

4th isirv-AVG Conference
Novel Antiviral Therapies for Influenza and other Respiratory Viruses: Bench to Bedside

Tuesday 2 - Thursday 4 June 2015
Avaya Auditorium, Peter O'Donnell Jr Building
University of Texas, Austin, USA

Programme

Tuesday 2nd June	
8.00-8.30	<p>Opening Robert Krug, <i>University of Texas, Austin, USA</i> (Chair Organising Committee) & Alan Hay, <i>Francis Crick Institute, London, UK</i> (Chair isirv-AVG)</p> <p>Welcome <i>Linda Hicke, Dean of Natural Sciences, University of Texas, Austin, USA</i></p>
08.30-10.00	<p>Session 1 Chairs: Ruben Donis, <i>Centers for Disease Control, Atlanta, USA</i> & Maria Zambon, <i>Public Health England, London, UK</i></p> <ul style="list-style-type: none"> • Keynote Lecture: Public Health Impact of Antiviral Therapy for Respiratory Diseases <i>Nancy Cox, Centers for Disease Control, Atlanta, USA</i> • Keynote Lecture: Clinical Development of Antivirals for Respiratory Diseases <i>Frederick Hayden, University of Virginia, Charlottesville, USA</i>
08.30-09.15	
09.15-10.00	
10.00 -10.30	Refreshments
10.30 -12.30	<p>Session 2: Inhibitors of Virus Polymerases, Nucleoproteins and Accessory Proteins Chairs: Stephen Cusack, <i>EMBL, Grenoble, France</i> & Robert Krug, <i>University of Texas, Austin, USA</i></p> <ul style="list-style-type: none"> • Keynote Lecture: Structure, Mechanism and Drug Targeting of Influenza Polymerase <i>Stephen Cusack, EMBL, Grenoble, France</i> • Safety and Efficacy of JNJ-63623872 (VX-787), a Novel Non-nucleotide Polymerase Inhibitor Targeting Influenza A <i>Lorant Leopold, Janssen Pharma R&D, Titusville, USA</i> • The Nucleoprotein of Influenza Virus, a Target for New Antivirals <i>Anny Slama-Schwok, INRA, Jouy en Josas, France</i> • Identification and Characterization of Influenza Variants Resistant to a Viral Endonuclease Inhibitor <i>Gyanendra Kumar, St. Jude Children's Research Hospital, Memphis, USA</i>
10.30 -11.15	
11.15 -11.45	
11.45 -12.15	
12.15 -12.30	

12.30 -13.30	Lunch and viewing of posters
13.30 -15.20	Session 2 continued
13.30 -13.45	<ul style="list-style-type: none"> Structure-Based Development of a New Class of Influenza Endonuclease Inhibitors <i>Joseph Bauman, Rutgers University, Piscataway, USA</i>
13.45 -14.15	<ul style="list-style-type: none"> Discovery and Development of ALS-8176, a Nucleoside Analog Inhibitor of the RSV RNA Polymerase <i>Julian Symons, Alios Bio Pharma Inc, San Francisco, USA</i>
14.15 -14.45	<ul style="list-style-type: none"> RSV Polymerase and Nucleoprotein Inhibitors: Mechanism of Action and Resistance <i>Qin Yu, AstraZeneca R&D Boston, Waltham, USA</i>
14.45 -15.05	<ul style="list-style-type: none"> The Clinical and Anti-Influenza Virus Effects of Favipiravir, a Novel Anti-RNA Virus, Anti-Influenza Agent <i>Carol Epstein, MediVector Inc, Boston, USA</i>
15.05 -15.20	<ul style="list-style-type: none"> Novel Broad-spectrum Antiviral against Influenza Blocks dsRNA Binding to NS1A Protein and Restores Antiviral Responses <i>Ji-Young Min, Institut Pasteur Korea, South Korea</i>
15:20-15:50	Refreshments
15:50-17:40	Session 3: New Inhibitors of Influenza NA and M2 Activities Chairs: <i>Alan Hay, Francis Crick Institute, London, UK & Aeron Hurt, WHO CC, Melbourne, Australia</i>
15:50-16:20	<ul style="list-style-type: none"> The Influenza Neuraminidase – Old Target, New Approaches <i>Jenny McKimm-Breschkin, CSIRO, Parkville, Australia</i>
16:20-16:50	<ul style="list-style-type: none"> Is M2 a Good Target to Combat Drug Resistance of the Influenza A Viruses? <i>Jun Wang, University of Arizona, Tucson, USA</i>
16:50-17:10	<ul style="list-style-type: none"> New Inhibitors of Influenza A Virus Neuraminidases <i>Mario Pinto, NSERC, Ottawa, Canada</i>
17:10-17:25	<ul style="list-style-type: none"> Delayed Oseltamivir and T-705 Combination Therapy Protects Mice Against Lethal Influenza A(H5N1) Virus Infection <i>Bindumadhav Marathe, St. Jude Children's Research Hospital, Memphis, USA</i>
17:25-17:40	<ul style="list-style-type: none"> Influenza Viral Load and Peramivir Kinetics after Single Administration <i>Masatoki Sato, Fukushima, Medical University, Fukushima, Japan</i>
18.30-21.00	Reception and Buffet at the Tejas Conference Dining, AT&T Center Hotel

Wednesday 3rd June	
08.00-09.30	<p>Session 4: Inhibitors of Virion Attachment/Fusion Proteins Chairs: <i>Sylvie van der Werf, Institut Pasteur, Paris, France & Elena Govorkova, St Jude Children's Research Hospital, Memphis, USA</i></p> <ul style="list-style-type: none"> The Influenza HA as an Antiviral Target <i>George F Gao, Chinese Academy of Sciences, Beijing, China</i> Blocking Influenza Virus by Stabilizing the Pre-Fusion Conformation of HA <i>Megan Shaw, Mount Sinai Hospital, New York, USA</i> Prophylactic and Therapeutic Protection Against Influenza by a Computationally Engineered Protein <i>Merika Treants, University of Washington, Seattle, USA</i> Novel Family of Peptides with Potent Antiviral Activity Against Influenza Viruses <i>Seema Jasim, University of Edinburgh, Edinburgh, UK</i>
08.00-08.30	
08.30-09.00	
09.00-09.15	
09.15-09.30	
09.30-10.00	Refreshments
10.00 - 11.00	<p>Session 4 continued</p> <ul style="list-style-type: none"> RSV Antivirals: Fusion Inhibitors and Beyond <i>John DeVincenzo, University of Tennessee, Memphis, USA</i> Discovery and Proof of Concept of GS-5806 in RSV Disease <i>Seth Toback & Mike Perron, Gilead, Foster City, USA</i>
10.00 - 10.30	
10.30 - 11.00	
11.00 – 12.00	<p>Session 5: Inhibitors of Seasonal and Emerging Threats Chairs: <i>Amy Krafft, NIAID, Rockville, MD, USA & Nahoko Shindo, WHO, Geneva, Switzerland</i></p> <ul style="list-style-type: none"> Antiviral Strategies for Prevention and Treatment of Rhinovirus Infections <i>Ronald Turner, University of Virginia, Charlottesville, USA</i> Severe Illness Associated with EV-D68 Infection in the United States and Approaches to Management <i>Sue Gerber, Centers for Disease Control, Atlanta, USA</i>
11.00 – 11.30	
11.30 – 12.00	
12.00 - 13.00	Lunch and viewing of posters
13.00 -14.05	<p>Session 5 continued</p> <ul style="list-style-type: none"> New Targets and Approaches for Coronavirus Antiviral Inhibitors <i>Mark Denison, Vanderbilt University School of Medicine, Nashville, USA</i> Functional Dipeptidyl Peptidase 4 (DPP4) in Mink Supports Entry and Replication of Middle Eastern Respiratory Syndrome Coronavirus: American Mink (Neovision vision), a Novel in Vivo Model of MERS-CoV Infection <i>Thomas Voss, SRI International, Harrisonburg, VA USA</i> Phase III Multi-Center Clinical Trial of Nitazoxanide in Adult Patients with Uncomplicated Influenza A and B and Other Influenza-Like Illness: Results on 1,876 Subjects from the United States, Canada, Australia and New Zealand <i>Jean-Francois Rossignol, Romark Laboratories, L.C., Tampa, USA</i>
13.00 -13.30	
13.30 -13.45	
13.45 -14.05	

<p>14.05 - 15.10</p> <p>14.05 - 14.35</p> <p>14.35 - 14.55</p> <p>14.55 - 15.10</p>	<p>Session 6: Monoclonal Antibodies as Therapeutics Chairs: <i>Frederick Hayden, University of Virginia School of Medicine, Charlottesville, USA & Karoline Bragstad, National Influenza Centre, Oslo, Norway</i></p> <ul style="list-style-type: none"> • Monoclonal Antibodies as Therapeutics Against Respiratory Viruses <i>Wayne Marasco, Harvard Medical School, Boston, USA</i> • New Antibody-Based Strategies Against Viral Respiratory Diseases <i>Qing Zhu, Medimmune LLC, Gaithersburg, USA</i> • VIS410 Monoclonal Antibody Demonstrates Potent Efficacy Against Neuraminidase Inhibitors-Susceptible and -Resistant Influenza A(H7N9) Viruses and Protects Mice from Development of ARDS <i>Tatiana Baranovich, St. Jude Children's Research Hospital, Memphis, USA</i>
<p>15.10 - 15.40</p>	<p>Refreshments</p>
<p>15.40 - 17.15</p> <p>15.40 - 16.10</p> <p>16.10 - 16.25</p> <p>16.25 - 16.45</p> <p>16.45 - 17.05</p> <p>17.05 - 17.15</p>	<p>Session 7: Antibody-Dependent Enhancement (ADE) of Disease: Implications for Therapeutic Monoclonal Antibody Development Chairs: <i>Wayne Marasco, Harvard Medical School, Boston, USA & Jose Trevejo, Visterra Inc, Cambridge, USA</i></p> <ul style="list-style-type: none"> • Influence of Antibodies and T Cells on Dengue Disease Outcome <i>Sujan Shresta, La Jolla Institute for Allergy and Immunology, La Jolla, USA</i> • Influenza Vaccine-Induced Anti-HA2 Antibodies Promote Virus Entry and Enhance Lung Pathology After Influenza A Infection <i>Surender Khurana, FDA, Bethesda, USA</i> • Does Antibody-Dependent Enhancement of Disease Occur in Influenza Infections? <i>Man-Wah Tan, Genentech, South San Francisco, USA</i> • VIS410, a Broadly Neutralizing Antibody to Influenza A: Characterisation and Potential for ADE <i>Jose Trevejo, Visterra Inc, Cambridge, USA</i> • Discussion
<p>17.15 - 19.30</p>	<p>Poster Session Reception – Norman Hackerman Building (NHB)</p>

Thursday 4th June	
08.00 - 09.50	<p>Session 8: Host Cell Targets: Factors Involved in Virus Replication or Mediating the Inflammatory Response Chair: <i>Jane Tao, Rice University, Houston, USA & Makoto Yamashita, University of Tokyo, Tokyo, Japan</i></p>
08.00 - 08.30	<ul style="list-style-type: none"> Using Genetic Approaches to Discover Host-Virus Interactions <i>Abe Brass, Ragon Institute of Massachusetts General Hospital, Massachusetts, USA</i>
08.30 - 09.00	<ul style="list-style-type: none"> Sphingosine-1-Phosphate Receptor Modulation of Cytokine Amplification <i>Hugh Rosen, The Scripps Research Institute, La Jolla, USA</i>
09.00 - 09.30	<ul style="list-style-type: none"> Host Cell Factors in Influenza A Virus Uncoating <i>Ari Helenius, ETH Zurich, Zurich, Switzerland</i>
09.30 - 09.50	<ul style="list-style-type: none"> Update on DAS-181 <i>Ronald Moss, Ansun Biopharma, USA</i>
09.50 – 10.15	Refreshments
10.15 – 11.30	<p>Session 8 continued</p>
10.15 – 10:30	<ul style="list-style-type: none"> A Novel Class of Host Directed Antivirals with Broad Spectrum Activity Against Respiratory Viruses <i>Kristin Bedard, Kineta, Inc., Seattle, WA, USA</i>
10.30 – 10:45	<ul style="list-style-type: none"> Potent Anti-Influenza and Anti-Inflammatory Activity of Verdinexor, a Selective Inhibitor of Nuclear Export (SINE), Across a Broad Panel of Influenza Strains, Including Avian Influenza A H7N9 <i>Margaret Lee, Karyopharm Therapeutics, Inc., Newton, USA</i>
10.45 – 11:00	<ul style="list-style-type: none"> Targeting Sirtuins, Novel Viral Restriction Factors, to Limit Acquired Resistance <i>Lillian Chiang, FORGE Life Science, LLC, Doylestown, USA</i>
11.00 – 11:15	<ul style="list-style-type: none"> Repurposing of Signal Transduction Inhibitors to Fight the Flu – An Update <i>Stephan Ludwig, University of Muenster, Muenster, Germany</i>
11.15 – 11:30	<ul style="list-style-type: none"> Eritoran (E5564), a TLR4 Antagonist Effective Against Influenza-Induced Disease <i>Jorge Blanco, Sigmovir Biosystems, Rockville, USA</i>
11.30 – 12.30	<p>Session 9: Diagnostics & Resistance Chairs: <i>Hui-Ling Yen, Division of Public Health Laboratory Sciences, The University of Hong Kong, Hong Kong SAR, China & Adam Meijer, National Institute for Public Health, Bilthoven, The Netherlands</i></p>
11.30-12.00	<ul style="list-style-type: none"> Detection of Drug Resistance in Influenza: Current Status and Future Directions <i>Larisa Gubareva, Centers for Disease Control, Atlanta, USA</i>
12.00-12.15	<ul style="list-style-type: none"> Characterization of a Large Cluster of Influenza A(H1N1)pdm09 Virus Cross-Resistant to Oseltamivir and Peramivir During the 2013-2014 Influenza Season in Japan <i>Emi Takashita, National Institute of Infectious Diseases, Tokyo, Japan</i>
12.15-12.30	<ul style="list-style-type: none"> Six Years of Monitoring Emergent Oseltamivir Resistance in Patients with Influenza A Virus Infections in the Influenza Resistance Information Study (IRIS) <i>Bruno Lina, University Claude Bernard, Lyon, France</i>
12.30 -13.30	Lunch

13.30 – 14.00	<p>Session 9 continued</p> <ul style="list-style-type: none"> The Changing Landscape of Influenza Diagnostics and the Effect on Clinical Management <i>Alicia Fry, Centers for Disease Control, Atlanta, USA</i>
<p>14.00 -16.45</p> <p>14.00 -14.30</p> <p>14.30 -15.00</p> <p>15.00 -15.15</p> <p>15.15 -15.35</p> <p>15.35 -15.55</p> <p>15.55 -16.15</p> <p>16.15 -16.30</p> <p>16.30 -16.45</p>	<p>Session 10: Regulatory Issues & Clinical Trial Endpoints Chairs: <i>Michael Ison, Northwestern University Feinberg School of Medicine, Chicago, USA & Melissa Willis, Biomedical Advanced Research and Development Authority (BARDA), Washington, USA</i></p> <ul style="list-style-type: none"> Regulatory Perspectives on Antiviral Drug Development for Influenza and Endpoint Considerations <i>Dr Peter Miele, FDA, Silver Spring, USA</i> Human Respiratory Viral Challenge Models: A Worthwhile Challenge <i>Matthew Memoli, NIAID, Bethesda, USA</i> The Human Viral Challenge Model – Accelerating Drug And Vaccine Development <i>Anthony Gilbert, Retroscreen Virology, London, UK</i> Design and Conduct of a Drug Development Program for Severe/Complicated Influenza: Lessons from the IV Zanamivir Experience <i>Amanda Peppercorn, GlaxoSmithKline, North Carolina, USA</i> Challenges in Designing Informative Clinical Trials in Patients Hospitalized with Influenza: The Peramivir Experience <i>Sylvia Dobo, BioCryst, Durham, USA</i> Antibody-Based Therapy for Influenza B <i>Man-Wah Tan, Genentech, South San Francisco, USA</i> Supporting Advanced Development of Novel Influenza Antiviral Therapeutics <i>Michael Wathen, Biomedical Advanced Research and Development Authority (BARDA), Washington, USA</i> Multi-Center Evaluation of Outpatient Endpoints for RSV and Other Respiratory Virus Antivirals <i>John DeVincenzo, University of Tennessee, Memphis, USA</i>
16.45 -17.00	<p>Closing Remarks</p>