

Program

Vaccine Delivery and Stabilization: Improving the Reach of Vaccines

September 8 – 10, 2013
Boston, Massachusetts, USA

Co-Chairs:

Robert K. Evans
Merck & Co., USA

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Sunday, September 8, 2013

16:00 – 18:00	Check in / Registration (Ballroom Prefunction area)
18:00 – 18:30	Welcome remarks and Introduction
18:30 – 19:30	Keynote Speaker: Vaccines of the Future: Innovating Beyond the Antigen Dr. Julie Gerberding, President, Merck Vaccines
19:30 – 20:15	Reception
20:15 – 22:00	Dinner

NOTES

- Audiotaping, videotaping and photography of presentations are strictly prohibited.
 - Please do not smoke at any conference functions.
- Turn your mobile phones to vibrate or off during technical sessions.
- Technical Sessions will be in the Grand Ballroom 1.
- Breakfasts and dinners will be in the Harborside Ballroom.
- Lunches will be outside on the Pavilion Lawn (weather permitting).
- Be sure to check your contact information on the Participant List in this program and make any corrections to your name/contact information online. A corrected copy will be sent to all participants after the conference.
- Speakers – Please leave at least 5 minutes for questions and discussion. Be available for discussion during meals and social periods

Monday, September 9, 2013

- 07:30 – 08:30 Breakfast
- 08:30 – 09:00 Opening remarks and Conference Session kickoff

Delivery Technologies & Devices: Session #1

Session Chair: Mark Prausnitz, Georgia Institute of Technology, USA

- 09:00 – 09:30 **Intradermal delivery and dose-sparing: vaccine-specific issues**
Julian Hickling, Working in Tandem, Ltd., United Kingdom
- 09:30 – 10:00 **Rational design of microprojection array-mediated vaccine delivery to skin, using mathematical modelling and experimental methods**
Stefano Meliga, Australian Institute for Bioengineering and Nanotechnology, Australia
- 10:00 – 10:30 **Intradermal Vaccination Using NanoPass's Microneedles: Current Studies and Future Opportunities**
Yotam Levin, Nanopass Technologies, Israel
- Clinical evaluation of intradermal vs. subcutaneous Zostavax**
Robert Evans, Merck and Co., Inc., USA
- 10:30 – 11:00 Coffee break
- 11:00 – 11:30 **History, promise and recent trial results for cutaneous vaccination against influenza**
Bruce G. Weniger, Chiang Mai University, Thailand/USA
- 11:30 – 12:00 **Dermal polio vaccination using novel hollow microneedle technology**
Wim Jiskoot, University of Leiden, Netherlands
- 12:00 – 12:30 **Vaccination using a microneedle patch**
Mark Prausnitz, Georgia Institute of Technology, USA
- 12:30 – 13:30 Lunch

Mechanisms: Mode of Action - Session #2

Session Chair: Bruce G. Weniger, Chiang Mai University, Thailand/USA

- 13:30 – 14:00 **Enhanced systemic immunogenicity achieved by co-localising vaccine with nanopatch-mediated skin damage adjacent to live cells**
Alexandra Depelsenaire, Australian Institute for Bioengineering and Nanotechnology, Australia
- 14:00 – 14:30 **Non-viral delivery of self-amplifying mRNA vaccines**
Andrew Geall, Novartis, USA
- 14:30 – 15:00 **The resident memory T-cell concept and vaccination: can we manipulate the system?**
David Koelle, University of Washington, USA
- 15:00 – 15:15 Stretch break

Monday, September 9, 2013 (continued)

- 15:15 – 15:45 **In vivo active delivery of antigens with dendritic cell-targeting bio-nanocapsules**
Hidenori Matsuo, Nagoya University, Japan
- 15:45 – 16:15 **Stability and bioactivity effects of raw material source and structure in vaccine adjuvant formulations**
Christopher B. Fox, Infectious Disease Research Institute, USA
- 16:15 – 16:45 Coffee break

Adjuvants: Formulations & Mechanisms: Session #3

Session Chair: Danny Casimiro, Merck & Co., USA

- 16:45 – 17:15 **Rational Design and Development of New Adjuvants**
Steve Reed, Infectious Disease Research Institute, USA
- 17:15 – 17:45 **The next generation of vaccine adjuvants**
Derek O'Hagan, Novartis, USA
- 17:45 – 18:15 **Safety issues associated with vaccine administration**
Neal Halsey, Institute for Vaccine Safety, Johns Hopkins Bloomberg School of Public Health, USA
- 18:15 – 18:45 **Formulation, Stability and Immunogenicity of Protein-Based Vaccines in Aluminum Salt Adjuvants**
S. Fernando Ausar, Sanofi Pasteur, Canada
- 19:00- 19:30 Reception
- 19:30 – 21:00 Conference Banquet

Tuesday, September 10, 2013

08:00 – 09:00 Breakfast

Novel Stabilization Approaches & Formulations: Session #4
Session Chair: Robert Evans, Merck & Co., USA

09:00 – 09:15 Opening remarks

09:15 – 09:45 **Vaccines as Well-Defined Pharmaceutical Dosage Forms:
*Formulation and Analytical Challenges and Opportunities***
David Volkin, University of Kansas, USA

09:45 – 10:15 **The effect of protein oxidation on the formation of higher order structures and loss of potency for a recombinant influenza hemagglutinin**
Kathy Holtz, Protein Sciences Corporation, USA

10:15 – 10:45 **High-throughput screening of microneedle formulations for influenza vaccine stabilization**
Matt Mistilis, Georgia Institute of Technology, USA

10:45 – 11:15 Coffee break

11:15 – 11:45 **Conformational stabilization of vaccine immunogens by targeted di-tyr crosslinking**
Christopher Marshall, Avatar Biotechnologies, USA

11:45 – 12:15 **Silk stabilization of vaccines: a new route to improving access**
Kathryn Kosuda, Vaxess Technologies, Inc., USA

12:15 – 12:45 **Measles Vaccination Using A Microneedle Patch in Non-Human Primates**
Marcus Collins, Center for Disease Control, USA

12:45 – 14:15 Lunch

Innovations & New Technologies for Reaching the Developing World: Session #5
Session Chair: Davinder Gil, Hilleman Laboratories, India

14:15 – 14:45 **A Framework to Assess Formulation and Administration Technologies for Vaccine Product Development**
Penny Heaton, Bill & Melinda Gates Foundation, USA

14:45 – 15:15 **Developing Delivery Devices with Desirable Product Attributes for Global Health**
Darin Zehrung, PATH, USA

15:15 – 15:45 **Optimization of Rotavirus Vaccine for Developing World**
Sachin Kale, Hilleman Laboratories, India

15:45 – 16:15 **Thermostable, needle-free influenza vaccines formulated in Bioneedles**
Gideon Kersten, Institute for Translational Vaccinology, Netherlands

16:15 – 16:30 Closing remarks