



## Preliminary Program

# 9<sup>th</sup> International Conference on Vaccines Research & Development<sup>™</sup>

 **November 11-13, 2024**

 **Boston Marriott Newton Hotel**  
2345 Commonwealth Avenue  
Newton, MA 02466

 [vaccines@uniscigroup.org](mailto:vaccines@uniscigroup.org)

 <https://vaccines.unitedscientificgroup.org/>



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## Vaccines R&D 2024 - Program at a Glance

Monday, November 11, 2024	Tuesday, November 12, 2024	Wednesday, November 13, 2024
08:00–08:20 Registrations	08:30–10:30 Technical Session 1	08:30–10:30 Technical Session 5
08:20–08:30 Introduction	10:30–11:00 Coffee Break	10:30–11:00 Coffee Break
08:30–10:30 Keynote Session	11:00–13:00 Technical Session 2	11:00–13:30 Technical Session 6
10:30–11:00 Coffee Break	13:00–14:00 Lunch Break & Networking	13:30 Lunch Break & End of In-person Sessions
11:00–13:00 Keynote Session	14:00–16:00 Technical Session 3	14:00–18:00 Virtual Presentations
13:00–14:00 Lunch Break & Networking	16:00–17:00 Technical Session 4	
14:00–16:00 Keynote Session		
16:00–17:00 Poster Presentations		
17:00–18:00 Networking Reception		

Keynote Presentations



**Cristina Cassetti**

Deputy Director, Division of Microbiology and Infectious Diseases, National Institute of Allergy and Infectious Diseases, NIH

**The Key Role of Vaccines in Epidemic and Pandemic Preparedness and Response**



**Arthur M. Krieg**

Adjunct Professor, UMass Chan Medical School RNA Therapeutics Institute; Founder and CEO, Zola Therapeutics

**Applications for mRNA Therapeutics: Immunological Issues and Considerations**



**Ted M. Ross**

Director of Global Vaccine Development, Cleveland Clinic – Florida Research and Innovation Center

**Development of the Next Generation Influenza Vaccines**



**Mark C. Poznansky**

Director – Vaccine and Immunotherapy Center, Massachusetts General Hospital; Professor of Medicine, Harvard Medical School

**Accelerated Development of Safe and Broadly Applicable Self Assembling Vaccines for Cancer and Infectious Diseases**



**Nancy Sullivan**

Director, National Emerging Infectious Diseases Laboratories, Boston University

TBA



**Denise L. Faustman**

Director of Immunobiology, Massachusetts General Hospital, Associate Professor of Medicine, Harvard Medical School

TBA



**Patrick E. Duffy**

Chief, Laboratory of Malaria Immunology and Vaccinology, Chief, Vaccine Development Unit, NIAID, NIH

**A Vaccine to Eliminate Malaria: Design and Clinical Development**

## Oral Presentations

### Novel Approaches, Technology & Delivery Platforms

**Ronald C. Desrosiers**, Professor of Pathology and Laboratory Medicine, Vice Chair of Basic Research, University of Miami Miller School of Medicine

**Recombinant Persisting Herpesvirus with a Near-full-length AIDS Virus Genome as a Vaccine Approach**

**William Whitford**, Arcadis DPS Group

**Toward More Sustainable Vaccine Manufacturing**

**Christina Go**, Application Scientist, Integral Molecular

**Safe and User-Friendly Bioassays: Paving the Way for Effective Vaccines**

**Christopher Haqq**, Executive Vice President, Head of Research and Development and Chief Medical Officer, Elicio Therapeutics  
**AMPLIFYing the KRAS-mutation Neoantigen Immune Response Using Lymph Node Targeted Amphiphile Vaccines**

**Gry Persson**, Senior Project Manager at Evaxion Biotech

**Revolutionizing Cytomegalovirus Vaccine Development with AI**

**Kelly Sackett**, Senior Principal Scientist, Heightened Characterization, Biotherapeutics Pharmaceutical Sciences, Pfizer Inc.

**Flow-NMR as a Process-monitoring Tool for mRNA IVT Reaction**

**Valerie Gouon-Evans**, Associate Professor, Department of Medicine, Center for Regenerative Medicine, Boston University

**Use of Nucleoside Modified mRNA in Lipid Nanoparticles to Treat Acute and Chronic Liver Diseases**

**David Hesley**, Senior Scientist, Merck & Co., Inc.

**Novel Process Controls for Fermentation: Guiding Metabolic Profiles for Robustness of Recombinant Protein Processes**

**Uwe D. Staerz**, CSO, Greffex, Inc.

**Potent Vaccines Built on Platform of Fully Deleted Helper-Virus Independent Adenoviral Vectors**

**Cheng Chang**, Associate Director, Research Lead, mRNA platform Vaccine Innovation Unit, CSL R&D

**Pre-clinical Comparison of sa-mRNA vs mRNA Flu Vaccines**

**Elodie Burlet**, Vice President R&D, VaxForm LLC

**Novel technology to stabilize mRNA LNP vaccines**

**Susan Trammell**, Department of Physics and Optical Science, University of North Carolina at Charlotte, Charlotte, NC

**Light-assisted Drying (LAD) for the Thermal Stabilization of Inactivated Poliovirus (IPOL) Vaccine**

**Philippe Jais**, President & Chief Scientific Officer, EUKARÿS SAS, France

**Autonomous Artificial Expression System for In Vivo Synthesis of Messenger RNA: Applications to Viruses and Vaccines R&D**

### Respiratory (RSV, Influenza and COVID)

**Anne Wyllie**, Research Scientist, Epidemiology of Microbial Diseases, Yale School of Public Health

**A Generic, Saliva-based PCR Test for the Detection of Respiratory Pathogens Offers a Low-burden Approach for Sustainable Surveillance**

**Kaili Ma**, Weirui Biotechnology (Kunming) Co., Ltd., Ciba Biotechnology Innovation Center, China

**A New Vaccine Strategy Based on Virus-Like Structures (VLSs) for Use Against SARS-CoV-2 Variants: Evaluation of its Immune Effectiveness and Investigation of the Mechanism**

**Michael P. Citron**, Infectious Disease/Vaccines, Merck & Co., Inc.

**From Vivarium to Clinic: Developing Translatable Animal Models for Evaluating Anti-RSV Agents Across Modalities and Populations**

**Giulia Marchetti**, Professor of Infectious Diseases, Director of the Clinic of Infectious and Tropical Diseases, Dept of Health Sciences, University of Milan, Italy

**Association Between SARS-CoV-2 RNAemia, Skewed T Cell Responses, Inflammation and Severity in Hospitalized COVID-19 People Living with HIV**

**Svetlana Pougatcheva**, Deputy Director, Sanofi Pasteur

**Broadening Influenza Antibody Responses with Additional H3 HA Antigens, Potential for Improving Seasonal Vaccines**

**Matteo Augello**, Clinic of Infectious Diseases and Tropical Medicine, San Paolo Hospital, ASST Santi Paolo e Carlo, Department of Health Sciences, University of Milan, Italy

**Durability of Immune Responses to An Original-BA.4/5 Bivalent Booster of SARS-CoV-2 mRNA Vaccine in People Living with HIV**

**Shin Nakamura**, Director, R&D Center, Intelligence & Technology Lab/Biomedical Institute, Japan

**Development of Sublingual Vaccine with SARS-CoV-2 RBD or Influenza HA Antigen and Poly(I:C) Adjuvant in Non-human Primate, Cynomolgus Macaques**

**Chang Yi Wang**, UBI Asia, Taiwan

**UB-612 Pan-SARS-CoV-2 RBD-focused and T Cell Immunity-Promoting Protein/Peptide Vaccine Protects against Moderate-Severe Disease**

**Walid Abdelwahab**, Center for Translational Medicine-Adjuvant Research Team, University of Montana

**Enhancing RSV Vaccine Efficacy and Safety Using a Tunable TLR Agonist-Based Adjuvant System**

**Audray Harris**, Structural Informatics Unit, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, NIH

**Structure-guided Analysis of Commercial Influenza Vaccines Reveals Epitope Display and Immunogenicity Differences**

**Reza Nejat**, Anesthesiology and Critical Care Dept., Laleh Hospital, Iran

**Lipid Dyshomeostasis in the Cell Membrane Modulates SARS-CoV-2 Host Cell Entry**

**Simon D. Lytton**, SeraDiaLogistics, Germany

**SARS-CoV-2 Variants and COVID-19 in Bangladesh—Lessons Learned**

**Sunetra Gupta**, Professor of Theoretical Epidemiology, Evolutionary Ecology of Infectious Disease Lab, University of Oxford, UK

**Utilising Epitopes of Limited Variability of the Head of Haemagglutinin to Produce a Universal Influenza Vaccine**

**Andrew Pekosz**, Professor and Vice Chair, W. Harry Feinstone Department of Molecular Microbiology & Immunology, Johns Hopkins University

**Identification of Novel Mutations in the HA and M2 Proteins of Live Attenuated Influenza Vaccine that Alter Virus Replication Only in Primary Human Nasal Epithelial Cell Cultures**

**Kin-Hang Kok**, Professor, Department of Microbiology, LKS Faculty of Medicine The University of Hong Kong, Hong Kong

**An Interferon-integrated Mucosal Vaccine Provides Pan-sarbecovirus Protection in Small Animal Models**

**Daniel Lingwood**, Associate Professor of Medicine, Harvard Medical School; The Ragon Institute of Mass General, Harvard and MIT

**Expanding Exceptionally Broad Anti-flu Pathways from the Human B Cell Repertoire**

## Vaccine Development, Clinical Trials and Production

**Ozlem Equils**, President, MiOra

**Restoring Trust: The Need for Precision Medicine in Infectious Diseases, Public Health and Vaccines**

**Charles Jones**, Senior Director, mRNA Commercial Strategy & Innovation, Pfizer

**Navigating the Future Adult Vaccine Landscape - Innovation, an Aging Population and Crowded Schedules**

**Xiaomin Jing**, Pharmaceutical R&D, BioTherapeutics Pharm. Sci., Pfizer

**Supporting Global Access to Vaccines: Drug Product Development of Preserved, Multi-dose Vial Vaccine Presentations**

**Rich Niemi**, Senior Director Business Development, hVIVO

**Human Challenge Using a Contemporaneous Panel of Influenza Strains Offers Increased Utility in the Testing of Vaccine Efficacy**

**Liming Liu**, Founder and CEO, Nanjing JSIAMA Biopharmaceuticals Ltd., China

**The Advantages of CPG Oligodeoxynucleotides as Mucosal Vaccine Adjuvants**

**Juine Ruey Chen**, Chief Operating Officer, RuenHuei Biopharmaceuticas Inc., Taiwan  
**Pilot-scale Production of Inactivated Monoglycosylated Split H1N1 Influenza Virus Vaccine Provides Cross-strain Protection Against Influenza Viruses**

**Hongying Duan**, Staff Scientist, Virology Laboratory, NIAID, NIH  
**An Escalating Dose Prime with an HIV-1 nanoparticle Enhanced Elicitation of VRC01-class Neutralizing Antibodies in Mouse Models with Diverse Antibody Precursor Repertoires**

**Marie-Claire Gauduin**, Professor, Disease Intervention and Prevention, Texas Biomedical Research Institute  
**Durable HIV Vaccine Targeting Mucosal Epithelium**

**Kevin Killeen**, CSO, Matrivax  
**Pneumococcal Vaccine Candidate MVX01 Phase 1a Clinical Trial Results**

## Bacterial Vaccines

**Charles Pavia**, Professor of Microbiology and Immunology, Department of Biomedical Sciences, NYIT College of Osteopathic Medicine  
**Lyme Disease Vaccine Consisting of Recombinant-derived Outer Surface Protein A (OspA) of the Etiologic Agent *Borrelia burgdorferi***

**Daniel F. Hoft**, Director, Division of Infectious Diseases, Allergy & Immunology, Director, Center for Vaccine Development, Saint Louis University  
**Distinct Gene Expression Signatures Comparing Latent TB Infection with Different Routes of BCG Vaccination**

**Michael Francis Good**, Head, Laboratory of Vaccines for the Developing World, Institute for Glycomics, Griffith University, Australia  
**A Phase I Trial of a Peptide-based Vaccine to Prevent Group A Streptococcal Infections**

**Fan Zhang**, Assistant Professor of Pediatrics, Division of Infectious Diseases, Boston Children's Hospital, Harvard Medical School  
**Development of A Multi-component Vaccine Against *Streptococcus agalactiae***

**Wei Sun, Professor**, Department of Immunology and Microbial Disease, Albany Medical College  
**Bacterial Vesicle-based Vaccines for Preventing Respiratory Bacterial Infections**

**Xingmin Sun**, Associate Professor at University of South Florida, Tampa, FL  
**Recombinant Fusion Protein Vaccine Containing *Clostridioides difficile* FliC and FliD Protects Mice Against *C. difficile* Infection**

**Tuhina Gupta**, Associate Research Scientist, College of Veterinary Medicine, Department of Infectious Diseases, University of Georgia  
**Novel Nanoparticle-based Vaccine Against *Mycobacterium tuberculosis***

## Cancer Vaccines & Immunotherapy

**Kathleen Hefferon**, Lecturer, Department of Microbiology Cornell University  
**The Use of Plant Virus Nanoparticles for Cancer Immunotherapy**

**Ken Kato**, Chief, Department of Head and Neck Medical, Esophageal Oncology, National Cancer Center Hospital, Japan  
**Recent Updates in Immunotherapy for Esophageal Cancer and the Future**

## New and Emerging

**Courtney L. Finch**, Director of Pre-Clinical, Research & Development, Sabin Vaccine Institute  
**Profile of a Chimpanzee Adenovirus Type 3-based Marburg virus Vaccine in Nonhuman Primates and Rats**

**Hyejean Cho**, Korea National Institute of Health, South Korea  
**Protective Efficacy and Immunogenicity of Inactivated Virus Against SFTS Virus in Mouse Models**

**Ondrej Mach**, Research and Product Development Team Lead, Polio Department, World Health Organization, Switzerland  
**Epidemiology of Type 2 Vaccine-derived Poliovirus Outbreaks Between 2016 and 2020**



**Julian Y. V. Borges**, Professor of Medicine Endocrinology and Clinical Nutrition, Afya Medical Postgraduate School, Brazil  
**Trends in Sudden Cardiac Death in Pilots: A Post COVID-19 Challenging Crisis of Global Perspectives (2011-2023)**

**Jean Patterson**, Acting Chief, Virology Branch, Division of Microbiology and Infectious Diseases NIAID, NIH  
**Research and Development of Vaccines and Monoclonal Antibodies for Pandemic Preparedness (ReVAMPP)**

## Poster

**Atsushi Kotani**, Deputy Director, Research Center, EPS Innovative Medicine (Japan) Co., Ltd./ EPS Holdings, Inc., Japan  
**Safety Assessment of Sublingual Vaccine Using Poly(I:C) Adjuvant: Comparison with Nasal Vaccine in Cynomolgus Macaques and Mouse**

**Kazuki Tajima**, Research Center, EPS Innovative Medicine (Japan) Co., Ltd./ EPS Holdings, Inc., Japan  
**Preclinical Studies on Sublingual Vaccine Using Poly(I:C) Adjuvant in Non-human Primate, Cynomolgus Macaques**

**Nathan Krump**, Project Leader, Integral Molecular  
**Flavivirus Reporter Particles for Vaccine Research**

**Camilla Tincati**, Clinic of Infectious Diseases and Tropical Medicine, San Paolo Hospital, ASST Santi Paolo e Carlo, Department of Health Sciences, University of Milan, Milan, Italy  
**Scant Effect of cART on Mucosal Immune Cells during Acute HIV Infection**

**Yihang Fan**, School of Public Health, The University of California  
**The Association Between Influenza Vaccination, Cardiovascular Mortality and Hospitalization: A Living Systematic Review and Prospective Meta-analysis**

**Alex Roederer**, Ragon Institute of Mass General, MIT, and Harvard  
**Impact of SARS-CoV-2 Evolution on Vaccine-Induced Immunity and the Development of Broadly Neutralizing Antibodies**

**Lehageru Gizachew**, Senior Surveillance Expert, Ohio State Global One Health, Ethiopia  
**Exploring Community Perceptions and Hesitancy towards COVID-19 Vaccine in Selected Cities of Ethiopia: A Qualitative Study**

**Fanyan Meng**, Department of Laboratory Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Medical School, Nanjing University, China  
**An Immunomodulators-Boosting Probiotic Platform (IBP) for Enhanced Antitumor Immunity**

**Irina V. Ustyugova**, Deputy Director, Preclinical Immunology, Sanofi Pasteur, Cambridge, MA  
**A Novel Oil-in-water Emulsion is a Potent Adjuvant for An Induction of Hemagglutinin (HA)-specific Titers in a Naïve Nouse Model**

**Natalia de Val**, The Emmes Group, Rockville, MD  
**Navigating New Frontiers in Vaccines and Infectious Diseases: Insights and Innovations from Emmes CRO**

**Jeffrey Teigler**, Gritstone bio, Inc., Emeryville, CA  
**Self-amplifying mRNA & Chimpanzee Adenovirus HPV Therapeutic Vaccines for the Therapeutic Treatment of HPV-Infected Individuals**

**Mahmoud Salam**, Alice Ramez Chagoury School of Nursing / Lebanese American University, Lebanon  
**Factors Associated with COVID-19 Vaccine Uptake and Hesitancy among Multinational Refugees and Migrants in Jordan**

**HuiLing Chen**, Moderna, Inc., Cambridge, MA  
**hMPV Neutralization Assay Development Using DOE Approach and Its Application in Immunogenicity Assessment Following An Investigational RSV and hMPV Combination Vaccination in Participants Aged 8 to <24 Months**

**Abhishek Dey**, Kusuma School of Biological Sciences, Indian Institute of Technology Delhi, India  
**Hemoglobin Receptor in Leishmania: A Potential Diagnostic Marker for Leishmaniasis**

**Yoon-sil Yang**, Vaccines Division, Biopharmaceuticals & Herbal Medicine Evaluation Department, National Institute of Food and Drug Safety Evaluation, South Korea

**Optimization of Free Polysaccharide Content Assessment in Meningococcal Vaccines**

**Gi Chan Lee**, Chungbuk National University, South Korea

**Broad-Spectrum Vaccine for Severe Fever with Thrombocytopenia Syndrome Virus Using a Capless Self-Amplifying mRNA Platform**

**Dong Gyu LEE**, Chungbuk National University, South Korea

**Efficient Suppression of HPV-Induced Tumors in a Mouse Model Using a Capless Self-Amplifying mRNA Vaccine**

**Beom Kyu Kim**, Chungbuk National University, South Korea

**Robust Immune Response Induced by Capless Self-Amplifying mRNA Vaccine Against Highly Pathogenic Avian Influenza 2.3.4.4 H5 Virus**

**Sara Maria Majernikova**, University of Oxford, UK

**Checkpoint Inhibitors in Non-small-cell Lung Cancer**

**Hooman Ershadi**, Merck & Co., Inc.

**Challenges of Controlling Polysorbate 80 Content Using Wide-Pore Ultrafiltration Membranes**

**Manuji Bandara**, Faculty of Medicine, University of Ruhuna, Sri Lanka

**Efficacy, Safety, and Immunogenicity of mRNA-1345 for Respiratory Syncytial Virus Prevention in Adults: A Systematic Review**



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