Healthcare Innovation Symposium XXXIII



March 24, 2021 12:00-1:30pm

COVID VACCINES AND VARIANTS WHERE ARE WE HEADING?





Healthcare Innovation Program



<u>Program</u>



WELCOME AND INTRODUCTIONS

Fred Sanfilippo MD, PhD

Director, Emory-Georgia Tech Healthcare Innovation Program Professor of Pathology & Laboratory Medicine, Emory School of Medicine Professor of Health Policy & Management, Rollins School of Public Health

APPROVED VACCINES AND VARIANTS

Barton Haynes, MD

Frederic M. Hanes Professor of Medicine Professor of Immunology and Global Health Director, Human Vaccine institute Duke University School of Medicine

VACCINE SAFETY AND ADVERSE EVENTS

Kathryn Edwards, MD

Sarah H. Sell and Cornelius Vanderbilt Professor Division of Infectious Disease Department of Pediatrics Director Clinical Immunization Safety Assessment Program Vanderbilt University School of Medicine

DIAGNOSTIC AND THERAPEUTIC PERSPECTIVE

David Stephens, MD

Vice President for Research, Woodruff Health Sciences Center Chair and Stephen W. Schwarzmann Distinguished Professor of Medicine Department of Medicine Emory University School of Medicine

VIRAL EPIDEMIOLOGIC PERSPECTIVE

Anne Piantadosi, MD, PhD

Assistant Professor Department of Pathology and Laboratory Medicine Emory University School of Medicine

MANUFACTURING, DISTRIBUTION, AND WORKFORCE PERSPECTIVE

Krish Roy, PhD

Robert A. Milton Chair Professor

Director, NSF Engineering Research Center for Cell Manufacturing Technologies Director, Marcus Center for Therapeutic Cell Characterization and Manufacturing Director, Center for ImmunoEngineering Wallace H. Coulter Department of Biomedical Engineering At Emory and Georgia Tech

Q&A SESSION 1:15-1:30 pm

12:00-12:05 pm

12:05-12:25 pm

12:25-12:45 pm

12:45-12:55 pm

12:55-1:05 pm

1:05-1:15 pm

Barton Haynes, MD

Human Vaccine Institute Duke University

Dr. Barton F. Haynes, M.D. is the Frederic M. Hanes Professor of Medicine and Immunology, and Director of the Human Vaccine Institute in the Duke University School of Medicine. Prior to leading the Vaccine Institute at Duke, he served as Chief of the Division of Rheumatology, Allergy and Clinical Immunology and later as Chair of the Department of Medicine. As Director of the Duke Human Vaccine Institute, he leads a team of investigators working on vaccines for emerging infections, including tuberculosis, pandemic influenza, emerging coronaviruses and HIV/AIDS. To work on the AIDS vaccine problem, his group has been awarded two large consortium grants from the NIH, NIAID known as the Center for HIV/AIDS Vaccine Immunology, and the Center for HIV/AIDS Vaccine Immunology-Immunogen Discovery to conduct discovery science to speed HIV vaccine development. In July 2019, his team received the third of NIH "CHAVI" awards to complete the HIV vaccine development work. Since the beginning of the COVID-19 pandemic, Haynes and the DHVI Team has been working non-stop to develop vaccines, rapid and inexpensive tests and therapeutics to combat the pandemic. Since March, 2020, he has served as a member of the NIH Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) committee to advise on COVID-19 vaccine development, and served as the co-chair of the ACTIV subcommittee on vaccine safety.



Haynes is the winner of the Alexander Fleming Award from the Infectious Disease Society of America and the Ralph Steinman Award for Human Immunology Research from the American Association of Immunologists. He is a member of the National Academy of Medicine, National Academy of Inventors and the American Academy of Arts and Sciences.

Kathryn Edwards, MD

Vanderbilt Vaccine Research Program Vanderbilt University

Kathryn Edwards is a professor at the Vanderbilt University School of Medicine. She holds the Sarah H. Sell Chair in Pediatrics, and is the director of the Vanderbilt Vaccine Research Program. Dr. Edwards received her medical degree at the University of Iowa and completed her residency and fellowship at Children's Memorial Hospital at Northwestern University. Dr. Edwards' clinical work focuses on preventing and managing infectious diseases in children. She has been involved in many of the pivotal studies on vaccine effectiveness, safety and impact conducted over the last three decades. She has contributed to the formulation of vaccine policy for the U.S. and the evaluation of the impact of various vaccine programs. Dr. Edwards has published more than 260 articles on vaccines and pediatric infectious diseases, and is a fellow of the Infectious Diseases Society of America and the American Academy of Pediatrics. Dr. Edwards is actively engaged in mentoring young investigators and received the Mentorship Award from the Infectious Disease Society of America in 2006. In 2007, she was the recipient of both the Pediatric Academic Society Plotkin Lectureship in Vaccinology and the Infectious Disease Society of America Smadel Award. She was elected into the Institute of Medicine in 2008.



David Stephens, MD

Emory University School of Medicine Emory University

As chair of the Department of Medicine, Stephens leads the department's tripartite mission to advance human health through innovation in research, education, and patient care. As the vice president for research for the Woodruff Health Sciences Center, he has focused on growth of multidisciplinary research across the WHSC and Emory University; development of innovative research initiatives; enhancement of research strategic themes and collaborations at Emory and among local, national, and international partners; and research training and career development. Stephens' laboratory is an international leader in efforts to define the molecular basis for the virulence of bacterial meningitis and vaccines to prevent it, especially disease caused by Neisseria meningitidis and Streptococcus pneumoniae. He has contributed to more than 330 publications in infectious diseases, molecular pathogenesis, epidemiology, vaccinology and immunology. He has served as the site principal investigator for multiple NIH RO1 and other federal grants including the NIH-sponsored Southeastern Regional Center of Excellence for Emerging Infections and Biodefense, the CDC-supported Southeastern Center for Emerging Biologic Threats, and the NIHfunded Exploratory Center for Interdisciplinary Research in Vaccinology.



The infectious diseases program
Stephens helped develop has
graduated more than 150 fellows, and
his laboratory has trained over 96
infectious diseases fellows,
postdoctoral fellows, medical students
and undergraduates in bacterial
pathogenesis. He serves as chief of
medicine of Emory Healthcare and
rounded for 30 years in infectious
diseases and medicine at Grady
Memorial Hospital and the Atlanta VA
Medical Center.

Anne Piantadosi, MD, PhD

Emory Vaccine Center Emory University

Dr. Piantadosi earned an MD/PhD from the University of Washington in 2011, studying HIV-1 superinfection and within-host evolution under the mentorship of Dr. Julie Overbaugh. She then completed clinical training in Internal Medicine and Infectious Disease at Massachusetts General Hospital. As a post-doctoral researcher in the laboratory of Dr. Pardis Sabeti at the Broad Institute, Dr. Piantadosi led a multidisciplinary translational research project to evaluate viral causes of encephalitis using metagenomic sequencing. In the fall of 2019, Dr. Piantadosi began as an Assistant Professor in the Department of Pathology at Emory, with a joint appointment in the Department of Medicine, Division of Infectious Diseases, where she continues to be a practicing physician. Anne's research interest is the emergence, evolution, and pathogenesis of viruses of clinical and public health importance, with a particular interest in arboviruses and viruses that cause central nervous system infection. One current focus is to understand the clinical manifestations and molecular epidemiology of Powassan virus, an emerging tick-borne flavivirus. Another focus is unbiased viral detection using metagenomic sequencing. Projects combine clinical/translational, laboratory, and

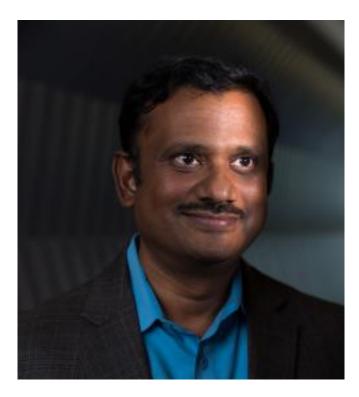
computational approaches.



Krish Roy, PhD

Wallace H. Coulter Dept. of Biomedical Engineering Georgia Institute of Technology

Dr. Krishnendu (Krish) Roy is the Robert A. Milton Chaired Professor in Biomedical Engineering. At Georgia Tech, he also serves as the Director of the newly established NSF Engineering Research Center for Cell Manufacturing Technologies and The Marcus Center for Cell-Therapy Characterization and Manufacturing - as well as the Director of the Center for ImmunoEngineering. He is also the Technical Lead of the NIST/AMTech National Cell Manufacturing Consortium, a national public-private partnership, focused on addressing the challenges and solutions for large scale manufacturing of therapeutic cells. Dr. Roy's research interests are in the areas of scalable cell manufacturing, Immuno-engineering, stem-cell engineering and controlled drug and vaccine delivery technologies, with particular focus in biomedical materials. In recognition of his seminal contributions to these fields, Dr. Roy is elected Fellow of the American Institute for Medical and Biological Engineering and the Biomedical Engineering Society. In addition, Dr. Roy has received numerous awards and honors including Young Investigator Awards from both the Controlled Release Society and The Society for Biomaterials, NSF CAREER award, Global Indus Technovator Award from MIT, the CRS Cygnus Award etc. e is also the recipient of Best Teacher Award given by the Biomedical Engineering Students at UT-Austin and the best advisor award given by bioengineering students at Georgia Tech.



He serves as a member of the Editorial Boards of the Journal of Controlled Release, the European Journal of Pharmaceutics and Biopharmaceutics, the Journal of Immunology and Regenerative Medicine, all from Elsevier, as well as the AIChE Journal of Advanced Biomanufacturing and Bioprocessing. He is a member of the Forum on Regenerative Medicine of the National Academies of Science, Engineering and Medicine (NASEM), and a Board Member of the Standards Coordinating Body (SCB) for Cell and Regenerative Therapies.

Fred Sanfilippo, MD, PhD

Emory-Georgia Tech Healthcare Innovation Program Emory University

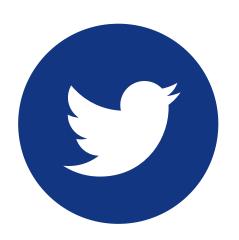
Fred Sanfilippo, MD, PhD directs the Emory-Georgia Tech Healthcare Innovation Program, which has a mission to accelerate innovation in healthcare research, education, and service. He also serves as Professor of Pathology and Laboratory Medicine and Health Policy and Management at Emory, and Medical Director of the Marcus Foundation. For over 30 years he has been an academic leader at Duke, Johns Hopkins, Ohio State and Emory; serving as a division chief, department chair, program/center director, dean, medical center CEO, university senior/executive VP, health system board chair and academic health center CEO. During that time he has led organizational and cultural changes yielding improved academic, clinical, and financial performance at each institution. He also led the creation of the US Scientific Registry of Transplant Recipients; Johns Hopkins Medical Labs; a personalized health plan (YP4H) at OSU; and novel departments and centers in areas ranging from Biomedical Informatics to Personalized Health and Integrative Medicine.

Sanfilippo received his BA and MS in physics from the University of Pennsylvania, and his MD and PhD in immunology from Duke, where he also did his residency training, receiving board certification in Anatomic & Clinical Pathology, and Immunopathology.



He has mentored 33 graduate student and fellows, served on 13 editorial boards, published over 250 articles, received three patents, and been awarded over \$30 million in sponsored research. He has been board chair of five non-profits, and president of seven academic and professional organizations including the American Society of Investigative Pathology and the American Society of Transplantation.

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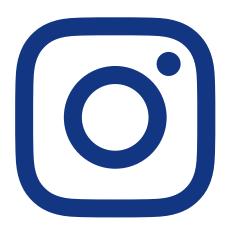
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