

## *Program*

# **20 Vaccine Technology 10<sup>th</sup> Conference**

20 years accelerating vaccine innovation

April 12 - 17, 2026

Porto, Portugal

### *Conference Chairs*

**Nedim Emil Altaras, Moderna, USA**

**Darrin Cowley, AstraZeneca, USA**

**Stephanie Frank, University College London, UK**

**Tara Tagmyer, PATH, USA**



**Engineering Conferences International**  
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Engineering Conferences International (ECI) is a not-for-profit global engineering conferences program, originally established in 1962, that provides opportunities for the exploration of problems and issues of concern to engineers and scientists from many disciplines.

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Maria Margarida Rodrigues, iBET, Portugal

Salomé Neto, iBET, Portugal

Sara Sebastião, Genibet Pharmaceuticals, Portugal

# **Vaccine Technology Conferences History**

*An ECI Conference Series*

## **Vaccine Technology I (2006)**

Barry C. Buckland, John G. Aunins, Emilio A. Emini, and Jerald C. Sadoff  
Puerto Vallarta, Mexico

## **Vaccine Technology II (2008)**

Barry C. Buckland, John G. Aunins, Paula Marques Alves, and Kathrin Jansen  
Albufeira, Algarve, Portugal

## **Vaccine Technology III (2010)**

Barry C. Buckland, John G. Aunins, Paula Marques Alves, and Kathrin Jansen  
Nuevo Vallarta, Mexico

## **Vaccine Technology IV (2012)**

Barry C. Buckland, John G. Aunins, Paula Marques Alves, and Kathrin Jansen  
Albufeira, Algarve, Portugal

## **Vaccine Technology V (2014)**

Laura Palomares, Manon Cox, John Aunins and Kathrin Jansen  
Playa del Carmen, Mexico

## **Vaccine Technology VI (2016)**

Laura Palomares, Tarit Mukhopadhyay, Manon Cox and Nathalie Garçon  
Albufeira, Portugal

## **Vaccine Technology VII (2018)**

Amine Kamen, Tarit Mukhopadhyay, Charles Lutsch, Nathalie Garçon  
Mont Tremblant, Canada

## **Vaccine Technology VIII (2022)**

Tarit Mukhopadhyay, Charles Lutsch, Linda Lua, Francesc Godia,  
Sitges, Spain

## **Vaccine Technology IX (2024)**

Linda Lua, Charles Lutsch, Francesc Godia, Tara Tagmyer  
Los Cabos, Mexico

**Conference Sponsors**

**AstraZeneca**

**BioForge**

**Gates Foundation**

**MSD**

**ModernaTX**

**Sanofi**

**WuXi Vaccines**

## **Sunday, April 12, 2026**

- 15:00 - 17:30 Conference Check-in (Ballroom Foyer)
- 15:30 - 17:00 **Workshop**  
**Vaccine Innovation and Leadership: Building a Career for Global Impact**  
Linda Lua, University of Queensland, Australia
- 17:30 - 18:00 **Opening Remarks**  
Tara Tagmyer (Conference Chair), Barry Buckland (ECI Liaison)  
Local Welcoming Committee: Maria Margarida Rodrigues; Salomé Neto; Inês Duarte; Sara Sebastião
- 18:00 - 19:00 **Keynote**  
**Global immunization: Charting a course forward in a period of deep uncertainty**  
Gian Gandhi, Gates Foundation, USA
- 19:00 - 22:00 Reception and Dinner

### **Locations and Notes**

- *Technical sessions and Workshops will be in the Ballroom.*
- *Poster Sessions will be in the Foyer Nature.*
- *Meals will be in the hotel restaurant.*
- *The ECI on site office is the Agua.*
- *Audio, still photo and video recording by any device (e.g., cameras, cell phones, laptops, PDAs, watches) is strictly prohibited during the technical sessions, unless the author and ECI have granted prior permission.*
- *Speakers – Please have your presentation loaded onto the conference computer prior to the session start (preferably the day before).*
- *Speakers – Please leave at least 3 minutes for questions and discussion.*
- *Please do not smoke at any conference functions.*
- *Turn your mobile telephones to vibrate or off during technical sessions.*
- *After the conference, ECI will send an updated participant list to all participants. Please check your listing now and if it needs updating, you may correct it at any time by logging into your ECI account.*
- *Emergency Contact Information: Because of privacy concerns, ECI does not collect or maintain emergency contact information for conference participants. If you would like to have this information available in case of emergency, please use the reverse side of your name badge.*

## **Monday, April 13, 2026**

- 7:00 - 8:30 Breakfast
- [Session: Formulation, Delivery, Device: Accelerating Vaccine Innovation in Administration and Accessibility](#)  
Chairs: Jeff Blue, Merck & Co, USA & Matthew Scholfield, AstraZeneca, USA
- 8:30 - 9:00 **Drosophila cell produced multivalent filovirus vaccines demonstrate thermostability for up to two years at elevated temperatures**  
Axel T. Lehrer, University of Hawaii, USA
- 9:00 - 9:30 **Beyond the needle: Engineering novel mRNA lipid nanoparticle formulations for mucosal vaccination**  
Shrirang Karve, Sanofi, USA
- 9:30 - 10:00 **Harnessing microcapsules to control vaccine delivery and immune priming**  
Romain Guyon, University of Oxford, UK
- 10:00 - 11:00 Coffee Break
- 11:00 - 12:00 **Keynote**  
[Securing the polio endgame: VLP Polio vaccine for the post-eradication world](#)  
Chunlin Xin, CanSino Biologics, China
- 12:00 - 13:30 Lunch
- [Session: Nucleic Acid Based Vaccines: Accelerating Vaccine Innovation with Next Generation Genetic Platforms](#)  
*Sponsored by BioForge*  
Chairs: Kate Broderick, Artis BioSolutions, USA & Duccio Medini, BioForge, USA
- 13:30 - 13:50 **Advancing mRNA vaccines through science, delivery innovation and ecosystem alignment**  
Roberta Duncan, Alliance for mRNA Medicines, USA
- 13:50 - 14:10 **From sequence to scale: Designing mRNA manufacturing systems for rapid public health response**  
Tara Jones, Moderna, USA
- 14:10 - 14:30 **A broad-spectrum norovirus mRNA vaccine elicits potent immune responses in mice and nonhuman primates**  
Jiajie Wei, Merck & Co, USA
- 14:30 - 14:50 **Carbohydrate lipids as promising PEG-alternatives for LNP formulations**  
Emilie Bazin, Sanofi, France
- 15:00 - 15:30 Coffee Break
- 15:30 - 17:00 **Plenary**  
[Global Regulatory Fireside Chat](#)  
**Panelists: Marco Cavaleri (EMA), Dean K. Smith (Health Canada), Phil Kraus (ex-US FDA), and Mimi Darko (African Medicines Agency)**  
Moderator: Leslie Madden, Moderna, Canada
- 17:00 - 18:30 Break

**Monday, April 13, 2026 (continued)**

18:30 - 20:00          Dinner

20:00 - 22:00          **Poster Session A**

***Authors of odd-numbered posters are asked to stay with their presentations***

Chair: António Roldão, iBET, Portugal

## Tuesday, April 14, 2026

7:00 - 8:30

Breakfast

### [Session: Lessons from Animal Health: Accelerating Vaccine Innovation for Human Health](#)

Chairs: Abby Patterson, Boehringer-Ingelheim, USA & Diego Fontana, Laboratorio de Desarrollo Biotecnologico, Argentina

8:30 - 8:50

**Lessons from animal health: Accelerating vaccine innovation for human health**  
Joris Vandeputte, IABS, Switzerland

8:50 - 9:10

**Advancing RNA technology in animal health**  
Sophia Hundt, CEVA Tiergesundheit GmbH, Germany

9:10 - 9:30

**Recombinant glycoantigens for tuberculosis subunit vaccines: Production, glycosylation, and immunological characterization in *Pichia pastoris* and *E. coli***  
Mauricio A. Trujillo-Roldan, Universidad Nacional Autónoma de México, Mexico

9:30 - 9:50

**Molecular and structural insights into emerging Mexican PEDv to support next-generation vaccine development**  
Norma A. Valdez-Cruz, Universidad Nacional Autónoma de México, Mexico

10:00 - 10:30

Coffee Break

10:30 - 12:00

**Workshop**  
[Bringing Vaccines to the Market \(Continued\) – this is how we do it](#)  
Manon Cox, NextWaveBio, USA

12:00 - 13:30

Lunch

### [Session: Environmental Sustainability: Accelerating Vaccine Innovation with Green Practices](#)

**Chairs:** Yinka Oyinloye, AstraZeneca, UK & Magali Barbaroux, Sartorius, France

13:30 - 13:50

**From lab bench to living room to goat farm: The FluMist sustainability journey**  
Louise McCulloch, Astra Zeneca, UK

13:50 - 14:10

**Transitioning to environmentally friendly detergents for viral inactivation in protein nanoparticle vaccine production**  
Reshma Brown, Merck & Co., Inc, USA

14:10 - 14:30

**Towards improved environmental practices in biopharmaceuticals: Opportunities emerging from single-use technologies**  
Lara Cobacho Lluesma, Sartorius, Spain

14:30 - 14:50

**The challenges and opportunities for bioremediation in vaccine production**  
Jack Jeffries, UCL, UK

**Tuesday, April 14, 2026 (continued)**

15:15 - 22:00

**Conference Excursion - Social Outing in Porto**

**Please meet promptly in the hotel lobby at 15:15.** Participants will be divided into six groups with an English-speaking guide to accompany each group to one of several local Port wine cellars for a tour of the wine cellar followed by a tasting of three port wines. (Wear walking shoes as the wineries are located up a steep hill. Should you need assistance, please check with Barbara or Renee on Monday so that alternative arrangements can be made.) After the wine tasting the guides will bring the groups back to WOW (World of Wine Museum) that is just by the waterfront area of the Douro River. You can either visit the museum (additional cost) or discover the waterfront, including the Gaia Cable Car that offers exquisite view of the Ribeira and the Porto wine cellars roofs. There are shops, vendors and multiple restaurants in this area for dinner on your own. Alternatively, just across the Douro are additional restaurants.

## **Wednesday, April 15, 2026**

- 7:00 - 8:30 Breakfast
- [Session: Regional Development and Manufacturing Capacity Building: Accelerating Vaccine Innovation for Global Equity](#)**  
**Chair:** Laura Palomares, Instituto de Biotecnologia UNAM, Mexico & Hela Kallel, CEPI, UK
- 8:30 – 9:00 **Use of next generation high throughput sequencing as an alternate to animal neurovirulence for vaccine release testing**  
Kutub Mahmood, PATH, USA
- 9:00 - 9:30 **Advancing vaccine manufacturing platforms for rapid response to global health emergency**  
Amine Kamen, McGill University, Canada
- 9:30 – 10:00 **Public-private collaboration as a catalyst for vaccine manufacturing capacity in low- and middle-income countries — Lessons from Mexico**  
Sergio Valentinotti, Laboratorios Liomont SA de CV, Mexico
- 10:00 - 11:00 Coffee Break
- 11:00 - 12:00 **Keynote**  
**[Building the first RNA innovation ecosystem in Latin America: The Fiocruz Platform implementation experience](#)**  
Patrícia Neves, FioCruz, Brazil
- 12:00 - 13:30 **Lunch**
- 13:30 - 15:00 **Workshop**  
**[Shifting Global Vaccine Priorities: Funding in a New Political Landscape](#)**  
Moderator: Piper Treisedt, Gates MRI, USA
- Panelists: Ali Allouche (Hilleman Labs), Gerard Cunningham (Adjuvant Capital), Renske Hesselink (CEPI), and Max Silverman (Gates Foundation)**
- 15:00 - 15:30 Coffee Break
- [Session: Bioprocessing Breakthroughs, AI Integration, and Systems Biology: Accelerating Vaccine Innovation in Manufacturing](#)**  
Chairs: Laura Pack, Moderna, USA & Kumar Namdev, Sanofi, USA
- 15:30 - 16:00 **From antigen design to industrialization: A data-driven approach to next-gen vaccine manufacturing**  
Cedric Charretier, Sanofi, France
- 16:00 - 16:20 **Molecular fingerprinting enables efficient clone selection for vaccine manufacture**  
Sam Reffsin, Merck & Co., Inc., USA
- 16:20 - 16:40 **Practical AI for bioprocessing: From hackathon prototypes to production-ready vaccine manufacturing**  
Phillippe-Alexandre Gilbert, Gates Foundation, USA
- 16:40 - 17:00 **Automated end-to-end optimization of glycoconjugate vaccine production using an open-source data management platform**  
Ryan Mellor, UCL, UK
- 17:00 – 18:30 Break

**Wednesday, April 15, 2026 (continued)**

18:30 - 20:00 Dinner

20:00 - 22:00 [Poster Session B](#)

***Authors of even-numbered posters are asked to stay with their presentations***

Chair: António Roldão, iBET, Portugal

## Thursday, April 16, 2026

7:00 - 8:30

Breakfast

### [Session: Next Gen Platforms and Novel Technologies: Accelerating Vaccine Innovation for the Future](#)

Chairs: Cyrielle Fougereux, Adaptvac, Denmark & Alina Tscherne, Medical University of Vienna, Ignaz Semmelweis Institut, Austria

8:30 - 8:50

#### **Respiratory IgA and protection against infection: Insights from longitudinal surveillance in a Swedish healthcare worker cohort**

Charlotte Thalín, Karolinska Institute, Sweden

8:50 - 9:10

#### **Engineering an endogenous retrovirus antigen for cancer therapy**

Anne-Marie Andersson, HERVolution Therapeutics, Denmark

9:10 - 9:30

#### **The impact of the deprioritization of mRNA vaccine technology on pandemic preparedness: What are the alternatives?**

Tanima Sinha, BDO USA PC, USA

9:30 - 9:50

#### **Encapsulins: Developing protein nanocages for stable and protective mRNA delivery**

Yuqian Ou, UCL, UK

10:00 - 10:30

Coffee Break

10:30 - 12:00

### **Workshop**

#### **[Bringing Next Generation Adjuvants to Market](#)**

Dennis Christensen, Croda, Denmark

12:00 - 13:30

Lunch

### [Session: Vaccine Analytical Tools and PAT: Accelerating Vaccine Innovation through Precision](#)

**Chairs:** Jamie Wagner, Merck & Co, USA & Laura Cervera Gracia, Universitat Autònoma de Barcelona, Spain

13:30 – 14:00

#### **Bridging innovation to vaccine analytics in the LMIC development space**

Jessica White, PATH, USA

14:00 - 14:20

#### **Real-time monitoring and forecasting of viral titer during adenovirus production in HEK293 cells**

Xingge Xu, McGill University, Canada

14:20 - 14:40

#### **Dry analysis of liquid vaccines by water NMR**

Bruce Yu, University of Maryland School of Pharmacy, USA

14:40 – 15:00

#### **Next generation sequencing for adventitious virus testing: Validation study in a live vaccine matrix**

Laura Hill, AstraZeneca, UK

15:00 - 16:00

Coffee Break

16:00 - 17:30

### **Poster Short Talks**

***The top 15 ranked poster presenters discuss their research in 3-minute talks***

**Thursday, April 16, 2026 (continued)**

17:30 - 19:00

**Plenary**

**Vaccine Technology X – 20 Years of Vaccine Technology**

***Sponsored by ModernaTX***

Tarit Mukhopadhyay, Merck & Co, USA

Panelists: Collette Ranch (Merck & Co), Piper Trelstad (Gates MRI)

19:00 - 22:00

**Banquet**

**Friday, April 17, 2026**

7:00 - 9:00

Breakfast

Departures

## List of Posters

### Next Gen platforms and Novel technologies: Accelerating Vaccine Innovation for the Future

- 1. Automated Cell-Free Manufacturing of VLP Vaccines: A Platform for Decentralised, Rapid Response Bioproduction**  
Jonathan Jones, CPI, UK
- 2. Suspension Vero Cell Culture for the Production of a Measles Vaccine**  
Daniel Spatafore, Merck & Co., Inc., USA
- 3. Towards optimized BEVS-based vaccine production: Evaluation of non-conventional promoters for enhanced expression of a fluorescent hemagglutinin fusion protein in Sf9 cells**  
Kenth Maquiling, University of Waterloo, Canada
- 4. Expression of poliovirus virus-like particle vaccines in *Pichia pastoris* using different promoters to control expression**  
Jessica J. Swanson, University of Leeds, UK
- 5. Genetic modification of influenza A virus defective interfering particles to enhance immune stimulation and improve antiviral efficacy**  
Julita Piasecka, Max Planck Institute for Dynamics of Complex Technical Systems, Germany
- 6. Dual strategy for modular antigen display on ferritin nanoparticles for next-generation vaccines**  
Margarida Queluz Rodrigues, iBET, ITQB NOVA, Portugal
- 7. Accelerated discovery of antigen-displaying protein nanoparticles via an mRNA-based high-throughput screening platform**  
Yi Shu, MSD, USA
- 8. The Molecular Clamp Platform: A broadly applicable solution to the development of multipathogen subunit vaccines**  
Andrew Young, University of Queensland, Australia, Australia
- 9. Next-generation vaccine manufacturing: producing millions of doses in a compact footprint with drastic cost reductions**  
Thomas Robert, Univercells Technologies, Belgium
- 10. Addressing charge variant heterogeneity for vaccine protein antigens**  
Adam Gabriel, Merck & Co., Inc., USA
- 11. Mix it up! Formulation process development for improved function and biophysical attributes of nanoparticle vaccines**  
Amita Vaidya, Sanofi, USA
- 12. *E. Coli* strikes back: Reinventing microbial expression to enable affordable vaccines**  
Renaud Jacquemart, Fina Biosolutions, Omnium Global, Canada
- 13. Enhancing vaccine technology partnerships to enable cGMP manufacturing for clinical and commercial vaccines**  
Tshering Sherpa, WuXi Vaccines, USA
- 14. Preclinical evaluation of rationally designed influenza vaccines using Modified Vaccinia virus Ankara as a viral vector**  
Alina Tscherne, Division of Virology, Dep. of Veterinary Sciences, LMU Munich, Germany

15. **Engineering an endogenous retrovirus antigen for cancer therapy**  
Anne-Marie Andersson, HERVolution Therapeutics, Denmark
16. **Engineering *Pichia pastoris* Cell-Free Protein Synthesis as a prototyping tool for *in vivo* protein design**  
Rui Wu, Imperial College London, UK
17. **The impact of the vaccination schedule on antibody functionality - insights from a clinical trial investigating an MVA-vectored MERS vaccine**  
Leonie M. Weskamm, University Medical Center Hamburg-Eppendorf; Bernhard Nocht Institute for Tropical Medicine, Germany

#### **Bioprocessing Breakthroughs, AI Integration, and Systems Biology: Accelerating Vaccine Innovation in Manufacturing**

18. **Can improved DNA removal simplify the downstream processing of enveloped VLPs?**  
Malena Von Elling-Tammen, TH Koln, Sartorius, Germany
19. **Optimization for the production of a Dengue live-attenuated quadrivalent vaccine in vero cells grown on microcarriers**  
Bernard Kang, Merck & Co., Inc., USA
20. **Toward an integrated one-step purification platform for virus-like particles using functionalized non-woven fibers**  
Markus Mozgovicz, acib GmbH, BOKU University, Austria
21. **Intensifying oncolytic vaccine manufacturing**  
Lennart Jacobtorweihe, Max Planck Institute Magdeburg, Germany
22. **New tricks for 190 kb of genomic DNA in the cytoplasm: MVA as an Mpox vaccine and a viral vector for Personalized Vaccines and Pandemic Response**  
Volker Sandig, ProBioGen AG, Germany
23. **Pfripr5 as a new asexual blood-stage malaria vaccine candidate: From antigen discovery to readiness for GMP production**  
Antonio Roldao, iBET, ITQB-NOVA, Portugal
24. **High-throughput and scalable production of glycoconjugate vaccine via Protein Glycan Coupling Technology**  
Ivana Stolfa, University College London, UK
25. **Comparative study of serum-free media for influenza virus production in suspension MDCK cells**  
Anna-Barbara Hachmann, Thermo Fisher Scientific, USA
26. **Adenovirus-like particles (ADDomer) for snakebite therapy: Enhancing production via process intensification**  
Salome Neto, iBET, ITQB-NOVA, Portugal
27. **Resonant acoustic mixing enriches vaccine-relevant and adjuvant-candidate proteins in *E. coli* extracellular vesicles**  
Norma A. Valdez-Cruz, Universidad Nacional Autonoma de Mexico, Mexico

28. **Suspension Vero cell culture technology for high titer and cost-effective production of viral vaccines and therapeutic viruses**  
Chun Fang Shen, National Research Council of Canada, Canada
29. **3-fold higher process performance for mRNA purification with disruptive Vibro® Membrane Filtration**  
Jarno Robin, SANI Membranes, Denmark
30. **Downstream Processing of Viral Vaccines and Enveloped VLPS: Towards Platform Processes**  
Alois Jungbauer, BOKU University, acib, Austria
31. **Challenges & innovations during a simultaneous scale-up & scale-down technology transfer of a *S. pneumoniae* capsular polysaccharide purification process into an intermediate scale facility**  
Francis DiGennaro, Merck & Co. Inc., USA
32. **mRNA innovation and the CEPI 100-day mission: Advancing rapid, equitable vaccine access**  
Hela Kallel, CEPI, UK
33. **Enhancing Influenza virus production through MDCK clone selection and characterization**  
Nicole Pereira, Butantan Institute, University of Sao Paulo, Brazil

#### **Vaccine analytical tools and PAT: Accelerating Vaccine Innovation through Precision**

34. **Efficient purification of Measles virus by combination of salt-active nuclease treatment and heparin-affinity chromatography**  
Viktoria Mayer, acib GmbH, Austria
35. **DNAzyme-mediated analysis of capping efficiency across co- and post-transcriptional mRNA capping methods**  
Laurence Dubeau-Mallete, McGill University, Canada
36. **Advancing analytical and manufacturing readiness for mRNA-LNP Vaccines: A collaborative approach to stability, characterization, and process understanding**  
Ryan Foster, NIIMBL, USA
37. **Impact of culture hydrodynamics on *Piscirickettsia salmonis* exopolysaccharide biosynthesis and immunogenic potential for bacterin vaccines**  
Mauricio A. Trujillo-Roldan, Centro de Nanociencias y Nanotecnologia, Universidad Nacional Autonoma de Mexico, Mexico

#### **Lessons from Animal Health: Accelerating Vaccine Innovation for Human Health**

38. **CellTrypase: A high purity recombinant alternative to porcine trypsin for vaccine production**  
Angel Varela-Rohena, Kerry, USA
39. **Replacing FBS: ACF supplements for serum-free vaccine production**  
Louise Galuski, Kerry, USA
40. **Use of T-flasks as a scale-down strategy in vaccine development using iCellis Nano® fixed bed bioreactor.**  
Flavia Ferreira Barbosa, Butantan Foundation, University of Sao Paulo, Brazil

## **Formulation, Delivery, Device: Accelerating Vaccine Innovation in Administration and Accessibility**

41. **'CHOpen': An accessible GMP-banked CHO cell line to lower barriers to GMP vaccine production**  
Catherine Cherry, University of Oxford, UK
42. **Aluminum adjuvants improve translation efficiency and shelf-life stability of nucleic acid-based vaccines**  
Elodie Bulet, VaxForm, USA
43. **A vaccine formulation needing a second look: Lyophilized adjuvanted recombinant subunit vaccines produced in drosophila cells**  
Teri Ann Wong, University of Hawaii, USA
44. **Innovations for rapid and equitable vaccine delivery**  
Renske Hesselink, CEPI, Norway

## **Regional Development and Manufacturing Capacity Building: Accelerating Vaccine Innovation for Global Equity**

45. **Impact of TFF (100/300 kDa) and Capto Core (400/700) on the purification of inactivated Zika vaccine**  
Andreza Ueoka, Butantan Institute, Brazil
46. **Bench-scale bioreactor model for yellow fever virus production: Scale-down and validation for process optimization at pilot scale**  
Luciane Gaspar, Institute of Technology in Immunobiologicals, Fiocruz, Brazil
47. **Disrupting conjugate vaccine economics: Affordable carrier protein and efficient chemistry**  
Andrew Lees, Fina Biosolutions, USA
48. **Evaluation of comparability and scalability of trimeric, prefusion-stabilized SARS-CoV-2 spike protein production in different glass and single-use bioreactors**  
Leda Castilho, Federal University of Rio de Janeiro (UFRJ), Brazil
49. **Techno-economic analysis of a single-use bioreactor platform for HEK293-based production of SARS-CoV-2 trimeric spike protein drug substance**  
Leda R. Castilho, Federal University of Rio De Janeiro, Brazil

## **Nucleic Acid based vaccines: Accelerating Vaccine Innovation with Next Generation Genetic Platforms**

50. **Intensification and real-time monitoring of *in vitro* transcription for messenger RNA (mRNA) vaccine production**  
Julia Puppín Chaves Fulber, McGill University, Canada
51. **A Novel mRNA vaccine platform using Tag/Catcher Conjugation for Modular Assembly and secretion of Antigen-Displaying Capsid Virus-Like Particles**  
Louise Goksøyr, AdaptVac, Denmark

**52. ChAdOx platform CMC improvement for future outbreak response**

Catherine Cherry, University of Oxford, UK

**53. Engineered influenza vectors for use as broadly-acting antivirals and live nasal vaccines**

Sascha Y. Kupke, Max Planck Institute DCTS, Germany

**Environmental sustainability: Accelerating Vaccine Innovation with Green Practices**

**54. Demonstration of scale-up model for continuous-flow ultracentrifugation in sucrose gradients for particle separation**

Guilherme Costa, acib GmbH, BOKU University, Austria

**55. Revisiting influenza vaccine production: animal-free alternatives for enhanced efficiency**

Anna-Barbara Hachmann, Thermo Fisher Scientific, USA

**Next Gen platforms and Novel technologies: Accelerating Vaccine Innovation for the Future**

**56. Metastability-guided antigen design enables rapid C1 production of prefusion F trimers with CHO-like neutralizing antibody responses**

Mark Emalfarb, Dyadic International, Inc., USA