



## ESPID RESEARCH MASTERCLASS 2015

Abstract book

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## ERMC 2015 Program

8.15-8.30 Coffee

8.30-8.40 Welcome and group presentation  
*Pierre Smeesters*

**Session I: Immunology (8.40-10.00)**  
Chairs: *Navin Boeddha and Adilia Warris*

8.40-9.00 The influence of age, gender and nutritional status on the cytokine-response in children  
*Marie-Luise Summerer et al.*

9.00-9.20 A novel PIFA1 mutation underlying familial invasive meningococcal diseases  
*Bayarchimeg Mashbat et al.*

9.20-9.40 To analyse the anti-viral IFN- $\alpha$  JAK/STAT pathway in HCV infected children  
*Julie Lucey et al.*

9.40-10.00 Innate antifungal mechanisms of Cystic Fibrosis phagocytes.  
*Shan Brunel et al.*

10.00-10.30 Coffee Break

**Session II: Medical Microbiology (10.30-11.50)**  
Chairs: *Stefanie Henriet and Tobias Tenenbaum*

10.30-10.50 Diagnosis of congenital CMV beyond the neonatal period: what then?  
*Teresa del Rosal et al.*

10.50-11.10 European Childhood Life-threatening Infectious Disease Study – Challenges and first results  
*Daniela Klobassa et al.*

11.10-11.30 Virologic failure among children taking Lopinavir/Ritonavir – containing HAART in Ecuador  
*Luis Guerra et al.*

11.30-11.50 Antimicrobial susceptibility of toxigenic *Corynebacterium Diphteria* in east Java, Indonesia  
*Dwiyanti Puspitasari et al.*

11.50-12.25 **Keynote lecture**  
"How to write a scientific abstract? An interactive writing seminar"  
**Ron Dagan**  
Chairs: *Ana Brett & Pierre Smeesters*

12.25-13.50 Lunch

**Session III: New diagnostics and treatment (13.50-15.30)**

Chairs: *Alexa Dierig and Pablo Rojo*

- 13.50-14.10** Evaluation of biomarkers for Alzheimer's disease in cerebrospinal fluid among children with enteroviral meningitis  
*Artur Sulik et al.*
- 14.10-14.30** CARPE DIEM: How we seized the day!  
*Lilliam Ambroggio et al.*
- 14.30-14.50** Experimental *Aspergillus nidulans* infection in Chronic Granulomatous Disease mice  
*Jill King et al.*
- 14.50-15.10** Newborn screening of severe primary immunodeficiencies  
*Peter Olbrich et al.*
- 15.10-15.30** New perspectives in management of recurrent *Clostridium difficile* colitis in the pediatric population  
*Sabina Schiopu et al.*
- 15.30-16.00** Coffee Break

**Session IV: Vaccine (16.00-17.20)**

Chairs: *Luis Escosa-García and Ron Dagan*

- 16.00-16.20** Immunogenicity and immunological memory induced by pneumococcal conjugate and plain polysaccharide vaccine in perinatally HIV infected subjects"  
*Evi Farmaki et al.*
- 16.20-16.40** Invasive pneumococcal disease in Brazilian children: a fifteen-year hospital-based surveillance study - pcv10 impact and serotypes distribution  
*Daniel Jarovsky et al.*
- 16.40-17.00** Development of pneumococcal surface proteins for vaccine studies and serodiagnosis  
*Marta Benavides et al.*
- 17.00-17.20** Evaluation of immunogenicity and protective efficacy of selected immunodominant B-cell epitopes within virulent surface proteins of *S. Pneumoniae*, in a mouse model for pneumococcal sepsis.  
*Theodora Papastamatiou et al.*
- 17.20-17.30** Closing remark  
*Adilia Warris*

**Abstract 8: ANTIMICROBIAL SUSCEPTIBILITY OF TOXIGENIC *CORYNEBACTERIUM DIPHTHERIA* (IN EAST JAVA PROVINCE, INDONESIA)**

*Authors: Dwiyanti Puspitasari, Alif Mutahhar, Leny Kartina, Dominicus Husada, Eveline Irawan\*, Parwati Setiono Basuki, Ismoedijanto Moedjito*

**Background and aims:** Diphtheria still caused serious health problems in some part of the world and Indonesia ranks 2<sup>nd</sup> highest since 2010. In 2011, there were 806 diphtheria cases, more than 80% from East Java Province. Recent publication on antibiotics' susceptibility against *Corynebacterium diphtheriae* in the world were few, and no data from Indonesia. This study wants to determine the sensitivity pattern of several antibiotics against *C. diphtheria* isolates.

**Methods:** A descriptive, cross sectional, observational study was performed against 57 toxigenic *C. diphtheriae* isolates taken by clustered random sampling from 230 isolates collected across East Java Province during diphtheria outbreak from 2011-2014. The isolates stored and studied at the Center for Health Laboratory (BBLK) Surabaya, which is National Reference Laboratory for Diphtheria in Indonesia. Toxigenicity test were performed using Elek test. Susceptibility against Erythromycin, Ciprofloxacin, and Benzylpenicillin using Epsilometer test/E-Test with interpretive criteria from CLSI.

**Results:** Susceptibility test performed against 51(89.5%) and 6(10.5%) isolates of *C. diphtheria* strain *mitis* and *gravis*, 75% from cases and 25% diphtheria carrier. Sensitivity to Benzylpenicillin, Erythromycin and Ciprofloxacin were 89.5 % ( MIC 0.094-0.5µg/mL); 89.5% (MIC<0.016-0.016 µg/mL); and 100 % ( MIC 0.032-0.19µg/mL). There were each 5(8.8%) isolates had intermediate sensitivity against Benzylpenicillin (MIC 1.5µg/mL) and Erythromycin (MIC 1µg/mL). One isolates were resistant to Benzylpenicillin (MIC 4µg/mL) and Erythromycin (MIC 6µg/mL). All *C. diphtheria* strain *gravis* were intermediate and resistant to benzylpenicillin and erythromycin.

**Conclusions:** Erythromycin and benzylpenicillin in vitro is still effective as standard therapy for diphtheria, except in *C. diphtheria* strain *gravis*. In vitro, all *C. diphtheria* were sensitive against ciprofloxacin.

**Question by: Luis Prieto**