

Thursday Evening Program 'Dining with Dinosaurs' Information Booklet, Hilary Term 2022



'Pandemics' is the theme for Hilary Term 2022 - We are living through extraordinary times, the success of vaccines and interdisciplinary science has shown what is possible, history has been created, novel technologies developed, how we do science and clinical medicine has changed and lives turned upside down. The Cellular Life theme have put together a program to engage, inspire and stimulate our thinking around the theme 'pandemics'.

In this series of events we will hear from thinkers including: book authors, a documentary film maker, historians, ethicists, scientists, psychologists, engineers, business leaders, investors, entrepreneurs and policy makers. Also lots of opportunities to meet and talk to Cellular Life theme members. We will end the themed events with a visit to the Jenner Museum including the 'Temple of Vaccinia', the world's first vaccination clinic and 11th century Berkeley Castle.

We look forward to seeing you on-line and in person during Hilary Term 2022.

- Cellular Life Fellows

Cellular Life Theme Fellows



Chrystallina Antoniadou



Esther Becker



Ilan Davis



Teresa Lambe



Jane McKeating



Mark Coles



Benjamin Schuster-Bockler

Pandemics Event Overview - Hilary Term 2022

Thursday Night Seminars, 18:00 - 19:00, Museum of Natural History
Followed by Dining with Dinosaurs

Please note that due to the current Covid-19 situation, Weeks 1 and 2 will be online. Meeting links will be available on InkPath. Please note that bookings for these events must be made through [InkPath](#), and the events will appear on InkPath once we are ready to take bookings.

All events are on Thursday evenings, except for:

- Tuesday 22nd February (6th Week), when the documentary 'The Vaccine' will be shown in the Reuben Common Room (free popcorn & drinks) ahead of the Thursday evening conversation with the documentary film maker.
- Sunday 10th April is the Pandemics trip to the Jenner Museum & Berkeley Castle. Coach travel will be arranged for the day trip. Details to follow.

Week 1 20th January	Communicating Science through Books: In Conversation with 3 leading authors: Lucy Ward (The Empress and the English Doctor: How Catherine the Great Defied a Deadly Virus); Daniel Davis (The Secret Body); and John Tregoning (Infectious: Pathogens and How We Fight Them)
Week 2 27th January	How Engineering, Mathematics, Health Tech and AI has Impacted on the COVID-19 Pandemic With Christophe Fraser (Big Data Institute, Oxford) and Lionel Tarassenko (Reuben)
Week 3 3rd February	Ethics of human interventional trials: From COVID19 to TB With Helen McShane (Jenner Institute, Oxford) and Jonathan Pugh (Reuben)
Week 4 10th February	Preparing for the Next Pandemic: A point of view from CEPI and Wellcome With Dr Mike Whelan (CEPI) and Charlie Weller (Wellcome Trust)
Week 5 17th February	Psychological Impact of a Pandemic on Young Minds With Cathy Creswell (Psychology, Oxford)
Week 6 22nd February	Movie Night - 19:30, Reuben College Common Room Ahead of the conversation with Catherin Gale on 17th March, we will be showing the documentary 'Vaccine: The Inside Story' - popcorn will be provided!
Week 6 24th February	In conversation with a film maker: "Vaccine: The Inside Story - making of a BBC/CNN Horizons documentary" With Catherine Gale (Independent Film Maker)
Week 7 3rd March	How Epidemics End: A Multidisciplinary Project - Lessons from History With Sanjoy Bhattacharya (History, York) and Erica Charters (History, Oxford)
Week 8 10th March	A Discussion with Women in Business and Science (Celebrating International Women's Day) With Nicola Blackwood (Reuben), Susan Hill (CEO Mestag), and Liliane Chamas (Principal, Oxford Science Enterprise)
Week 9 17th March	Student take over - Thursday evening TBC
Week -1 10th April	Visit to the Jenner Museum, Temple of Vaccinia, and Berkeley Castle Coach transport will be provided.

In Conversation with 3 Leading Science Authors

January 20th, 18:00-19:00, online

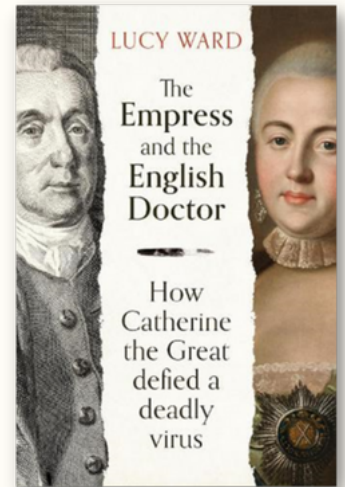
Lucy Ward - Author & Journalist



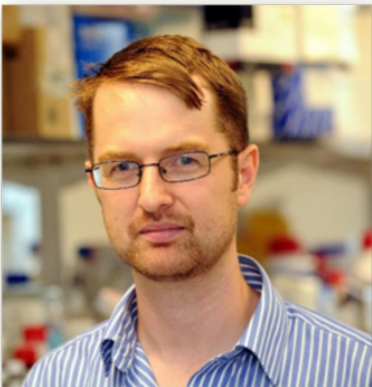
A killer virus... an all-powerful Empress... an encounter cloaked in secrecy... the astonishing true story.

Lucy Ward studied Early and Middle English at Balliol College, University of Oxford before working as a journalist for the Guardian, Independent & Times Educational Supplement for 19 years. She was a communications manager at University of Cambridge, prior to becoming a freelance author.

[Pre-order Lucy's book here.](#)



John Tregoning – Author & Scientist



Nature Wants You Dead: Not just you, but your children and everyone you have ever met and everyone they have ever met; in fact, everyone. It wants you to cough and sneeze and poop yourself into an early grave. It wants your blood vessels to burst and pustules to explode all over your body. And – until recently – it was really good at doing this...

John Tregoning is a Reader in Respiratory Infections at Imperial College and a science communicator, he is a blogger and writes for Guardian, [Nature](#), and Science.

[Buy John's book here.](#)



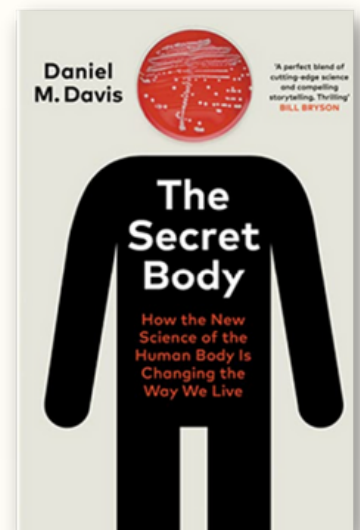
Daniel Davis – Author & Scientist



This book takes us to the frontier of medical research and reveals stunning recent advances that are changing our understanding of how human body works, how we combat and prevent disease and how we understand what it means to be human.

Daniel Davis is a Professor of Immunology at University of Manchester. He did a BSc & PhD in Physics. His research focuses on applying super-resolution microscopy to immunology. He is the author of 3 best selling popular science books, The Compatibility Gene, The Beautiful Cure and The Secret Body

[Buy Daniel's book here.](#)



How Engineering, Mathematics, Health Tech and AI has Impacted on the COVID-19 Pandemic

January 27th, 18:00-19:00, online

Professor Christophe Fraser

Prof. Christophe Fraser is a Senior Group Leader in Pathogen Dynamics in the Big Data Institute and Professor in the Nuffield Department of Medicine. Research in his group focuses on population dynamics and translating this knowledge to public health. Since January 2020, his group has been working on COVID-19, trying to mitigate the epidemic, investigating in depth the idea of contact tracing using a mobile phone app and published a paper in Science detailing the maths behind this approach. This led to the development of a contact tracing app by the NHS in England and Wales. Christophe and his team have acted as advisors to the NHS COVID-19 app, to Google and Apple who support the underlying Exposure Notification technology, and to multiple health authorities who implement digital contact tracing.



Professor Lionel Tarassenko

Professor Lionel Tarassenko CBE FREng FMedSci, is the first president of Reuben College, and Theme Lead for the AI & Machine Learning research cluster. Lionel is a distinguished academic in the field of electrical engineering, and was head of the Department of Engineering Science at the University of Oxford and the driving force behind the creation of the Institute of Biomedical Engineering (IBME), a research institute on the medical campus. Lionel's research interests lie in developing signal processing and machine learning techniques, primarily for healthcare applications. His work has had a major impact on the identification of deterioration in acute care and on the management of chronic disease. Lionel is also passionate about innovation and entrepreneurship. He is a director of the University's wholly-owned technology transfer company, Oxford University Innovation, and has founded four University spin-out companies.



Among his professional awards and recognition, Lionel was elected to a Fellowship of the Royal Academy of Engineering in 2000, and to a Fellowship of the Academy of Medical Sciences in 2013. He was made a CBE for services to engineering in the 2012 New Year's Honours List.

Learn more:

- [Lionel Tarassenko in conversation about wearables in COVID19](#)
- [A Real-Time Wearable System for Monitoring Vital Signs of COVID-19 Patients in a Hospital Setting](#)
- [Learn more about Christophe Fraser's work](#)
- [Quantifying SARS-CoV-2 transmission suggests epidemic control with digital contact tracing](#)

Ethics of Human Interventional Trials: From COVID19 to Tuberculosis

February 3rd, 18:00-19:00, Natural History Museum

Professor Helen McShane

Prof. Helen McShane is a Professor of Vaccinology in the Jenner Institute, NDM; Director of the Oxford NIHR Biomedical Research Centre; Deputy Head, Medical Sciences Division (Translation and Personnel) and an Honorary Consultant Physician. She has led pioneering work on developing next generation vaccines for TB and been heavily involved in COVID-19 clinical trials. She has been a key pioneer in delivering novel aerosol TB vaccines and human challenge models for SARS CoV-2 and TB.



The Oxford Uehiro Centre for Practical Ethics
University of Oxford

Dr Jonathan Pugh

Dr. Jonathan Pugh is Parfit-Radcliffe Richards Senior Research Fellow and Manager of Visitors Programmes for the Oxford Uehiro Centre for Practical Ethics, University of Oxford and a fellow at Reuben College. He is on secondment to the UK Pandemic Ethics Accelerator, harnessing expertise to rapidly integrate ethical thinking into policy-making. Jonathan's research interests lie primarily in issues concerning personal autonomy in practical ethics, particularly topics pertaining to informed consent. [Learn more about the UK Pandemic Ethics Accelerator here.](#)

Tuberculosis

An estimated 2 billion people are infected with latent TB with a 10% risk of going on to develop TB. Annually, over 10 million people develop TB, leading to 1.6 million deaths. There are no efficacious vaccines.

COVID-19

An estimated 287 million have been infected by COVID-19. This has led to 5.43 million deaths. 8.81 billion vaccine doses have been delivered, 3.77 billion people are fully vaccinated. There are multiple highly efficacious vaccines.

Learn more:

TB human challenge studies could accelerate TB vaccine development by reducing uncertainty in early-stage vaccine testing, selecting promising vaccine candidates for large-scale field trials, and identifying an immune correlate of protection. However, ethical concerns regarding the exposure of trial participants and bystanders to significant risk have been a limiting factor for TB human challenge models. We analyze the expected social value and risks of different types of TB human challenge models, and conclude that given the massive public health burden of TB, challenge models with even scant probabilities of expediting TB vaccine authorization have enormous expected humanitarian value, saving between 33,000 and 1,375,000 lives over the next ten years. We argue that attenuated M.tb challenge trials can be conducted ethically, and discuss the benefits and drawbacks of conducting virulent M.tb challenge trials. [Read more here.](#)

[Read more about ethics in interventional trials here.](#)

Psychological Impact of a Pandemic on Young Minds

February 17th, 18:00-19:00, Natural History Museum

Professor Cathy Creswell

Prof. Cathy Creswell is Professor of Developmental Clinical Psychology, in the Departments of Psychiatry and Experimental Psychology, University of Oxford. Cathy is a NIHR Senior Investigator and Research Professor, a honorary consultant clinical psychologist and theme lead for Oxford and the Thames Valley NIHR ARC - Mental Health across the Lifespan.

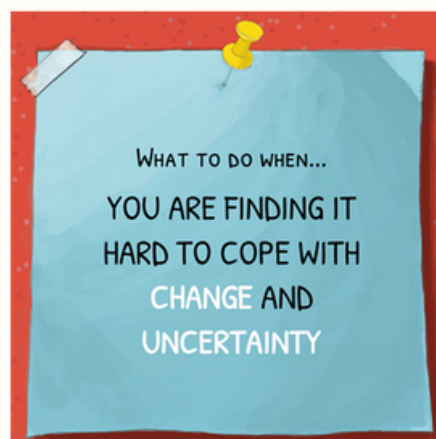
Cathy's research mainly focuses on the development, maintenance and treatment of anxiety disorders in children and young people. Her team in The Oxford Psychological Interventions for Children and adolescents (TOPIC) research group apply a broad range of methods (including experimental, longitudinal, clinical trial and qualitative methods and systematic reviews) with children, young people and families in both community and clinical settings, with the ultimate aim of improving access to and outcomes from psychological treatments for these common conditions.



Learn more:

- Watch Cathy discuss the Emerging Minds Network
- Find out more about the TOPIC research group
- Follow Cathy on her Twitter page

Can we build a mentally healthier world 🌐 post-COVID-19?



In conversation with a film maker: 'Vaccine the inside story – making of a BBC/CNN Horizons documentary'

February 24th, 18:00-19:00, Natural History Museum

Dr Catherine Gale

Dr. Catherine Gale is an award-winning Producer / Director with a broad range of practical and creative skills and specialist scientific background. She has a special affection for unearthing the emotional heart of a story, with all its quirks, in a way that's accessible, entertaining, engaging and beautiful. Since leaving academia for a career in documentary making, she has produced and directed films for a range of broadcasters, including the BBC Horizon / CNN Original Films documentary 'The Vaccine'; the Netflix original series 'Babies: The Brain' with David Eagleman for PBS (US); 'Diagnosis on demand? AI in Healthcare' for BBC2; a series of films for BBC4 including 'The Joy of Winning' and 'The Joy of Data' with Prof Hannah Fry, 'The Joy of Logic' with Prof Dave Cliff; and Channel 4's 'Staying Healthy - A Doctor's Guide'. Cathy holds a BSc in Microbiology from Manchester and a PhD in virology from UCL.



Professor Teresa Lambe

Prof. Teresa Lambe needs no introduction. She is a Professor of Vaccinology and Immunology in the Oxford Vaccine Group, Department of Paediatrics and Reuben College Fellow. She has a strong passion for science communications; in between co-developing the Oxford/AstraZeneca COVID-19 vaccine and pioneering new vaccines for Ebola and other emerging pathogens, she starred in the Royal Institute Christmas Lectures in December 2021 and the BBC Horizons Documentary directed by Catherine Gale. She has participated in a multitude of interviews and public engagement events around the vaccines.

[Watch Tess in the Royal Institute Christmas Lecture here.](#)

Vaccine: The Inside Story

As news of the coronavirus broke around the globe, a small group of scientists jumped into action to tackle one of the greatest medical challenges of our time: to create a vaccine against a virus no-one had ever seen before and to do so in record time, all during a deadly, global pandemic...

[Read more about the documentary here.](#)

[Watch the documentary here.](#)

Join us on Tuesday 22nd February in the Reuben Common Room for a screening of the documentary (with popcorn!)



How Epidemics End: A Multidisciplinary Project - Lessons from History

March 3rd, 18:00-19:00, Natural History Museum

Professor Sanjoy Bhattacharya

Prof. Sanjoy Bhattacharya is a Professor of History of Medicine and Wellcome Trust Senior Investigator at the University of York, Director of the Centre for [Global Health Histories](#) and Director of the [WHO Collaborating Centre for Global Health Histories](#). Sanjoy specialises in the health, medical, political and social history of nineteenth and twentieth century South Asia, as well as the history and contemporary workings of international and global health organisations, and their programmes around the world.

[Watch Sanjay discuss the Global History of Smallpox Eradication here.](#)



Professor Erica Charters

Prof. Erica Charters is a Professor of the Global History of Medicine, Faculty of History, University of Oxford and a fellow at Wolfson College. Her research examines the history of war, disease and bodies, particularly in the British and French Empires. She is coordinating an exciting multidisciplinary project: [How Epidemics End](#).

[Read Erica's blog here.](#)

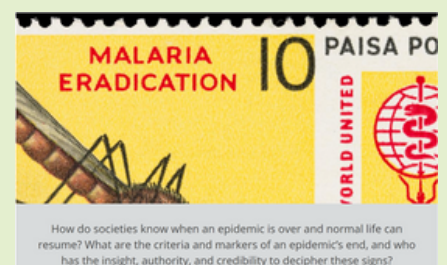
[Watch Dr Simukai Chigudu and Dr Erica Charters discuss the Zimbabwe cholera epidemic and the politics of epidemics.](#)

Learn more

“Epidemics are not solely a function of pathogens; they are also a function of how society is structured, how political power is wielded in the name of public health, how quantitative data is collected, how diseases are categorised and modelled, and how histories of disease are narrated. Each of these activities has its own history. As historians of science and medicine have long pointed out, even the most basic methodologies that underpin scientific research—observation, trust in numbers, the use of models, even the experimental method itself—have a history. They should not be taken as a given, but understood as processes, or even strategies, that were negotiated, argued for and against, and developed within particular historical contexts and explanatory schemes. Knowing the history of something—whether of numbers, narratives, or disease—enables us to see a broader range of trajectories available to us. These varied histories also remind us that we are currently in the midst of a chaotic drama of uncertainty, within our own unstable and unfolding narrative.”

- Charters, E, Heitman, K. How epidemics End. *Centaurus*. 2021; 63: 210- 224.

[Read the full paper here.](#)



A Discussion with Women in Business and Science (Celebrating International Women's Day)

March 10th, 18:00-19:00, Natural History Museum

Nicola Blackwood

Nicola Blackwood, Baroness Blackwood of North Oxford, is Chair of Genomics England, Trustee of the Alan Turing Institute and a Member of the Lords Science & Technology Select Committee. She has served as Minister for Innovation in the Department for Health and Social Care (UK) under two Prime Ministers. Her Ministerial portfolio covered Lifesciences, Mental Health, Data and Digital Transformation of the NHS, Cybersecurity, Brexit, Trade, Global Health Security and Public Health. Nicola oversaw NHS Digital, Genomics England and the NIHR, and was closely involved in the creation and development of NHSX. In policy terms, this included implementing the Lifesciences Strategy and the Tech Vision; setting up the AI Hub and the Data Innovation Hubs; and developing the Code of Conduct for Data Driven Health and Care Technology, the Public-Private Data Principles and the Genomic Healthcare Strategy. Prior to her elevation to the House of Lords, she was the first female Member of Parliament for Oxford West and Abingdon (2010-2017) and was elected by MPs to be the youngest ever select committee chair in British history and the only woman to have held in that position. She was also Chair of the Human Tissue Authority (UK health regulator).



Ros Deegan

Ros Deegan joined OMass Therapeutics as CEO in May 2019 from Bicycle Therapeutics where she served as President, Chief Business Officer and a Director of the US subsidiary of the Company. Ros established the company's Boston-based subsidiary and over a three-year period led three major transactions and grew the US organisation to more than 20 employees. Prior to that Ros served as Senior Vice President, Business Development and Operations at Trevena, Inc, where she had previously held the role of Head of Finance and Operations. During Ros' tenure at Bicycle and Trevena, the companies moved four programmes into the clinic, and raised over \$300 million in private and public financings. In her earlier career, Ros was Director of Business Development at GSK in the US and, prior to that, she served as Director of Operations for GSK's Centre of Excellence for External Drug Discovery (CEED) and as Marketing Manager for GSK's UK launch of Bonviva for post-menopausal osteoporosis.

Caroline Cake

Caroline joined Oxford Science Enterprises as Entrepreneur in Residence in February 2022. As an Entrepreneur in Residence (EIR), Caroline will lead the creation and development of a new Health Tech enterprise. She has more than 25 years' experience working in commercial, government and charitable organisations and before taking up the role, she was CEO of Health Data Research UK (HDR UK). Under Caroline's leadership HDR UK became established as the national institute for health data science and played a pivotal role in the UK's pandemic response. She led the creation of the Health Data Research Hubs, which supported the RECOVERY Trial in identifying Dexamethasone as the first drug to be effective against COVID-19, the PRINCIPLE Trial in identifying Budesonide as the first treatment to shorten recovery time in patients not admitted to hospital, and the vaccine rollout by providing access to real-world evidence of vaccine effectiveness. She also led the development of the Health Data Research Innovation Gateway, which is already transforming the scale and impact of UK health data research. Caroline also worked for The PSC where she was a founding director and prior to that she worked as an Engagement Manager at McKinsey & Company. She holds an MBA from Harvard Business School and MEng from the University of Cambridge.



Preparing for the Next Pandemic: A point of view from CEPI and Wellcome

March 17th, 18:00-19:00, Natural History Museum

Dr Mike Whelan

Dr. Mike Whelan is a project leader at the coalition for Epidemic Preparedness Innovations (CEPI) responsible for multiple multi-million dollar international vaccine development projects developing new vaccines and technologies for neglected diseases. Recent work has focused on COVID-19 leading several large vaccine consortia. Prior to CEPI, Michael was the Director of R&D at IQUR Limited developing a novel vaccine platform producing virus like particles presenting multiple antigens to the immune system simultaneously and he was Head of Research in Onyvax developing vaccines for prostate cancer. He did a post-doc at the original Edward Jenner Institute for Vaccine Research.



Dr Charlie Weller

Dr. Charlie Weller is Head of Infectious Disease Prevention at the Wellcome Trust. Charlie has been at Wellcome since 2014 previously leading the Vaccines programme to enable development of new and improved vaccines and develop better vaccine use. Prior to moving to the Wellcome Trust she was Laboratory Head at Novartis in Respiratory Medicine. Prior to working in industry Charlie spent 12 years in academia at Imperial College.

[Watch Charlie discussing 'Learning from Pandemics' here.](#)

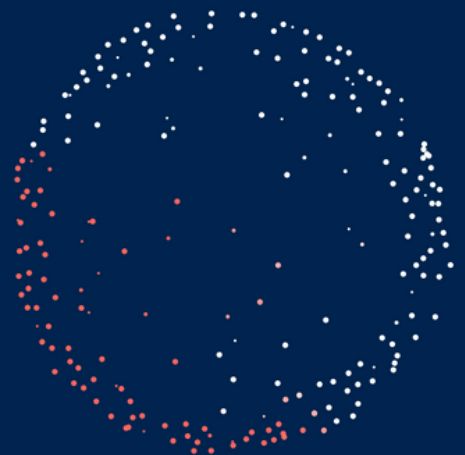
Learn more:

- [Learn more about CEPI](#)
- [Learn more about the Wellcome Trust](#)

Creating a world in
which epidemics
are no longer a
threat to humanity

CEPI is an innovative global partnership between public, private, philanthropic, and civil society organisations launched in Davos in 2017 to develop vaccines to stop future epidemics.

Our mission is to accelerate the development of vaccines against emerging infectious diseases and enable equitable access to these vaccines for people during outbreaks.



Visit to the Jenner Museum, Temple of Vaccinia and Berkeley Castle

April 10th, 9:00-18:00



Dr. Edward Jenner is the 'father of immunology' and pioneer of the small pox vaccine. His home was also the site of his clinic and where he conducted the first ever vaccinations.



The 'Temple of Vaccinia' is the site where Dr. Edward Jenner established the first free vaccination clinic for the poor of Berkeley and surrounding areas.



Berkeley Castle origins date back to the 11th century and has been in the Berkeley family since the 12th century. It is believed to be the scene of King Edward II murder in 1327 and the third oldest continuously occupied castle after Windsor Castle and the Tower of London. It has extensive grounds to enjoy and is located next to the Jenner Museum.

More info

Make sure to book onto this trip on [InkPath](#) in advance if you'd like to attend. Partners and families are welcome. Costs of the trip are covered by the Cellular Life Theme Fund, making it free to attend.