

The International Graduate School GRK1409

“Molecular Interactions of Pathogens
with Biotic and Abiotic Surfaces”

viruses

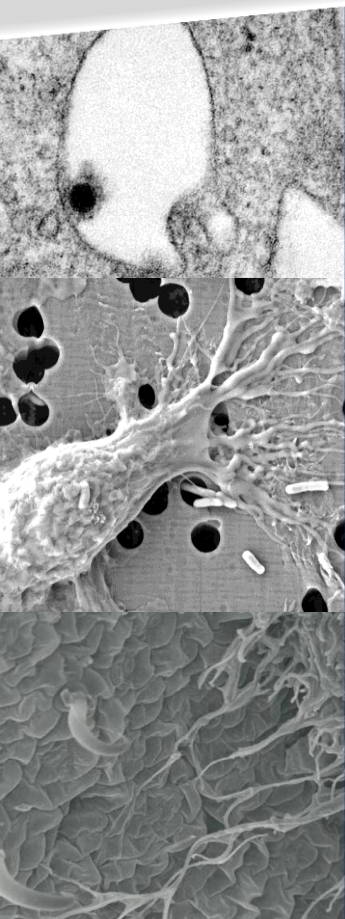
bacteria

fungi

II. Summer School Pathogen - Host Interactions at Cellular Barriers

June 8th – 10th, 2011

Venue: Max Planck Institute for Molecular Biomedicine
Münster, Germany



Speakers

Hans C. Bauer	Salzburg, Austria
Kenneth W. Bayles	Omaha, USA
John C. Bell	Ottawa, Canada
Maurizio Brigotti	Bologna, Italy
Petra Dersch	Braunschweig, Germany
Alain Filloux	London, England
Julia S. Frick	Tübingen, Germany
Jürgen Heesemann	München, Germany
Brendan Kenny	Newcastle, England
Hans-Dieter Klenk	Marburg, Germany
Wilhelm Schäfer	Hamburg, Germany
D. Barry Scott	Palmerston, New Zealand
Magdalene So	Tucson, USA
Beate Sodeik	Hannover, Germany
Susann Teneberg	Gothenburg, Sweden
Ulrich Vogel	Würzburg, Germany



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<http://zmbe.uni-muenster.de/GRK1409/summerschool2011.html>
Mail: summerschool2011@uni-muenster.de

The International Graduate School GRK1409
Center for Molecular Biology of Inflammation (ZMBE), Von-Esmarch-Str. 56, D-48149 Münster

II. Summer School

Pathogen – Host Interactions

at Cellular Barriers

Scientific Program

08.06.2011

Bacteria-Host Interactions (3:00 p.m. – 5:25 p.m.)

Jürgen Heesemann
Maurizio Brigotti

Phagocyte - *Staphylococcus* interaction in 3-dimensional collagen gels
The interaction between Shiga toxins and neutrophils in the pathogenesis of hemolytic uremic syndrome

Brendan Kenny

Enteropathogenic *E. coli* (EPEC) pathogenicity: recent insights on the co-operative and regulated nature of its effector proteins

09.06.2011

Biofilms (9:00 a.m. – 11:15 p.m.)

Alain Filloux

Pseudomonas aeruginosa pathogenesis: molecular switches drive the transition towards the biofilm mode

Kenneth W. Bayles
Ulrich Vogel

Staphylococcal biofilm formation: a matter of life or death
Meningococcal biofilm formation: the role of DNA and altered protein expression

Bacteria vs. Cellular Barriers (11:45 a.m. – 6:05 p.m.)

Petra Dersch

Different strategies controlling host cell invasion by enteropathogenic yersiniae during infection

Susann Teneberg
Magdalene So

Carbohydrate receptors for microbial pathogens
Pulling on the host membrane: how *Neisseria gonorrhoeae* modulates infection

Hans C. Bauer
Julia S. Frick

Barriers in the brain: molecular architecture and functions of tight junctions
Host microbe interaction in intestinal inflammatory diseases

10.06.2011

Fungi-Plant Interactions (09:00 a.m. – 10:35 a.m.)

D. Barry Scott

Signalling in the *Epichloe festucae* - perennial ryegrass mutualistic symbiotic association

Wilhelm Schäfer

Induction of fungal toxin production by the infected host plant

Viruses and the Cell (11:05 a.m. – 3:20 p.m.)

Beate Sodeik

Herpes simplex virus - A hitch hiker's guide to the cell

John C. Bell

Experimental and clinical studies with oncolytic vaccinia virus

Hans-Dieter Klenk

Determinants of pathogenicity and host range of influenza viruses



SCIENTIFIC PROGRAM

Wednesday, June 8th, 2011

13–15:00 Registration

15:00 Welcome

Session 1: Bacteria-Host Interactions

- 15:10 Keynote speaker: **Jürgen Heesemann (München, Germany)**
"Phagocyte – *Staphylococcus* interaction in 3-dimensional collagen gels"
(abstract p. 19, **O.01**)
- 15:50 **Maurizio Brigotti (Bologna, Italy)**
"The interaction between Shiga toxins and neutrophils in the pathogenesis of hemolytic uremic syndrome"
(abstract p. 19, **O.02**)
- 16:30 **Jessica Kneidl (Münster, Germany)** "CD163 Promotes Recognition, Phagocytosis and Killing of *Staphylococcus aureus* Via Binding of Specific Fibronectin Peptides"
(abstract p. 20, **O.03**)
- 16:45 **Brendan Kenny (NewCastle, UK)**
"Enteropathogenic *E. coli* (EPEC) pathogenicity: recent insights on the cooperative and regulated nature of its effector proteins"
(abstract p. 21, **O.04**)
- 17:25 Poster Session 1 with *sandwiches, beer and wine*

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Thursday, June 9th, 2011

Session 2: Biofilms

- 09:00 **Alain Filloux (London, UK)**
"Pseudomonas aeruginosa pathogenesis: molecular switches drive the transition towards the biofilm mode"
(abstract p. 21, **O.05**)
- 09:40 **Katja Crull (Braunschweig, Germany)**
"Biofilm formation by *Salmonella enterica* serovar Typhimurium colonizing solid tumors"
(abstract p. 22, **O.06**)
- 09:55 **Kenneth W. Bayles (Omaha, NE, USA)**
"Staphylococcal biofilm formation: a matter of life or death"
(abstract p. 23, **O.07**)
- 10:35 **Ulrich Vogel (Würzburg, Germany)**
"In vitro biofilm formation as a model for meningococcal carriage and transmission"
(abstract p. 23, **O.08**)
- 11:15 *Coffee Break*

Session 3: Bacteria vs. Cellular Barriers

- 11:45 **Petra Dersch (Braunschweig, Germany)**
"Different strategies controlling host cell invasion by enteropathogenic yersiniae during infection" (abstract p. 24, **O.09**)

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- 12:25 **Dina Hilmi (Heidelberg, Germany)**
"Differences in Toll-like receptor-2 activity of clinical *S. aureus* isolates reveal a novel immune evasion strategy"
(abstract p. 25, O.10)
- 12:40 *Lunch Break*
- 14:10 **Susann Teneberg (Gothenburg, Sweden)**
"Carbohydrate receptors for microbial pathogens"
(abstract p. 25, O.11)
- 14:50 **Magdalena So (Tucson, AZ, USA)**
"Pulling on the Epithelial Cell by *Neisseria gonorrhoeae*:
Consequences for Host and Pathogen" *(abstract p. 26, O.12)*
- 15:30 **Hans C. Bauer (Salzburg, Austria)**
"Barriers in the brain: molecular architecture and functions of
tight junctions" *(abstract p. 27, O.13)*
- 16:10 Poster Session 2 with *Coffee*
- 17:10 **Roland Bückner (Berlin, Germany)**
"Aerolysin, a pore-forming toxin from *Aeromonas hydrophila*,
disturbs tight junction integrity and epithelial restitution "
(abstract p. 27, O.14)
- 17:25 **Julia S. Frick (Tübingen, Germany)**
"Host microbe interaction in intestinal inflammatory diseases"
(abstract p. 28, O.15)
- 19:00 *Conference Dinner & City Tour*

