

# Grand Challenges ICODA Data Science initiative

ICODA Forum, 19 November 2020



**Dr Martin Murphy**

Co-Chair of ICODA's Scientific & Strategic Advisory Council

**Steven Kern**

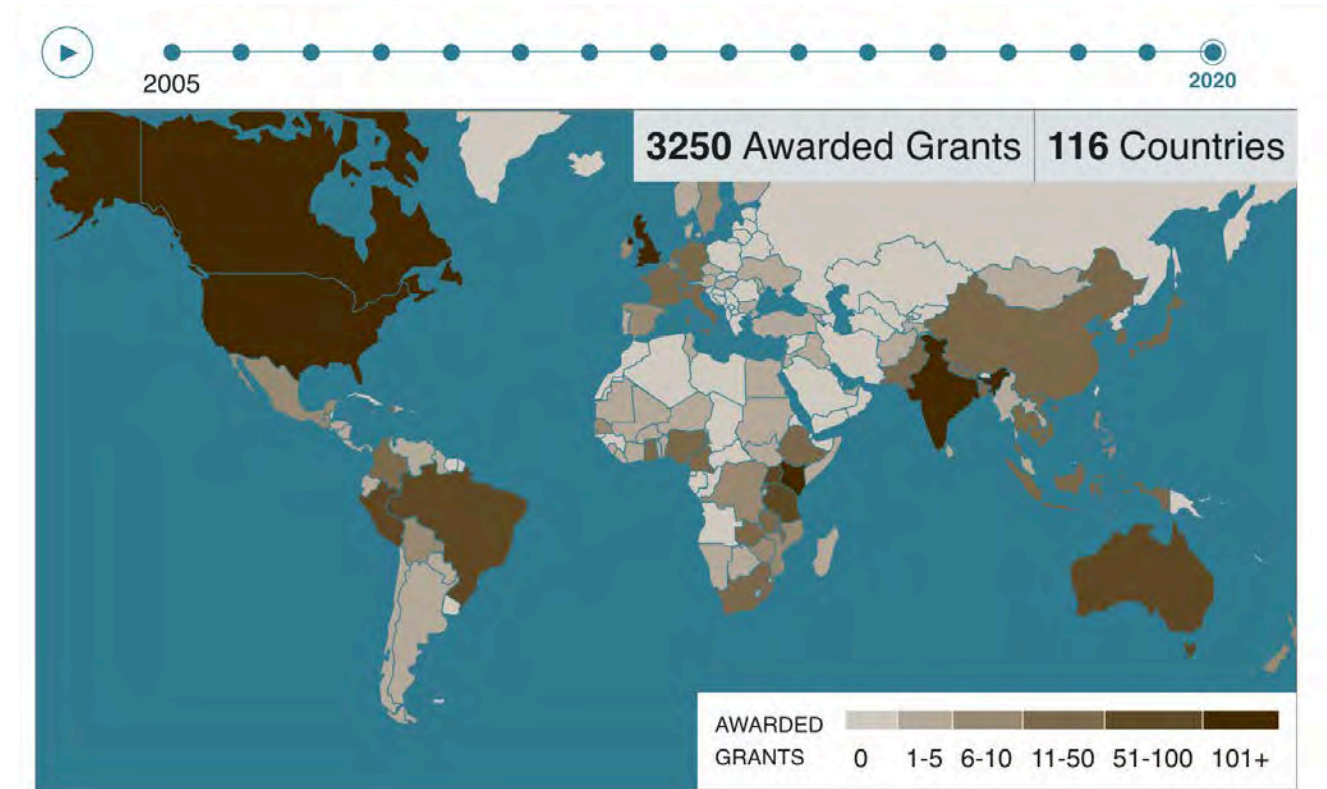
Deputy Director of Quantitative Sciences, Bill & Melinda Gates  
Foundation

**Andrew Morris**

Director, Health Data Research UK

# What are “Grand Challenges”?

- Use challenges to focus attention and effort on specific problems
- Open requests for grant proposals
- Focus innovation on making an impact
- Grant program that fosters collaboration to accelerate impact
- **Grand Challenges Explorations** focus on building momentum around innovation



# About the Grand Challenges ICODA Data Sciences initiative



- Focus on reducing the harm of the COVID-19 and future pandemics
- Builds on ICODA's existing global data science projects and Grand Challenges Explorations
- Driven by a shared commitment to building collaboration, uniting data and analysis infrastructure to enable discoveries that will benefit people everywhere
- Seeks to strengthen global communities, involve patients and the public, and enable pace, scale and impact
- Projects will also contribute to the development and testing of ICODA's infrastructure, processes and governance for future research challenges



## What we are looking for in the selected studies

- Address research questions which will have an impact on COVID-19 within 6-12 months, and be scalable
- Have identified data sets, with a commitment to providing access to data, methodologies and results, whilst ensuring appropriate information governance
- Have the potential to be enabled and accelerated by ICODA's workbench, governance, processes and analytical tools
- Applications welcomed from any geography, with priority placed on proposals that involve researchers and datasets from LMICs
- Commitment to involving patients and the wider public in design and governance

# Research areas identified align with the WHO COVID-19 Research Roadmap and ICODA community feedback

Natural history, epidemiology & transmission	Vaccines and Prophylaxis	Infection prevention and control	Therapeutics	Clinical management	Other
Transmission patterns	How to measure immunity?	How well do diagnostic tests perform?	When should I administer treatment?	What are the risk factors linked to severe outcomes?	Host virus genome interactions
Can we predict local outbreaks	Speeding up vaccine development		How quickly to treatments work?	Long term health consequences of COVID infection	
What are the risk factors associated with severe outcomes?	Do some vaccines work better than others in patient segments?		Which treatments work best in the elderly? Renally impaired?...		
Evolution of the disease population segments?	Do some vaccines work better than others in patient segments?		Which patients benefit best from a particular treatment		
			How well do RCT trials translate to real-world setting?		
			RCT results: What is the safety and efficacy of each treatment studied?		

## What we are offering

- Selected proposals will be part of a new Grand Challenges Explorations Phase 1 program and ICODA's portfolio of Driver Projects
- Funding of \$25,000-\$100,000 over 6-12 months
- Access to ICODA's Workbench and tools
- Processes and resources to accelerate safe access to, and insight generation from, data
- Community that brings together researchers and provides support and inspiration for their work
- Transparency that enables data contributors and researchers' contributions to be acknowledged

## Application process

- Potential applicants can register their interest on the ICODA website from 19 November
- Launch on **10 December 2020**
- Deadline for initial submissions will be **11 January 2021**
- Steps:
  1. Short initial application process
  2. Longlisted teams invited to a brief panel interview
  3. Shortlisted teams invited to make full submission in **mid-February 2021**, for full review by ICODA's Scientific Advisory Council, external reviewers and Grand Challenges/ICODA
- Awards of \$25,000-\$100,000 and 6-12 month duration made in **mid-March 2021**

Visit [www.icoda-research.org/grandchallenge](http://www.icoda-research.org/grandchallenge) to learn more