CONFERENCE REPORT

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31st annual meeting of the Pan American Society for Clinical Virology and Clinical Virology Symposium

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The 31st annual meeting of the Pan American Society for Clinical Virology and Clinical Virology Symposium, Daytona Beach, FL, USA, 26–29 April 2015

The 31st annual meeting of the Pan American Society for Clinical Virology and Clinical Virology Symposium was held in Daytona Beach, FL, USA on 26–29 April 2015. This year the symposium was jointly cosponsored by the American Society for Microbiology, the France Foundation and the Pan American Society for Clinical Virology. The event was chaired by Steven Specter and Richard Hodinka.

Like every year, the meeting was preceded by a molecular virology workshop (this year's was the 22nd) with a focus on practical aspects of molecular diagnostics and new technologies. The 2015 workshop was chaired by Mathew Binnicker, Randall Hayden and Melissa Miller and comprised two sessions of presentations with a focus on verification and validation of assays, and new technologies, respectively.

The Clinical Virology Symposium included four workshops with invited keynote speakers followed by questions and discussion:

Sunday 26 April:

- *Point/counterpoint: US FDA Regulations of Laboratory Developed Tests – a Laboratory and Industry Perspective* by Alan Mertz and Andy Fish.
- *Virology Jeopardy*, interactive case discussion session led by Alexandra Valsamakis.
- *Practical Issues in Transplant Virology* by Eric Rosenberg.
- *Practical Issues in Health Economics and Outcomes in Clinical Virology* by Beverly Rogers.

Monday 27 April:

Session I: Clinical aspects of viral diseases

- *Viral Etiology of Unexpected Deaths* by Sherif Zaki.
- Sheik Khan Memorial Lecture: *Ebola: Plight of West Africa* by Heinz Feldman.
- *Severe Respiratory Virus-Enterovirus (EV68)* by Mary Anne Jackson.
- *Chikungunya and Dengue Viruses* by Pablo Martinez de Salazar.

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Tuesday 28 April:

Session II: Laboratory diagnosis of viral infections

- *One World – Implications for Diagnostic Virology* by Benjamin Pinsky.
- *Next-gen Sequencing for Viral Diagnosis* by Charles Chiu.
- *Diagnostic Strategies for Viral Central Nervous System Infections* by Kenneth Tyler.
- *Multiplex Testing for GI Infections* by Marek Smieja.
- Philip Hanff Memorial Clinical Case Presentation and Discussions session led by Richard Hodinka, Marie Landry and Colleen Kraft.

Wednesday 29 April:

Session III: Prevention of and therapy for viral infections

- *Ebola Prevention and Therapy* by John Schieffelin.
- *Metapneumovirus Prevention and Therapy* by John Williams.
- *Novel Approaches to Influenza Vaccine* by Richard Webby.
- *New Herpes Virus Drugs* by Mark Prichard.

Highlights

• One world: implications for diagnostic virology

Benjamin Pinsky from Stanford University discussed the sentinel role that clinical microbiology and virology laboratories can play in the global surveillance for emerging infectious diseases and the significant diagnostic challenge that febrile travelers from countries with unique endemic infections such as Dengue and Chikungunya pose to the virology laboratory. He also discussed the utility of sensitive multiplex diagnostics for the detection of pathogens that cause an undifferentiated systemic febrile illness [1–4].

• Next-generation sequencing & diagnosis of viral infections

Charles Chiu from the University of California, San Francisco provided an update of exciting advances and of his own accomplishments in the field of metagenomics-based technologies to identify viral etiologies of acute and chronic diseases in humans. He showed the capabilities of a new technology for real-time detection and

identification of pathogens in clinical specimens presenting data on the detection of Chikungunya virus, Ebola virus and HCV from human blood samples. He also discussed a cloud-based pipeline for rapid analysis for pathogen discovery [5–7].

• The Ebola outbreak in West Africa

Through lectures delivered by Heinz Feldman from the Laboratory of Virology, Rocky Mountain Laboratories/NIAID/NIH and John Schieffelin from Tulane University School of Medicine, the audience received an overview on the current status of the ongoing epidemic, which is caused by the Makona variant of Ebola virus and severely affects Guinea, Liberia and Sierra Leone. Updates on clinical preparedness in countries at risk for Ebola virus disease, point-of-care rapid diagnostic platforms, epidemiology and intervention with new experimental drugs and monoclonal antibody therapies as well as vaccine development efforts were provided. Animal studies have shown promising results for Zmapp, a combination of three neutralizing antibodies [8–13].

• Poster sessions

Providing wide opportunities for networking, the three poster sessions were held on Sunday, Monday and Tuesday evenings and displayed a total of 210 presentations covering all aspects of clinical virology from epidemiology to new diagnostic platforms and descriptions of novel viruses. Abstracts for all posters presented at the meeting can be found at the conference's website [14].

• PASCV awards

Each year at the annual meeting's banquet, the PASCV presents a variety of sponsored awards given to candidates nominated by mentors, or peers, in acknowledgment of their contributions to the field of clinical virology.

This year, the Ed Nowakowski Award was made possible by an unrestricted grant from MBL-Bion International, acknowledging an individual whose contributions to clinical virology have had a major impact on the epidemiology, treatment or understanding of the pathogenesis of viral disease: it was posthumously awarded to Sheik Humarr Khan. He was a leading expert in the clinical care of viral hemorrhagic fevers, and dedicated his life to providing medical care to patients in Sierra Leone. He was the director of the Lassa Fever Program at the Kenema General

Hospital, a physician and consultant for Lassa fever for the United Nations in Sierra Leone and Physician Specialist in the Ministry of Health and Sanitation. During the current Ebola outbreak, Dr Khan expanded his clinic in Kenema and provided treatment to more than 100 Ebola patients before losing his own life to Ebola virus disease. The award was presented to his brother who delivered an emotional acceptance speech on his brother's behalf. The PASCV has set up a yearly memorial lecture at the annual meeting in Dr Khan's memory.

The Diagnostic Virology Award, made possible by an unrestricted grant from BD Diagnostics, and awarded to an individual whose contributions have had a major impact on viral diagnosis was presented to Keith Jerome, Professor and Head of the Virology Division, University of Washington, and a member of the Vaccine and Infectious Diseases Division at the Fred Hutchinson Cancer Research Center. His focus is on clinical diagnostic testing of viral pathogens and the role of the laboratory to improve patient care.

The Young Investigator Award, made possible by an unrestricted grant from Roche Diagnostics and awarded to an individual less than 40 years old or within 10 years of receiving their degree, who have made a major contribution to the field clinical or diagnostic virology either from a single paper or body of research, was presented to Colleen Kraft, Assistant Professor of Pathology and Laboratory Medicine and Medicine in the Division of Infectious Diseases, Emory University; Medical Director of the Microbiology

section of the Emory Medical Laboratories, and Program Director of the Medical Microbiology Fellowship at Emory University. Her research focuses on applied genomics for clinical use.

The society offers several travel awards every year. Four of the awards are named in honor of noted Clinical Virology pioneers: Mario Escobar, Herman Friedman, Edith Hsiung and Edwin Lennette. Seven general travel awards offered to students, postdoctoral fellows and technologists are presented to the top abstracts submitted. The Mario Escobar Award for Latin American residents is offered to trainees or faculty residing in Latin America and who submit an abstract showing exceptional research in the field of clinical virology.

The 32nd Clinical Virology Symposium is scheduled to take place 19–22 May 2016 in Daytona Beach, FL, USA [14]. Most of the presentations are available free of charge to PASCV members or for a fee to any others interested [15].

To become a member of PASCV and for more information about the meeting and the society, visit their website [16].

Financial & competing interests disclosure

The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

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