

Preliminary Program

(May 18, 2022)

VACCINE TECHNOLOGY VIII

June 12 - 17, 2022

**Sitges, Spain
Melia Sitges Hotel**

Conference Co-Chairs

Francesc Godia
Universitat Autònoma de Barcelona, Spain

Linda Hwee-Lin Lua
University of Queensland, Australia

Charles Lutsch
Sanofi, France

Tarit Mukhopadhyay
Merck Research Laboratories, USA



Engineering Conferences International

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Sunday, June 12, 2022

15:00 – 17:30	Conference check-in
17:30 – 18:00	Opening remarks
18:00 – 19:00	<u>KEYNOTE</u> A tale of two worlds from the ongoing pandemic – unprecedented successes and all too familiar failures David Robinson, The Bill & Melinda Gates Foundation, USA
19:00 – 21:30	Reception and Dinner

Monday, June 13, 2022

07:00 – 08:30 Breakfast Buffet

Session 1: Technological and clinical advances in vaccinology

Chairs: Florian Krammer, Icahn School of Medicine at Mount Sinai, USA
Julià Blanco, IRSI Caixa, Spain

08:30 – 09:00

Lead Speaker

Advances in therapeutic HIV vaccine development

Christian Brander, IRSI Caixa, Spain

09:00 – 09:20

A single injection of a trimeric Ebola GP1/2 protein variant produced at 0.5 g/L in Chinese hamster ovary cells generates sterilizing protection in a novel mouse model for Ebola virus infection

Paco Pino, ExcellGene SA, Switzerland

09:20 – 09:40

Microarray patch delivery of un-adjuvanted influenza vaccine induces potent and broad-spectrum immune responses in a phase I clinical trial

Alexandra C. I. Depelseñaire, Vaxxas Pty Ltd, Australia

09:40 – 10:00

Development of a thermostable, multivalent filovirus vaccine based on recombinant subunit proteins

Axel T. Lehrer, University of Hawaii, USA

10:00 – 10:30

Coffee Break

Session 2: Technological and clinical advances in vaccinology

Chairs: Sandy Douglas, University of Oxford, United Kingdom
Barry Buckland, BioLogicB LLC, USA

10:30 – 11:00

The inactivated NDV-HXP-S COVID-19 vaccine induces a significantly higher ratio of neutralizing to non-neutralizing antibodies in humans as compared to mRNA vaccines

Juan Manuel Carreño, Icahn School of Medicine at Mount Sinai, USA

11:00 – 11:20

Targeting endogenous retroviruses using a novel adenoviral vaccine technology

Anne-Marie Andersson, InProTher ApS, Denmark

11:20 – 11:40

Killed but metabolically active Pseudomonas aeruginosa-based vaccine induces protective humoral- and cell-mediated immunity against Pseudomonas aeruginosa pulmonary infection

Sarah Thiroux, UGA, CNRS, CHU, France

11:40 – 12:00

Superior SARS-CoV-2 RBD antigen designs for highly specific, quantitative serotests

Miriam Klausberger, University of Natural Resources and Life Sciences, Austria

12:00 – 13:30

Lunch

13:30 – 14:30

KEYNOTE ON COVID-19 VACCINE

Learnings from the development of Covid-19 vaccines

Kathrin Jansen, Pfizer, USA

Monday, June 13, 2022 (continued)

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|---------------|---|
| 14:30 – 16:00 | Workshop: Innovation in Global Health
Workshop chairs: David Robinson, The Bill & Melinda Gates Foundation, USA
Tarit Mukhopadhyay, Merck Research Laboratories, USA |
| 16:00 – 17:00 | Coffee Break / Networking |
| 18:30 – 20:00 | Dinner |
| 20:00 – 22:00 | Poster session 1 (Odd numbers)
Poster Chairs: Laura Cervera, UAB, Spain
Antonio Roldao, IBET, Portugal |

Tuesday, June 14, 2022

07:00 – 08:30 Breakfast Buffet

Session 3: Next generation platforms

Chairs: Amine Kamen, McGill University, Canada
Fu Tong-Ming, IGM Biosciences, Inc., USA

08:30 – 09:00 **Lead Speaker**
Discovery & Development of Therapeutic Interfering Particles (TIPs): single-administration SARS-CoV-2 and HIV antivirals with high barriers to the evolution of resistance
Leor Weinberg, University of California, San Francisco, USA

09:00 – 09:15 **Towards a platform process for the manufacture of glycoconjugate vaccines for pneumococcal disease**
Neha Patel, University College London, United Kingdom

09:15 – 09:30 **Enabling technologies for manufacturing thermostable and cost-effective vaccines**
Justin Stanbro, Merck & Co., Inc., USA

09:30 – 09:45 **Antibiotic-free expression platform development for *Phaeodactylum tricornutum* producing high value recombinant proteins**
Greta Csalane Besenyi, University College London, United Kingdom

09:45 – 10:00 **Genomics of Vero cells: Understanding this cell line and its virus-host interactions for improved vaccine production**
Marie-Angelique Sene, McGill University, Canada

10:00 – 10:30 Coffee Break

10:30 – 12:00 **Workshop**
Crafting a Career in Bioscience
Workshop Chairs: Linda Lua, University of Queensland, Australia
Manon Cox, Next Wave Bio, USA

12:00 – 13:30 Lunch

Session 4 and 5: Bioprocessing advances in vaccine manufacturing

Chairs: Martina Micheletti, University College London, United Kingdom
Paula Alves, IBET, Portugal
Joseph Joyce, Merck & Co., Inc., USA

13:30 – 14:00 **Lead Speaker**
From genome to structure and beyond
Mariagrazia Pizza, GSK Vaccines, Italy

14:00 – 14:20 **Production of influenza A virus defective interfering particles in a high cell density perfusion cultivation with continuous virus harvesting**
Marc D. Hein, Max Planck Institute and Otto von Guericke University, Germany

14:20 – 14:40 **Development of an automated microscale platform for conjugate vaccine production in *E. coli***
Jasmin J. Samaras, University College London, United Kingdom

Tuesday, June 14, 2022 (continued)

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|---------------|---|
| 14:40 – 15:00 | Development of a purification process for HIV-1 VLPs based on four steps, from supernatant to lyophilization
Eliañet Lorenzo Romero, Universitat Autònoma de Barcelona, Spain |
| 15:00 – 15:20 | AMBR®250 HT System: A key process development tool for new live virus and microbial vaccine candidates
Jessica Olson, Merck & Co, Inc., USA |
| 15:20 – 15:40 | Enhancement of PCV viral antigen production: combined effect of feed based on metabolic requirements and mild hypothermia
Ziomara Gerdtsen, University of Chile, Chile |
| 15:40 – 16:00 | Accelerating and intensifying manufacturing to enable large-scale supply of a new adenovirus-vectored vaccine within 100 days
Sandy Douglas, University of Oxford, United Kingdom |
| 16:00 | Sitges activities
Dinner on your own |

Wednesday, June 15, 2022

07:00 – 08:30 Breakfast

Session 6: Vaccine analytics I

Chairs: Paula Lei, NIH/VRG, USA

Cristiana Kampa, GlaxoSmithKline, United Kingdom

08:30 – 09:00

Lead Speaker

Driving change in dtap batch release testing

Isabelle Bekeredit-Ding, Paul-Ehrlich-Institute, Germany

09:00 – 09:20

The implication of glycans on the ACE2: SARS-CoV-2 spike interaction

Manuel Reithofer, University of Natural Resources and Life Sciences, Austria

09:20 – 09:40

Generation of an international standard serum to measure influenza virus hemagglutinin stalk-reactive antibodies

Juan Manuel Carreno Quiroz, Icahn School of Medicine at Mount Sinai, USA

09:40 – 10:00

New insights in formaldehyde-induced detoxification of the tetanus toxin: Chemical modification stoichiometry and characterization of intra- and inter-molecular cross-links

Thierry Eynard, Sanofi, France

10:00 – 10:30

Coffee Break

Session 7: Vaccine analytics II

Chairs: Laura Palomares, UNAM, Mexico

Patrice Riou, Sanofi, France

10:30 – 10:45

Development of analytical characterization tools for process monitoring of adenovirus-based vaccines (ChAdOx and Ad5)

Shaleem I. Jacob, University College London, United Kingdom

10:45 – 11:00

Novel application of flow virometry to monitor live virus vaccines

Geoffrey Ricci, Merck & Co, Inc., USA

11:00 – 11:15

On-Line influenza virus quantification for viral production processes thanks to affinity-based surface plasmon resonance biosensor

Emma Petiot, ICBMS-Gembas Laboratory, France

11:15 – 11:30

All doses are not the same: Potential role of vaccine quality in vaccine adverse reactions

Bruce Yu, University of Maryland, USA

11:30 – 12:00

Panel Discussion

12:00 – 13:30

Lunch

13:30 – 14:30

KEYNOTE

Development of the Oxford AstraZeneca Covid Vaccine

Sarah Gilbert, University of Oxford, UK

Wednesday, June 15, 2022 (continued)

- 14:30 – 16:00 **Workshop: Intensified Vaccine Manufacturing**
Workshop Chairs: Udo Reichl, Max-Planck-Institut Magdeburg, Germany
Charles Lutsch, Sanofi, France
- Intensified manufacturing of engineered exosomes and their potential in advanced vaccine design**
Konstantin Konstantinov, Codiak BioSciences, Inc., USA
- An aseptic platform process for recombinant measles viruses**
Viktoria Mayer, BOKU, Vienna, Austria
- How can process intensification solve bottlenecks in vaccine manufacturing?**
Amélie Boulais, Sartorius Stedim FMT S.A.S., France
- Process intensification considerations for LMIC**
Philippe Alexandre Gilbert, Bill & Melinda Gates Foundation, USA
- How does process intensification impact distributed manufacturing and access?**
Tania Pereira, Univercells Technologies, Belgium
- Discussion
- 16:00 – 17:00 Coffee Break
- Session 8: One health**
Chairs: Diego Fontana, Universidad Nacional Del Litoral, Argentina
Jean-Christophe Audonnet, Former Animal Health - Vaccine Industry leader, France
- 17:00 – 17:30 **Developing a ‘One Health’ Nipah virus vaccine to protect animal and public health**
Simon P. Graham, The Pirbright Institute, UK
- 17:30 – 17:50 **Design of mimotopes of a conserved epitope in dengue and Zika viruses for the obtention of broadly neutralizing antibodies**
Esmeralda Cuevas-Juárez, Instituto de Biotecnología, Mexico
- 17:50 – 18:10 **Sustained delivery of therapeutic nanobody cargo at the mucosal surfaces by engineered Limosilactobacillus reuteri**
Sambuddha Ghosh, Abel BioSolutions, Pune, India
- 18:10 – 18:30 **Adenovirus-based vaccine platform for mucosal or parenteral immunization of chickens**
Omar Famos, McGill University, Canada
- 18:30 – 20:00 Dinner
- 20:00 – 22:00 **Poster session 2 (Even numbers)**
Poster Chairs: Laura Cervera, UAB, Spain
Antonio Roldao, IBET, Portugal

Thursday, June 16, 2022

07:00 – 08:30 Breakfast

Session 9: Formulation and delivery

Chairs: QinJian Zhao, Xiamen University, China
Lakshmi Khandke, PATH Center for Vaccine Innovation and Access, USA

08:30 – 09:00 **Lead Speaker**
Challenges and opportunities to formulate and stabilize vaccine candidates targeted for use in LMICs
David Volkin, The University of Kansas, USA

09:00 – 09:20 **Development of an oral protein subunit COVID-19 vaccine to induce mucosal and systemic immune response**
Elodie Burlet, VaxForm, LLC, USA

09:20 – 09:40 **TBA**

09:40 – 10:00 **Development of sulfated lactosyl archaeol (SLA) archaeosomes as a vaccine adjuvant**
Michael McCluskie, National Research Council Canada, Canada

10:00 – 10:30 Coffee Break

10:40 – 12:00 **Workshop: Next Gen Sequencing**
Workshop chairs: Jean-Pol Cassart, GSK, United Kingdom
Marc Eloit, Institut Pasteur, France

12:00 – 13:30 Lunch

Session 10: Capacity building and intervention plan

Chairs: Martin Elsenhawer, WHO, Switzerland
Matthew Downham, CEPI, United Kingdom

13:30 – 14:00 **Lead Speaker**
Disease X development and 100 days initiative
Nicolas Havelange, CEPI, United Kingdom

14:00 – 14:24 **Developing an end to end manufacturing platform for self-amplifying messenger RNA vaccines**
Kunal Aggarwal, GSK, USA

14:24 – 14:48 **A rapid response vaccine manufacturing platform as a countermeasure to epidemic threats**
Tania Pereira Chilima, Univercells Technologies S.A., Belgium

14:48 – 15:12 **Advancing vaccine development and manufacture in Africa**
Patrick Tippoo, African Vaccine Manufacturing Initiative, South Africa

15:12 – 15:36 **Test tubes and turnaround times: An accelerated biosafety testing approach for new vaccines against emerging pathogens**
Sarah Sheridan, Merck, United Kingdom

Thursday, June 16, 2022 (continued)

15:36 – 16:00	Production of high-quality SARS-CoV-2 antigens for vaccine development and serological assays implementation Bárbara Fernandes, IBET, Portugal
16:00 – 16:30	Coffee Break
16:30 – 17:30	Poster short talks
17:30 – 18:30	<u>KEYNOTE</u> Shifting the paradigm from global to national: innovative approaches for sustainable production of priority vaccines Birgitte Giersing, WHO
18:30 – 19:00	Closing Conference Chairs
19:00 – 22:00	Banquet

Friday, June 17, 2022

07:00 – 10:00	Breakfast, Checkout and Departures
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