**KEYSTONE SYMPOSIA**
**on Molecular and Cellular Biology**

**Innovative Vaccine Approaches (EK50)**

**June 28-30, 2021 • Virtual at your computer**

**Scientific Organizers: Mariagrazia Pizza, Galit Alter and Gordon Dougan**

**Sponsored by AstraZeneca, Biolegend, Merck & Co., Inc., and Moderna**

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**MONDAY, JUNE 28**

**Welcoming Remarks and Keynote Address (7am Denver/Mountain Time Start)**

*Mariagrazia Pizza*, GlaxoSmithKline Vaccines, Italy
*Galit Alter*, Ragon Institute of MGH, MIT and Harvard, USA
*Rino Rappuoli*, GlaxoSmithKline Vaccines, Italy
Vaccines 2030

**Shifting the Paradigm in Global Health and AMR (7:40am Denver/Mountain Time Start)**

*Keith Klugman*, Bill and Melinda Gates Foundation, USA
*Galit Alter*, Ragon Institute of MGH, MIT and Harvard, USA
Elizabeth Klemm, Wellcome Trust, UK

*The Role of Vaccines in Combating Antimicrobial Resistance (AMR)*

Gagandeep Kang, Christian Medical College/Translational Health Science and Technology Institute, India

*Oral Vaccine Induced Immunity in Lower Income Settings*

Ankur Mutreja, University of Cambridge, UK

*Challenges in the Field*

Gavin J. Wright, Wellcome Sanger Institute/University of York, UK

*An Invariant Trypanosoma Vivax Vaccine Antigen Induces Protective Immunity*

Mariagrazia Pizza, GlaxoSmithKline Vaccines, Italy

*GMMA as Antigen and Delivery System*

Sowmya Ajay Castro, University of Dundee, UK

*Short Talk: Recombinantly Produced Group A Carbohydrate Backbone Embedded Into Outer Membrane Vesicles Functions as Potent and Efficient Vaccine Candidate Targeting Group A Streptococcus*

Joseph Paul Hoffmann, Tulane University School of Medicine, USA

*Short Talk: Vaccine Driven Lung TRM Cells Provide Immunity Against Klebsiella via Fibroblast IL-17R Signaling*

Meet the Editors (12:30pm Denver/Mountain Time Start)

Alexandra Flemming, Nature Publishing Group, UK

Paula Jauregui Onieva, PLOS, UK

Ines Pires, Frontiers In Tropical Diseases, Switzerland

Gaia Trincucci, Journal of Experimental Medicine, USA

**Poster Session (1:30pm Denver/Mountain Time Start)**

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**TUESDAY, JUNE 29**

**COVID and Pan COVID Vaccines: Technologies and Criticalities (7am Denver/Mountain Time Start)**

*Lynda M. Stuart*, Bill & Melinda Gates Foundation, USA
*Gordon Dougan*, University of Cambridge, UK
*Galit Alter*, Ragon Institute of MGH, MIT and Harvard, USA

*New Humoral OMIC Tools to Mine for Correlates of Immunity*

Andrea Carfi, Moderna, USA

*mRNA Based Vaccines*

Andrew J. Pollard, University of Oxford, UK

Viral Vectors

Florian Krammer, Icahn School of Medicine at Mount Sinai, USA

*From Diversity to Protection*

Ravi K. Gupta, University of Cambridge, UK

*SARS-COV2 Spread and Evolution to Instruct Pan-Vaccine Development Strategies*

Caroline E. Wagner, McGill University, Canada

*Epidemiological and Evolutionary Considerations of SARS-CoV-2 Vaccine Administration Schemes*

Viviane Machado, Inovio Pharmaceuticals Inc., USA

*Short Talk: INO-4800 DNA Vaccine Induces Neutralizing Antibodies and T Cell Activity Against Global SARS-CoV-2 Variants*

Kayvon Modjarrad, Walter Reed Army Institute of Research, USA

*Short Talk: Efficacy of a Broadly Neutralizing SARS-CoV-2 Ferritin Nanoparticle Vaccine in Nonhuman Primates*

**Pandemic Preparedness: Lessons from COVID (10:25am Denver/Mountain Time Start)**

*Shabir Madhi*, South African Medical Research Council, South Africa

*Christopher L. Karp*, Bill & Melinda Gates Foundation, USA

Lawrence Corey, Fred Hutchinson Cancer Research Center, USA

Planning for Correlates for Phase 3 Studies: Lessons from COVID

Peter Gilbert, Fred Hutchinson Cancer Research Center, USA

Planning for Correlates for Phase 3 Studies: Lessons from COVID

Gordon Dougan, University of Cambridge, UK

*Changing Regulatory and Vaccine Landscape in the Face of COVID*

Nicole Lurie, Coalition for Epidemic Preparedness Innovations - CEPI, USA

*Strategies to Manufacturing, Distribution and Roll-out*

Career Roundtable (1:30pm Denver/Mountain Time Start)

Sanjay Ram, University of Massachusetts, USA

Amy E. Gilbert, Adaptive Biotechnologies, USA

Elizabeth Klemm, Wellcome Trust, UK

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**WEDNESDAY, JUNE 30**

**Immune Correlates: 'In vivo' and 'in vitro' Model Systems (7am Denver/Mountain Time Start)**

*Gordon Dougan*, University of Cambridge, UK

*Mariagrazia Pizza*, GlaxoSmithKline Vaccines, Italy

*Pamela J. Bjorkman*, California Institute of Technology, USA

*SARS-COV2 Spread and Evolution to Instruct Pan-Vaccine Development Strategies*

Caroline E. Wagner, McGill University, Canada

*Epidemiological and Evolutionary Considerations of SARS-CoV-2 Vaccine Administration Schemes*

Viviane Machado, Inovio Pharmaceuticals Inc., USA

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Sanjay Ram, University of Massachusetts, USA

Amy E. Gilbert, Adaptive Biotechnologies, USA

Elizabeth Klemm, Wellcome Trust, UK

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* Session Chair † Invited but not yet accepted  Program current as of January 17, 2022.
For the most up-to-date details, visit [https://www.keystonesymposia.org](https://www.keystonesymposia.org).
Thomas Rudel, University of Würzburg, Germany
Innovative 3D Infection Models as Validation Tools for Vaccine Research

Catherine A. Blish, Stanford University School of Medicine, USA
Single Cell Omics from SARS-COV2 Spread and Evolution to Instruct Pan-Vaccine Development Strategies

John Tyler Sandberg, Karolinska Institutet, Sweden
Short Talk: Activation and Kinetics of Circulating Tfh Cells, Specific Plasmablast Response and Development of Neutralizing Antibodies Following Yellow Fever Virus Vaccination

Kiva V. Brennan, Trinity College Dublin, Ireland
Short Talk: Cytosolic dsRNA Improves Neonatal Innate Immune Responses to Adjuvants Currently in Use in Paediatric Vaccines

Closing Remarks (10:50am Denver/Mountain Time Start)
*Gordon Dougan, University of Cambridge, UK

Networking Lounge (11am Denver/Mountain Time Start)