

Complement, perforins and bacterial CDCs: The hole family Prato, Italy, 15-18 April 2009

Wednesday, 15 April 2009

Registration

2:30 PM - 5:00 PM

Room 3

Welcome Address

5:00 PM - 6:15 PM

Salone Grollo

Chair: James Whisstock

5:15 pm

Piet Gros

Complement's prelude to membrane attack *abs#001*

Welcome Drinks

6:15 PM - 7:30 PM

Terrace

Thursday, 16 April 2009

Session 1 - Introduction to the MACPF/CDC superfamily

8:30 AM - 10:30 AM

Salone Grollo

Chair: Michelle Dunstone

8:30am

Milton Saier

Molecular archeological studies of pore-forming toxins and their derived transporters *abs#002*

9:00am

Michael D'Angelo

Perforin evolution: a bioinformatic study *abs#003*

9:15am

Alfred Esser

The MAC proteins of complement: Past, present and future *abs#004*

9:45am

Gisou van der Goot

History and background of pore forming toxins *abs#005*

Tea/Coffee Break

10:30 AM - 11:00 AM

Rooms 7 & 8

Session 2 - MACPF Proteins in Disease

11:00 AM - 1:00 PM

Salone Grollo

Chair: Joe Trapani

- 11:00am **Genevieve de Saint Basile**
Inherited defects of perforin and effectors of cytotoxic granule exocytosis *abs#006*
- 11:30am **Eckhard Podack**
Killer macrophages express Perforin2, a novel pore forming protein *abs#007*
- 12:00pm **Vern Carruthers**
A novel MACPF protein facilitates parasite egress and invasion of host cells *abs#008*
- 12:15pm **Marijo Roiko**
Toxoplasma gondii perforin-like protein 1 exhibits hallmarks of classical cholesterol dependent cytolysins in its membrane binding requirements *abs#009*

Lunch

1:00 PM - 2:00 PM

Rooms 7 & 8

Session 3 - Host Pathogen Interaction

2:00 PM - 4:00 PM

Salone Grollo

Chair: Michael Parker

- 2:00pm **Daniel Portnoy**
Listeriolysin O *abs#010*
- 2:30pm **Ana Zivkovic**
The role of Staphylococcal Panton-Valentine Leukocidin during lung inflammation in vivo *abs#011*
- 2:45pm **Julian Rood**
The role of *C. septicum* α -toxin in disease *abs#012*
- 3:15pm **Horst Posthaus**
Identification of natural target cells of clostridium perfringens beta-toxin *abs#013*

Poster Display

4:00 PM - 6:00 PM

Sala Caminetto

Free Evening

6:00 PM - 6:00 PM

Conference foyer

Friday, 17 April 2009

Session 4 - Structure and Function 1

8:30 AM - 10:30 AM

Salone Grollo

Chair: James Whisstock

- 8:30am **Michael Parker**
Structural biology of cholesterol-dependent cytolysins *abs#014*
- 9:00am **Andreas Sonnen**
Pore formation by pneumolysin studied by electron microscopy and kinetics *abs#015*
- 9:15am **Michelle Dunstone**
Structural and bioinformatic studies on bacterial and fungal MACPF proteins *abs#016*
- 9:45am **Helen Saibil**
Electron microscopy studies of perforin *abs#017*
- 10:15am **Robert Gilbert**
The mechanical basis of perforin-induced endocytosis *abs#018*

Tea / Coffee Break

10:30 AM - 11:00 AM

Rooms 7 & 8

Session 5 - Structure and Function 2

11:00 AM - 1:00 PM

Salone Grollo

Chair: Phil Bird

- 11:00am **Iliia Voskoboinik**
Structure of perforin and implications in disease *abs#019*
- 11:30am **Jenny Chia**
Temperature-sensitivity of human perforin mutants unmasks sub-total loss of cytotoxicity, delayed haemophagocytic lymphohistiocytosis and a predisposition to haematological cancers *abs#020*
- 11:45am **James Sodetz**
Overview of Complement C8 *abs#021*
- 12:15pm **Lukasz Lebioda**
Structural Studies of Complement C8 *abs#022*

Lunch

1:00 PM - 2:30 PM

Rooms 7 & 8

Session 6 - Biochemical Mechanism

2:30 PM - 4:00 PM

Salone Grollo

Chair: Julian Rood

Rodney Tweten

From soluble monomer to membrane embedded pore: Structural transitions in the cholesterol-dependent cytolysins *abs#024*

Round table discussion on the future of meeting for pore-forming toxins/proteins

Poster Display

4:00 PM - 6:00 PM

Sala Caminetto

Dinner

7:00 PM - 10:30 PM
bus arranged for return trip

Villa la Ferdinanda

Saturday, 18 April 2009

Session 7 - Vaccines and Intervention

9:00 AM - 10:30 AM

Salone Grollo

Chair: Ian Smith

9:00am

Hagan Bayley

Engineered protein pores for nanotechnology *abs#025*

9:30am

Joe Trapani

Small molecule inhibitors of perforin and their potential therapeutic uses *abs#026*

10:00am

Meihua Gao

CD59 silencing via retrovirus-mediated RNA interference enhanced complement-mediated cell damage in ovary cancer *abs#027*

Tea / Coffee Break

10:30 AM - 11:00 AM

Rooms 7 & 8

Session 8 - Hot Topics

11:00 AM - 12:30 PM

Conference foyer

Chair: Ilia Voskoboinik

11:00am

Christopher Froelich

Cytotoxic cell granule-mediated apoptosis: Dissection of the lethal hit *abs#028*

11:20am

Tilen Praper

Perforin induces invaginations and formation of secondary vesicles on giant unilamellar vesicles *abs#029*

11:40am

Tova Crossman

The functions of the *Drosophila* MACPF protein torso-like in embryonic development *abs#030*

12:00pm

Stephanie Kondos

Structure and functional studies on fungal MACPF-domain containing toxins *abs#031*

12:20pm

James Whisstock

Closing comments