10th International Symposium on Bordetella

Trinity Biomedical Sciences Institute
Trinity College Dublin, Ireland,
8-11 September 2013

Provisional Programme

Sunday 8th September 18.00

18.00  Kingston Mills, Trinity College Dublin, Ireland
       Opening remarks from Conference Organizer

18.15  Erik Hewlett, University of Virginia, Va, USA
       Historical perceptive of the pertussis / Bordetella meetings

18.30  James Cherry, UCLA, Ca, USA
       Review of the pertussis vaccine trials

19.00  Welcome Reception

Monday 9th September

Session-1  Genomics and Evolution of Bordetellae
           (Chair: Jeff Miller)

8.30-9.00  Simon Harris, Sanger Institute, Hinxton, Cambridge, UK
           Comparative genomics and evolution of Bordetella

9.00-9.30  Andrew Preston, University of Bath, UK
           Filling in the gaps: genome sequencing of Hinzii, Holmesii, Trematum and Ansorpii

9.30-10.00 Ruiting Lan, University of Sydney, Australia
            Evolution of Bordetella pertussis in Australia
10.00-10.15 David Hot, Institute Pasteur of Lille and Univ. Lille, France
Short talk: Characterisation of BprC an Antisense Small RNA of the 5'UTR of Bordetella pertussis Major Virulence Regulator Gene, bvgA

10.15-10.30 Qing Chen, CBER/FDA, Bethesda, MD, USA
Short talk: Bordetella pertussis RisA Activates bvg-Repressed Genes (vrgs) due to Mutation in risS

10.30-11.00 Coffee

11.00 -11.30 Frits Mooi, RIVM, The Netherlands
Using "omics" to identify genes involved in adaptation and effective vaccine targets

11.30-12.00 Eric Harvill, Penn State University, Pa, USA
Emergence of multiple pathogens amongst the Bordetellae

12.00-12.15 Daan de Gouw, University Medical Centre, Nijmegen, The Netherlands
Short talk: In vivo Transcriptional Responses of epidemic and previously dominant Bordetella pertussis Strains

12.15-12.30 Liliana Losada, JCVI, Rockville, MD, USA
Short talk: Genomic Analysis of the Classical Bordetella

12.30-13.30 Lunch and poster viewing

Session-2 Pathogenesis and Immunity
(Chair: Alison Weiss)

13.30-14.00 Peter Sebo, Institute of Microbiology of the ASCR, Prague, Czech Republic
Adenylate cyclase toxin- role in pathogenesis and subversion of immunity

14.00- 14.30 Francoise Jacob-Dubuisson, Institut Pasteur de Lille, France
New insights into signal transduction by the sensor-kinase BvgS

14.30-15.00 Peggy Cotter, University of North Carolina at Chapel Hill, USA
Roles for three of the four acellular pertussis vaccine components revealed by studying B. bronchiseptica in its natural hosts

15.00-15.30 Tea/Coffee

15.30 –16.00 Nick Carbonetti, University of Maryland, Baltimore, USA
Multiple mechanisms of pertussis pathogenesis mediated by pertussis toxin

16.00-16.30 Rachel Fernandez, University of British Columbia, Vancouver, Canada
Immune modulation by Bordetella surface structures
16.30-16.45 Kaatje Smits, Université Libre de Bruxelles, Brussels, Belgium
Short talk: Dissection of the Bordetella pertussis Memory T Cell Responses in 9 to 12 Years-Old Children Vaccinated with Whole Cell or Acellular Vaccines

16.45-17.00 Wanda Han, RIVM, The Netherlands
Short talk: Distinct End-Differentiation Patterns of Human Pertussis-Specific CD4+ T Cells

17.30-19.00 Poster session

Tuesday 10th September

Session-3 Epidemiology, Infant Mortality and Diagnostics
(Chair: Qiushui He)

8.30-9.00 Nicole Guiso, Institute Pasteur, Paris, France
Human Bordetella species: what's new

9.00-9.30 Tom Clark, CDC, Atlanta, USA
Pertussis epidemiology and vaccination in the United States

9.30-10.00 Scott Halperin, Dalhousie University, Halifax, NS, Canada
Epidemiology of pertussis in Canada: do we know what's happening?

10.00-10.15 Manisha Patel, Centers for Disease Control and Prevention, Atlanta, USA
Short talk: Vaccine Effectiveness and Duration of Protection of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis among Adolescents, Washington State, 2012

10.15-10.30 Natasha Crowcroft, Public Health Ontario and University of Toronto, Canada
Short talk: Comparing the epidemiology of Pertussis in an Under-Immunized Community with the General Population during an outbreak in Ontario, Canada

10.30-11.00 Tea / Coffee

11.00-11.30 Peter McIntyre, National Centre for Immunisation Surveillance and Research, NSW, Australia
Epidemiology of pertussis in Australia: Impact of vaccine strategies

11.30-12.00 Alberto Tozzi, Bambino Gesù Children’s Hospital, Rome, Italy
Epidemiology and diagnosis of pertussis in Italy

12.00-12.15 David Litt, Public Health England, London, UK
Short talk: An unexpected large rise in pertussis cases in the England and Wales during 2012 is not associated with genetic changes in the B. pertussis bacterial population
12.15-12.30 Lucia Pawloski, *Centers for Disease Control and Prevention, Atlanta, USA*
Short talk: *Prevalence and molecular characterization of pertactin-deficient Bordetella pertussis in the US*

12.30-13.30 Lunch and Poster viewing

13.30-14.00 Kathy Edwards Vanderbilt University, Nashville, TN, USA
*Severe pertussis in infants*

14.00-14.30 Fritz Wirsing Von Konig, Medizin Krefeld MVZ GmbH, Krefeld, Germany
*Biological diagnosis of Bordetella infections*

14.30-14.45 Joshua Eby, University of Virginia, VA, USA
Short talk: *Modulation of Neutrophil Death by the Bordetella Adenylate Cyclase Toxin and Cyclic AMP*

14.45-15.00 Rajendhar Deora, Wake Forest school of Medicine, Winston-Salem, NC, USA
Short talk: *Utilization of genomic mining to identify a Bordetella pertussis locus involved in Cellular Adherence, Resistance to Antimicrobial Peptides and PMN-mediated Killing*

15.00-15.30 Tea/ Coffee

**Session -4  New models and approaches to vaccination**
(Chair: Drusilla Burns)

15.30-16.00 Kingston Mills, Trinity College Dublin, Ireland
*Rational design of a new pertussis vaccine based on adjuvants that induce protective cellular immunity*

16.00-16.30 Tod Merkel, DBPAP/CBER/FDA, Bethesda, USA
*Evaluating the host response to infection and vaccination in the baboon model of pertussis*

16.30-17.00 Camile Locht, Institut Pasteur de Lille, France
*Maternal versus neonatal immunization against pertussis, or both*

17.00 -17.15 Arno van der Ark, Intravacc, Bilthoven, The Netherlands
Short talk: *Molecular Engineering of a Pertussis Outer Membrane Vesicle Vaccine*

17.15 -17.30 Maria Eugenia Rodriguez, Universidad Nacional de La Plata, Argentina
Short talk: *Two Antigens Identified by Immunoproteomics Proved to Be Good Candidates for a New Generation of Pertussis Acellular Vaccines*

19.30 Banquet
Wednesday 11th September

Session-5  The way forward: Strategies to address problems with pertussis vaccine
               (Chair: Stanley Plotkin)

8.45 – 10.15  What can be done to improve pertussis vaccines?
               Participants to include: Frits Mooi (new strains); Eric Harvill (new components);
               TBD (new adjuvants) and Camille Locht (live vaccines).

10.15-10.45  Coffee

10.45- 12.15 Round table discussion
               Participants to include: Stanley Plotkin (Chair) Linda Hanssens, Michael Decker, Rino Rappuoli, Jan Poolman, Peter McIntyre and Drusilla Burns.

12.15-12.30  Xin-Xing Gu, NIAID/NIH, Bethesda, MD, USA
               Short talk: NIAID/NIH funding mechanisms and resources for pertussis research and product development

12.30       Presentation of Travel awards and Close of meeting

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