OPTIONS IX for THE CONTROL OF INFLUENZA
24–28 AUGUST 2016

FINAL Program

CELEBRATING 10 Years

Sheraton Grand CHICAGO Hotel

2016.isirv.org
A century ago, we made a promise to protect the health of a nation. Today that promise is stronger than ever.

Set up by the Australian Government as the Commonwealth Serum Laboratories, our first major task was to combat the deadly Spanish flu pandemic. Working with the smartest minds, we have continued the fight against influenza ever since.

Recently, we acquired the Novartis influenza vaccine business and combined it with our own to create Seqirus, a new global force in influenza.

We’re now better placed than ever to protect against influenza today, prepare for the pandemic threats of tomorrow and develop innovative solutions for the future.

We are Seqirus and we’re just getting started.
A century ago, we made a promise to protect the health of a nation. Today that promise is stronger than ever. Set up by the Australian Government as the Commonwealth Serum Laboratories, our first major task was to combat the deadly Spanish flu pandemic. Working with the smartest minds, we have continued the fight against influenza ever since. Recently, we acquired the Novartis influenza vaccine business and combined it with our own to create Seqirus, a new global force in influenza. We're now better placed than ever to protect against influenza today, prepare for the pandemic threats of tomorrow and develop innovative solutions for the future. We are Seqirus and we're just getting started.
WELCOME LETTER

Dear Colleague,

On behalf of the International Society for Influenza and Other Respiratory Viral Diseases, I would like to invite you to attend Options for the Control of Influenza IX. This meeting, which is held once every three years, remains the largest international conference devoted exclusively to influenza prevention, control and treatment of influenza. This year, the meeting will take place at the Sheraton Grand Chicago Hotel 24-28 August 2016, in Chicago, Illinois, USA.

The 2016 Options Meeting is being planned by three Scientific Advisory Committee Work Groups: Clinical Science (Nelson Lee and Frederick Hayden, Co-Chairs), Public Health (Jonathan Van Tam and Ben Cowling, Co-Chairs) and Virology and Pathogenesis (Robert Lamb and Jackie Katz, Co-Chairs) and promises to be one of the best Options meetings to date! The meeting will have a more modular schedule so that attendees will have more choice in topics to design a meeting that will be personalized to their research and clinical interests.

The meeting will start with an opening plenary session on Wednesday, August 24th at 5pm where we will welcome Nancy Cox, past director of the Influenza Division at the Centers for Disease Control and Prevention, as our keynote speaker. Nancy's talk will explore the lessons that we have learned about influenza during her exceptional career. On Thursday, Friday and Saturday, the day will start with a single plenary session to update attendees on the current state of the art in Clinical Sciences, Public Health and Virology and Pathogenesis as it applies to influenza. The remainder of the day will be concurrent symposia and oral presentations and will finish with interactive poster sessions. The last day, Sunday, will finish with a closing plenary session that will look forward to what challenges influenza promises for the future. The full schedule is in the following pages and online at 2016.isirv.org.

The meeting will take place at an incredible facility – the hotel was used to celebrate President Obama’s re-election as president. The Sheraton Grand Chicago Hotel is located right on the Chicago River and is minutes away to the incredible restaurants and shops along Michigan Avenue. The Hotel is also just a few blocks away from the world famous Navy Pier and is a short distance to such cultural landmarks as the Adler Planetarium, the Shedd Aquarium, the Field Museum and the Art Institute of Chicago. The location is perfect for exploring the incredible food, architecture, music and sites that Chicago has to offer. A useful resource for planning your free time is available online at www.choosechicago.com.

Thanks to a grant from the Bill & Melinda Gates Foundation, we will be offering support for individuals from low and middle income countries to attend the meeting.

I look forward to welcoming you to the incredible city of Chicago to attend the Options IX for the Control of Influenza meeting 24 – 28 August, 2016!

Sincerely,

Michael G. Ison, MD MS
Associate Professor, Divisions of Infectious Diseases & Organ Transplantation
Northwestern University Feinberg School of Medicine
Chair, Options IX for the Control of Influenza
Chicago, Illinois, USA 24-28 August 2016
SCHEDULE OF ACTIVITIES

All activities will take place in the Sheraton Grand Chicago Hotel unless otherwise listed.

On-site Registration Hours
Room Location: Chicago Promenade, Level 4
24 August 2016............................... 11:00 AM – 7:30 PM
25-27 August 2016......................... 6:30 AM – 7:30 PM
28 August 2016............................... 6:30 AM – 3:00 PM

Exhibitor Registration Hours
Room Location: Chicago Promenade, Level 4
24-27 August 2016......................... 8:00 AM – 7:30 PM

Speaker Ready Room Hours
Room Location: Gold Coast, Level 3
24 August 2016............................... 2:00 PM – 6:30 PM
25-27 August 2016......................... 6:30 AM – 6:30 PM
28 August 2016............................... 6:30 AM – 2:00 PM

Exhibit Hours
Room Location: River Exhibit Hall A & B, Level 1
24 August 2016............................... 6:30 PM – 7:30 PM
25 August 2016............................... 10:30 AM – 12:30 PM
26 August 2016............................... 10:30 AM – 12:30 PM
27 August 2016............................... 10:30 AM – 12:30 PM

Special Events in the Exhibit Hall
Room Location: River Exhibit Hall A & B, Level 1
24 August 2016......................... Welcome Reception .......................... 6:30 PM – 7:30 PM
25 August 2016............................... Morning Coffee Break...................... 10:30 AM – 11:00 AM
  Afternoon Coffee Break............... 4:00 PM – 4:30 PM
  Poster Session I with Presenters in
  Attendance and Rapid Oral Session ....6:00 PM – 7:30 PM
26 August 2016............................... Morning Coffee Break...................... 10:45 AM – 11:15 AM
  Afternoon Coffee Break............... 4:00 PM – 4:30 PM
  Poster Session II with Presenters in
  Attendance and Rapid Oral Session ....6:00 PM – 7:30 PM
27 August 2016............................... Morning Coffee Break...................... 10:30 AM – 11:00 AM
  Afternoon Coffee Break............... 4:00 PM – 4:30 PM
  Poster Session III with Presenters in
  Attendance .................................. 6:00 PM – 7:30 PM

Poster Sessions (Presenters in Attendance)
Room Location: River Exhibit Hall A & B, Level 1
25 August 2016......................... Poster Session I with Presenters in
  Attendance and Rapid Oral Session ....6:00 PM – 7:30 PM
26 August 2016......................... Poster Session II with Presenters in
  Attendance and Rapid Oral Session ....6:00 PM – 7:30 PM
27 August 2016......................... Poster Session III with Presenters in
  Attendance .............................. 6:00 PM – 7:30 PM

Schedule of Social Activities
Room Location: River Exhibit Hall A & B, Level 1
24 August 2016......................... Welcome Reception .......................... 6:30 PM – 7:30 PM

MYSTIC BLUE BOAT CRUISE
27 August 2016......................... Off-site – Mystic Blue Boat Cruise........ 7:45 PM – 11:30 PM
Location: 600 E Grand Avenue | Chicago, IL 606

Join your Options IX colleagues for a fun evening on the Mystic Blue Boat Cruise. The Mystic Blue boasts the biggest panoramic windows on Lake Michigan with unbelievable views of the Chicago skyline. Taste the flavors of delicious contemporary dishes from the buffet-style menu. Experience Chicago’s trendy downtown scene while departing from the famous Navy Pier. Dance the night away with DJ entertainment, and network with colleagues. Don’t miss out on this fun evening, especially the city fireworks display!

This is a ticketed event. Entry will only be granted to attendees that purchase tickets in advance in addition to Options IX registration. Please note that there is limited ticket availability for this event. No entry is permitted without a ticket. Transportation is not provided to this event. Walking directions will be provided onsite at Options IX registration.

Cruise boarding will start promptly at 7:45 PM and end at 8:30 pm.

Attire: Business Casual

*Guest registration allows entrance into the Welcome Reception and to the Off-site Event Mystic Blue Boat Cruise.
COMMITTEES

OPTION IX LOCAL ORGANIZING COMMITTEE

Michael G. Ison, MD, MS–Chairperson,
Options IX for the Control of Influenza
Infectious Diseases and Organ Transplantation
Northwestern University
Feinberg School of Medicine
Chicago, Illinois, USA

Lance Jennings, QSO, PhD–Co-Chairperson
Canterbury Laboratories
Christchurch, New Zealand

Pedro C. Avilla, MD
Allergy and Immunology
Northwestern University
Feinberg School of Medicine
Chicago, Illinois, USA

Regina Dutkowski, PhD
Chief Development Officer
D3 Medicine
Parsippany, New Jersey, USA

Daniel B. Jernigan, MD, MPH
Influenza Division
US Centers for Disease Control
Atlanta, Georgia, USA

Amy E. Krafft, PhD
Influenza Division
National Institute of Allergies and Infectious Diseases
Rockville, Maryland, USA

Kathy Neuzil, MD, MPH
Center for Vaccine Development
University of Maryland School of Medicine
Baltimore, Maryland, USA

Andrew T. Pavia, MD
Pediatric Infectious Diseases
University of Utah
Salt Lake City, Utah, USA

Jane Ryan, PhD
Melbourne, Australia

Stacey L. Schultz-Cherry, PhD
Infectious Diseases
St. Jude Children’s Research Hospital
Memphis, Tennessee, USA

Richard J. Whitley, MD
Pediatrics
University of Alabama
Birmingham, Alabama, USA

Richard G. Wunderink, MD
Professor, Medicine–Pulmonary
Northwestern University
Feinberg School of Medicine
Chicago, Illinois, USA

Melissa S. Willis, PhD
Chief, Influenza Therapeutics, Influenza Division
Biomedical Advanced Research and Development Authority (BARDA)
Office of the Assistant Secretary for Preparedness and Response (ASPR)
U. S. Department of Health and Human Services (DHHS)
Washington, DC, USA

Regina Dutkowski, PhD
Chief Development Officer
D3 Medicine
Parsippany, New Jersey, USA

Daniel B. Jernigan, MD, MPH
Influenza Division
US Centers for Disease Control
Atlanta, Georgia, USA

Amy E. Krafft, PhD
Influenza Division
National Institute of Allergies and Infectious Diseases
Rockville, Maryland, USA

Kathy Neuzil, MD, MPH
Center for Vaccine Development
University of Maryland School of Medicine
Baltimore, Maryland, USA

Andrew T. Pavia, MD
Pediatric Infectious Diseases
University of Utah
Salt Lake City, Utah, USA

Jane Ryan, PhD
Melbourne, Australia

Stacey L. Schultz-Cherry, PhD
Infectious Diseases
St. Jude Children’s Research Hospital
Memphis, Tennessee, USA

CLINICAL SCIENCE WORKGROUP

Nelson Lee, MD–Workgroup Chairperson
Infectious Diseases
Chinese University of Hong Kong
Hong Kong SAR, China

Frederick Hayden, MD–Workgroup Chairperson/Board Liaison
Infectious Diseases
University of Virginia
Charlottesville, Virginia, USA

Robert Booy, MD
University of Sydney
Sydney, Australia

Bin Cao, MD
Pulmonary/Critical Care
Capital Medical University
Beijing, China

Mengo de Jong, MD, PhD
Infectious Diseases
University of Amsterdam
Amsterdam, The Netherlands

Ann Falsoy, MD
Infectious Diseases
University of Rochester
Rochester, New York, USA

Janet McElhaney, MD
Geriatrics
Northern Ontario School of Medicine
Sudbury, Ontario, Canada

Nikki Shindo, MD
World Health Organization
Geneva, Switzerland

David Smith, MBBS
Infectious Diseases
University of Western Australia
Perth, Australia

Norio Sugaya, MD
Pediatrics
Kei University
Yokohama, Japan

Tim Uyeki, MD
Pediatrics
US Centers for Disease Control and Prevention
Atlanta, Georgia, USA

Maria Zambon, PhD
Public Health
Public Health England
London, UK

PUBLIC HEALTH WORKGROUP

Jonathan Van Tam, MD, PhD–Workgroup Chairperson
University of Nottingham
Nottingham, UK

Ben Cowling, PhD–Workgroup Chairperson/Board Liaison
Professor
The University of Hong Kong
Pokfulam, Hong Kong SAR, China

Udo Buckholz
Robert Koch Institut
Berlin, Germany

Cheryl Cohen
National Institute for Communicable Diseases
Johannesburg, South Africa

Peter Horby
Hanoi United
Oxford University
Hanoi, Viet Nam

Arnold Monto, MD
University of Michigan
Ann Arbor, Michigan, USA

Alain Moren
EpiConcept
Paris, France

Carrie Reed
US Centers for Disease Control and Prevention
Atlanta, Georgia, USA

Marilda Sequiera
Fio Cruz
Rio de Janeiro, Brazil

Cecile Viboud
Fogarty International Center
National Institutes of Health
Bethesda, Maryland, USA

Virology and Pathogenesis Workgroup

Robert Lamb, PhD, ScD–Workgroup Chairperson
Northwestern University
Evaston, Illinois, USA

Jackie Katz, PhD –Workgroup Co-Chairperson/Board Liaison
US Centers for Disease Control and Prevention
Atlanta, Georgia, USA

Justin Bahl, PhD
Associate Professor
UTHealth
The University of Texas Houston, TX, USA

Wendy Barclay, PhD
Imperial College
London, UK

Paul Digard, PhD
The Roslin Institute
University of Edinburgh
Edinburgh, UK

Gülşah Gabriel, PhD
University of Hamburg
Hamburg, Germany

Aeron Hurt, PhD
Deputy Director
WHO Collaborating Centre for Reference and Research on Influenza
Victorian Infectious Disease Reference Laboratory (VIDRL) at Peter Doherty Institute
Melbourne, Australia

Yoshishiro Kawaoka, DVM, MS, PhD
University of Wisconsin
Madison, Wisconsin, USA

University of Tokyo
Tokyo, Japan

Julie McAuley, PhD
University of Melbourne
Melbourne, Australia

Leo Poon, DPhil
University of Hong Kong
Hong Kong SAR, China

Patrick Wilson, PhD
University of Chicago
Chicago, Illinois, USA

SCIENTIFIC ADVISORY EXECUTIVE COMMITTEE

Robert Lamb, PhD ScD–Chairperson
Northwestern University
Evaston, Illinois, USA

Ben Cowling, PhD
Professor
The University of Hong Kong
Pokfulam, Hong Kong SAR, China

Frederick Hayden, MD
Infectious Diseases
University of Virginia
Charlottesville, Virginia, USA

Jackie Katz, PhD
US Centers for Disease Control and Prevention
Atlanta, Georgia, USA

Nelson Lee, MD
Infectious Diseases
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Patrick Wilson, PhD
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Chicago, Illinois, USA

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Rio de Janeiro, Brazil

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Bethesda, Maryland, USA

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Chicago, Illinois, USA
OPTIONS IX SUPPORTERS

ISIRV WOULD LIKE TO THANK THE FOLLOWING ORGANIZATIONS FOR THEIR SUPPORT OF THE OPTIONS IX FOR THE CONTROL OF INFLUENZA CONFERENCE:

Travel Fellowship Award

BILL & MELINDA GATES foundation

Platinum Supporter

Silver Supporter

Bronze Supporter

JANSSEN PHARMACEUTICALS
QUIDEL CORPORATION
ROMARK LC

Thanks for the generous support of the

CDC
GENERAL INFORMATION

What is ISIRV?
The International Society for Influenza and Other Respiratory Virus Diseases (ISIRV) is an independent and international scientific professional society promoting the prevention, detection, treatment, and control of influenza and other respiratory virus diseases.

For more information, visit www.isirv.org

Options for the Control of Influenza Conference
The Society has lead responsibility for organizing the largest international conference exclusively devoted to influenza prevention, control and treatment, including seasonal flu and pandemic preparedness, the Options for the Control of Influenza Conference, which takes place every 3 to 4 years.

Who Should Attend
Options IX is the premier conference designed for leading virologists, infectious diseases, pulmonary/critical care specialist and other clinicians, scientists, public health and epidemiology researchers and specialists, health care policy makers and government and non-government agency staff.

Target Audience
» Clinicians
» Concerned business leaders
» Epidemiologists
» Government officials
» Health education specialists
» Healthcare policy makers
» Medical and scientific media
» Physicians
» Public health specialists
» Researchers
» Scientists
» Vaccine experts

Objectives
» Provide comprehensive, state-of-the-art scientific information for all disciplines involved in influenza prevention, control, and treatment, including seasonal and pandemic planning.

Continuing Medical Education
Options IX offers CME to eligible participants.

For more information regarding CME, please visit 2016.isirv.org/continuing-education.

What’s Included with Registration
Full Conference, Student, Press & One-Day Pass Badges permits access to the Keynote lecture, Plenary Sessions, Featured Symposia, Poster Receptions and all Exhibit Hall events. Along with your badge, all will receive a conference bag, conference lanyard, conference program, with a notebook and pen.

Accompanying Guest Badge holders will have access into the Welcome Reception in the Exhibit Hall and to the Off-site Event Mystic Blue Boat Cruise. Accompanying guests will not have access to the Keynote lecture, Plenary Sessions, Featured Symposia, Poster Receptions, or any other sessions within the conference. Accompanying guests will not receive a conference bag or conference program, or notebook and pen.

Exhibitor Badge holders will have access to the Exhibit Hall only. Exhibitor Badge holders will not have access to the Keynote lecture, Plenary Sessions, Featured Symposia, or any other sessions within the conference.
Options IX for the Control of Influenza

Food and Beverage functions included with conference registration.

WEDNESDAY, AUGUST 24, 2016
• Welcome Reception in the Exhibit Hall, 6:30 pm – 7:30 pm

THURSDAY, AUGUST 25, 2016
• AM Coffee Break in the Exhibit Hall, 10:30 am – 11:00 am
• PM Coffee Break in the Exhibit Hall, 4:00 pm – 4:30 pm
• Poster Session I in the Exhibit Hall, 6:00 pm – 7:30 pm

FRIDAY, AUGUST 26, 2016
• AM Coffee Break in the Exhibit Hall, 10:45 am – 11:15 am
• PM Coffee Break in the Exhibit Hall, 4:00 pm – 4:30 pm
• Poster Session II in the Exhibit Hall, 6:00 pm – 7:30 pm

SATURDAY, AUGUST 27, 2016
• AM Coffee Break in the Exhibit Hall, 10:30 am – 11:00 am
• PM Coffee Break in the Exhibit Hall, 4:00 pm – 4:30 pm
• Poster Session III in the Exhibit Hall, 6:00 pm – 7:30 pm

SUNDAY, AUGUST 28, 2016
• AM Coffee Break, 10:30 am – 11:00 am
• Boxed Lunch, 12:30 pm – 1:00 pm

Mobile Application
Options IX has designed a mobile application that includes all program information and abstracts. Easily access sessions, speakers, exhibitors and organizer messages.

How to Download
iOS App Store
1. On your device, open the App Store app
2. Search for Event Pilot Conference App
3. Download and Open
4. Enter the Event Code all in CAPS and Click on Find Event: ISIRVoptionsIX
5. You will need to click on the “Event Pilot” application icon when you want to access the information.

Android Google Play or Amazon App Store
1. On your device, open the Android Market app
2. Search for Event Pilot Conference App
3. Download and Open
4. Enter the Event Code all in CAPS and Click on Find Event: ISIRVoptionsIX
5. You will need to click on the “Event Pilot” application icon when you want to access the information.

Conference App Tips
• Explore everything the app has to offer - simply try out all the buttons to see what they do.
• Use filters to only see items that are pertinent to you. Be sure to turn the filter back off in order to view the full conference schedule.
• Check the visual schedule for empty time blocks to maximize your time at Options IX.

Free Wifi Access
Free WIFI access is available to allow Options IX attendees the ability to download and use the conference mobile application.

In order to connect, click on ISIRV2016.

Enter the password in all lowercase type: optionsix

Free WIFI access is available to Options IX attendees in the following areas:
• Sheraton Chicago Ballroom 4, 5, 6, 7
• Chicago Ballroom 8, 9
• Chicago Ballroom 10
• Chicago Promenade

SPONSORED SATELLITE SYMPOSIA

There are a number of satellite symposia and/or events taking place during Options IX. These are open to all attendees of Options IX, and there is no separate registration fee to attend. Although not directly affiliated with Options IX, we urge you to attend and support these additional educational opportunities.

Lunch will be provided on a first come first serve basis.

Dissecting the Influenza Challenge: Perspectives on Prevention and Management
Supported by Seqirus
Location: Sheraton Grand Hotel, Sheraton Chicago Ballroom 4, 5, 6, 7
Date: Thursday, August 25, 2016
Time: 12:30 pm–2:00 pm

Influenza Vaccination in Children – Costs and Benefits
Supported by AstraZeneca
Location: Sheraton Grand Hotel, Sheraton Chicago Ballroom 4, 5, 6, 7
Date: Friday, August 26, 2016
Time: 12:30 pm–2:00 pm

Respiratory Syncytial Virus: An Underrecognized Health Burden in Older Adults
Supported by Novavax
Location: Sheraton Grand Hotel, Sheraton Chicago Ballroom 4, 5, 6, 7
Date: Saturday, August 27, 2016
Time: 12:30 pm–2:00 pm
AWARD INFORMATION

Travel Fellowship Awards

The Options IX for the Control of Influenza conference is pleased to announce that the Bill & Melinda Gates Foundation has supported fellows from economically disadvantaged areas to attend the Options IX conference.

Dwi Agustian
Indonesia

Oksana Artemchuk
Ukraine

Gisela Barrera
Mexico

Golubinka Boshevska
Macedonia

Sukanta Chowdhury
Bangladesh

Ulziimaa Daramragchaa
Mongolia

Ragai Fouda
Egypt

Mai Le thi Quynh
Vietnam

Florence Max-Macarthy
Sierra Leone

Barbara Namagambo
Uganda

Richard Njouom
Cameroon

Diep Nguyen Thi
Vietnam

Suset Orepesa
Cuba

Gloria Ramirz-Nieto
Colombia

Naila Siddique
Pakistan

Francis Termeteet
Palau

MesfinTsegaye
Ethiopia

Bishnu Prasad
Nepal

Cynthia Vazquez
Paraguay

Mame Mbayame Ndiaye-Niang
Senegal
ABOUT CHICAGO

As the third-largest city in the country, Chicago has a ton to offer you while visiting. Chicago is situated squarely in the center of the country and is accessible from virtually anywhere. A big part of what makes Chicago so picturesque is Lake Michigan. Relax along the 18 miles of Lakefront Path and/or enjoy the 15 miles of sandy beaches. Root for one of the incredible professional sports teams. Enjoy the beautiful views of Lake Michigan. Or, simply sit in one of the many city parks for lunch. More information on public transportation and getting to Chicago by plane can be found by visiting http://2016.isirv.org/location.

Meeting Location
Sheraton Grand Chicago
301 E. North Water Street
Chicago, IL, USA

The great location of Sheraton Grand Chicago puts you in the heart of the city and offers views of the river and lake. Directly on the riverfront, the hotel is within walking distance of Navy Pier, Millennium Park and Michigan Avenue. Chic but not fussy, the downtown hotel has everything you need to be comfortable and productive. There are six fine dining options with a brand-new patisserie.

Attractions near the Sheraton Grand Chicago Hotel

ARTS & CULTURE
- Art Institute of Chicago 0.9 km/0.6 miles
- Field Museum of Natural History 1.6 km/1.0 miles
- Adler Planetarium 3.2 km/2.0 miles
- The Museum of Science and Industry 8.0 km/5.0 miles

RECREATION
- Architectural River Tours 0.2 km/0.1 miles
- Navy Pier 0.3 km/0.2 miles
- Grant Park/Buckingham Fountain 1.6 km/1.0 miles
- Buckingham Fountain 1.6 km/1.0 miles
- Lincoln Park 3.2 km/2.0 miles
- Shedd Aquarium 3.2 km/2.0 miles
- Soldier Field (Home of the Chicago Bears) 3.2 km/2.0 miles
- United Center (Home of Chicago Bulls/Blackhawks) 4.8 km/3.0 miles
- U.S. Cellular Field (Home of the Chicago White Sox) 9.6 km/6.0 miles
- Wrigley Field (Home of the Chicago Cubs) 11.3 km/7.0 miles

SHOPPING
- Michigan Avenue/The Magnificent Mile 0.1 km/0.1 miles
- American Girl Place 0.5 km/0.3 miles
- Merchandise Mart 1.6 km/1.0 miles
## SCHEDULE AT A GLANCE

### WEDNESDAY | 24 AUGUST 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:00 pm - 5:15 pm</td>
<td>Welcome from the ISIRV President</td>
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<tr>
<td>5:15 pm - 5:30 pm</td>
<td>Welcome from Options Organizing Chair</td>
</tr>
<tr>
<td>5:30 pm - 6:30 pm</td>
<td>Keynote Address</td>
</tr>
<tr>
<td>6:30 pm - 7:30 pm</td>
<td>Welcome Reception in the Exhibit Hall</td>
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### THURSDAY | 25 AUGUST 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 am - 10:30 am</td>
<td>Morning Plenary Session – Public Health Focus</td>
</tr>
<tr>
<td>10:30 am - 11:00 am</td>
<td>Coffee Break in the Exhibit Hall</td>
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<tr>
<td>11:00 am - 12:30 pm</td>
<td>Concurrent Oral Abstract Sessions</td>
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<tr>
<td>12:30 pm - 2:00 pm</td>
<td>Sponsored Lunch Symposium</td>
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<tr>
<td>2:00 pm - 4:00 pm</td>
<td>Concurrent Featured Symposia</td>
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<tr>
<td>4:00 pm - 4:30 pm</td>
<td>Coffee Break in the Exhibit Hall</td>
</tr>
<tr>
<td>4:30 pm - 6:00 pm</td>
<td>Concurrent Oral Abstract Sessions</td>
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<tr>
<td>6:00 pm - 7:30 pm</td>
<td>Poster Reception I with Presenters in Attendance and Rapid Oral Session</td>
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### FRIDAY | 26 AUGUST 2016

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<tbody>
<tr>
<td>8:00 am - 10:00 am</td>
<td>Morning Plenary Session – Virology &amp; Pathogenesis Focus</td>
</tr>
<tr>
<td>10:00 am - 10:45 am</td>
<td>ISIRV General Meeting</td>
</tr>
<tr>
<td>10:45 am - 11:15 am</td>
<td>Coffee Break in the Exhibit Hall</td>
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<tr>
<td>11:15 am - 12:30 pm</td>
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<td>6:00 pm - 7:30 pm</td>
<td>Poster Reception II with Presenters in Attendance and Rapid Oral Session</td>
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### SATURDAY | 27 AUGUST 2016

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<td>8:30 am - 10:30 am</td>
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<tr>
<td>2:00 pm - 4:00 pm</td>
<td>Concurrent Featured Symposia</td>
</tr>
<tr>
<td>4:00 pm - 4:30 pm</td>
<td>Coffee Break in the Exhibit Hall</td>
</tr>
<tr>
<td>4:30 pm - 6:00 pm</td>
<td>Oral Abstract Session - Virology &amp; Pathogenesis Focus</td>
</tr>
<tr>
<td>4:30 pm - 6:00 pm</td>
<td>Public Health/Clinical Science Pregnancy Symposium</td>
</tr>
<tr>
<td>6:00 pm - 7:30 pm</td>
<td>Poster Reception III with Presenters in Attendance</td>
</tr>
<tr>
<td>7:45 pm - 11:30 pm</td>
<td>Off-site Event - Mystic Blue Boat Cruise</td>
</tr>
</tbody>
</table>

### SUNDAY | 28 AUGUST 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 am - 10:30 am</td>
<td>Concurrent Featured Symposia</td>
</tr>
<tr>
<td>10:30 am - 11:00 am</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:00 am - 12:30 pm</td>
<td>Concurrent Oral Abstract Sessions</td>
</tr>
<tr>
<td>12:30 pm - 1:00 pm</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>1:00 pm - 3:00 pm</td>
<td>Closing Plenary Session</td>
</tr>
</tbody>
</table>
24 AUGUST 2016
WEDNESDAY
5:00 pm – 6:30 pm  Opening Plenary Session
Moderators: Michael Ison, MD, MS and Lance Jennings, QSO, PhD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4
5:00 pm – 5:15 pm  Welcome from ISIRV President
Lance Jennings, QSO, PhD
Cantebury Laboratories
Christchurch, New Zealand
5:15 pm – 5:30 pm  Welcome from Options Organizing Chair
Michael Ison, MD, MS
Infectious Diseases and Organ Transplantation
Northwestern University Feinberg School of Medicine
Chicago, IL, United States
5:30 pm – 6:30 pm  Opening Plenary Session: Keynote Address
Nancy Cox, PhD
Past Director of the Influenza Division at the Centers for Disease Control and Prevention (CDC) and Director of CDC’s World Health Organization (WHO) Collaborating Center for Surveillance, Epidemiology and Control of Influenza
6:30 pm – 7:30 pm  Welcome Reception in the Exhibit Hall
Room Location: River Hall A & B, Level 1
25 AUGUST 2016
THURSDAY
8:00 am – 8:30 am  Late Breaking Oral Abstract Session: Public Health
Moderators: Ben Cowling, BSc, PhD and Jonathan Nguyen-Van-Tam, DM, FRCPath
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4
8:00 am – 8:15 am  Burden of seasonal influenza in pregnant women (Abstract #LBO-4)
Annette Regan
Wesfarmers Centre for Vaccines and Infectious Diseases, Telethon Kids Institute
Bicton, Australia ▲
8:15 am – 8:30 am  How and where influenza kills: Using modelling and linked data to partition influenza deaths into useful categories (Abstract #LBO-5)
Michael Baker
University of Otago
Wellington, New Zealand ▲
8:30 am – 10:30 am  Public Health Plenary Session: Addressing the Public Health Threat of Influenza: Recognition, Prevention and Treatment ▲
Moderators: Ben Cowling, BSc, PhD and Jonathan Nguyen-Van-Tam, DM, FRCPath
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4
8:30 am – 9:10 am  Outbreak and Pandemic Response: Role of Antivirals
Nahoko Shindo, MD, PhD
World Health Organization Geneva, Switzerland ▲
9:10 am – 9:50 am  Exposure to Influenza in the Healthcare Environment
Werner Bischoff, MD, PhD, Wake Forest University School of Medicine
Salem, NC, United States ▲
9:50 am – 10:30 am  The Market as an Influenza Risk Factor: The Animal Human Interface
Yuelong Shu, PhD
Chinese National Influenza Center National Institute for Viral Disease Control and Prevention
Beijing, China ▲
10:30 am – 11:00 am  Coffee Break in the Exhibit Hall
Room Location: River Hall A & B, Level 1
11:00 am – 12:30 pm  Oral Abstract Sessions
Moderators: Udo Buchholz, MD, MPH and Michael Cooper, PhD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4
11:00 am – 11:15 am  Estimates of Global Seasonal Influenza-associated Respiratory Deaths (Abstract #O-7)
A. Danielle Iuliano
Centers for Disease Control and Prevention
Atlanta, GA, United States ▲
11:15 am – 11:30 am  Estimating the Global Number Of Deaths Due to Seasonal Influenza: The WHO-Funded Glamor Project (Abstract #O-8)
John Paget
Netherlands Institute for Health Services Research (NIVEL)
Utrecht, The Netherlands ▲
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 am</td>
<td>Oral Abstract Session: Virology &amp; Pathogenesis</td>
<td>Moderators: Justin Bahl, PhD and Erhard Van der Vries, PhD</td>
</tr>
<tr>
<td>11:00 am</td>
<td>Role of Neuraminidase in Influenza A(H7N9) Receptor Binding</td>
<td>Donald Benton, The Francis Crick Institute, London, United Kingdom</td>
</tr>
<tr>
<td>11:15 am</td>
<td>The Avian Influenza A Virus PB1 Gene in the 1968 Pandemic H3N2 Virus Has Evolved Codon Usage Over Time yo Match Interferon-Altered Transfer RNA Pools in Human Cells</td>
<td>Robert Krug, University of Texas at Austin, Austin, TX, United States</td>
</tr>
<tr>
<td>11:30 am</td>
<td>The Dual Roles of the HA Segment-Specific Noncoding Nucleotides in the Extended Duplex Region of the Influenza A Virus RNA Promoter</td>
<td>Tao Deng, Institute of Pathogen Biology, Chinese Academy of Medical Sciences, Beijing, China</td>
</tr>
<tr>
<td>11:45 am</td>
<td>Systematic Assessment of Multiple Routine and Near-Real Time Indicators to Classify the Severity of Influenza Seasons in the United States, 2002-03 Through 2014-2015</td>
<td>Matthew Biggerstaff, Centers for Disease Control and Prevention, Atlanta, GA, United States</td>
</tr>
<tr>
<td>12:00 pm</td>
<td>A Systematic Review of Studies of Influenza-Associated Mortality</td>
<td>Li Li, The University of Hong Kong, Hong Kong, China</td>
</tr>
<tr>
<td>12:15 pm</td>
<td>How Effective Was the Real-Time Monitoring of Laboratory-Confirmed Deaths During the 2009 Pandemic? A Global Assessment</td>
<td>John Paget, Netherlands Institute for Health Services Research (NIVEL), Utrecht, The Netherlands</td>
</tr>
<tr>
<td>12:30 pm</td>
<td>Oral Abstract Session: Clinical Science</td>
<td>Moderators: Jane Ryan, PhD and Norio Sugaya, MD, PhD</td>
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<tr>
<td>11:00 am</td>
<td>Impact Of Outpatient Neuraminidase Inhibitor Treatment in Patients Infected with Influenza A(H1N1)pdm09 at High Risk of Hospitalisation: An IPD Analysis</td>
<td>Sudhir Venkatesan, University of Nottingham, Nottingham, United Kingdom</td>
</tr>
<tr>
<td>11:15 am</td>
<td>Clinical And Virological Outcomes Upon Emergence of Oseltamivir-Resistant Influenza A Viruses an Treated Individuals: The IRIS Study</td>
<td>Rueshandra Roosenhoff, Erasmus MC, Utrecht, The Netherlands</td>
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<tr>
<td>Time</td>
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| 11:30 am – 11:45 am | Oseltamivir Treatment to Reduce Influenza Illness Duration and Virus Shedding by Virus Type and Subtype: Dhaka, Bangladesh, May 2008 To December 2010 *(Abstract #O-3)*  
Fiona Havers  
Centers for Disease Control and Prevention  
Atlanta, GA, United States | 2:00 pm – 4:00 pm | Featured Symposia  
Clinical Science Featured Symposia: Diagnostic and Monitoring Tools in the Clinical Setting |
| 11:45 am – 12:00 pm | IFITM3, TLR3 And CD55 Single-Nucleotide Polymorphisms (Snps) Predict Severe Outcomes in Chinese Patients with Influenza *(Abstract #O-4)*  
Nelson Lee  
The Chinese University of Hong Kong  
Hong Kong, China | 2:00 pm – 2:30 pm | Rapid Diagnosis for Influenza and Other Respiratory Viruses  
Maria Zambon, BSc, PhD  
Public Health England  
London, United Kingdom |
| 12:00 pm – 12:15 pm | Influenza-Associated Hospitalizations Identified Through Surveillance for Severe Acute Respiratory Illness in Minnesota, 2013-2015 *(Abstract #O-5)*  
Ashley Fowlkes  
Epidemiology and Prevention Branch, Influenza Division, Centers for Disease Control and Prevention  
Atlanta, GA, United States | 2:30 pm – 3:00 pm | Role of Biomarkers (Differentiating Viral From Bacterial/Mixed Infections)  
Ann Falsey, MD  
University of Rochester School of Medicine  
Rochester, NY, United States |
| 12:15 pm – 12:30 pm | Peramivir Susceptibility of Influenza A And B Neuraminidase Variants Selected Under Pressure with Neuraminidase Inhibitors *(Abstract #O-6)*  
Guy Boivin  
Laval University  
Quebec, Canada | 3:00 pm – 3:30 pm | Detection of Antiviral Resistance  
Aeron Hurt, PhD  
WHO Collaborating Centre for Reference and Research on Influenza, Melbourne  
Melbourne, Victoria, Australia |
| 12:30 pm – 2:00 pm | Sponsored Lunch Symposium: Dissecting the Influenza Challenge: Perspectives on Prevention and Management  
Sponsored by Seqirus | 3:30 pm – 4:00 pm | Prognostic Indicators in Severe Influenza  
William Jake Dunning, MRCP, PhD  
Public Health England  
London, United Kingdom |
| 2:00 pm – 4:00 pm | Public Health Featured Symposia: Pandemic Preparedness  
**Moderators:** Dan Jernigan, MD, MPH and Peter Horby, MD, PhD |
| 2:00 pm – 2:30 pm | Pandemic Planning – Where are We?  
Wenqing Zhang, MD  
World Health Organization  
Geneva, Switzerland | Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4 |
| 2:30 pm – 3:00 pm | Effectiveness of Antivirals  
Jonathan Nguyen-Van-Tam, DM, FRCP  
University of Nottingham, School of Medicine  
Nottingham, United Kingdom | 2:00 pm – 2:30 pm | Pandemic Planning – Where are We?  
Wenqing Zhang, MD  
World Health Organization  
Geneva, Switzerland |
3:00 pm – 3:30 pm  Pandemic and Pre-pandemic Vaccines, Where Are We Now? 
Rick A. Bright, PhD HHS/OS/ASPR/BARDA 
Washington DC, United States ▲

3:30 pm – 4:00 pm  Implementation and Impact of Non-Pharmaceutical Interventions in the 20th Century Pandemics 
Amra Uzicanin, MD, MPH 
Centers for Disease Control and Prevention (CDC) 
Atlanta, GA, United States ▲

2:00 pm – 4:00 pm  Virology & Pathogenesis Featured Symposia: Virus Host-Cell Interactions ●
Moderators: Stacey Schultz-Cherry, PhD and Wendy Barclay, MA, PhD
Room Location: Chicago Ballroom 8 & 9, Level 4

2:00 pm – 2:30 pm  Antiviral Innate Immune Responses to Influenza Viruses 
Adolfo Garcia-Sastre, PhD 
Icahn School of Medicine at Mount Sinai 
New York, NY, United States ●

2:30 pm – 3:00 pm  Influenza A Virus Uncoating Mechanisms 
Yohei Yamauchi, MD PhD 
University of Zurich 
Zurich, Switzerland ●

3:00 pm – 3:30 pm  IFITM3 Restriction of Viral Replication 
Abraham Brass, MD PhD 
University of Massachusetts Medical School 
Newton, MA, United States ●

3:30 pm – 4:00 pm  Influenza Virus Interference with Innate Immunity 
Christina Ehrhardt, PhD 
Westfälische Wilhelms-University Muenster / Institute of Molecular Virology 
Muenster, North Rhine-Westphalia, Germany ●

4:00 pm – 4:30 pm  Coffee Break in the Exhibit Hall
Room Location: River Hall A & B, Level 1

4:30 pm – 6:00 pm  Oral Abstract Sessions

4:30 pm – 6:00 pm  Oral Abstract Session: Public Health I ▲
Moderators: Rebecca Cox, PhD and Vernon Lee, MBBS, PhD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

4:30 pm – 4:45 pm  Comparison of Epidemiological and Genomic Approaches for Determining Nosocomial Influenza Transmission Chains (Abstract #O-19) 
Ruth Blackham 
University College London 
London, Great Britain ▲

4:45 pm – 5:00 pm  Seasonal Forces and Influenza Virus Transmission Dynamics in Hong Kong (Abstract #O-20) 
Sheikh T. Ali 
The University of Hong Kong 
Hong Kong, Hong Kong ▲

5:00 pm – 5:15 pm  Inferring Influenza Epidemic Dynamics in the Presence of Stratified Immunity (Abstract #O-21) 
Hsiang-yu Yuan 
Imperial College London 
London, Great Britain ▲

5:15 pm – 5:30 pm  Monitoring Influenza Infection: Serosurveillance Using an Annual, Nationally Representative Rolling Survey (Abstract #O-22) 
Ellen Fragaszy 
University College London, Farr Institute of Health Informatics Research 
London, Great Britain ▲

5:30 pm – 5:45 pm  Age Structure of Influenza A(H1N1) Pdm09 Virus Infections During the Years 2009 - 2016, Norway (Abstract #O-23) 
Olav Hungnes 
Norwegian Inst. of Public Health 
Oslo, Norway ▲

5:45 pm – 6:00 pm  The Consortium for the Standardization of Influenza Seroepidemiology (CONSISE) (Abstract #O-24) 
Maria Van Kerkhove 
Institut Pasteur 
Paris, France ▲
4:30 pm – 6:00 pm | Oral Abstract Session: Public Health II ▲

Moderators: John Watson, MD, FRCP and Hitoshi Oshitani, MD, PhD

Room Location: Chicago Ballroom 10, Level 4

4:30 pm – 4:45 pm | Incidence of Influenza and Influenza Re-infection in a Cohort of Nicaraguan Children (Abstract #O-25)
Aubree Gordon
University of Michigan
Ann Arbor, United States ▲

4:45 pm – 5:00 pm | Influenza Virus Infections and Immunity in a Cohort Of School-Age Children Over a 5-Year Period (Abstract #O-26)
Benjamin Cowling
The University of Hong Kong
Pokfulam, Hong Kong ▲

5:00 pm – 5:15 pm | Epidemiology and Immunology of Influenza B Lineage Infections in Households (Abstract #O-27)
Hoa Le
Oxford University Clinical Research Unit and Wellcome Trust Major Overseas Programme
Hanoi, Vietnam ▲

5:15 pm – 5:30 pm | Individual and Population Trajectories of Influenza Antibody Titers Over Multiple Seasons in Tropical Singapore (Abstract #O-28)
Xiahong Zhao
Saw Swee Hock School of Public Health, National University of Singapore
Singapore ▲

5:30 pm – 5:45 pm | Influenza Virus in Respiratory Droplets from Humans with Community-Acquired Infection (Abstract #O-29)
Donald Milton
University of Maryland
College Park, United States ▲

5:45 pm – 6:00 pm | Linking Forecasts to Public Health Needs: Results from the Centers for Disease Control And Prevention Seasonal Influenza Forecasting Challenges, 2013-2016 (Abstract #O-30)
Matthew Biggerstaff
Centers for Disease Control and Prevention
Atlanta, GA, United States ▲

4:30 pm – 6:00 pm | Oral Abstract Session: Virology & Pathogenesis ●

Moderators: Julie McAuley, PhD and Ab Osterhaus

Room Location: Chicago Ballroom 8 & 9, Level 4

4:30 pm – 4:45 pm | The Unexpected Pro-Viral Role of ‘Anti-Viral’ Genes During Influenza Virus Infection (Abstract #O-31)
Andrew Mehle
University of Wisconsin Madison
Madison, WI, United States ●

4:45 pm – 5:00 pm | Constitutively Expressed IFITM3 Protein in Human Endothelial Cells Poses an Early Infection Block to Human Influenza Viruses (Abstract #O-32)
Xiangjie Sun
Influenza Division
Atlanta, GA, United States ●

5:00 pm – 5:15 pm | Loss of Fitness in Mammalian Cells Imposed by the NS1 Protein from Bat Influenza-like Viruses (Abstract #O-33)
Teresa A. Aydillo Gomez
Department of Microbiology; Global Health and Emerging Pathogens Institute; Icahn School of Medicine at Mount Sinai, NY
New York, NY, United States ●

5:15 pm – 5:30 pm | Mechanisms of Lung Injury Caused by Severe Influenza A Virus Infection and Potential Therapeutic Effects of Mesenchymal Stem Cells (Abstract #O-34)
Iok Teng Kuok
University of Hong Kong
Hong Kong, Hong Kong ●

5:30 pm – 5:45 pm | Molecular Basis of Pathogenesis of 1918 PB1-F2: Uncoupling of Type 1 Interferon Response from Virus Infection by Hijacking its Mediator into Proteosomal Degradation (Abstract #O-35)
Baik Seong
Yonsei University
Seoul, Korea ●

5:45 pm – 6:00 pm | H7N9 Influenza A Viruses Exhibit Importin-A Mediated Replication in the Mammalian Respiratory Tract (Abstract #O-36)
Stephanie Bertram
Heinrich Pette Institute
Hamburg, Germany ●
**6:00 pm – 7:30 pm**  Poster Reception I with Presenters in Attendance

Room Location: River Exhibit Hall A & B, Level 1

See poster section for Poster Session 1

**6:00 pm – 7:00 pm**  Rapid Oral Poster Session

Room Location: River Exhibit Hall A & B, Level 1

**6:00 pm – 7:00 pm**  Rapid Oral Poster Session: Clinical Science ▲

6:00 pm – 6:06 pm  Virologic Response to Peramivir Treatment in Adults Hospitalized for Influenza-associated Lower Respiratory Tract Infections (Abstract #P-1)
Nelson Lee
The Chinese University of Hong Kong
Hong Kong, Hong Kong ▲

6:06 pm – 6:12 pm  Effect of low-to-moderate dose corticosteroids on mortality of hospitalized adolescents and adults with influenza A(H1N1)pdm09 viral pneumonia (Abstract #P-2)
Hui Li
Capital Medical University
China, China ▲

6:12 pm – 6:18 pm  Clinical Implications of Baseline Influenza A Mutations in Transplant Recipients (Abstract #P-3)
Victor Ferreira
University Health Network
Toronto, Canada ▲

6:18 pm – 6:24 pm  Genotypic and phenotypic analyses of influenza A virus (IAV) populations in a Phase 2A Influenza A challenge human volunteer challenge study assessing the efficacy of MHA4549A (Abstract #P-4)
Jacqueline McBride
Genentech Inc
South San Francisco, United States ▲

6:24 pm – 6:30 pm  Priming with seasonal influenza A(H3N2) virus impacts the age-related prevalence of serum cross-reactive hemagglutination-inhibition (HI) antibodies to swine-origin influenza A(H3N2) variants [A(H3N2)v]. (Abstract #P-5)
Xiuhua Lu
Centers for Disease Control and Prevention
Atlanta, GA, United States ▲

6:30 pm – 6:36 pm  Anti-Influenza virus neuraminidase (N9) monoclonal antibody with prophylactic and therapeutic activity in vivo (Abstract #P-6)
Jason Wilson
Influenza Division; NCIRD; Centers for Disease Control and Prevention
Atlanta, GA, United States ▲

6:36 pm – 6:42 pm  Mass Cytometry based profiling of host responses to A/California/2009 (H1N1) influenza infection in human volunteers (Abstract #P-7)
David McIlwain
Stanford University
Stanford, United States ▲

6:42 pm – 6:48 pm  A Phase 1, Randomized, Double-Blind, Placebo-Controlled, Single Ascending Dose Study to Investigate the Safety, Tolerability, and Pharmacokinetics of an Anti-Influenza B Monoclonal Antibody, MHAB5553A, in Healthy Volunteers (Abstract #P-8)
Jeremy Lim
Genentech
South San Francisco, United States ▲

6:48 pm – 6:54 pm  Use of residual nasal swab specimens from RIDT for RT-PCR in older patients (Abstract #P-9)
Jonathan Temte
University of Wisconsin School of Medicine and Public Health
Madison, WI, United States ▲

6:54 pm – 7:00 pm  Risk factors in patients hospitalized with influenza, Norway 2008-2014 (Abstract #P-10)
Siri Helene Hauge
Norwegian Institute of Public Health
Oslo, Norway ▲

**6:00 pm – 7:00 pm**  Rapid Oral Poster Session: Public Health ▲

6:00 pm – 6:06 pm  Can one define influenza transmission zones in Europe? The spatio-temporal characteristics of influenza A and B in the WHO Euro region (Abstract #P-11)
Saverio Caini
Netherlands Institute for Health Services Research (NIVEL)
Utrecht, Netherlands ▲

6:06 pm – 6:12 pm  Monitoring the fitness of transmissible antiviral resistant influenza strains (Abstract #P-12)
Sze Man Kathy Leung
The University of Hong Kong
Pok Fu Lam, Hong Kong ▲

**6:00 pm – 6:18 pm**  Clinical Science ▲

6:00 pm – 6:06 pm  Can one define influenza transmission zones in Europe? The spatio-temporal characteristics of influenza A and B in the WHO Euro region (Abstract #P-11)
Saverio Caini
Netherlands Institute for Health Services Research (NIVEL)
Utrecht, Netherlands ▲

6:06 pm – 6:12 pm  Monitoring the fitness of transmissible antiviral resistant influenza strains (Abstract #P-12)
Sze Man Kathy Leung
The University of Hong Kong
Pok Fu Lam, Hong Kong ▲
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Abstract Numbers</th>
<th>Authors, Institutions, Cities, Countries</th>
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</thead>
<tbody>
<tr>
<td>6:12 pm – 6:18 pm</td>
<td>Comparison of influenza vaccine effectiveness estimates from test-negative and ordinary case-control studies (Abstract #P-13)</td>
<td>Michael Haber, Emory University, Atlanta, United States</td>
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</tr>
<tr>
<td>6:18 pm – 6:24 pm</td>
<td>Estimations of Influenza-associated Deaths in the Americas during 2002-2008 (Abstract #P-14)</td>
<td>Rakhee Palekar, PAHO/WHO, Vienna, United States</td>
<td></td>
</tr>
<tr>
<td>6:24 pm – 6:30 pm</td>
<td>Applying machine learning approaches on influenza protein sequences predicts host tropism and zoonosis with high accuracy (Abstract #P-15)</td>
<td>Christine LP Eng, Department of Biochemistry, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore</td>
<td></td>
</tr>
<tr>
<td>6:30 pm – 6:36 pm</td>
<td>Heterologous two-dose vaccination regimen with simian adenovirus and poxvirus expressing conserved influenza A antigens elicits robust antigen-specific cellular immune responses in healthy volunteers (Abstract #P-16)</td>
<td>Lynda Coughlan, University of Oxford, Oxford, United Kingdom</td>
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<tr>
<td>6:36 pm – 6:42 pm</td>
<td>Association of influenza disease burden with antigenic variation of influenza A(H3N2) viruses (Abstract #P-17)</td>
<td>Lin Yang, The Hong Kong Polytechnic University, Hong Kong, Hong Kong</td>
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<tr>
<td>6:42 pm – 6:48 pm</td>
<td>Emergence and Spread of Antigenic Variants for Human Seasonal H3N2 influenza A virus (Abstract #P-18)</td>
<td>Xiu-Feng (Henry) Wan, Mississippi State University, Mississippi State, United States</td>
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<tr>
<td>6:48 pm – 6:54 pm</td>
<td>Variable Effects of Repeat Vaccination against Influenza A(H3N2): Illness by Season: 2010-11 to 2014-15 (Abstract #P-19)</td>
<td>Catharine Chambers, British Columbia Centre for Disease Control, Vancouver, Canada</td>
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<tr>
<td>6:54 pm – 7:00 pm</td>
<td>Influenza neuraminidase inhibiting antibody titers and protection against influenza infection and illness (Abstract #P-20)</td>
<td>Annette Fox, The University of Melbourne Parkville, Australia</td>
<td></td>
</tr>
<tr>
<td>6:12 pm – 6:18 pm</td>
<td>Influenza B CD8 T cell epitopes and universal immunity to influenza viruses (Abstract #P-22)</td>
<td>Marios Koutsakos, Department of Microbiology and Immunology, University of Melbourne, at the Peter Doherty Institute for Infection and Immunity Melbourne, Australia</td>
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<tr>
<td>6:18 pm – 6:24 pm</td>
<td>Non-neutralizing monoclonal antibodies against the influenza hemagglutinin require alveolar macrophages to mediate virus clearance in vivo (Abstract #P-24)</td>
<td>Gene Tan, Icahn School of Medicine at Mount Sinai, New York, United States</td>
<td></td>
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<tr>
<td>6:24 pm – 6:30 pm</td>
<td>Computationally engineered influenza neuraminidases provide broad immune protection (Abstract #P-25)</td>
<td>Thorsten U. Vogel, Sanofi Pasteur, Research North America, Cambridge, Massachusetts, USA</td>
<td></td>
</tr>
</tbody>
</table>
6:30 pm – 6:36 pm Extra-respiratory organs contribute to the cytokine storm induced by HPAI H5N1 virus infection
(abstract #P-26)
Debby van Riel
Erasmus MC
Rotterdam, Netherlands ●

6:36 pm – 6:42 pm Establishing new cell culture models to study bat-borne emerging viruses
(abstract #P-27)
Carles Martinez-Romero
Icahn School of Medicine at Mount Sinai
New York, United States ●

6:42 pm – 6:48 pm What lies beneath: Antibody dependent natural killer cell activation by antibodies to internal influenza virus proteins
(abstract #P-28)
Hillary Vanderven
Department of Microbiology and Immunology, University of Melbourne at the Peter Doherty Institute for Infection and Immunity Melbourne, Australia ●

6:48 pm – 6:54 pm Highly pathogenic avian influenza H5N1 virus delays apoptotic responses via activation of STAT3
(abstract #P-29)
Kenrie PY Hui
Centre of Influenza Research and School of Public Health, LKS Faculty of Medicine
The University of Hong Kong
Hong Kong SAR, China ●

6:54 pm – 7:00 pm Study of cross-reactive anti-neuraminidase serum antibodies following past influenza infections or LAIV vaccination
(abstract #P-30)
Iuliia Desheva
Institute of Experimental Medicine
Saint Petersburg, Russian Federation ●

7:30 pm - 8:30 pm ISIRV Epidemiology Panel: “Leveraging Influenza Surveillance Infrastructure for the Monitoring of Non-Influenza Respiratory Viruses”

Room Location: Michigan B, Level 2

26 AUGUST 2016 FRIDAY

8:00 am – 10:00 am Virology & Pathogenesis Plenary Session: Molecular Studies for Vaccines and Antivirals ●

Moderators: Jackie Katz, PhD and Robert Lamb, PhD, ScD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

8:00 am – 8:40 am Structure, Mechanism and Drug Targeting of Influenza Polymerase
Stephen Cusack, PhD, FRS
European Molecular Biology Laboratory, Grenoble Outstation Grenoble, France ●

8:40 am – 9:20 am Toward A Universal Influenza Virus Vaccine
Peter Palese
Icahn School of Medicine at Mount Sinai
New York, NY, United States ●

9:20 am – 10:00 am Influenza Countermeasures
Yoshihiro Kawaoka, DVM, PhD
University of Wisconsin-Madison/ University of Tokyo
Madison, WI, United States ●

10:00 am – 10:45 am ISIRV General Meeting
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

10:45 am – 11:15 am Coffee Break in the Exhibit Hall
Room Location: River Hall A & B, Level 1

11:15 am – 12:30 pm Oral Abstract Sessions

11:15 am – 12:30 pm Oral Abstract Session: Public Health ●

Moderators: Arnold Monto, MD and Sheena Sullivan, MPH, PhD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

11:15 am – 11:30 am A Role for The INSIGHT Clinical Research Network in Rapid Assessment of Key Clinical And Epidemiological Characteristics of a Future Pandemic (Abstract #O-42)
Lone Simonsen
University of Copenhagen Copenhagen, Denmark ●

11:30 am – 11:45 am Direct and Indirect Protection with Paediatric Influenza Vaccination in Europe Estimated by a Dynamic Transmission Model (Abstract #O-43)
Richard Lawson
AstraZeneca
Melbourne, Great Britain ●
11:45 am – 12:00 pm  Attitudes to Antivirals, Consultation Behaviour for Influenza-Like-Illness and Use of Antivirals in England During The 2009 Influenza Pandemic - Results from the Flu Watch Study (Abstract #O-44)
Ellen Pragaszy
University College London, Farr Institute of Health Informatics Research
London, Great Britain ▲

12:00 pm – 12:15 pm  Seasonal and Pandemic Influenza Infection in Pregnancy and Fetal Death: A Norwegian Registry-Based Cohort Study (Abstract #O-45)
Nina Gunnes
Norwegian Institute of Public Health, Oslo, Norway ▲

12:15 pm – 12:30 pm  Fetal Loss and Seasonal Influenza Vaccination During Pregnancy (Abstract #O-46)
Annette Regan
School of Pathology and Laboratory Medicine, University of Western Australia; Communicable Disease Control Directorate, Western Australia Department of Health, Perth Business Centre
Australia ▲

11:15 am – 12:30 pm  Oral Abstract Session: Virology & Pathogenesis ●
Moderators: Hassan Zaraket, BS Pharm, PhD and Andrew Pavia, MD
Room Location: Chicago Ballroom 8 & 9, Level 4

11:15 am – 11:30 am  Surveillance of Influenza-Confirmed Cases Admitted to Intensive Care Units and Related Fatal Outcomes in Eleven EU Countries, 2010-2016 (Abstract #O-37)
Cornelia Adlhoch
European Centre for Disease Prevention and Control (ECDC)
Solna, Sweden ●

11:30 am – 11:45 am  Comparison of Clinical and Virological Effects of Neuraminidase Inhibitors in Japanese Pediatric Patients Between 4 And 12 Years Old with Influenza A Virus Infection: An Open-Labeled, Randomized Study (Study 1) and Following Epidemiological Investigation of Secondary Infection in Household Settings (Study 2) (Abstract #O-38)
Nobuo Hirotsu
Hirotsu Clinic
Kawasaki, Japan ●

11:45 am – 12:00 pm  Comparison of the Outcomes of Individuals with Medically Attended Influenza A And B Virus Infections Enrolled in Two International Cohort Studies (INSIGHT FLU002 and FLU003) Over a Six-Year Period: 2009-2015 (Abstract #O-39)
Dominic Dwyer
Westmead Hospital
Westmead, Australia ●

12:00 pm – 12:15 pm  High-Throughput Functional Annotation of Influenza A Virus Genome at Single-Nucleotide Resolution (Abstract #O-50)
Yushen Du
Department of Molecular and Medical Pharmacology, University of California
Los Angeles, CA, United States ●

12:15 pm – 12:30 pm  Investigating the Impact Of Influenza Neuraminidase Gene Substitution and Mutation on Viral Replication and Substrate Specific Enzymatic Activity (Abstract #O-51)
Robert Allen
University of Melbourne
Melbourne, Australia ●

11:15 am – 12:30 pm  Oral Abstract Session: Clinical Science ●
Moderators: Regina Dutkowsk and Ann Falsey, MD
Room Location: Chicago Ballroom 10, Level 4

11:15 am – 11:30 am  Accurate Measurement of the Effects of All amino-Acid Mutations to Influenza Hemagglutinin (Abstract #O-47)
Michael Doud
University of Washington Seattle, United States ●

11:30 am – 11:45 am  Studies on Recently Emerged Human Influenza A(H3N2) Viruses in Clades 3C.3a and 3C.2a (Abstract #O-48)
Yipu Lin
The Francis Crick Institute
London, Great Britain ●

11:45 am – 12:00 pm  Structural Characterization of Nanoparticles Displaying the Conserved Stem Epitope Region from Influenza Hemagglutinin (Abstract #O-49)
Audray Harris
NIH Bethesda, United States ●
12:00 pm – 12:15 pm  Correlation of Baseline Influenza A Viral Load with Patient Outcomes in Transplant Recipients
   (Abstract #O-40)
   Victor Ferreira
   University Health Network
   Toronto, Canada

12:15 pm – 12:30 pm  Symptoms at Admission Predict Severe Outcomes among Children and Adults Hospitalized with Influenza, 2014-2015
   (Abstract #O-41)
   Shikha Garg
   Centers for Disease Control and Prevention
   Atlanta, United States

12:30 pm – 2:00 pm  Sponsored Symposium: Influenza Vaccination in Children–Costs and Benefits
   Sponsored by AstraZeneca
   Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

2:00 pm – 4:00 pm  Clinical Science Featured Symposia

2:00 pm – 2:30 pm  Pediatrics
   Norio Sugaya, MD PhD
   Department of Pediatrics, Keiyu Hospital
   Niski-ku, Yokohama, Kanagawa Japan

2:30 pm – 3:00 pm  Immunocompromised
   Roy F. Chemaly, MD, MPH
   University of Texas MD Anderson Cancer Center
   Houston, TX, United States

3:00 pm – 3:30 pm  Critical Care
   John C. Marshall, MD
   University of Toronto/St. Michael’s Hospital
   Toronto, ON, Canada

3:30 pm – 4:00 pm  Elderly
   Janet McElhaney, MD
   Advanced Medical Research Institute of Canada
   Sudbury, ON, Canada

2:00 pm – 4:00 pm  Public Health Featured Symposia: Influenza Vaccines ▲
   Moderators: Kathy Neuzil, MD, MPH and Alain Moren, MD, PhD
   Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4
   2:00 pm – 2:30 pm  Contemporary Approaches to Estimation of Influenza Vaccine Effectiveness
   Alain Michel Moren, MD, PhD
   EpiConcept
   Paris, France ▲

   2:30 pm – 3:00 pm  Vaccine Effectiveness and Repeated Vaccination: Too Much of a Good Thing?
   Edward A. Belongia, MD
   Marshfield Clinic Research Foundation
   Marshfield, WI, United States ▲

   3:00 pm – 3:30 pm  In-Season Waning of Vaccine Effectiveness: European Influenza Type/Subtype-Specific Vaccine Effectiveness Data From 6 Seasons
   Esther Kissling, MSc, BSc hons
   EpiConcept
   Paris, France ▲

   3:30 pm – 4:00 pm  Implications of Timely Vaccine Effectiveness Estimates for Vaccine Strain Selection
   Alicia Fry, MD, MPH
   CDC
   Atlanta, GA, United States ▲

2:00 pm – 4:00 pm  Virology & Pathogenesis Featured Symposia: Pathogenesis ●
   Moderators: Mark Tompkins, PhD and Yoshihiro Kawaoka, DVM, PhD
   Room Location: Chicago Ballroom 8 & 9, Level 4
   2:00 pm – 2:30 pm  Pathogenesis of HA structures
   George Gao, DPhil
   Immunology, Institute of Microbiology, Chinese Academy of Sciences
   Beijing, People’s Republic of China ●

   2:30 pm – 3:00 pm  HA Acid Stability in Pathogenesis and Host Adaptation
   Charles John Russell, PhD
   St. Jude Children’s Research Hospital
   Memphis, TN, United States ●

   3:00 pm – 3:30 pm  Influenza A Virus Evolution: Going Deep
   Jonathan Yewdell, MD, PhD
   LVD, NIAID
   Bethesda, MD, United States ●
3:30 pm – 4:00 pm Transmission of Influenza Virus
Malik Peiris, MD, DPhil
School of Public Health, The
University of Hong Kong
Pokfulam, Hong Kong ●

4:00 pm – 4:30 pm Coffee Break in the
Exhibit Hall

Room Location: River Hall A & B, Level 1

4:30 pm – 6:00 pm Oral Abstract Sessions

Moderators: Carrie Reed, DSc, MPH and Danuta Skowronski, MD, MHSc

Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

4:30 pm – 4:45 pm Improved Efficacy of Recombinant Hemagglutinin Influenza Vaccine in comparison to an Inactivated Influenza Vaccine Against Mismatched Flu Strains
(Abstract #O-52)
Manon Cox
Protein Sciences Corp
Meriden, United States ●

4:45 pm – 5:00 pm Trivalent Inactivated Influenza Vaccine Efficacy among Young Children in Urban Bangladesh
( Abstract #O-53)
Melissa Rolfes
Centers for Disease Control and Prevention
Atlanta, United States ●

5:00 pm – 5:15 pm How Can We Shift the Paradigm of Influenza Vaccine Development?
( Abstract #O-54)
Sarah Gilbert
University of Oxford
Oxford, Great Britain ●

5:15 pm – 5:30 pm Antibody Levels in Pregnant Women After A(H1N1)Pdm09 Infection or Vaccination: Association with Clinical Disease, Self-Reported Symptoms and Time Since Exposure
( Abstract #O-55)
Gro Tinheim
Domain for Infection Control and Environmental Health, Norwegian Institute of Public Health
Oslo, Norway ●

5:30 pm – 5:45 pm Estimating Vaccine Effectiveness Against Influenza-Associated Pediatric Deaths in the United States During Four Influenza Seasons, 2010-2011–2013-2014
( Abstract #O-56)
Sue Reynolds
Centers for Disease Control and Prevention; Battelle Memorial Institute
Atlanta, United States ●

5:45 pm – 6:00 pm Risk Of Celiac Disease After Pandemic Influenza Vaccination and Influenza Infection: Preliminary Data from a Nationwide Cohort Study
( Abstract #O-57)
Kari Marrild
Norwegian Institute of Public Health
Oslo, Norway ●

4:30 pm – 6:00 pm Oral Abstract Session: Virology & Pathogenesis I ●

Moderators: Stephanie Bertram and Barbara Rath, MD, PhD

Room Location: Chicago Ballroom 8 & 9, Level 4

4:30 pm – 4:45 pm Accurately Identifying How the Critical Combination of Bacterial Dose and Virus-Induced Alveolar Macrophage Depletion Leads to Pneumococcal Infections During Influenza Using a Mathematical Model
( Abstract #O-58)
Amber Smith
St. Jude Children’s Research Hospital
Memphis, United States ●

4:45 pm – 5:00 pm Tropism And Innate Host Responses Of a Novel Avian Influenza A/H5N6 Virus in Ex Vivo and In Vitro Models of The Human Respiratory Tract
( Abstract #O-59)
Kenrie PY Hui
Centre of Influenza Research and School of Public Health, LKS Faculty of Medicine, The University of Hong Kong
Hong Kong ●

5:00 pm – 5:15 pm Human CD8 T Cells Induce Bystander Damage of Epithelial Cells During Influenza Virus Infection
( Abstract #O-60)
Kirsty Short
University of Queensland
Brisbane, Australia ●
5:15 pm – 5:30 pm  Hepatocyte Growth Factor Secreted by Umbilical Cord-Derived Mesenchymal Stem Cells Restore the Impaired Alveolar Fluid Clearance and Protein Permeability Induced by Influenza H5N1 Virus Infection (Abstract #O-61)
Hayley Loy
The University of Hong Kong, Southern District Hong Kong ●

5:30 pm – 5:45 pm  Influenza A Virus Replication Kinetics in Cells of the Central Nervous System (Abstract #O-62)
Jurre Siegers
Erasmus MC Rotterdam, The Netherlands ●

5:45 pm – 6:00 pm  Cholesterol Controls Efficiency of Influenza Infection by Altering Receptor-Binding Avidity and Viral Envelope Organization: A Mechanistic Antiviral Role for Statin Drugs. (Abstract #O-63)
Peter Kasson
University of Virginia Charlottesville, United States ●

4:30 pm – 6:00 pm  Oral Abstract Session: Virology & Pathogenesis II ●
Moderators: Erhard Van der Vries, PhD and Adolfo Garcia-Sastre, PhD
Room Location: Chicago Ballroom 10, Level 4

4:30 pm – 4:45 pm  Molecular Mechanisms of Influenza Virus Membrane Scission (Abstract #O-64)
Jeremy Rossman
University of Kent Canterbury, Great Britain ●

4:45 pm – 5:00 pm  Alternative Splicing of Influenza NS Mrna is Regulated by an Exonic Splicing Enhancer, SF2/ASF, and NS1 (Abstract #O-65)
Xiaofeng Huang
State Key Laboratory for Emerging Infectious Diseases, Department of Microbiology, the Research Cent Hong Kong, Hong Kong ●

5:00 pm – 5:15 pm  Characterization of the Role of the Nuclear Export Protein (NEP) of Influenza A Virus in M Gene Splicing (Abstract #O-66)
Min Zheng
State Key Laboratory for Emerging Infectious Diseases, Department of Microbiology, HKU Hong Kong ●

5:15 pm – 5:30 pm  Molecular Characterization of the Hemagglutinin and Neuraminidase Proteins from Recent H5Nx Influenza Viruses (Abstract #O-67)
Hua Yang
CDC Influenza Division Atlanta, United States ●

5:30 pm – 5:45 pm  Investigating the Potential for Influenza A Virus Resistance to an Inhibitor of the Host Vacuolar ATPase (Abstract #O-68)
Anika Singanayagam
Imperial College London, Great Britain ●

5:45 pm – 6:00 pm  Live Visualization of Hemagglutinin Dynamics During Infection by Using Biarsenically Labeled Replication Competent Influenza A Virus (Abstract #O-69)
Shashank Tripathi
Icahn School of Medicine at Mount Sinai New York, United States ●

6:00 pm – 7:30 pm  Poster Reception II with Presenters in Attendance
Room Location: River Exhibit Hall A & B, Level 1
See poster section for Poster Session II

6:00 pm – 7:00 pm  Rapid Oral Poster Session
Room Location: River Exhibit Hall A & B, Level 1

6:00 pm – 7:00 pm  Rapid Oral Poster Session: Clinical Science ■
6:00 pm – 6:06 pm  Use of synthetic absorptive matrix for the detection of nasal influenza-specific IgA responses following intranasal live attenuated influenza vaccine. (Abstract #P-232)
Thushan de Silva
Imperial College London London, United Kingdom ■

6:06 pm – 6:12 pm  Nanopore single molecule sequencing of influenza viruses from clinical specimens (Abstract #P-233)
Bin Zhou
New York University New York, United States ■

6:12 pm – 6:18 pm  The development of point-of-care test to identify human influenza and respiratory syncytial virus using novel real-time direct RT-LAMP assay with micro-fluidic chip (Abstract #P-234)
Ikuyo Takayama
National Institute of Infectious Diseases Tokyo, Japan ■
6:18 pm – 6:24 pm  ViroSpot assay for direct phenotypic analysis of influenza virus in clinical specimens (Abstract #P-235)
Carel Van Baalen
Viroclinics Biosciences
Rotterdam, Netherlands ▲

6:24 pm – 6:30 pm  Clinical attack rates, comparison, and predictors of Influenza and RSV infection among adults 60 years or older enrolled in a RSV vaccine trial (Abstract #P-236)
Vivek Shinde
Novavax
Gaithersburg, United States ▲

6:30 pm – 6:36 pm  Silent but significant contribution of seasonal influenza on the worsening of chronic heart disease (Abstract #P-237)
Won Suk Choi
Korea University College of Medicine (Korea University Ansan Hospital)
Ansan-si, Republic of Korea ▲

6:36 pm – 6:42 pm  Neuraminidase targeted antibody response can modify the severity of influenza infection (Abstract #P-238)
Yaoping Chen
Department of Medicine, Section of Rheumatology, The University of Chicago
Chicago, United States ▲

6:42 pm – 6:48 pm  Discovery cyclosporine A and its analogs as broad-spectrum anti-influenza drugs with a high in vitro genetic barrier of drug resistance (Abstract #P-239)
Jun Wang
University of Arizona
Tucson, United States ▲

6:48 pm – 6:54 pm  Broadly cross-reactive antibodies against the influenza B virus neuraminidase are protective against lethal viral challenge in mice when administered prophylactically or therapeutically (Abstract #P-240)
Teddy John Wohlbold
Icahn School of Medicine at Mount Sinai
New York, United States ▲

6:54 pm – 7:00 pm  Point-of-care testing for respiratory viruses in adults presenting to hospital improves the detection rate of influenza, the use of neuraminidase inhibitors and may reduce unnecessary antibiotic use and duration of hospitalisation. (Abstract #LBP-1)
Tristan Clark
University of Southampton
Southampton, Great Britain ▲

6:00 pm – 7:06 pm  Rapid Oral Poster Session: Public Health ▲

6:00 pm – 6:06 pm  Hemagglutination inhibiting antibody titre decay following influenza infection (Abstract #P-244)
Annette Fox
The University of Melbourne
Parkville, Australia ▲

6:06 pm – 6:12 pm  The Attributable Fraction of Influenza Virus Infection among HIV-Infected and HIV-Uninfected South African Patients with Mild and Severe Respiratory Illness, 2012-2015 (Abstract #P-245)
Stefano Tempia
CDC
Johannesburg, South Africa ▲

6:12 pm – 6:18 pm  Admissions with influenza and other respiratory viruses, 2012 to 2015 seasons. Results from the Global Influenza Hospital Surveillance Network (GIHSN) (Abstract #P-246)
Joan Puigbarbera
Fisabio
Valencia, Spain ▲

6:18 pm – 6:24 pm  Influenza A Hemagglutinin (HA) Specific IgG in Young Children and Adults After Seasonal Live Attenuated Influenza Vaccination. (Abstract #P-247)
Shahinul Islam
University of Bergen
Bergen, Norway ▲

6:24 pm – 6:30 pm  Age and Sex impact the T cell response to Influenza A (Abstract #P-248)
Ellen Fraugays
University College London, Farr Institute of Health Informatics Research
London, United Kingdom ▲
6:30 pm – 6:36 pm  Influenza vaccines were effective in the United States during the Northern Hemisphere 2015-2016 influenza season (Abstract #P-241)
   Michael L. Jackson
   Group Health Research Institute
   Seattle, United States ▲

6:36 pm – 6:42 pm  Putting it all together: Building an influenza burden pyramid from the Southern Hemisphere Influenza and Vaccine Effectiveness Research and Surveillance (SHIVERS) project, New Zealand (Abstract #P-242)
   Sue Huang
   Institute of Environmental Science and Research
   Upper Hutt, New Zealand ▲

6:42 pm – 6:48 pm  Influenza Virus in Respiratory Droplets Produced by Naturally and Experimentally Infected Volunteers (Abstract #P-249)
   Donald Milton
   University of Maryland
   College Park, United States ▲

   Stefano Tempia
   CDC
   Johannesburg, South Africa ▲

6:54 pm – 7:00 pm  The post-pandemic shift in age-specific susceptibility to A(H1N1)pdm09 in Managua, Nicaragua (Abstract #P-251)
   Sophia Ng
   Department of Epidemiology, School of Public Health, University of Michigan
   Ann Arbor, United States ▲

7:00 pm – 7:06 pm  Pregnancy and Neonatal Outcomes following Influenza-associated Illness in Western Kenya: Methods and preliminary findings, 2015-2016 (Abstract #P-243)
   Nancy Otieno
   Kemri-Cghr
   Kisumu, Kenya ▲

6:00 pm – 7:00 pm  Rapid Oral Poster Session: Virology and Pathogenesis ●

6:06 pm – 6:12 pm  The effects of interferon stimulated LY6E on influenza A virus replication (Abstract #P-256)
   Aisling Vaughan
   Imperial College London
   London, United Kingdom ●

6:12 pm – 6:18 pm  TSG101 is differentially post-translationally modified during Influenza A virus infection (Abstract #P-257)
   Jingchu Zhang
   HKU-Pasteur Research Pole, School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong
   Hong Kong, Hong Kong ●

6:18 pm – 6:24 pm  Measuring the Mutagenic Effect of Favipiravir and the Search for Resistance Mutations (Abstract #P-258)
   Daniel Goldhill
   Public Health England
   London, United Kingdom ●

6:24 pm – 6:30 pm  Characterization of pandemic 1918 H1 hemagglutinin on influenza virus-like particles for optimizing vaccine design (Abstract #P-259)
   Dustin McCraw
   National Institutes of Health
   Bethesda, United States ●

6:30 pm – 6:36 pm  The Germinal Center B Cell Response in the Airway Immune System After Influenza A Infection (Abstract #P-260)
   Thomas Waldschmidt
   The University of Iowa Carver College of Medicine
   Iowa City, United States ●

6:36 pm – 6:42 pm  Purinergic receptor P2X7 deficiency protects against influenza A virus infection (Abstract #P-261)
   Victor Leyva-Grado
   Icahn School of Medicine at Mount Sinai
   New York, United States ●

6:42 pm – 6:48 pm  The role of the cellular 5'-3' mRNA exonuclease, Xrn1, in influenza A virus replication (Abstract #P-252)
   Yen-Chin Liu
   State Key Laboratory for Emerging Infectious Diseases and Department of Microbiology
   Hong Kong, Hong Kong ●
27 AUGUST 2016
SATURDAY

8:30 am – 10:30 am  Clinical Science Plenary Session: Newer Therapies for Influenza: Hurdles and Progress ■

Moderators: Melissa Willis, PhD and Nelson Lee, MD, FRCP

Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

8:30 am – 9:10 am  Clinical Development Challenges: Trial Designs and Endpoints
Menno de Jong, MD, PhD
University of Amsterdam
Amsterdam, The Netherlands ■

9:10 am – 9:50 am  Novel Antiviral Agents in Advanced Development
Frederick Hayden, MD
University of Virginia School of Medicine
Charlottesville, VA, United States ■

9:50 am – 10:30 am  Combination and Antibody-Based Therapies
John Beigel, MD
Leidos/NIAID
Bethesda, MD, United States ■

10:30 am – 11:00 am  Coffee Break in the Exhibit Hall

11:00 am – 12:30 pm  Oral Abstract Sessions

11:00 am – 12:30 pm  Oral Abstract Session: Clinical Science ■

Moderators: Larisa Gubareva, MD, PhD and Janet McElhaney, MD, FRCP, FACP

Room Location: Chicago Ballroom 10, Level 4

11:00 am – 11:15 am  IV Zanamivir (IVZ) Compared with Oral Oseltamivir (OS) to Treat Influenza in Hospitalized Adults and Adolescents: A Randomized, Double-Blind, Double-Dummy Phase III Trial (NAI114373)
Craig Thompson
University of Oxford
Oxford, United Kingdom ■

11:15 am – 11:30 am  Evaluation of Efficacy and Emergence of Resistance to VIS410, a Human Monoclonal Antibody, in a Human Challenge Model of Infection with a p2009 H1N1 Virus (Abstract #O-71)
Ellie Hershberger
Visterra Inc
Cambridge, United States ■

11:30 am – 11:45 am  The Association between Respiratory Viral Infection and Nasopharyngeal Carriage Density of Streptococcus Pneumoniae in Malawian Adults (Abstract #O-72)
Antonia Ho
Institute of Infection and Global Health, University of Liverpool
Liverpool, Great Britain ■

11:45 am – 12:00 pm  Clinical Trials for Hospitalized Influenza Patients - Options to Improve Enrollment, Data Quality, and Define Endpoints (Abstract #O-73)
Kimberly Armstrong
Biomedical Advanced Research and Development Authority
Washington, United States ■

12:00 pm – 12:15 pm  Harmonizing Disease Severity Assessments in Infants and Children: The PEDSIDEA Consortium (Abstract #O-74)
Barbara Ruth
Vienna Vaccine Safety Initiative
Berlin, Germany ■

12:15 pm – 12:30 pm  Predictors of Influenza-Associated Mortality in Several Countries of the Eastern Mediterranean Region (Abstract #O-75)
Dalia Shash
Global Disease Detection Center
Cairo, Egypt ■

11:00 am – 11:15 am  A site of limited variability within the head of H1 haemagglutinin drives the antigenic evolution of H1N1 seasonal influenza. (Abstract #P-253)
Craig Thompson
University of Oxford
Oxford, United Kingdom ■

6:48 pm – 6:54 pm  A site of limited variability within the head of H1 haemagglutinin drives the antigenic evolution of H1N1 seasonal influenza. (Abstract #P-253)
Craig Thompson
University of Oxford
Oxford, United Kingdom ■

6:54 pm – 7:00 pm  Bayesian Inference of Within-host Viral Population Dynamics from Next Generation Sequencing Data (Abstract #P-254)
Marc Baguelin
Public Health England
London, United Kingdom ■
11:00 am – 12:30 pm  Oral Abstract Session: Public Health

**Moderators:** Cecile Viboud, PhD and Tim Uyeki, MD, MPH
**Room Location:** Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

11:00 am – 11:15 am  Effectiveness of Maternal Influenza Vaccination in a Population-Based Cohort (Abstract #O-76)
*Annette Regan*
*University of Western Australia, Perth Business Centre, Australia ▲*

11:15 am – 11:30 am  Variable Effects of Repeat Vaccination against Influenza B Illness by Season: 2010-11 to 2014-15 (Abstract #O-77)
*Catharine Chambers*
*British Columbia Centre for Disease Control, Vancouver, Canada ▲*

*Jill Ferdinands*
*US Centers for Disease Control, Atlanta, United States ▲*

11:45 am – 12:00 pm  Assessment of Virus Interference in a Test-Negative Study of Influenza Vaccine Effectiveness (Abstract #O-79)
*Shuo Feng*
*The University of Hong Kong, Hong Kong Island, Hong Kong ▲*

12:00 pm – 12:15 pm  Healthcare Worker Antibody Response to Influenza Vaccination at an Australian Centre (Abstract #O-80)
*Sheena Sullivan*
*WHO Collaborating Centre for Reference and Research on Influenza, Melbourne, Australia ▲*

12:15 pm – 12:30 pm  Vaccine Effectiveness Against Laboratory-Confirmed Influenza Hospitalizations among Community-Dwelling Older Adults During the 2010-11 to 2013-14 Influenza Seasons in Ontario, Canada (Abstract #O-81)
*Jeff Kwong*
*Institute for Clinical Evaluative Sciences, Toronto, Canada ▲*

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11:00 am – 12:30 pm  Oral Abstract Session: Virology & Pathogenesis

**Moderators:** Julie McAuley, PhD and Ruben Donis, PhD
**Room Location:** Chicago Ballroom 8 & 9, Level 4

11:00 am – 11:15 am  Prevention of Mixed Influenza and Bacterial Infections Using Combined Vaccine Based on Attenuated Influenza Virus and the Group B Streptococcus Proteins. (Abstract #O-82)
*Iuliia Desheva*
*Institute of Experimental Medicine, Saint Petersburg, Russia ▲*

11:15 am – 11:30 am  Priming with Intranasal Live Attenuated Influenza Vaccine Elicits a Highly Localized Influenza-Specific B Cell Response That is Rapidly Recalled with Parental Inactivated Vaccine Boost (Abstract #O-83)
*Kanta Subbarao*
*NIAID/NIH, Bethesda, United States ▲*

11:30 am – 11:45 am  Crosstalk Between the Classical and Alternative Pathways of Complement is Necessary for Providing Effective Protection Against the Pandemic Influenza A(H1N1) 2009 Virus Infection (Abstract #O-84)
*Jayati Mullick*
*National Institute of Virology, Pune, India ▲*

11:45 am – 12:00 pm  Influenza Infections Elicited Cross-Reactive CD8 T Cells Recognizing Viral Epitope Variants with Distinct Clonotypes of The T Cell Receptors (Abstract #O-85)
*Susu Duan*
*St. Jude Children’s Research Hospital, Memphis, United States ▲*

12:00 pm – 12:15 pm  Hemagglutinin Stalk-Specific Antibodies Potently Induce Antibody-Dependent Cellular Phagocytosis of Immune Complexes And The Release of Extracellular Traps by Neutrophils (Abstract #O-86)
*Caitlin Mullarkey*
*Icahn School of Medicine at Mount Sinai, New York, United States ▲*
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:15 pm – 12:30 pm</td>
<td>The Cell Surface Mucin MUC1 as a Dynamic Component of the Barrier to Influenza A Virus Infection (Abstract #O-87)</td>
<td>Julie McAuley, Department of Microbiology and Immunology, University of Melbourne at the PDI, Melbourne, Australia</td>
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<tr>
<td>12:30 pm – 2:00 pm</td>
<td>Sponsored Symposium: Respiratory Syncytial Virus: An Underrecognized Health Burden in Older Adults</td>
<td>Sponsored by Novavax, Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 2</td>
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<tr>
<td>2:00 pm – 4:00 pm</td>
<td>Clinical Science Featured Symposia: Complications of Influenza ■</td>
<td>Moderators: Roy Chemaly, MD, MPH and Menno de Jong, MD, PhD</td>
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<tr>
<td>2:00 pm – 2:30 pm</td>
<td>Bacterial Co-Infection</td>
<td>Richard Glenn Wunderink, MD, Northwestern University Feinberg School of Medicine, Chicago, IL, United States</td>
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<td>2:30 pm – 3:00 pm</td>
<td>Cardiovascular Complications</td>
<td>Charlotte Warren-Gash, MRCP, PhD, Institute of Health Informatics, University College London, London, United Kingdom</td>
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<td>3:00 pm – 3:30 pm</td>
<td>Neurological Complications</td>
<td>Masashi Mizuguchi, MD, PhD, Dept. of Developmental Medical Sciences, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan</td>
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<tr>
<td>3:30 pm – 4:00 pm</td>
<td>Exacerbation of Airway Diseases</td>
<td>Peter Openshaw, MD, PhD, Imperial College London, London, United Kingdom</td>
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<tr>
<td>2:00 pm – 4:00 pm</td>
<td>Public Health Featured Symposia: Epidemiology of Influenza ▲</td>
<td>Moderators: Jean-Michel Héraud, PhD, HDR and Carrie Reed, DSc, MPH</td>
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<tr>
<td>3:00 pm – 3:30 pm</td>
<td>Comparative Epidemiology of Influenza B Lineages</td>
<td>Vijaykrishna Dhanasekaran, PhD, Duke-NUS Medical School, Singapore</td>
</tr>
<tr>
<td>3:30 pm – 4:00 pm</td>
<td>Population Impact of a Pediatric Vaccination Policy</td>
<td>Richard Pebody, MBChB, PhD, Public Health England, London, United Kingdom</td>
</tr>
<tr>
<td>2:00 pm – 4:00 pm</td>
<td>Virology &amp; Pathogenesis Featured Symposia: Replication of Influenza ●</td>
<td>Moderators: Guy Boivin, MD and Aeron Hurt, PhD</td>
</tr>
<tr>
<td>2:00 pm – 2:30 pm</td>
<td>Influenza Virus Reassortment</td>
<td>Anice Lowen, PhD, Emory University, Atlanta, GA, United States</td>
</tr>
<tr>
<td>2:30 pm – 3:00 pm</td>
<td>The Biology of Influenza Virus non-coding RNAs</td>
<td>Benjamin tenOver, PhD, Icahn School of Medicine, NY, United States</td>
</tr>
<tr>
<td>3:00 pm – 3:30 pm</td>
<td>Transcription and Replication of the Influenza Virus RNA Genome</td>
<td>Ervin Fodor, DPhil, University of Oxford, Oxford, United Kingdom</td>
</tr>
<tr>
<td>3:30 pm – 4:00 pm</td>
<td>Constraints on the Evolution of Influenza</td>
<td>Jesse Bloom, PhD, Fred Hutchinson Cancer Research Center, Seattle, WA, United States</td>
</tr>
</tbody>
</table>
4:00 pm – 4:30 pm  Coffee Break in the Exhibit Hall
Room Location: River Hall A & B, Level 1

4:30 pm – 6:00 pm  Oral Abstract Session
4:30 pm – 6:00 pm  Oral Abstract Session: Virology & Pathogenesis ●

Moderators: Alan Hay, PhD and Barbara Rath, MD, PhD
Room Location: Chicago Ballroom 8 & 9, Level 4

4:30 pm – 4:45 pm  Infection Dynamics of Novel Influenza A Viruses Isolated in Australian Pigs Using Ferret and Pig Models Of Disease (Abstract #O-88)
Joanne Taylor
CSIRO Australian Animal Health Laboratory and University of Queensland School of Veterinary Science
East Geelong, Australia ●

4:45 pm – 5:00 pm  Influenza Hmpdmovq Virus at the Human/Turkey Interface (Abstract #O-89)
Karoline Bragstad
Norwegian Institute of Public Health
Oslo, Norway ●

5:00 pm – 5:15 pm  HPAI H5N1 Airborne-Transmission Substitutions: Low Pathogenicity in Ferrets and Clade-Dependent Phenotypes (Abstract #O-90)
Sander Herfst
Erasmus Medical Center
Rotterdam, The Netherlands ●

5:15 pm – 5:30 pm  Risk Factors for Influenza Type A Virus Infection in Poultry in the Mekong River Delta of Viet Nam, Between 2008 and 2010 (Abstract #O-91)
Long Nguyen
Department of Animal Health
Dong Da, Vietnam ●

5:30 pm – 5:45 pm  Particle Size Distribution and Viability of Airborne Influenza Viruses Affecting Swine and Poultry (Abstract #O-92)
Montserrat Torremorell
University of Minnesota
St. Paul, United States ●

5:45 pm – 6:00 pm  Attenuation of Highly Pathogenic Avian Influenza A(H5N1) Viruses in Indonesia Following Acquisition Of PB2, PB1 and NS Genes from Low Pathogenicity Avian Influenza A Virus Progenitors (Abstract #O-93)
Sharmi Thor
Centers for Disease Control and Prevention
Atlanta, United States ●

4:30 pm – 6:00 pm  Public Health & Clinical Science Featured Symposia: Pregnancy in Influenza ▲ ■

Moderators: Nelson Lee, MD, FRCP and Jonathan Nguyen-Van-Tam, DM, FRCPath
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

4:30 pm – 4:50 pm  Epidemiology of Influenza in the Pregnant Female
Brad Gessner, MD, MPH
Agence de Medecin Preventive
Paris, France ▲ ■

4:50 pm – 5:10 pm  Maternal Influenza and Birth Outcomes
Deshayne Fell, MSc
Children’s Hospital of Eastern Ontario Research Institute
ON, Canada ▲ ■

5:10 pm – 5:30 pm  Safety and Efficacy of Influenza Vaccine in Pregnant Women and the Newborn Child
Janet Englund, MD
University of Washington
Seattle, WA, United States ▲ ■

5:30 pm – 5:50 pm  Antiviral Therapy in Pregnancy
TBD

5:50 pm – 6:00 pm  Q&A Panel

6:00 pm – 7:30 pm  Poster Reception III with Presenters in Attendance
Room Location: River Exhibit Hall A & B, Level 1
See poster section for Poster Session III

7:45 pm – 11:30 pm  Offsite Event:* Mystic Blue Boat Cruise
*Separate Registration Fee to Attend
Mystic Blue Boat Cruise
600 E Grand Avenue
Chicago, IL 60611
28 AUGUST 2016
SUNDAY

8:00 am – 8:30 am  Late Breaking Oral Abstract Session

Moderators: Michael Ison, MD, MS and Lance Jennings, PhD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

8:00 am – 8:10 am  The Evaluation of Virologic Endpoints for Efficacy Studies of Anti-influenza agent (Abstract #LBO-6)
John Beigel
Leidos in support of NIH/NIAID
Bethesda, United States ▲

8:10 am – 8:20 am  Endothelial cell tropism is a determinant of H5N1 pathogenesis in mammalian species (Abstract #LBO-7)
Balaji Manicassamy
University Chicago
Chicago, United States ●

8:20 am – 8:30 am  Incidence prediction in seasonal H3N2 influenza: incorporating evolution into population dynamics (Abstract #LBO-8)
Xiangjun Du
University of Chicago
Chicago, United States ▲

8:30 am – 10:30 am  Featured Symposia

Moderators: Natasha Halasa, MD, MPH and Bin Cao, MD
Room Location: Chicago Ballroom 10, Level 4

8:30 am – 9:00 am  Managing Avian Influenza (H7N9, H5N1)
Zhancheng Gao, MD, PhD
Peking University People’s Hospital,
Beijing, China

9:00 am – 9:30 am  Adjuvant and Immune-Modulatory Therapies
David Shu-Cheong Hui, MD
Chinese University of Hong Kong
Shatin
New Territories, Hong Kong ■

9:30 am – 10:00 am  Resistance Emergence During Therapy
Erhard Van der Vries, PhD
TiHo - Research Center for Emerging Infections and Zoonoses Hannover
Hannover
Lower Sachsony, Germany ▲

10:00 am – 10:30 am  Rapid Access to Antivirals and Cost-Effectiveness
Martin Meltzer
Center for Disease Control and Prevention (CDC)
Atlanta, GA, United States ■

8:30 am – 10:30 am  Public Health Featured Symposia: Practical Issues in the Control of Influenza ▲

Moderators: Terho Heikkinen, MD, PhD and Ruth Lynfield, MD
Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

8:30 am – 9:00 am  Outbreak Control in Residential Care Homes
Marianne A.B. van der Sande, MD PhD
Centre for Infectious Disease Control, National Institute for Public Health and the Environment, The Netherlands
Bilthoven
Utrecht, The Netherlands ▲

9:00 am – 9:30 am  Early Use of Antiviral Drugs
Allison McGeer, MD, FRCPC
Mount Sinai Hospital, University of Toronto
Toronto, ON, Canada ▲

9:30 am – 10:00 am  Mandatory Vaccination of Health Care Workers
Helena Maltezou, MD, PhD
Hellenic Center for Disease Control and Prevention
Athens, Greece ▲

10:00 am – 10:30 am  Improving Vaccine Uptake in Target Groups
Darina O’Flanagan, M.B., MPH
Health Protection Surveillance Centre Ireland
Castleknock, Ireland ▲

8:30 am – 10:30 am  Virology & Pathogenesis Featured Symposia: Immunology ●

Moderators: Leo Poon, DPhil and Patrick Reading, PhD
Room Location: Chicago Ballroom 8 & 9, Level 4

8:30 am – 9:00 am  Cross-talk Between an Epithelial Integrin and Alveolar Macrophages Regulates the Lung Response to Influenza Infection
Stacey Lynne Schultz-Cherry, PhD
St Jude Children’s Research Hospital
Memphis, TN, United States ●

9:00 am – 9:30 am  Genetic and Structural Basis for Antibody-Mediated Neutralization of Influenza
James Crowe, MD
Vanderbilt University
Nashville, TN, United States ●
9:30 am – 10:00 am  
*KD8+ T cells and recovery from severe H7N9 disease*  
Katherine Kedzierska, PhD  
University of Melbourne; Peter Doherty Institute  
Melbourne, Vic, Australia

10:00 am – 10:30 am  
Evasion of Human Influenza A Viruses from Recognition by T Cells  
Guus Rimmelzwaan, MSc, PhD  
Erasmus Medical Center  
Rotterdam, The Netherlands

10:30 am – 11:00 am  
*Coffee Break*

Room Location: Chicago Promenade

11:00 am – 12:30 pm  
Oral Abstract Sessions

11:00 am – 12:30 pm  
Oral Abstract Session: Clinical Science

**Moderators:** Fred Aoki, MD and Angela Campbell, MD, MPH

Room Location: Chicago Ballroom 10, Level 4

11:00 am – 11:15 am  
Factors Associated with Delay in NAI Therapy in Hospitalized Patients: A 5 Year Retrospective Review  
Jeremy Katzen  
University of Pennsylvania, Philadelphia, United States

11:15 am – 11:30 am  
Preliminary Findings from a Randomized Controlled Trial of the Effect of Fever Suppression by Antipyretics on Medically Attended Influenza Virus Infections  
Dennis Ip  
University of Hong Kong  
Pokfulam, Hong Kong

11:30 am – 11:45 am  
A Systems Biology-Based Approach to Identify Anti-Influenza Compounds that Impair Pathogenicity by Targeting Host Factors  
Shufang Fan  
University of Wisconsin-Madison, Madison, United States

11:45 am – 12:00 pm  
Preclinical Antiviral Activity and ADME Characteristics of the Novel Influenza Endonuclease Inhibitor AL-794  
Andreas Jekle  
Alios BioPharma  
South San Francisco, United States

12:00 pm – 12:15 pm  
S-033188, a Small Molecule Inhibitor of Cap-dependent Endonuclease of Influenza A and B Virus, Leads to Rapid and Profound Viral Load Reduction  
Takeki Uehara  
Shionogi and Co., Ltd.  
Osaka, Japan

12:15 pm – 12:30 pm  
AL-794, A Novel Influenza Endonuclease Inhibitor, Demonstrates Antiviral Activity in an Influenza Human Challenge Study  
Jeysen Yogaratnam  
Alios BioPharma  
South San Francisco, United States

11:00 am – 12:30 pm  
Oral Abstract Session: Public Health

**Moderators:** Lone Simonsen, PhD and Kimberly Armstrong, PhD

Room Location: Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

11:00 am – 11:15 am  
Isolation of H5N6, H7N9, and H9N2 Avian Influenza Virus in the Air at Live Poultry Markets  
Jie Zhou  
CIR, SPH, HKU  
Hong Kong, Hong Kong

11:15 am – 11:30 am  
Bioaerosol Sampling an Effective Approach to Studying Influenza A Virus in Chinese Swine Farms  
Benjamin Anderson  
Duke University  
Durham, United States

11:30 am – 11:45 am  
Detection and Isolation of Influenza A Virus in Swine Environments  
Montserrat Torremorell  
University of Minnesota  
St. Paul, United States

11:45 am – 12:00 pm  
Limiting Influenza A Virus Spread in Pigs at Agricultural Fairs to Protect Public Health  
Andrew Bowman  
The Ohio State University  
Columbus, United States

12:00 pm – 12:15 pm  
Comparative epidemiology of four waves of human infections with avian influenza A(H7N9) in mainland China, 2013-2016  
Peng Wu  
School of Public Health, Li Ka Shing Faculty of Medicine, University of Hong Kong  
Hong Kong
12:15 pm – 12:30 pm  | Incidence and correlates of avian influenza virus RNA detection among a cohort of live bird market poultry workers, Bangladesh: 2012-2015 (Abstract #O-103)
Md. Zakiu Hassan
International Centre for Diarrhoeal Diseases Research, Bangladesh (icddr,b)
Dhaka, Bangladesh ▲

11:00 am – 12:30 pm  | Oral Abstract Session: Virology & Pathogenesis ●

**Moderators:** David Wentworth, MS, PhD and David Jackson, BSc, PhD

**Room Location:** Chicago Ballroom 8 & 9, Level 4

11:00 am – 11:15 am  | HA Acid Stability and the Emergence of H1N1 Pandemic Influenza From Swine (Abstract #O-104)
Marion Russier
St Jude Children’s Research Hospital
Memphis, United States ●

11:15 am – 11:30 am  | Genome Wide CRISPR/Cas9 Screen Identifies Host Factors Imperative for Influenza Virus Replication (Abstract #O-105)
Julianna Han
University of Chicago
Chicago, United States ●

11:30 am – 11:45 am  | Characterization of Highly Pathogenic Avian Influenza H5N6 Viruses of Clade 2.3.4.4. (Abstract #O-106)
Mathilde Richard
ErasmusMC
Rotterdam, The Netherlands ●

11:45 am – 12:00 pm  | The Role of the Host Range Determinant 627-Domain of the PB2 Subunit of the Influenza A Virus Polymerase in Transcription and Replication (Abstract #O-107)
Benjamin Nilsson
University of Oxford
Oxford, Great Britain ●

12:00 pm – 12:15 pm  | Species Difference in ANP32A Underlies Influenza A Virus Polymerase Host Restriction (Abstract #O-14)
Wendy Barclay
Imperial College London
London, Great Britain ●

12:15 pm – 12:30 pm  | Stalking Influenza by Vaccination with Pre-Fusion Headless HA Mini-Stem for Broadly Reactive Antibodies (Abstract #O-109)
Leo Poon
The University of Hong Kong
Pokfulam, Hong Kong ●

12:30 pm – 1:00 pm  | Lunch

**Room Location:** Chicago Promenade

1:00 pm – 3:00 pm  | Closing Plenary Session: The Future Threats from Influenza

**3 Speakers (3 40 min speakers)**

**Moderators:** Michael Ison, MD, MS and Lance Jennings, PhD

**Room Location:** Sheraton Chicago Ballroom 4, 5, 6, 7, Level 4

1:00 pm – 1:40 pm  | Influenza at the Animal-Human Interface
David Swayne, DVM, PhD
National Poultry Research Center – USDA
Athens, GA, United States ●

1:40 pm – 2:20 pm  | Forecasting the Future of Flu
Trevor Bedford, PhD
Fred Hutchinson Cancer Research Center
Seattle, WA, United States ●

2:20 pm – 3:00 pm  | Improving on Influenza Vaccines: Managing the Challenges of Vaccine Mismatch
Dan Jernigan, MD, MPH
US Centers for Disease Control and Prevention
Atlanta, GA, United States ●

**SUNDAY**
**Sponsors:**

**SEQIRUS** - **Platinum Partner**
- Booth: 411
- Address: 1020 First Avenue
- City: King of Prussia
- Zip Code: 19406
- Country: USA
- Phone Number: +1-610-290-7400
- Website: www.seqirus.com

Seqirus is the new global company created in July 2015 from the combined strength and expertise of bioCSL Inc. and the influenza vaccines business formerly owned by Novartis AG. As the second largest influenza vaccine provider in the world, Seqirus is a transcontinental partner in pandemic preparedness and a major contributor to the prevention and control of influenza globally, with extensive research and production expertise and manufacturing plants in the US, Europe and Australia and a commercial presence in 20 countries.

**ASTRAZENECA/MEDIMMUNE** - **Silver Partner**
- Address: 1 Francis Crick Ave
- City: Cambridge
- Zip Code: CB2 0RE
- Country: United Kingdom
- Phone Number: +44 (0)20 7604 8000
- Website: www.astrazeneca.com

AstraZeneca is a global, innovation-driven biopharmaceutical business that focuses on the discovery, development and commercialization of prescription medicines, primarily for the treatment of cardiovascular, metabolic, respiratory, inflammation, autoimmunity, oncology, infection and neuroscience diseases. AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide.

**NOVAVAX** - **Silver Partner**
- Address: 20 Firstfield Road
- City: Gaithersburg
- Zip Code: 20878
- Country: USA
- Phone Number: (240) 268-2000
- Website: www.novavax.com

Novavax, Inc. (Nasdaq:NVAX) is a clinical-stage vaccine company committed to delivering novel products to prevent a broad range of infectious diseases. Its recombinant nanoparticles and Matrix-MTM adjuvant technology are the foundation for groundbreaking innovation that improves global health through safe and effective vaccines. Please refer to websites www.novavax.com and DiscoverRSV.com

**JANSSEN PHARMACEUTICALS** - **Bronze Partner**
- Address: 700 US Route 202 South
- City: Raritan
- Zip Code: 08869
- Country: USA
- Phone Number: +1 (908) 722-5393
- Website: www.janssen.com

At Janssen, we have ambitious goals. We strive to discover and develop novel therapeutics and vaccines to prevent, treat and cure serious infectious diseases worldwide, improving treatment outcomes and patients’ lives. Learn more at www.janssen.com. Follow us @JanssenGlobal.

**ROMARK LC** - **Bronze Partner**
- Address: 3000 Bayport Drive, Suite 200
- City: Tampa
- Zip Code: 33607
- Country: USA
- Phone Number: (813) 282-8544
- Website: www.romark.com

Romark is a pharmaceutical company committed to the discovery, development and commercialization of innovative small molecules for treating infectious diseases and respiratory infections. During its twenty-year history, Romark has grown from a small research and development organization to become a vertically integrated pharmaceutical company with its own drug discovery, development, manufacturing and commercial capabilities. We continue to take on new challenges in the field of medicine and public health with the same spirit that has characterized our company and its employees from the beginning – expanding our footprint with a vision toward positively impacting the lives of people worldwide.

**QUIDEL CORPORATION** - **Bronze Partner**
- Booth: 410
- Address: 12544 High Bluff Drive, Suite 200
- City: San Diego
- Zip Code: 92130
- Country: USA
- Phone Number: (858)-552-1100
- Website: www.quidel.com

Quidel® Corporation is committed to enhancing health and well-being through innovative diagnostic solutions. Quidel assays use lateral-flow, direct fluorescent antibody, molecular and other technologies to improve patient outcomes and give economic benefits to healthcare providers. With leading brands - QuickVue®, AmpliVue®, Lyra™, MicroVue™, D3 Direct Detection™, Thyretain®, Sofia®, and Solana™, Quidel aids in the detection and diagnosis of critical diseases and conditions. www.quidel.com
**Exhibitors:**

**ACCELOVANCE, INC.**
Booth # 520  
Address: 2275 Research Boulevard, Suite 700  
City: Rockville  
Zip Code: 20850  
Country: USA  
Phone Number: 240-238-4900  
Website: www.accelovance.com  

Accelovance is an award-winning Contract Research Organization focused on vaccine, oncology, and general medicine clinical development. As a clinical services provider to pharma and biotech companies, Accelovance offers comprehensive services for Phase I-IV clinical trials and also operates a Clinical Call Center specializing in recruitment, retention, and post-marketing surveillance.

**ALLERGAN**
Booth # 421  
Address: Morris Corporate Center III, 400 Interpace Parkway  
City: Parsippany  
Zip Code: 07054  
Country: USA  
Phone Number: (862)-261-7000  
Website: www.allergan.com  

Allergan (NYSE: AGN) is a unique, global pharmaceutical company focused on developing, manufacturing and commercializing high quality generic and innovative branded pharmaceutical products for patients around the world. The Company has approximately 30,000 employees worldwide and maintains global headquarters in Dublin, Ireland. For more information, visit www.allergan.com.

**AVIOQ, INC.**
Booth: 425  
Address: 1047 West Alexander Drive  
City: Research Triangle Park  
State: NC  
Zip: 27709  
Phone Number: (919) 314-5535  
Website: www.avioq.com  

Avioq, Inc., founded in 2007 and incorporated in North Carolina, has headquarters in Research Triangle Park, NC. We are introducing the qFLU Dx Test, a homogeneous biochemiluminescence based Flu A/B diagnostic test, and the qFLU Combo Test, a rapid influenza virus drug resistance test.

**CEPHEID**
Booth # 323  
Address: 904 Caribbean Dr.  
City: Sunnyvale  
Zip Code: 94089  
Country: USA  
Phone Number: +1-408-541-4191  
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Cepheid is the leading innovator in the field of molecular diagnostics. The Company is dedicated to improving healthcare by developing, manufacturing, and marketing accurate yet easy-to-use systems and tests. By automating highly complex procedures, the company’s solutions deliver a better way for institutions of any size to perform sophisticated molecular testing that can dramatically enhance the management of infectious diseases and cancer.

**CTL ANALYZERS**
Booth # 325  
Address: 20521 Chagrin Blvd  
City: Shaker Heights  
Zip Code: 44122  
Country: USA  
Phone Number: (216)-325-7245  
Website: www.immunospot.com  

CTL Analyzers leads the field by providing a comprehensive platform of high-throughput regulated instrumentation for viral titre and neutralization assays.  
- Focus-forming Assays (FFA)  
- Microneutralization Assays  
- PRNT – plaque reduction neutralization tests  
- ELISPOT/FluoroSpot  
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**DENKA SEIKEN CO., LTD**
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Address: 2-H, Nihonbashi Murona  
City: Tokyo  
Zip Code: 103-8338  
Country: Japan  
Phone Number: +81-3-6214-3236  
Website: www.denka-seiken.jp  

For more than half century, Denka Seiken Co., Ltd. has been developing and producing vaccines and bacteriology and virology, immunochrometry, clinical chemistry and food-related diagnostic reagents based on one fundamental idea: the significance of safeguarding a single human life surpasses all else, “Life is precious.”
FUSION GENOMICS

Booth # 313
Address: 8999 Nelson Way, SFU Discovery Park
City: Burnaby
Zip Code: V5A 4W9
Country: Canada
Phone Number: +1.604.428.7701
Website: www.fusiongenomics.com

Fusion Genomics develops diagnostic modalities that simultaneously permit the diagnosis, monitoring and tracking of globally important infectious diseases. Our influenza assays, for example, simultaneously permit diagnosis and monitoring of human and avian influenza in clinical specimens and wetland sediments, through the capturing and sequencing the HA, NA, and matrix genes.

GISAI D

Booth # 422
Address: Lipowskystrasse 10
City: Munich
Zip Code: 81373
Country: Germany
Phone Number: (+49) 44-208-816-2141
Website: www.gisaid.org

GISAID promotes the open sharing of all influenza data by protecting the interests of data submitters. Hosted by the German Government, its publicly accessible EpiFlu™ database offers the largest collection of current/unpublished influenza sequence data, critical to the biannual vaccine virus recommendations of WHO’s Global Influenza Surveillance and Response System.

HVIVO

Booth # 423
Address: 42 New Road
City: London
Zip Code: E1 2AX
Country: United Kingdom
Phone Number: +44 (0)20 7756 1300
Website: www.hvivo.com

hVIVO plc ("hVIVO") is a life sciences company pioneering a technology platform of human disease models to accelerate drug discovery and development in respiratory and infectious diseases. Based in the UK, hVIVO has commercialised conducted over 40 clinical studies, involving more than 2,000 volunteers for a range of leading industry, governmental and academic clients.

IIT RESEARCH INSTITUTE (IITRI)

Booth # 319
Address: 10 West 35th Street
City: Chicago
Zip Code: 60616
Country: USA
Phone Number: (312)-567-4924
Website: www.iitri.org

IIT Research Institute (IITRI) is a preclinical CRO offering high quality and collaborative drug discovery and GLP safety testing services. Areas of focus include extensive infectious disease capabilities from efficacy testing through Phase II clinical trial support, complete GLP IND/NDA programs, inhalation toxicology and oncology drug discovery and development.

INDEVR, INC.

Booth # 317
Address: 2100 Central Ave, Suite 106
City: Boulder
Zip Code: 80301
Country: USA
Phone Number: (303)-402-9100
Website: www.indevr.com

InDevR, Inc., is a leader in providing progressive analytical technologies that enhance and accelerate vaccine characterization and production. The company is also committed to developing next-generation diagnostic products that will enable unprecedented tracking of seasonal and emerging influenza viruses around the globe.

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Booth #522
Address: 4120 Capricorn Lane
City: La Jolla
Zip Code: 92037
Country: USA
Phone Number: (858) 200-1800
Website: www.jcvi.org

Influenza Research Database (IRD, www.fludb.org) is a freely available, NIH/NIAID sponsored Viral Bioinformatics Resource Center. IRD supports influenza virus data mining and hypothesis generation by providing a wide array of different data types, a suite of comparative genomics analysis and visualization tools, and personal workbenches for data saving and sharing.
Sanofi Pasteur Inc. provides pediatric, adult, and travel vaccines for diseases such as diphtheria, tetanus, pertussis, polio, Haemophilus influenzae type b, influenza, rabies, typhoid fever, yellow fever, and meningococcal disease. To learn more about our products, visit our exhibit booth.

SGS
Booth #311
Address: 20411 Seneca Meadows Parkway
City: Gaithersburg
Zip Code: 20411
Country: USA
Phone Number: +1 301-556-0863
Website: www.sgs.com/CRO

SGS is a leading life science contract service organization providing clinical research and bioanalytical development services. Delivering solutions for pharmaceutical companies, SGS offers Phase I-IV clinical trial management services encompassing clinical project management and monitoring, data management, biostatistics, PK/PD Modeling & simulation and regulatory consultancy.
EXHIBIT HALL FLOOR PLAN
100 YEARS
and just getting started

A century ago, we made a promise to protect the health of a nation. Today that promise is stronger than ever.

Set up by the Australian Government as the Commonwealth Serum Laboratories, our first major task was to combat the deadly Spanish flu pandemic. Working with the smartest minds, we have continued the fight against influenza ever since.

Recently, we acquired the Novartis influenza vaccine business and combined it with our own to create Seqirus, a new global force in influenza.

We’re now better placed than ever to protect against influenza today, prepare for the pandemic threats of tomorrow and develop innovative solutions for the future.

We are Seqirus and we’re just getting started.
RESPIRATORY INFECTIONS NEED YOUR ATTENTION

Respiratory syncytial virus {RSV}

Globally, each season, 3.4 million children (<5 years old) are hospitalized due to RSV – that’s one every five seconds.¹ Yet it’s not just a problem for the very young, as this common seasonal virus affects the lungs and airways of around 64 million people.² With no vaccine or guideline-recommended antiviral treatments available, RSV can turn deadly.

160,000 deaths each year globally²

Influenza {flu}

Influenza, more commonly known as flu, remains one of the world’s most serious public health challenges. Although not always seen as a high risk infection, up to 5 million people will develop a severe case of influenza globally, each year, which has the potential to have serious consequences.³,⁴

1 in 6 people are infected with influenza every year³

Janssen in respiratory infections

Through intensive research and development, Janssen aims to focus on the prevention, diagnosis and treatment of two of the most life-threatening viral respiratory infections: RSV and influenza.

We aspire to help people fight against the burden due to RSV and influenza.

For more information, visit www.janssen.com.

References