to produce vaccines more quickly, cheaply and effectively.

SpyBiotech are harnessing this unique platform to generate vaccines to major human and veterinary health challenges for Europe, the US and worldwide.

## DR MELODY DUVALL



ASSISTANT PROFESSOR OF ANESTHESIA (PEDIATRICS) AT HARVARD MEDICAL SCHOOL AND A BOARD-CERTIFIED PEDIATRIC CRITICAL CARE MEDICINE SPECIALIST AT BOSTON CHILDREN'S HOSPITAL.

Melody received her DPhil in Immunology from Oxford University through the NIH Oxford-Cambridge Scholars Program under the mentorship of Professor Sarah Rowland-Jones (Oxford) and Dr. Richard Koup (VRC/NIH) on a study of HIV immunology. She received her MD from Washington University in St. Louis School of Medicine and completed her pediatrics residency and pediatric critical care medicine fellowship at Boston Children's Hospital. Dr. Duvall continues to both practice clinical medicine and conduct translational research and is currently funded through an NIH career development award.

Dr. Duvall's research centers on the study of immunologic mechanisms underlying diseases of lung inflammation with a focus on cellular targets and molecular pathways for the resolution of lung inflammation and injury. Her current research is focused on investigating the role of natural killer (NK) cells in the pathophysiology of acute respiratory syncytial virus (RSV)-associated lung inflammation in critically ill infants and children with respiratory failure. In collaboration with Dr. Bruce Levy (levylab.bwh.harvard.edu), Dr. Duvall studies the impact of lipid-derived specialized pro-resolving mediators in enhancing NK cell resolution effector functions. She is also a collaborator on translational research projects in patients with severe asthma focused on immune dysregulation and impaired inflammation resolution in this population. The overarching goal of Dr. Duvall's research is to generate insight into the pathogenesis of severe RSV bronchiolitis and other diseases of overwhelming lung inflammation to identify novel resolution pathways promising for future therapeutic development.

MELODY WILL BE SPEAKING ON: THE DOCTORAL MEDICAL TRACK  
PART OF THE CAREER PATHWAYS AND CAREER BREAKS SESSION

# PROFESSOR ANNA GLOYN



## PROFESSOR OF MOLECULAR GENETICS & METABOLISM WELLCOME SENIOR FELLOW

Anna Gloyn is based jointly at the Oxford Centre for Diabetes Endocrinology and Metabolism & the Wellcome Centre for Human Genetics at the University of Oxford. She is also the current lead for the Diabetes & Metabolism Theme of the NIHR Oxford Biomedical Research Centre and is recognised both nationally and internationally for her work.

Anna undertook her DPhil at the University of Oxford under the supervision of Robert Turner before post-doctoral training at the University of Exeter under the mentorship of Professors Andrew Hattersley and Sian Ellard. During her time in Exeter she obtained a European Foundation for the Study of Diabetes Albert Renold Travel Fellowship which enabled her to spend time in the laboratory of Professor Franz Matschinsky at the University of Pennsylvania. In 2004 she returned to Oxford on a Diabetes UK RD Lawrence Fellowship and set up her own lab investigating glucokinase mutations as a cause of multiple glycaemic phenotypes.

The over-arching aim of her current research is to identify effective therapeutic targets for type 2 diabetes (T2D) treatment through mechanistic studies of proteins causally implicated in T2D risk through human genetics. To achieve this, she works at genome-scale to unlock the effector transcripts at genome wide association study (GWAS) loci using state of the art genomic techniques in recently developed human pancreatic beta-cell models to understand what these proteins do, how they contribute to defects in insulin secretion, what networks they are involved in and how we can leverage this new knowledge to identify therapeutic targets and to use existing therapies more effectively. Her work is highly collaborative and she plays leading roles in multiple international consortia involved in genetic & target discovery for type 2 diabetes working closely with academia, pharma and SMEs.

ANNA WILL BE GIVING A TALK ON:  
GENETICS, DIABETES AND METABOLISM

# TOM HEYMAN



## PRESIDENT JOHNSON & JOHNSON DEVELOPMENT CORPORATION

Tom Heyman is the President of the Johnson & Johnson Development Corporation (JJDC) since April 2015, where he leads the J&J Venture Capital Group.

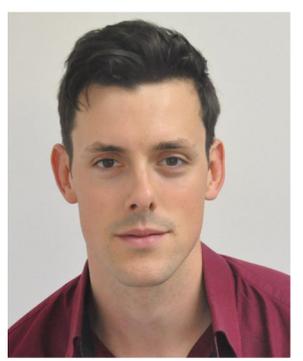
Tom started his career with Johnson & Johnson in the Legal Department of Janssen Pharmaceutica NV in 1982, where he held a management position supporting legal and licensing activities. In 1990, Tom became Vice-President of Corporate Development at Ortho Pharmaceutical Corporation, and was appointed Head of Global Business Development for the Pharmaceutical Group in 1992.

In addition, he was also the CEO of Janssen Pharmaceutica NV in Belgium from November 2008 to November 2016. As of April 2012, he is a member of the Board of Directors and the General Assembly of IMEC. He joined the Board of Directors of the International Biomedical Research Alliance in 2018.

Tom was born in the Congo, Africa, and graduated as Master of Law from the K. U. Leuven in Belgium. He continued with post-graduate studies in International Law in Geneva, Switzerland, and post-graduate studies in Business Management at the University of Antwerp in Belgium.

TOM WILL BE CHAIRING THE:  
ENTREPRENEURSHIP AND BUSINESS SPINOUTS PANEL SESSION

# DR JOE ILLINGWORTH



## CO-FOUNDER DJS ANTIBODIES

In 2015, alongside a fellow DPhil graduate, Dr David Llewellyn, I founded DJS Antibodies where I am now chief scientific officer.

At DJS, we are developing a technology for isolating functional monoclonal antibodies against multi-pass integral membrane proteins such as GPCRs and ion channels. We have deployed this technology to produce mAbs against several novel targets, which are being developed for several disease indications. We have secured investment from pharma, venture capital and non-dilutive grant funding bodies to push these programs forward.

In my day-to-day work at DJS Antibodies I oversee our R&D activities, leading a team of internal scientists, contract research organisations and drawing on expertise from our scientific advisory board.

I am a biochemist by training, graduating from Imperial College London in 2010. I completed my DPhil in the University of Oxford's Jenner Institute in 2014, where I worked on the development of vaccines against malaria.

JOE WILL BE A PANEL MEMBER OF THE:  
ENTREPRENEURSHIP AND BUSINESS SPINOUTS PANEL SESSION

# DR ANDREW ISHIZUKA



## CO-FOUNDER AND CHIEF SCIENTIFIC OFFICER AVIDEA TECHNOLOGIES

Andrew Ishizuka, DPhil, is co-founder and CSO of Avidea Technologies, a Maryland-based biotech company specializing in polymer-based immunotherapies. Avidea's lead product, a personalized cancer vaccine based on self-assembling nanoparticles co-delivering peptide neoantigens and agonists of Toll-Like Receptors -7 and -8, substantially improves the magnitude and breadth of anti-tumor CD8 T cell immunity.

Andrew oversees the pre-clinical proof-of-concept animal testing and translational studies for Avidea's PCV. Clinical testing of Avidea's PCV is planned for 2020.

Prior to co-founding Avidea, Andrew obtained a DPhil through the NIH-OxCam program with Prof. Simon Draper (Jenner Institute, Oxford) and Dr. Robert Seder (Vaccine Research Center, NIH) in 2017, focusing on the clinical translation and immunological mechanism of protection of a live-attenuated malaria vaccine.

Andrew attended medical school at Duke University and has made numerous promises to finish the degree some day.

ANDREW WILL BE A PANEL MEMBER OF THE:  
ENTREPRENEURSHIP AND BUSINESS SPINOUTS PANEL SESSION  
AND  
CAREER PATHWAYS AND CAREER BREAKS SESSION

# DR ANDREW JERMY



## CHIEF PUBLISHING OFFICER

Andrew gained his PhD in Molecular Biology from the University of Manchester, UK, studying fungal protein trafficking and secretion.

He was subsequently a microbiology editor at Nature for more than a decade, joining Nature Reviews Microbiology in 2008 as an Associate Editor after a brief stint as locum editor on Nature Cell Biology.

Over the following 4.5 years Andrew developed a passion for the field, commissioning reviews and writing on all aspects of microbiology. He also took a keen interest in developing new approaches to communicate with the microbiology community.

In January 2013, Andrew joined the Nature team as Senior Editor, handling primary manuscripts from across the field and championing microbiology in Nature's pages and beyond.

Andrew left Nature in April 2015 to become the Chief Editor for the launch of Nature Microbiology. Having helped to establish Nature Microbiology as one of the premier journals in the microbiology publishing landscape, and in search of a better work-life balance, in January 2019 he left Nature to become Chief Publishing Officer (and tea boy) for the family GCSE and A-Level educational resources business established by his wife over the preceding three years.

ANDREW WILL BE GIVING A TALK ON:  
PUBLISHING – LIFE AS AN EDITOR

## ASSOCIATE PROFESSOR MAUREEN KELLEY



### ASSOCIATE PROFESSOR OF BIOETHICS

Maureen Kelley is Associate Professor of Bioethics at the Ethox Centre and Wellcome Centre for Ethics & Humanities in the Nuffield Department of Population Health at University of Oxford.

Dr. Kelley is trained in medical ethics and qualitative social science research, focusing on ethics and women's and children's health, with special attention to vulnerable populations.

She has worked for nearly twenty years as a clinical ethics consultant and instructor in paediatrics, adolescent medicine, and obstetrics.

She has worked closely with clinical researchers on global health projects for the Bill and Melinda Gates Foundation, NIH, NIHGR, H3 Africa, European Research Council, and Wellcome Trust, and served as a consultant for the WHO, EU Border Care, and Nuffield Council on Bioethics to identify practical solutions for ethical challenges in research and implementation projects in maternal-child health.

In partnership with Sassy Molyneux, Vicki Marsh, Janet Seeley, Mike Parker and Phaik Yeong Cheah, she currently leads a Wellcome Trust sponsored collaborative research ethics project in South Africa, Kenya, and Thailand, called REACH (Resilience, Empowerment & Advocacy in Women's and Children's Health Research).

The project seeks to inform the practical ethics guidance for researchers, frontline community health workers, ethics committees, and community advisory boards working in maternal-child health in low-income countries.

MAUREEN WILL BE GIVING A TALK ON:  
BEYOND VULNERABILITY: ETHICAL RESEARCH IN DEVELOPING COUNTRIES

# DR CHARVY NARAIN



## COMMUNICATIONS & PUBLIC ENGAGEMENT MANAGER RADCLIFFE DEPARTMENT OF MEDICINE

Dr Charvy Narain has over a decade's experience in communicating complex science accurately but engagingly to a variety of audiences. She completed a DPhil in cognitive neuroscience at the University of Oxford, where she used fMRI techniques to study speech. She then worked for nearly a decade as an editor at Nature Neuroscience, finishing as senior editor at the journal. She made editorial decisions on papers submitted to the journal, and also wrote for Nature and its sister journals. She has since worked at the University of Oxford press office, writing press releases and managing media coverage for a wide variety of scientific research, as well as writing for the University of Oxford science blog. She also freelanced as a science writer throughout her career, writing for Oxford University Innovation, the Diamond Light Source in Didcot, and for scientific journals.

Besides working in science communication and public engagement with science at the University of Oxford, she also worked within the NHS as a communications manager, establishing research communications for a new National Institute of Health Research Biomedical Research Centre, and handling media coverage for several major research and patient stories.

She organised a busy calendar of public engagement events while at the Nuffield Department of Medicine at the University of Oxford, and she is currently the Communications and Public Engagement manager at the Radcliffe Department of Medicine at the University. Her remit includes managing the department's website and social media, its internal communication, raising the profile of research at the department by highlighting work to the press, and facilitating researchers to engage directly with the public through hand-on activities and face-to-face events.

CHARVY WILL BE SPEAKING ON: SCIENCE COMMUNICATION  
PART OF THE CAREER PATHWAYS AND CAREER BREAKS SESSION

# DAVE NORWOOD



## CHAIRMAN OF THE BOARD GENOMICS PLC

My long career has been spent building a number of science, technology and investment companies.

I am the founder of IP Group plc, one of the UK's leading technology commercialisation businesses. I also founded Oxford Sciences Innovation, the largest university venture fund worldwide.

Following my graduation from Keble College, University of Oxford, where I read History, I joined city investment bank Bankers' Trust. Since then I have been a founder and/or director of many UK technology companies including Oxford Nanopore, Proximagen, Synairgen, Ilika, Oxford Catalysts and Plectrum Petroleum (acquired by Cairn Energy).

Chess has always been a passion of mine and I was awarded the International Master title and International Grandmaster titles in the mid and late eighties.

Currently I am a member of the Internet Chess Club and have on a number of occasions captained, managed, or sponsored the England Squad in major team events such as the Olympiad.

DAVID AND JONNY WILL BE PANEL MEMBERS OF THE:  
ENTREPRENEURSHIP AND BUSINESS SPINOUTS PANEL SESSION

# PROFESSOR CHARLOTTE STAGG



## PROFESSOR OF HUMAN NEUROPHYSIOLOGY WELLCOME CENTRE FOR INTEGRATIVE NEUROIMAGING

Dr Charlotte (Charlie) Stagg is Professor of Human Neurophysiology and Head of the Physiological Neuroimaging Group at the Wellcome Centre for Integrative Neuroimaging (WIN), University of Oxford, UK. She has held a Sir Henry Dale Fellowship, funded by the Wellcome Trust and the Royal Society, since 2014.

Charlie trained in Physiology and Medicine at Bristol University in the UK. She did her DPhil (PhD) research at the Oxford Centre for Functional MRI of the Brain (FMRIB), using advanced neuroimaging to study how the brain learns new motor skills. She was then awarded a Junior Research Fellowship at St Edmund Hall in Oxford, continuing to be based at FMRIB for her post-doctoral work, with research periods at University College London and the University of Miami, Florida.

Her inter-disciplinary group uses multi-modal neuroimaging and non-invasive brain stimulation approaches to understand the physiological processes underlying motor plasticity, both in the context of learning new motor skills and regaining function after a stroke. Her work has two overarching themes: to understand the mechanisms underpinning motor learning, and to develop non-invasive brain stimulation as a potential therapeutic intervention for rehabilitation.

<https://www.ndcn.ox.ac.uk/research/physiological-neuroimaging-group>

twitter: @cjstagg

CHARLIE IS THE MENTOR PRIZE WINNER FOR 2019

# JONNY THOMSON



## OUTREACH MANAGER OXFORD FOUNDRY

Jonny is the Outreach Manager at the University of Oxford's new entrepreneurship centre, the Oxford Foundry, launched by Tim Cook, CEO Apple in October 2017.

The Foundry aims to support and inspire all 24,000 Oxford students to become more entrepreneurial in outlook and action. Jonny provides leadership and direction to the outreach mission of the Oxford Foundry across the University of Oxford by working closely with student societies, divisions, departments and colleges, as well as designing and hosting key events with leading entrepreneurs, thought leaders and corporate partners. In one year, Jonny has developed a student advisory board comprising of presidents from 40+ student societies and has delivered a series of impactful events to help students develop practical entrepreneurial skills.

Jonny is also the founder of Magma Tribe ([www.magmatrIBE.com](http://www.magmatrIBE.com)) - an online platform where he interviews and writes about inspiring entrepreneurs to empower others to do what matters most: building businesses that positively impact our world and having fun while doing it.

Prior to this, Jonny was Partnership Development Manager at a global NGO, Youth Business International (YBI), which works to support young people to start and grow businesses in over 40 countries around the world. Jonny led the development of major partnerships and programmes (\$1m+) with the public and private sectors. He also delivered workshops for CEOs and leadership teams of members of the YBI network in Sweden, Germany and Dominica to develop organizational capacity.

Jonny started his career in the energy sector, working as a sustainability consultant for an international firm which was acquired by Accenture. He provided consultancy support to companies impacted by energy and environmental legislation within the UK and internationally and was responsible for developing sustainable energy development strategies. He holds a BA in Geography from the University of Exeter.

# PROFESSOR RICHARD WADE-MARTINS



## PROFESSOR OF MOLECULAR NEUROSCIENCE OXFORD PARKINSON'S DISEASE CENTRE LEAD

Richard's research is focused on better understanding the molecular mechanisms underlying neurodegenerative diseases, such as Parkinson's disease and Alzheimer's disease with a view to develop novel drugs and targets.

His work combines the development of improved induced pluripotent stem cell (iPSC) derived neuronal culture models, studies on human post-mortem brain tissue, and the generation and analysis of novel transgenic and knockout rodent models of disease.

Richard is Professor of Molecular Neuroscience at Oxford and leads the Oxford Parkinson's Disease Centre, a multi-disciplinary translational research initiative supported by the Monument Trust Discovery Award from Parkinson's UK.

He heads the iPSC Dementia Stem Cell Network for the UK Dementia Platform (DPUK) and previously led the "Neurodegenerative and Neurodysfunctional Diseases" program in StemBANCC, a large EU IMI Program using stem cells for drug discovery.

RICHARD WILL BE GIVING A TALK ON:  
PARKINSON'S IN A DISH: FROM MOLECULAR MECHANISMS TO TARGET  
DISCOVERY

# DR CYNTHIA WRIGHT DRAKESMITH



DATA SCIENTIST  
UNIVERSITY OF OXFORD

I completed my DPhil in immunology with Professor Paul Bowness in the Human Immunology Unit at the Weatherall Institute of Molecular Medicine (WIMM) in 2008, and worked with Professor Benedikt Kessler in Clinical Proteomics as a post-doctoral scientist until 2010.

I then took a seven-year career break to care for my two children, and was awarded a Daphne Jackson Fellowship in 2017 to retrain as a computational biologist at the Centre for Computational Biology in the WIMM.

I am currently a Data Scientist at the Nuffield Department of Primary Health Care Sciences.

CYNTHIA WILL BE SPEAKING ON CHALLENGES AND OPPORTUNITIES, PART OF THE CAREER PATHWAYS AND CAREER BREAKS SESSION

