THE 17TH ANNUAL CONFERENCE ON

PROGRAM AGENDA

SUNDAY, APRIL 27, 2014

4:30–6:30 pm  Registration  Grand Ballroom Foyer

MONDAY, APRIL 28, 2014

7:30 am–5:00 pm  Registration  Grand Ballroom Foyer

7:30 am  Poster Set-Up  Grand Ballroom Foyer

7:45 am  Continental Breakfast  Grand Ballroom Foyer

8:15 am  Welcome and Introductions  Grand Ballroom Salons E-H

Susan J. Rehm, MD  
National Foundation for Infectious Diseases  
Bethesda, MD

Opening Keynote: Mary Lou Clements-Mann  CE  
Memorial Lecture in Vaccine Sciences  Grand Ballroom Salons E-H

Moderator:  Susan J. Rehm, MD  
National Foundation for Infectious Diseases  
Bethesda, MD

8:30 am  1  Vaccinology 2.0: An Evolving Paradigm in the 21st Century  
Gregory A. Poland, MD  
Mayo Clinic and Foundation  
Rochester, MN

9:15 am  Questions and Answers

9:30 am  Coffee Break


Moderator:  Gregory A. Poland, MD  
Mayo Clinic and Foundation  
Rochester, MN

9:45 am  2  New Directions in Reverse Vaccinology  
Alessandro Sette, PhD  
Center for Infectious Disease; Allergy & Asthma Research  
La Jolla Institute for Allergy and Immunology  
La Jolla, CA

10:10 am  3  Understanding Immune Mechanisms of Protection by an Attenuated Malaria Vaccination in Humans  
Robert A. Seder, MD  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Bethesda, MD
10:35 am  4 Vaccine Advances in Veterinary Science  
Ian Tizard, PhD  
College of Veterinary Medicine and Biomedical Sciences  
Texas A&M University  
College Station, TX

11:00 am  5 Structural Biology and Vaccine Design  
Peter D. Kwong, PhD  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Bethesda, MD

11:30 am  Questions and Answers

12:00 pm  Lunch (on your own)

Symposium 2:  Current Challenges in Immunization Policy  
Grand Ballroom Salons E-H

Moderator:  Myron M. Levine, MD, DTPH  
Center for Vaccine Development  
University of Maryland School of Medicine  
Baltimore, MD

1:00 pm  6 The Burden of Vaccine Hesitancy  
Saad B. Omer, MBBS, MPH, PhD  
Emory Vaccine Center  
Atlanta, GA

1:30 pm  7 Acellular Pertussis Vaccines: Are Boosters Indicated?  
Thomas A. Clark, MD, MPH  
Centers for Disease Control and Prevention  
Atlanta, GA

2:00 pm  8 Rotavirus Vaccines and Intussusceptions: Is There a Need for Change in Immunization Policy?  
Umesh D. Parashar, MBBS  
Centers for Disease Control and Prevention  
Atlanta, GA

2:30 pm  9 How a Two-Contact Measles Immunization Policy Offers Opportunities to Improve the Current Expanded Programme on Immunization Schedule  
Ana María Henao-Restrepo, MD  
World Health Organization  
Geneva, Switzerland

3:00 pm  Coffee Break
Submitted

Presentations 1A: Epidemiology and Clinical Studies

Grand Ballroom Salon E

(Concurrent Sessions) Moderator: Alison C. Mawle, PhD
Centers for Disease Control and Prevention
Atlanta, GA

3:30 pm
S1 A Multicenter Phase 1 Study of Seasonal Influenza DNA Vaccine
Prime Followed by the Trivalent Inactivated Vaccine (TIV) Compared to TIV-TIV
In Children and Adolescents Ages 6-17 Years
J. E. Ledgerwood¹, G. Yamschikov², M. E. Enama³, U. N. Sarwar⁴, R. T. Bailer⁵,
B. Larkin⁶, A. R. Bellamy⁷, E. L. Anderson⁸, D. I. Bernstein⁹, B. Creech¹⁰,
H. Keyserling¹¹, P. Spearman¹², P. Wright¹³, B. Graham²
¹National Institutes of Health (NIH)/National Institute of Allergy and Infectious
Diseases (NIAID)/Vaccine Research Center, Bethesda, MD; ²NIH, Bethesda,
MD; ³NIAID, NIH, Bethesda, MD; ⁴New York Medical College, New Rochelle,
NY; ⁵NIH/NIAID/Vaccine Research Center, Gaithersburg, MD, ⁶NIH, Bethesda,
MD; ⁷The EMMES Corporation, Rockville, MD; ⁸St Louis University School of
Medicine, St Louis, MO; ⁹Cincinnati Children’s Hospital Medical Center,
Cincinnati, OH; ¹⁰Vanderbilt University School of Medicine, Nashville,
TN; ¹¹Emory University, Atlanta, GA; ¹²Emory University and Children’s Healthcare
of Atlanta, Atlanta, GA; ¹³Geisel School of Medicine at Dartmouth, Lebanon, NH

3:45 pm
S2 Development of a Simple, Rapid, Sensitive, High-Throughput Luciferase
Reporter Based Microneutralization Test for Measurement of Virus
Neutralizing Antibodies Following Respiratory Syncytial Virus Vaccination and
Infection
S. Fuentes, J. Beeler, H. Golding, S. Khurana
US Food and Drug Administration (FDA), Bethesda, MD

4:00 pm
S3 Influenza Vaccination among Individuals with High-Risk Health Conditions
in China
A. L. Wagner¹, J. Montgomery², M. L. Boulton²
¹Department of Epidemiology, University of Michigan, Ann Arbor, MI; ²University
of Michigan, Ann Arbor, MI

4:15 pm
S4 A Prospective Comparison of Rotavirus and Norovirus Severe Gastroenteritis
Following the Implementation of a Publicly-Funded Rotavirus Vaccine Program
in Quebec
M. K. Doll¹, M. Gonzales², H. Charest³, A. Gagneur⁴, D. L. Buckeridge¹, C. Quach²
¹McGill University, Montreal, Parti Quebecois, Canada; ²The Montreal
Children’s Hospital, Montreal, Parti Quebecois, Canada; ³Institut National
de Santé Publique du Québec, Ste-Anne-de-Bellevue, Parti Quebecois,
Canada; ⁴Sherbrooke University Hospital Centre, Montreal, Parti Quebecois,
Canada
4:30 pm  S5 Visual Freeze Indicators on Each Box of Vaccine are Early Warning Tools to Identify Potential for Freeze Damage
R. Angoff¹, J. Wood², M. Chernock³, D. Tipping⁴
¹Yale University School of Medicine, New Haven, CT; ²American Academy of Pediatrics, Connecticut Chapter, Hartford, CT; ³Maria C. Chernock & Associates, Watchung, NJ; ⁴Tipping Consulting, Camp Lane, PA

4:45 pm  S6 A New Vaccine Safety Study Design
N. Klein⁵, R. Baxter¹, K. J. Center², L. Aukes³, A. Yee⁴, A. Gurtman⁵, D. Scott⁶, W. Gruber⁶
¹The Permanente Medical Group (KPMG), Oakland, CA; ²Pfizer, Collegeville, PA; ³Kaiser Permanente Vaccine Study Center, Oakland, CA; ⁴Northern California Kaiser Permanente, Oakland, CA; ⁵Pfizer, Pearl River, NY

Submitted
Presentations 1B: Vaccine Design, Adjuvants, and Immune Response  
(Concurrent Sessions)  Moderator: Cyril Gay, DVM, PhD
Agricultural Research Service
US Department of Agriculture
Beltsville, MD

3:30 pm  S7 Nanoemulsion-Adjuvanted gD2 (NE80-gD2) Intranasal Vaccine Induces Robust Protection against HSV-2 Challenge in a Guinea Pig Model
T. Hamouda¹, V. Bitko¹, C. Malinczak¹, J. Pannu¹, J. Sun¹, R. Cardin², D. I. Bernstein², A. Fattom¹
¹NanoBio Corporation, Ann Arbor, MI; ²Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

3:45 pm  S8 New Insight into DNA Vaccination to Prime High Quality B Cell and T Follicular Helper Responses in Mice
S. Lu¹, D. Farfan¹, J. J. Suschak, III.¹, K. Hollister², Y. Chen¹, S. Wang¹, A. Dent²
¹University of Massachusetts Medical School, Worcester, MA; ²Indiana University School of Medicine, Indianapolis, IN

4:00 pm  S9 Monitoring Human Memory B Cell Responses by a Novel Antigen-Specific B Cell ELISPOT Assay
S. Lu², S. Wan¹, D. Han², S. Wang²
¹University of Massachusetts Medical School, Shrewsbury, MA; ²University of Massachusetts Medical School, Worcester, MA
4:15 pm  S10  Development of a Non-Human Primate (Aotus nancymaae) Challenge Model for Shigella Vaccine Immunogenicity and Efficacy Studies
R. Kaminski¹, M. Gregory², N. Reynolds³, L. A. Lugo-Roman⁴, D. Tilley⁵, C. Baldeviano⁶, R. Ranallo⁶, A. E. Suvarnapunya⁷, M. Venkatesan⁸, E. Oaks⁹
¹Walter Reed Army Institute of Research (WRAIR), Silver Spring, MD; ²Fort Detrick, MD; ³US Navy, Lima, Peru; ⁴US Army, DPO; ⁵Navy Medical Research Unit Six (NAMRU-6), Lima, Peru; ⁶National Institutes of Health, Bethesda, MD

4:30 pm  S11  The Relative Stability of Two Neisseria meningitidis Outer Membrane Vesicle (OMV) Protein Antigens, NadA and fHbpv1
Merck & Co. Inc., West Point, PA

4:45 pm  S12  Preservation by Vaporization Yields Measles Vaccine Stable at 37°C for 24 Months
M. J. Papania¹, P. Rota¹, M. Collins¹, D. Uzri², V. Brohnstein²
¹Centers for Disease Control and Prevention, Atlanta, GA; ²Universal Stabilization Technologies, Inc., San Diego, CA

5:00–6:00 pm  Welcome Reception & Poster Presentations
Grand Ballroom Foyer
TUESDAY, APRIL 29, 2014

7:00 am–5:00 pm  Registration  
Grand Ballroom Foyer

7:00–7:45 am  Dr. Richard J. Duma Meet the Experts Breakfast Session  
Grand Ballroom Salon D

A Career in Vaccine Research: Rewards and Challenges  
Kathryn M. Edwards, MD  
Vanderbilt University School of Medicine  
Nashville, TN

Advances in Maternal Immunization Research and Policy  
Saad B. Omer, MBBS, MPH, PhD  
Emory Vaccine Center  
Atlanta, GA

Publishing Your Scientific Paper: Hints from an Editor  
Gregory A. Poland, MD  
Mayo Clinic and Foundation  
Rochester, MN

Veterinary Vaccines  
Ian Tizard, PhD  
College of Veterinary Medicine and Biomedical Sciences  
Texas A&M University  
College Station, TX

7:30–8:30 am  Continental Breakfast & Poster Presentations  
Grand Ballroom Foyer

Keynote II: Global Health  
Moderator: Kathleen M. Neuzil, MD, MPH  
PATH  
Seattle, WA

8:30 am  10  Bill & Melinda Gates Foundation’s Vision for Development of Vaccines of Global Importance  
Penny M. Heaton, MD  
Bill & Melinda Gates Foundation  
Seattle, WA

9:15 am  Questions and Answers

9:30 am  Coffee Break
Symposium 3: Vaccines for the Developing World

Moderator: Bruce G. Weniger, MD
Chiang Mai University
Atlanta, GA

9:45 am
11 Japanese Encephalitis
Kathleen M. Neuzil, MD, MPH
PATH
Seattle, WA

10:10 am
12 Progress and Remaining Obstacles on the Long Road towards a Successful Dengue Vaccine: The Problem of Combined Vaccines
Scott B. Halstead, MD
Dengue Vaccine Initiative
International Vaccine Institute
Seoul, Korea

10:35 am
13 Current and Future Cholera Vaccines in Development: Their Science and Experience
John D. Clemens, MD
International Centre for Diarrhoeal Disease Research
Dhaka, Bangladesh

11:00 am
14 Prevention and Control of Cholera: The Role of Vaccines
Kashmira A. Date, MBBS, MPH
Centers for Disease Control and Prevention
Atlanta, GA

11:25 am
Panel Discussion and Questions and Answers

12:00 pm
NFID Luncheon

Robert Austrian Memorial Lecture by Keith P. Klugman, PhD
Director, Pneumonia, Bill & Melinda Gates Foundation, Seattle, WA

Dr. Charles Mérieux Award Presentation to Stanley A. Plotkin, MD
Emeritus Professor at the University of Pennsylvania
Scientific Advisory Board Member for the Center for HIV-AIDS Vaccine Immunology

Maurice R. Hilleman Early-Stage Career Investigator Award Presentation
Symposium 4: Regulatory Challenges for Evaluating and Approving Adjuvanted Vaccines

Moderator: Hana Golding, PhD
Center for Biologics Evaluation and Research
US Food and Drug Administration
Bethesda, MD

1:30 pm  15 International Efforts to Harmonize the Preclinical Evaluation of Adjuvanted Vaccines
Maria Baca-Estrada, PhD
Health Canada
Ottawa, Ontario, Canada

1:50 pm  16 Clinical Trials of Adjuvant Vaccines: Special Considerations
Kathryn M. Edwards, MD
Vanderbilt University School of Medicine
Nashville, TN

2:10 pm  17 Monitoring Vaccine Safety with Novel Adjuvants
Hanna Nohynek, MD, PhD
National Institute for Health and Welfare (THL)
Helsinki, Finland

2:30 pm  18 US FDA Regulatory Perspective: Development and Licensure of Adjuvanted Vaccines
Marion F. Gruber, PhD
Center for Biologics Evaluation and Research
US Food and Drug Administration
Rockville, MD

3:00 pm  Questions and Answers

3:30 pm  Coffee Break
Submitted

Presentations 2A: Vaccines for New and Emerging Infectious Diseases  

(Concurrent Sessions) Moderator: Cristina G. Cassetti, PhD
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Bethesda, MD

4:00 pm  S13  H5N1 N-Terminal β Sheet Promotes Oligomerization of H7N9-HA1 Domain Produced in E. coli that Induces Affinity Maturation and High Titer Broadly neutralizing Antibodies
S. Khurana, E. Coyle, H. Golding
US Food and Drug Administration (FDA), Bethesda, MD

4:15 pm  S14  Establishing New Vaccine Priorities Using Multi-Criteria Analysis
G. Madhavan1, K. Sangha1, S. Levin2
1Institute of Medicine, National Academy of Sciences, Washington, DC;
2Johns Hopkins University School of Medicine, Baltimore, MD

4:30 pm  S15  Second Generation COBRA vaccines against emerging (H5N1 and H1N1) and Seasonal (H1N1) influenza Viruses
T. M. Ross, C. J. Crevar, D. M. Carter
Vaccine and Gene Therapy Institute of Florida, Port St. Lucie, FL

4:45 pm  S16  Respiratory Syncytial Virus (RSV) Infection and Vaccines: New Molecular Tools for Better Understanding of Antibody Immune Responses Following RSV Vaccination and Infection Identify Novel Vaccine Targets
S. Khurana, S. Fuentes, K. Chung, R. Bhardwaj, E. Coyle, N. Aujla, H. Golding
US Food and Drug Administration (FDA), Bethesda, MD

5:00 pm  S17  A New Toolkit for Accelerating Design of T Cell Epitope-Driven Vaccines for Swine
L. Moise1, A. Gutierrez2, C. Loving2, A. Vincent2, F. Terry3, W. Martin3, A. De Groot1,3
1University of Rhode Island, Providence, RI; 2USDA-ARS-National Animal Disease Center, Ames, IA; 3EpiVax, Inc., Providence, RI
Submitted
Presentations 2B: Vaccine Delivery Systems

(Concurrent Sessions) Moderator: Georges Peter, MD
Warren Alpert Medical School of Brown University
Providence, RI

4:00 pm S18 A Heat-Stable Oral Vaccine Candidate for Hepatitis B
C. Hayden
Applied Biotechnology Institute, San Luis Obispo, CA

4:15 pm S19 Acellular Pertussis Vaccines Based on Calcium Phosphate Modified Protein-Coated Microcrystals Provide Enhanced Protection and are Thermally Stable
B. Moore¹, S. Jones², C. Asokanathan³, D. Xing³, R. Parton², J. Coote²
¹Consultant, Glasgow, United Kingdom; ²University of Glasgow, Glasgow, United Kingdom; ³National Institute for Biological Standards and Control (NIBSC), Hertfordshire, United Kingdom

4:30 pm S20 Polyguanine-Conjugated Antigen as a Scavenger Receptor-Targeting and Self-Adjuvanting Vaccine
University of Pittsburgh, Pittsburgh, PA

4:45 pm S21 In OVO Vaccination of DNA Plasmid Encoding Turkey Coronavirus Spike Protein Containing Neutralizing Epitope Followed by Two Boosts of Attenuated Salmonella Carrying the Homologous DNA Plasmid
Y. Chen¹, T. Lin², C. Wu²
¹Chung Yuan Christian University, Chung Li, Taiwan; ²Purdue University, West Lafayette, IN
**WEDNESDAY, APRIL 30, 2014**

7:00 am–1:00 pm  
**Registration**  
*Grand Ballroom Foyer*

7:00–7:45 am  
**Dr. Richard J. Duma Meet the Experts Breakfast Session**  
*Grand Ballroom Salon D*

**Vaccines against Diarrheal Diseases**  
John D. Clemens, MD  
International Centre for Diarrhoeal Disease Research  
Dhaka, Bangladesh

**Functional Mechanisms of Adjuvant Action**  
Darrick Carter, PhD  
IDRI  
Seattle, WA

**New Vaccine Adjuvants**  
Hana Golding, PhD  
Center for Biologics Evaluation and Research  
US Food and Drug Administration  
Bethesda, MD

**Regulatory Restrictions to Licensing Vectored Vaccines and Approaches to Overcome Them**  
David L. Suarez, DVM, PhD  
Agricultural Research Service  
US Department of Agriculture  
Athens, GA

7:30-8:00 am  
**Continental Breakfast**  
*Grand Ballroom Foyer*

**Submitted Presentations 3A: Vaccine Safety and Public Perception**  
*Grand Ballroom Salon E*

**Concurrent Sessions**  
**Moderator:**  
Susan J. Rehm, MD  
National Foundation for Infectious Diseases  
Bethesda, MD

8:00 am  
**S22 Factors Associated with Maternal Influenza Immunization Decision Making: Evidence of Immunization History and Message Framing Effects**  
P. Frew¹, L. Owens², D. Saint-Victor², S. Benedict¹, S. Zhang¹, S. B. Omer²  
¹Emory University, Decatur, GA; ²Emory University Vaccine Center, Decatur, GA
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Institutions</th>
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<tr>
<td>8:15 am</td>
<td>S23</td>
<td>Antenatal Influenza and Tdap Vaccination: Factors Associated with Likelihood of Receipt Prior to Delivery</td>
<td>A. Chamberlain¹, K. Seib², K. A. Ault¹, W. Orenstein¹, P. Frew¹, F. A. Malik¹, M. Cortes¹, P. Cota¹, E. Whitney¹, L. C. Flowers¹, S. B. Omer¹</td>
<td>¹Emory University, Atlanta, GA; ²Emory University School of Medicine, Atlanta, GA; ³Emory University, Decatur, GA; ⁴Georgia OB/GYN Society, Suwanee, GA</td>
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<td>8:30 am</td>
<td>S24</td>
<td>Review of Pregnancy Outcomes after Inactivated Vaccines</td>
<td>K. Broder, P. Moro, O. Museru, S. A. Rasmussen, C. Vellozzi, F. DeStefano</td>
<td>Centers for Disease Control and Prevention (CDC), Atlanta, GA</td>
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<td>8:45 am</td>
<td>S25</td>
<td>Anaphylaxis Following Influenza Vaccination in Persons with a History of Egg Allergy, US Vaccine Adverse Event Reporting System (VAERS), July 2010-June 2013</td>
<td>M. Cano¹, P. Haber¹, T. Harrington¹, D. S. Hummell², N. Halsey³, L. Grohskopf¹, K. Broder¹</td>
<td>¹Centers for Disease Control and Prevention (CDC), Atlanta, GA; ²Vanderbilt University, Nashville, TN; ³Johns Hopkins School of Public Health, Baltimore, MD</td>
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<td>9:00 am</td>
<td>S26</td>
<td>Safety of Quadrivalent Human Papillomavirus Vaccines (Gardasil®) in Pregnancy in the Vaccine Adverse Event Reporting System, 2006-2012</td>
<td>P. Moro, Y. Zhetheyeva, P. Lewis, J. Shi, X. Yue, K. Broder</td>
<td>Centers for Disease Control and Prevention (CDC), Atlanta, GA</td>
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<tr>
<td>9:15 am</td>
<td>S27</td>
<td>A New Approach to Dealing with Vaccine Hesitancy</td>
<td>E. Lewin</td>
<td>Georgetown University School of Medicine, Potomac, MD</td>
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Submitted
Presentations 3B: Immunization Programs

Moderator: Hana Golding, PhD
Center for Biologics Evaluation and Research
US Food and Drug Administration
Bethesda, MD

8:00 am  S28  A Model International Partnership for Community-Based Research on Vaccine-Preventable Diseases: The Kamphaeng Phet-AFRIMS Virology Research Unit (KAVRU)
C. H. Hoke, Jr.¹, R. V. Gibbons, COL, MC, USA², A. Nisalak³, I. Yoon³, D. Tannitisupawong⁴, K. Rungsimunpaiboont⁵, D. W. Vaughn⁶, T. Endy⁷, B. Innis⁸, D. S. Burke⁹, M. Mammen, Jr.¹⁰, R. McNair-Scott¹¹, S. Thomas¹²
¹Consultant, Columbia, MD; ²US Army, San Antonio, TX; ³US Army, Bangkok, Thailand; ⁴US Army, Kamphangphet, Thailand; ⁵Ministry of Public Health, Kamphangphet, Thailand; ⁶GlaxoSmithKline, Rixensart, Belgium; ⁷State University of New York, Syracuse, NY; ⁸GlaxoSmithKline Vaccines, King of Prussia, PA; ⁹University of Pittsburgh Medical Center, Pittsburgh, PA; ¹⁰VICAL, San Diego, CA; ¹¹Self Employed, Chevy Chase, MD; ¹²US Army, Silver Spring, MD

8:15 am  S29  Did Ontario, Canada’s Switch from DTaP-iPv to Tdap-iPv for 4 to 6 Year Old Booster Have Safety Implications?
S. Klar¹, T. M. Harris², K. Wong², J. Fediurek², S. L. Deeks²
¹Public Health Agency of Canada, Toronto, Ontario, Canada; ²Public Health Ontario, Toronto, Ontario, Canada

8:30 am  S30  Effect of an Intervention on Age and Racial Disparities in Childhood Influenza Vaccination Rates in a Cluster Randomized Trial
R. Zimmerman¹, M. Nowalk¹, C. Jeng. Lin¹, K. Hannibal², E. Reis², G. Gallik², K. Moehling¹, H. Huang¹, D. Wolfson²
¹University of Pittsburgh, Pittsburgh, PA; ²University of Pittsburgh Medical Center, Pittsburgh, PA

8:45 am  S31  Immunization Exemptions in Ontario, Canada: The Last Ten Years (2002-03 to 2011-12 School Years)
S. L. Deeks¹, C. Seo², G. H. Lim¹, J. Fediurek¹, M. A. McIntyre¹, S. Wilson¹
¹Public Health Ontario, Toronto, Ontario, Canada; ²Public Health Ontario, North York, Ontario, Canada

9:00 am  S32  Expected Cost-Effectiveness of High-Dose Trivalent Influenza Vaccine in US Seniors
A. Chit¹, J. Roiz²
¹Sanofi Pasteur, Toronto, Ontario, Canada; ²Creativ-Ceutical, London, United Kingdom
9:15 am  
S33  Trends and Timing of Seasonal Influenza Vaccination in Privately Insured Children and Adults in the United States: 2007-12  
H. Caspard¹, E. Antonova¹, D. M. Kern¹, S. L. Block³, O. Tunceli²,  
C. S. Ambrose¹  
¹MedImmune, Gaithersburg, MD; ²HealthCore, Inc., Wilmington, DE; ³Kentucky Pediatric and Adult Research, Bardstown, KY

9:30 am  
Coffee Break

 Symposium 5: Innovations in Influenza Vaccines  
Moderator: Cyril G. Gay, DVM, PhD  
Agricultural Research Service  
US Department of Agriculture  
Beltville, MD

10:00 am  
19  NIAID Perspectives and Advances towards Universal Flu Vaccines  
Rachelle Salomon, PhD  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Bethesda, MD

10:30 am  
20  Vaccine-Induced Anti-HA2 Antibodies Promote Virus Fusion and Enhance Influenza Virus Respiratory Disease in a Pig Model  
Hana Golding, PhD  
Center for Biologics Evaluation and Research  
US Food and Drug Administration  
Bethesda, MD

11:00 am  
21  Role of Recombinant Viral Vectored Vaccines for Control of Avian Influenza Viruses  
David L. Suarez, DVM, PhD  
Agricultural Research Service  
US Department of Agriculture  
Athens, GA

11:30 am  
22  New Insights into Immunogenicity of Live-Attenuated Influenza Vaccines  
Kanta Subbarao, MD, MPH  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Bethesda, MD

12:00 pm  
Questions and Answers

12:30 pm  
Lunch (on your own)
Symposium 6: Advances in Immunology and Vaccine Discovery

Moderator: Alison C. Mawle, PhD
Centers for Disease Control and Prevention
Atlanta, GA

1:30 pm
23 Systems Biology
David Furman, PhD
Mark M. Davis Lab
Stanford University School of Medicine
Stanford, CA

2:00 pm 24 Informing Vaccine Design and Analyzing Performance by Tracking Antigen Specific T and B Lymphocytes in Cattle and Swine
William T. Golde, PhD
Agricultural Research Service
US Department of Agriculture
Greenport, NY

2:30 pm 25 Vaccine Adjuvants: The Promise and the Challenge
Darrick Carter, PhD
IDRI
Seattle, WA

3:00 pm Questions and Answers

3:30 pm Adjourn