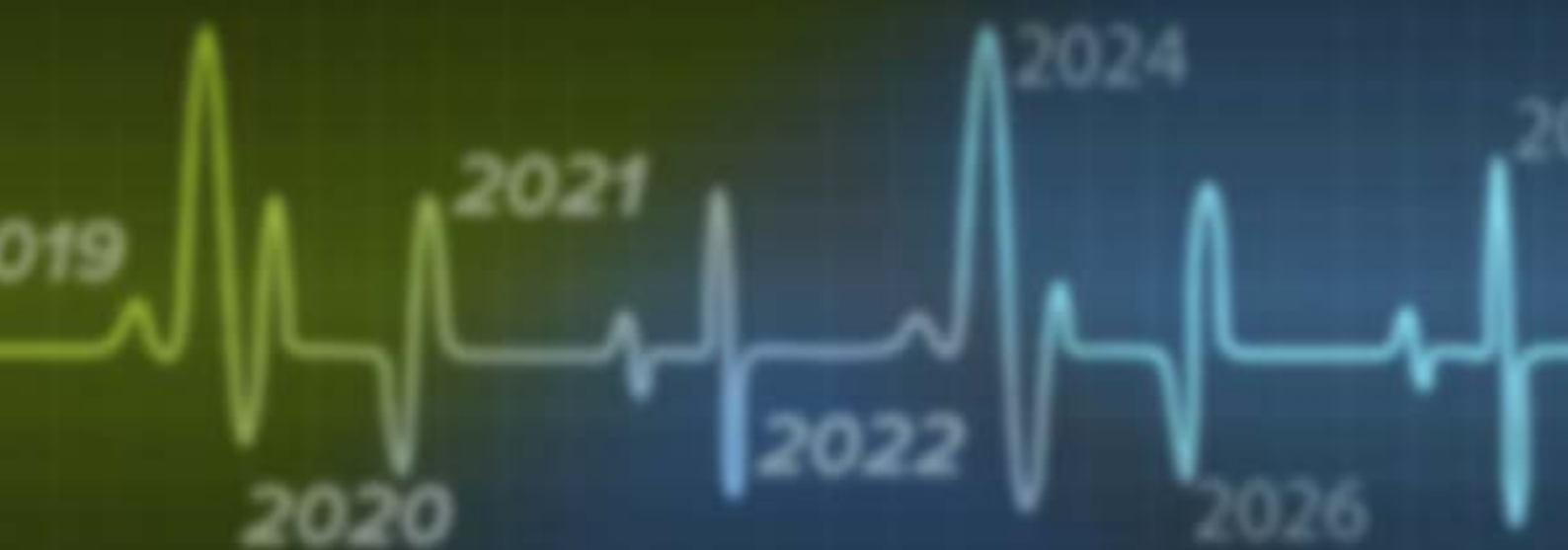


# The Impact of Long C<sup>o</sup>VID on Health, Society, and Economies

— A World Health Network Virtual Symposium —

📅 15 September 2022 ⌚ 1:00 PM ET to 4:00 PM ET



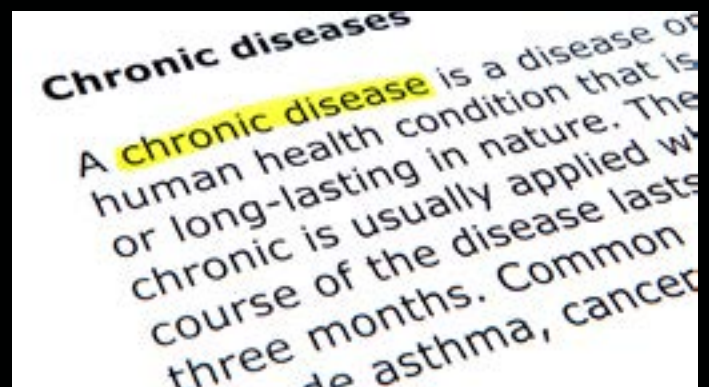
Join us for our long COVID symposium! This global event brings together clinicians, researchers and patients to explore the latest advances in long COVID research and the impacts on health, society, and economies.

With every passing day, we find more evidence that getting infected, or reinfected by COVID leads to the risk of chronic disease, long-term disability, and increased risk of heart attacks, strokes, brain damage, and impairment of the immune system. We see a worsening impact on families, communities, the workforce, and the economy.

This symposium will cover key aspects of long COVID and the latest research findings, including:

- What is long COVID?
- What does it mean to live with it?
- How does it manifest?
- What are the underlying disease mechanisms?
- What can we do if we have long COVID?
- How can we protect ourselves?

**We hope you can join us on the 15th of September 2022**



# The Impact of Long COVID on Health, Society, and Economies

15 September  
1-4pm ET  
6-9pm BST  
7-10 pm CEST

- 
- 1:00 Welcoming Remarks**  
Katie Marsh & Geraldine Hamilton, PhD
- 
- 1:05 Intro to Long COVID**  
Gunhild Alvik Nyborg, MD, PhD
- 
- 1:15 Long COVID Testimonial**  
Robi Tamargo, PsyD
- 
- 1:25 Long COVID from a Clinician's Perspective**  
Claire Taylor, MD
- 
- 1:35 Children with Long Covid, a Personal Journey**  
Binita Kane, MD
- 
- 1:45 Audience Q&A**
- 
- 2:00 Neurological Long-Term Effects of COVID-19**  
Andrew Ewing, PhD
- 
- 2:10 Cardiovascular Long-Term Effects of COVID-19**  
Rae Duncan, MD, PhD
- 
- 2:20 Clinical Research in Long Covid - the Challenges and the Opportunities**  
Amitava Banerjee, MD, PhD
- 
- 2:30 Audience Q&A**
- 
- 2:40 What Causes Long COVID? Microclots**  
Resia Pretorius, PhD
- 
- 2:50 Post COVID ME/CFS and Role of GPCR Antibodies**  
Carmen Scheibenbogen, MD, PhD
- 
- 3:00 RNA Persistence after Acute Virus Infections: Relevance to Long COVID**  
Diane Griffin, MD, PhD
- 
- 3:10 Audience Q&A**
- 
- 3:20 Self-care Is a Community Effort: Pathways to Abrupt Social Change**  
Matti Heino, PhD
- 
- 3:30 What Are the Implications of Long Covid on Society?**  
Cecile Philippe, PhD
- 
- 3:40 Protecting Ourselves from Long COVID - Five Pillars of Prevention**  
Yaneer Bar-Yam, PhD
- 
- 3:50 Audience Q&A**
- 
- 4:00 Closing Remarks**  
Yaneer Bar-Yam, PhD

## Gunhild Nyborg, MD, PhD

Gunhild Nyborg is a postdoctoral researcher at New England Complex Systems Institute where she studies long COVID mechanisms and implications for society. She is an M.D. with clinical background from general practice and geriatrics and holds a PhD in Epidemiology and a BSc in Economics. She has done postdoctoral research into drivers of autoimmune disease and T cell surface markers at Oslo University Hospital, Norway. Gunhild is a member of WHN's Covid Action Group.



## Robi Tamargo, PsyD

Dr. Robi Tamargo is a Clinical Psychologist specializing in trauma, and decorated Navy veteran. She served for 5 years as an active duty Naval Psychologist before starting her private practice in 2001, and later expanding her practice to provide psychotherapy and assessments for children, adolescents, adults, couples, and families.

On May 7, 2020, Dr. Tamargo was infected by Covid-19. She and her family moved to New York City in October 2020 to receive post-Covid care after her fifth hospitalization. Dr. Tamargo has participated in numerous Long Covid studies at Mt. Sinai Hospital, Yale, and Massachusetts General Hospital.

Dr. Tamargo continues to battle chronic COVID symptoms, including Neurological, Cardiovascular, Respiratory, Musculoskeletal, Gastrointestinal, Autonomic, Dermatologic, and Mucous Membrane. She is an advocate and expert founder of Mask Together America representing the intersection between Long Covid patients and medical professionals. Dr. Tamargo shares her story of being a Covid Long-Hauler and spreads awareness on the physical and mental damage caused by Covid-19.

## Claire Taylor, MD

Dr. Claire Taylor is an experienced GP with a special interest in Long Covid, postural orthostatic tachycardia syndrome (PoTS), mast cell activation syndrome (MCAS) and myalgic encephalomyelitis (ME/CFS). She is also a former Neuroscientist with a BSc Neuroscience (Hons) from the University of Edinburgh and is especially interested in disorders of the autonomic nervous system. In addition to working for the NHS as a GP, she also holds her own long COVID clinic in Scotland.





## **Binita Kane, MD**

Dr. Binita Kane is a Consultant Respiratory Physician in Manchester and honorary Senior Lecturer at the University of Manchester. She is a member of Independent SAGE in the UK and a champion for the charity Long COVID Kids.

## **Andrew Ewing, PhD**

Prof. Ewing obtained his bachelor's degree from St. Lawrence University and his PhD from Indiana University. After a postdoc with Royce Murray at University of North Carolina, he joined the faculty of Pennsylvania State University. In 2007 he obtained a Marie Curie Chair to move to the University of Gothenburg, Sweden. He was elected to the Royal Swedish Academy of Science in 2012. Currently Prof. Ewing's works are mainly based on nanochemistry, electrochemistry, optical imaging and imaging mass spectrometry to elucidate basic chemical mechanisms as well as drug responses of neural communication in single cells, cell networks and model nervous systems.



## **Rae Duncan, MD, PhD**

Dr. Rae Duncan is a cardiologist focusing on the impacts of Long Covid. Dr. Duncan set up one of the first Long Covid cardiovascular complications clinics and ran it for almost a year. She has designed and written four separate Long Covid treatment trials on both sides of the Atlantic which are in various stages of set up. Dr. Duncan is a Medical Champion for the Long Covid Kids charity and strongly believes we should be doing more to protect both children and adults from repeated exposure to Sars-CoV-2. She has also recently joined our Expert Advisory Team on Long Covid here at the World Health Network.



## Amitava Banerjee, MD, PhD

Amitava Banerjee is Professor in Clinical Data Science at University College London, and Honorary Consultant Cardiologist at University College London Hospitals and Barts Health NHS Trusts. As a researcher, educator and clinician, his interests span data science, cardiovascular disease, global health, training and evidence-based healthcare. He has been active both clinically and academically throughout the pandemic, and is leading a large, national Long Covid study (STIMULATE-ICP), which includes a large platform drug trial.



## Resia Pretorius, PhD

Resia Pretorius is a researcher, distinguished professor and Chair of the Department of Physiological Sciences, Stellenbosch University, South Africa. She is also a honorary professor at University of Liverpool, in the UK. She has published over 300 papers in peer-reviewed scientific journals and was a WHO panel member: “Expanding our understanding of post COVID-19 condition” in 2021 and again invited as WHO panel member in 2022. She has filed numerous patents, including a patent for diagnosing of LongCOVID, and she is the managing director of BioCODE Technologies, a Stellenbosch University start-up company.

## Carmen Scheibenbogen, MD, PhD

Carmen Scheibenbogen is hematologist and professor of clinical immunology at the Institute of Medical Immunology at Charité Berlin. She is co-founder of the COST-funded European network for ME/CFS EU-ROMENE, the Charité Fatigue Centre (<https://cfc.charite.de>) and the Post COVID Network (<https://pcn.charite.de>). She has co-authored more than 200 peer-reviewed papers with a focus on ME/CFS, T cell immunology and cancer vaccines.





## **Diane Griffin, MD, PHD**

Diane E. Griffin MD PhD is a University Distinguished Service Professor in the Department of Molecular Microbiology and Immunology at the Johns Hopkins Bloomberg School of Public Health. Her research focuses on the pathogenesis of RNA virus infections to understand viral and host determinants of outcome, recovery and protection from infection. She has had a long-term interest in the role(s) of viral RNA persistence after apparent recovery from infection.

## **Matti Heino, PhD**

Matti Heino is a social psychologist studying societal crisis resilience in pandemics, with a focus on human behaviour change processes in complex systems. In addition to research, he also works with providing practical behavioral science policy advice on both national and local levels.

[www.citizenshield.fi](http://www.citizenshield.fi)

[www.mattiheino.com](http://www.mattiheino.com)



## **Cécile Philippe, PhD**

Cécile Philippe holds a doctorate in economics from Paris-IX Dauphine University and a Diploma in Advanced Studies in business management in developing countries. She created the Institut économique Molinari in 2003 and has headed the Institute since then. She writes extensively on Covid and the economics and co-authored reports on the effectiveness of public policies for fighting the pandemic.



## Yaneer Bar-Yam, PhD

Yaneer Bar-Yam received his SB and PhD in physics from MIT in 1978 and 1984 respectively. Since the late 1980s he has contributed to founding the field of complex systems science, introducing fundamental mathematical rigor, real world application, and educational programs for new concepts and insights of this field.

He is the author of over 200 research papers in professional journals, including Science, Nature, PNAS, American Naturalist, and Physical Review Letters, has 3 patents, and has given 175 invited presentations. His work on the causes of the global food crisis was cited among the top 10 scientific discoveries of 2011 by Wired magazine.

He has appeared on ABC News, Canada's CTV, RT, BBC Radio, NPR Radio, and other national media outlets. His scientific visualizations received recognition as "best of" from Wired in 2011 and 2013, and from Motherboard in 2013.



## Geraldine Hamilton, PhD

Scientist, entrepreneur, and innovator, with a Ph.D. in cell biology & toxicology. Her career spans across startups, the pharmaceutical industry (AstraZeneca and GlaxoSmithKline), and academia (Harvard University). Geraldine was the cofounder, President, and Chief Scientific Officer of Emulate, Inc., the startup company behind the Organs-on-Chips technology- a platform aimed at understating human biology and disease, replacing animal testing, and enabling personalized medicine. In her role at Emulate, Geraldine led and guided the science and product development. She also played a leading role in multiple functions including development of the vision & branding, operations, fundraising from venture capital investors, business development, sales, and marketing. She led government relations and press interactions. Her team functioned at the intersection of biology, engineering, and design.

## Katie Marsh

Katie Marsh coordinates World Health Network community efforts and events. She earned her B.A. from Clark University in Psychology and Evolutionary Biology. She is a trained Open Dialogue Facilitator. Katie has spend most of her career managing human service non-profit programs, teams and community outreach.

