Program

Vaccine Technology IV

May 20-25, 2012
Albufeira, Portugal

Program Co-Chairs

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Sunday, May 20, 2012

15:30 – 18:00	Conference check-in
18:00 – 18:30	**Welcoming Remarks and Opening of the Conference** **Conference Chairs Introduction** **Celebrating 50 years of ECI Conferences - John Aunins**
18:30 – 19:30	**Keynote** **Malaria Vaccines as a model of vaccine development** David Kaslow, PATH, Malaria Vaccine Initiative, USA
19:30 – 20:15	Welcome Reception with Folk Dancing
20:15 – 22:00	Dinner

NOTES

- Technical Sessions will be held in Sala Grande Real.
- Poster Sessions will be held in Grande Real Foyer.
- Most meals will be in the Restaurante do Real. Changes will be announced.
- The conference banquet on Thursday will be held in the Restaurante Santa Eulalia.
- Audiotaping, videotaping and photography of presentations are prohibited.
- Speakers – Please leave at least 5 minutes for questions and discussion.
- Please do not smoke at any conference functions.
- Turn your cellular 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.

Monday, May 21, 2012

07:00 – 08:30	Breakfast
08:30 – 11:00	***Session I: Vaccine target identification and validation*** Session Chairs: *George* Siber, Genocea David Weiner, University of Pennsylvania
08:35 – 09:05	**Comprehensive T-cell antigen discovery using a genomic approach** Jessica Flechtner, Genocea Biosciences, USA
09:05 – 09:35	**Rational design of a fully synthetic nanoparticle-based vaccine for smoking cessation** Takashi Kei Kishimoto, Selecta Biosciences, USA
09:35 – 10:05	**Tolerogenic vaccination exploiting apoptotic mechanisms via erythrocyte-to-hepatic targeting** Jeffrey A. Hubbell, Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland
10:05 – 10:30	**Development of a vaccine against clostridium difficile infection: Design, purification and biological activities of recombinant toxin antigen fragments** Jerzy Karczewski, Merck, USA
10.30 – 11:00	Coffee break
11:00 – 11:30	**Molecular deconvolution of the monoclonal antibodies that comprise the serum response to vaccination** George Georgiou, University of Texas, USA
11:30 – 13:10	***Session II: Technology challenges in developing world market (Part 1)*** Session Chairs: Leda Castilho, Federal University of Rio de Janeiro Paula Alves, IBET ***Sponsored by ATMI Life Sciences***
11:30 – 12:00	**Instituto Butantan - 111 years producing immunobiologicals: New challenges** Jorge Kalil, Instituto Butantan, Brazil
12:00 – 12:20	**PATH vaccine global development program** George A. Robertson, PATH, USA
12:20 – 12:50	**Recombinant VLP based human vaccines for emerging markets** Qinjian Zhao, Xiamen University, China
12:50 – 13:10	**Establishing human vaccine manufacturing in Southern Africa** Morena Makhoana, The Biovac Institute, South Africa
13:10 – 14:00	Lunch

Monday, May 21, 2012 (continued)

14:00 – 15:30	***Session III: Late stage and recently launched vaccines*** Session Chairs: Nathalie Garcon, GlaxoSmithKline Kathrin Jansen, Pfizer ***Sponsored by GE Healthcare Life Sciences***
14:00 – 14:30	**Development of Pfizer bivalent RLP2086 vaccine for prevention of invasive disease caused by *Neisseria Meningitidis* Serogroup B** Joe Eiden, Pfizer, USA
14:30 – 15:00	**Recombinant influenza vaccine** Manon Cox, Protein Sciences, USA
15:00 – 15:30	**Process understanding approach for a late-stage recombinant protein vaccine produced in *Saccharomyces Cerevisiae*** José Manuel Otero, Merck, USA
15:30 – 17:00	*ad hoc* sessions, free time
17:00 – 19:00	***Session II: Technology challenges in developing world market (Part 2)***
17:00 – 17:30	**Challenges in development of an anti-idiotypic cancer vaccine** Adolfo Castillo Vitlloch Center of Molecular Immunology, Cuba
17:30 – 18:00	**Expectation of China's contribution to world vaccine development and supplies: Status, strategy and international approach** Li Shi, Shanghai Zerun Biotechnology Ltd. Co., China
18:00 – 18:20	**Rabies virus-like particles expressed in HEK293 cells** Diego Fontana, Universidad Nacional del Litoral, Argentina
18:20 – 18:40	**The role of public-private partnerships in advancing vaccine technologies and improving vaccine effectiveness and delivery for developing countries** Ray Cummings, PATH, USA
18:40 – 19:00	**Challenges in clinical batches production of malaria vaccines** Nicolas Havelange, European Vaccine Initiative, Germany
19:00 – 20:30	Dinner
20:30 – 22:30	Poster Reception

Tuesday, May 22, 2012

07:00 – 08:30	Breakfast
08:30 – 10:30	***Session IV: Vaccine stability, characterization and delivery*** Session Chairs: Debbie Drane, CSL Limited Robert Evans, Merck, USA
08:30 – 08:50	**Optimization of vaccine thermal stability through high-throughput formulation - Development of a screening platform and application to measles vaccine** Iain McFadyen, ex-Transform Pharmaceuticals, Inc., USA
08:50 – 09:10	**Nanopatches for targeted vaccine delivery to skin: Improving vaccines** Mark Kendall, AIBN, University of Queensland, Australia
09:10 – 09:30	**Formulation and stability studies for a Chikungunya virus-like particle (Chikv VLP) based vaccine** Richard Schwartz, Vaccine Production Program Laboratory/VRC/NIAID, USA
09:30 – 09:50	**High throughput formulation design for a stable lyophilized virus-like particle vaccine against Group A Streptococcus** Yap Pang Chuan, AIBN, University of Queensland, Australia
09:50 – 10:10	**Challenges in optimizing formulations for multi-antigen vaccines** Lakshmi Khandke, Pfizer, USA
10:10 – 10:30	**Stabilization technology for viral vaccines and adjuvanted vaccines** Stephen Ward, Stabilitech Ltd., UK
10:30 – 11:00	Coffee break
11:00 – 13:00	***Session V: Veterinary vaccines*** Session Chairs: Robert Nordgren, Merial Ian Tarpey, Merck
11:00 – 11:30	**A new successful vaccine against babesiosis: Any use for malaria?** Theo Schetters, Merck, USA
11:30 – 12:00	**Leishmaniasis vaccine development: Animals as models and patients** Steven Reed, IDRI
12:00 – 12:30	**Rift valley fever: Next generation vaccines for an old foe** Brian Bird, CDC, USA
12:30 – 12:50	**Functional genomics as a tool to define a molecular signature of effective vaccination against foot and mouth disease virus** Jose A. Chabalgoity, Departamento de Desarrollo Biotecnologico, Facultad de Medicina, Universidad de la Republica, Uruguay
13:00 – 14:30	Lunch
14:30 – 15:30	*ad hoc* sessions, free time

Tuesday, May 22, 2012 (continued)

15:30 – 19:00	***Session VI: Oncology and therapeutic vaccines*** Session Chairs: John Aunins, Janis Biologics Amine Kamen, National Research Council
15:35 – 16:15	**Keynote: Oncolytic viruses as cancer therapies** Stephen Russell, Mayo Clinic, USA
16:15 – 16:35	**Vaccine potential of replicating oncolytic virus vectors** John C. Bell, Ottawa Hospital Research Institute, Canada
16:35 – 17:05	**The CMC challenges in developing an oncolytic immunotherapy** Colin Love, Amgen, USA
17:05 – 17:30	Coffee break
17:30 – 17:50	**Development of novel cell-based immunotherapies** Madhusudan Peshwa, Maxcyte, USA
17:50 – 18:10	**Process development for a peptide conjugated qbeta virus-like particle (VLP) vaccine** Jennifer Thorn, Pfizer, USA
18:10 – 18:30	**Chimpanzee ad vector technology platform for prophylactic and therapeutic genetic vaccine applications** Stefano Colloca, Okairos, Italy
18:30 – 18:50	**Cervical cancer immunotherapy: Induction of HPV specific CTLs in human volunteers after VGX-3100 immunization** Niranjan Y. Sardesai, Ph.D., Inovio Pharmaceuticals, Inc., USA
19:00 – 20:30	Dinner
20:30 – 22:30	Poster Reception

Wednesday, May 23, 2012

07:00 – 08:30	Breakfast
08:30 – 12:40	***Session VII: Bioprocess development and analytical tools*** Session Chairs: Luis Maranga, Novartis Vaccines & Diagnostics (NV&D) Laura Palomares, UNAM, Mexico ***Sponsored by BIA Separations***
8:30 – 09:00	**Microbial fermentation: New tools to speed-up vaccine antigen development and increase process knowledge** Catherine Jourdat, Sanofi Pasteur, France
09:00 – 09:30	**Bacterial expression of a VLP Sub-unit for rapid and cheap influenza vaccination** Anton Middelberg, University of Queensland, Australia
09:30 – 10:00	**High cell density cultivations for influenza virus production** Yvonne Genzel, Max Planck Institute for Dynamics of Complex Technical Systems, Germany
10:00 – 10:20	**RMCE-based SF9 cell factory for production of multimeric VLPs** Ana P. Teixeira, ITQB-UNL/IBET, Portugal
10:20 – 10:50	Coffee break
10:50 – 11:20	**Systematic characterization of adventitious agent testing for biological medicinal products** Rebecca Sheets, NIH, National Institute of Allergy & Infectious Diseases, USA
11:20 – 11:50	**Automation and multiplexing of immunoassays: Improving precision and throughput** Ilia Tikhonov, PPD, USA
11:50 – 12:10	**Developing a suite of analytics to support process development for the manufacture of polysaccharides** Aaron Noyes, University College London, UK
12:10 – 12:40	**Prediction of serum bactericidal and opsonophagocytosis using a high-throughput flow cytometric antibody-mediated complement binding assay for *Neisseria Meningitidis*** Andrew Gorringe, Health Protection Agency, UK
12:40 – 14:00	Lunch
14:00 – 15:00	*ad hoc* sessions
15:00 – 16:30	***Session VIII: Biodefense, pandemic & emerging disease vaccines: (Part 1)*** Session Chairs: Barry Buckland, University College London Phil Gomez, PriceWaterhouseCoopers
15:00 – 15:30	**Development of vaccines for Ebolavirus** Nancy Sullivan, NIH, USA

Wednesday, May 23, 2012 (continued)

15:30 – 16:00	**BARDA vaccine program** Bob Huebner, BARDA, USA
16:00 – 16:30	**Sabin-IPV process development and optimization for cost-price reduction and technology transfer purposes** Wilfried A.M. Bakker, National Institute for Public Health and the Environment (RIVM), Netherlands
17:00 – 22:00	Excursion (Dinner on own)

Thursday, May 24, 2012

07:00 – 08:30	Breakfast
08:30 – 13:00	***Session IX: New technologies and approaches*** Session Chairs: Mike Hoare, University College London Herve Pinton, Sanofi Pasteur ***Sponsored by Sartorius Stedim Biotech***
08:30 – 09:00	**Bacterium-like particles as delivery vehicles for multimeric antigens** Kees Leenhouts, Mucosis B.V., Netherlands
09:00 – 09:20	**Production of bacterial outer membrane vesicles for antigen delivery** Bas van de Waterbeemd, RIVM/Vaccinology/Process Development, Netherlands
09:20 – 09:50	**Mutiply activated VLP influenza vaccines** James Swartz, Stanford University, USA
09:50 – 10:10	**Endotoxin-free *E. Coli* hosts for vaccine discovery and production** David Bramhill, Research Corporation Technologies, USA
10:10 – 10:30	**Micro-scale vaccine development – A tools set for success** Tarit K. Mukhopadhyay, University College London, UK
10:30 – 11:00	Coffee break
11:00 – 11:30	**Novel glycoconjugate vaccines based on rationally designed synthetic carbohydrate antigens** A. Stewart Campbell, Ancora Pharmaceuticals, Inc., USA
11:30 – 12:00	**Automated single-use centrifugation and cell-washing solution for vaccine manufacturing** Sunil Mehta, kSep Systems, LLC
12:00 – 12:30	**Utilizing 'omics tools to investigate the impact of process changes on product quality in cell culture-based influenza vaccine production** Erdmann Rapp, Max Planck Institute for Dynamics of Complex Technical Systems
12:30 – 13:00	**Monolithic columns for purification and in-process control of viruses and virus-like particles** Lidija Urbas, BIA Separations, Slovenia
13:00 – 14:00	Lunch
14:00 – 15:00	*ad hoc* sessions, free time
15:00 – 17:20	***Session VIII: Biodefense, pandemic & emerging disease vaccines: (Part 2)***
15:00 – 15:25	**Plant-made influenza virus-like particles: For pandemic and beyond** Nathalie Charland, Medicago, Canada
15:25 – 15:50	**Flunisyn: Advanced development of a synthetic universal influenza t-cell vaccine** Campbell Bunce, PhD, Immune Targeting Systems (ITS) Ltd., UK

Thursday, May 24, 2012 (continued)

15:50 – 16:15	**Purification of cell-based influenza H5N1 viruses by liquid chromatography technologies** Alan Yung-Chih Hu, National Institute of Infectious Diseases and Vaccinology, NHRI, Taiwan
16:15 – 16:40	**Viral sensitizer technology improves yield of modified vaccinia ankara from available cell substrates** Fabrice Le Boeuf, Ottawa Hospital Research Institute, Center for Innovative Cancer Therapeutics, Canada
16:40 – 17:05	**Suspension vero cells (SVERO) for poliovirus production: Effect of culture passage on growth kinetics and productivity** Guillermina Forno, Universidad Nacional del Litoral, Argentina
17:05 – 17:35	Coffee break
17:35 – 18:05	**Keynote** **Monitoring immune response on a cell by cell basis** Christopher Love, MIT, USA
19:00 – 24:00	Banquet and closing

Friday, May 25, 2012

07:00 – 10:30	Breakfast and departures

Vaccine Technology IV

Poster List

1. **Development of multivalent protein capsular matrix vaccine (PCMV) technology**
   Kevin Killeen, Matrivax R&D Corporation, USA

2. **Development and scale-up of a high yield transient transfection platform for the production of a Chikungunya virus-like particle vaccine**
   Joshua Merritt, National Institutes of Health, USA

3. **Visualization of domain structure and flexibility of proteins and protein complexes using TEM**
   Bridget Carragher, NanoImaging Services, Inc., USA

4. **Impact of the ligand density on adenovirus serotype 5 purification using membrane chromatography.**
   Piergiuseppe Nestola, IBET/ITQB-UNL, Portugal

5. **Towards a better understanding of on-line multifrequency permittivity measurements of adherent Vero cell cultures in perfused processes**
   A. El Wajgali, CNRS-Université de Lorraine, France

6. **Universal influenza virus vaccine based on the conserved stalk domain of the hemagglutinin**
   Florian Krammer, Mount Sinai School of Medicine, USA

7. **Rapid cell line selection and process development using high-throughput technologies, design of experiments (DOE) and quality by design**
   Tiffany D Rau, Rau and Associates, USA

8. **New approaches in intensification and optimization of integrated malaria vaccine production with Pichia pastoris**
   Jens Fricke, HAW-Hamburg University of Applied Sciences, Germany

9. **Evaluation of critical process parameters and operation range for successful scale up and robust manufacturing of reolysin®**
   Amine Kamen, National Reserach Council, Canada

10. **Tetravalent dengue vaccine produced at Insituto Butantan**
    Vanessa Takinami, Instituto Butantan, Brazil

11. **Pentavalent rotavirus vaccine - stability study**
    Vanessa Takinami, Instituto Butantan, Brazil

12. **Analysis and optimization of a sequential malaria vaccine production process with in-situ product removal (ISPR)**
Sanja Martens, University of Applied Sciences Hamburg, Germany

13. **Dendritic cell-targeting nanoparticle-based pulmonary vaccines for inducing potent cellular immune responses**
Jeffrey A. Hubbell, Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland

14. **Engineering of *Escherichia coli* strains specifically for plasmid biopharmaceutical production**
Geisa A. L. Gonçalves, Instituto Superior Técnico (IST), Portugal

15. **Semliki forest virus expressing rabies virus glycoprotein: Synthesis and protection studies.**
Carlos A Pereira, Instituto Butantan, Brazil

16. **Affordable inactivated polio vaccine using modular facilities and disposable technology – potential for local sustainable production of vaccine in low- and middle-income countries**
A.G.Lopes, LLB Global Health Solutions Ltd., United Kingdom

17. **Influenza production kinetics in HEK293 cell cultures**
Amine Kamen, National Research Council of Canada - Vaccine Program, Canada

18. **Target cells for antibodies detection in rabies vaccine control**
Diego Fontana, Universidad Nacional del Litoral, Argentina

19. **A strategy for scale-up of adherent Vero cells using cytodextm microcarriers and WAVE bioreactortm systems**
Ann-Christin Magnusson, GE Healthcare, Sweden

20. **Live attenuated influenza virus production in batch high cell density cultivation of suspension AGE1.CR.pix cells**
Verena Lohr, Max-Planck-Institute for Dynamics of Complex Technical Systems, Germany

21. **Quantification of GFP-labeled virus-like particles by spectrofluorometry**
Francesc Godia, Universitat Autònoma de Barcelona, Spain

22. **Development of serum-free medium supplemented with non-animal derived components for production of virus-like particles in HEK 293 cell cultures**
Francesc Godia, Universitat Autònoma de Barcelona, Spain

23. **Investigation into proteolytic clipping of product from manufacturing consistency lots**
Michael Kosinski, Merck & Co., Inc., USA

24. **Production of safe transgene delivery vectors- minicircles**
Michaela Simcikova, Instituto Superior Técnico, Portugal

25. **An animal component free medium that promotes the growth of various animal cell lines for the production of viral vaccines**
Héla Kallel, Institut Pasteur de Tunis, Tunisia

26. **Study of dengue virus replication in vero cells**
Vanessa Harumi Takinami, Instituto Butantan, Brazil

27. **Development a vectored vaccine against Hepatitis E virus**
Héla Kallel, Institut Pasteur de Tunis, Tunisia

28. **Subunit Leptospiral immunoglobulin-like (Lig) protein vaccine protects against lethal challenge in the hamster model of leptospirosis**
Marco Alberto Medeiros, Oswaldo Cruz Foundation (FIOCRUZ), Brazil

29. **Improvements on peste des petits ruminants vaccine stability during production and storage**
Paula Alves, IBET/ITQB-UNL, Portugal

30. **Production of adenovirus vectors in human amniocyte-derived cells**
Paula Alves, IBET/ITQB-UNL, Portugal

31. **Development of a membrane adsorber-based capture step for the purification of yellow fever virus**
Tania P. Pato, Oswaldo Cruz Foundation (FIOCRUZ), Brazil

32. **Process development and technology transfer of a high yield fermentation process for cgmp production of plasmid DNA vaccines**
Aaron E. Carnes, Nature Technology Corporation, USA

33. **Sensitive methods for evaluation of antibodies for host cell protein analysis and screening of impurities through out a vaccine process**
Christine Sund-Lundström, GE Healthcare Biosciences AB, Sweden

34. **Use of a hydrocyclone as cell retention device in a perfusion process with BHK-21 Cells infected with bovine rabies virus**
Ricardo Medronho, Federal University of Rio de Janeiro, Brazil

35. **Optimization of TRT virus production in bioreactor**
Lídia Garcia, Pfizer Olot S.L.U, Spain

36. **Adenovirus based vaccine formulations: A 5.5-year stability storage study**
Marcos F. Q. Sousa, Universidade Nova de Lisboa, Portugal

37. ***In vivo* active delivery of antigens to splenic dendritic cells by engineered bio-nanocapsules, hepatitis B virus surface antigen L protein particles**
Hidenori Matsuo, Nagoya University, Japan

38. **Influenza antigen design on virus-like particles**
Linda Lua, The University of Queensland, Australia

39. **Development of monovalent oral poliovirus vaccines types 1, 2, and 3**
Marisela Morales Moreno, Laboratorios de Biologicos y Reactivos de Mexico S.A. de C.V. (BIRMEX), Mexico

40. **Linear scalability for viral entities production in icellis™ disposable fixed-bed bioreactor from bench-scale to industrial scale**
Jean-Christophe Drugmand, ATMI LifeSciences, Belgium

41. **Toolbox for non-intrusive structural and functional analysis of recombinant VLP based vaccines: A case study with hepatitis B vaccine**
Clinton Potter, NanoImaging Services, Inc., USA

42. **Structural tailoring of HEV capsid protein for gaining insights into vaccine design**
Shaowei Li, Xiamen University, China

43. **Vaccine candidate process verification and performance qualification**
Jennifer Haas, Merck & Co., Inc., USA

44. **Three VP6 formats: Nanotubes, virus-like particles and VP6 trimers protected mice against rotavirus infection**
Ana Ruth Pastor, Instituto de Biotecnología-Universidad Nacional Autónoma de México, Mexico

45. **N-glycosylation determines the stability and immunogenicity of recombinant influenza hemagglutinin**
Laura A. Palomares, Instituto de Biotecnología. Universidad Nacional Autónoma de México, Mexico

46. **Use of yeast extracts containing rotavirus-like particles and soluble rotavirus proteins as a low-cost veterinary vaccine**
William A. Rodríguez-Limas, Instituto de Biotecnología, Universidad Nacional Autónoma de México, Mexico

47. **Pre-treatment of Japanese encephalitis virus with formaldehyde and glycine improves recovery from flow-through ion-exchange chromatography purification**
Michael Hughson, University College London, United Kingdom

48. **Control and analysis of quaternary complexity in virus-like particle assembly**
Yap Pang Chuan, The University of Queensland, Australia

49. **Development of cancer vaccine based on her-1 extracellular domain**
Adolfo Castillo, Center of Molecular Immunology, Cuba

50. **Characterization of monolithic chromatographic support for phage purification**
Lidija Urbas, BIA Separations, Slovenia

51. **Integration of monolithic analytical columns into the biopharmaceutical manufacturing process to enable fast and real-time HPLC analytical assay both up- and downstream**
Lidija Urbas, BIA Separations, Slovenia

52. **Different strategies of pDNA purification processes on methacrylate monolithic columns**
Daniela Marc, BIA Separations, Slovenia

53. **Characterization and immunogenicity of Chikungunya virus-like particle (CHIKV VLP) based vaccine**
Richard Schwartz, National Institutes of Health, USA