

**RESEARCH CONFERENCES**

ESF-FWF Conference in Partnership with LFUI

# The Impact of the Environment on Innate Immunity: The Threat of Diseases

Universitätszentrum Obergurgl (Ötz Valley, near Innsbruck) • Austria  
4-9 May 2009

Chair:

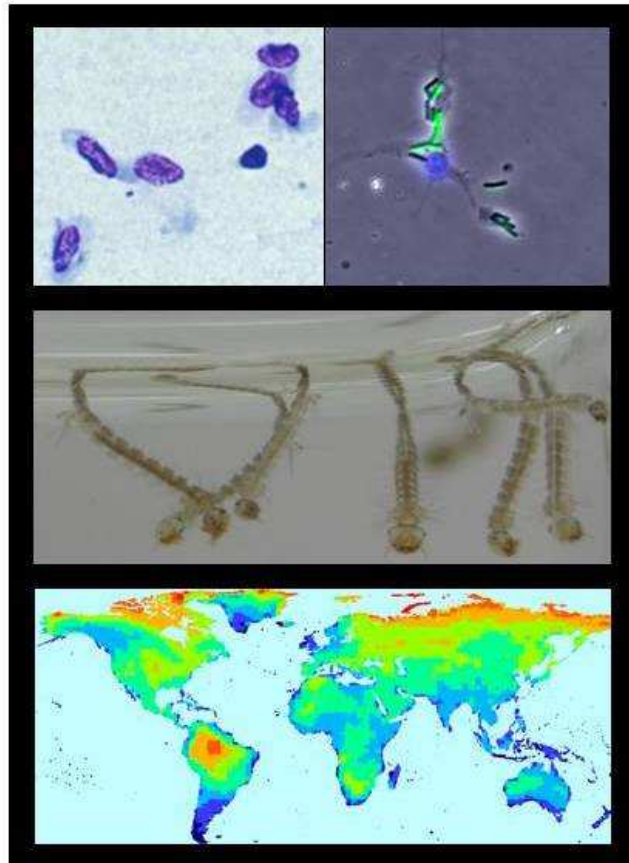
**Joachim Kurtz**, University of Münster, DE

Co-Chairs:

**Sophie Armitage**, University of Münster, DE

**Paul Schmid-Hempel**, ETH Zürich, CH

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# Final Programme

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## Monday, 4 May

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17.00 onwards	Registration at the ESF desk
19.45	Welcome Drink
20.00	Dinner

## Tuesday, 5 May

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08.30-09.00	Conference Opening
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### Session 1: Principles and applications of innate defence

Chair: **Sophie Armitage**, University of Münster, DE

09.00-09.45	<b>Joachim Kurtz</b> University of Münster, DE <i>Evolutionary ecology of innate defence</i>
09.45-10.30	<b>Michael Zasloff</b> Georgetown University, US <i>Exploiting discoveries in innate immunity in our defence against infectious agents</i>
10.30-11.00	Coffee break
11.00-11.45	<b>Laszlo Otvos</b> Temple University, US <i>Alternative modes of action of native and designer antimicrobial peptide</i>
11.45-12.00	<b>Matthew Tinsley</b> Stirling University, UK <i>Genetic variation and investment tradeoffs for immune senescence in <i>Drosophila melanogaster</i></i> (short talk)
12.00-12.15	<b>Jens Rolff</b> University of Sheffield, UK <i>Immunopathology, aging and infection in <i>Tenebrio molitor</i></i> (short talk)
12.15-12.30	<b>Juliette de Meaux</b> Max Planck Institute for Plant Breeding Research, DE <i>Evolution of flagellin sensing in <i>Arabidopsis thaliana</i> and its relatives</i> (short talk)
12.30	Lunch

### Session 2: Host-parasite interactions

Chair: **Joachim Kurtz**, University of Münster, DE

14.00-14.45	<b>Paul Schmid-Hempel</b> ETH Zürich, CH <i>Evolutionary ecology of host-parasite interactions</i>
14.45-15.30	<b>Thierry Rigaud</b> University of Bourgogne, FR

*Local adaptation patterns in acanthocephalan parasites infecting freshwater gammarids, with potential consequences in biological invasions*

15.30-15.45

**Stéphane Cornet**

University of Bourgogne, FR

*Immunodepression and virulence in an acanthocephalan-crustacean system*  
(short talk)

15.45-16.00

**Ellen Decaestecker**

University of Leuven, BE

*Daphnia-parasite co-evolution in a dynamic environment*  
(short talk)

16.00-16.30

Coffee break

16.30-17.15

**Kenneth Pfarr**

University Hospital Bonn, DE

*Endosymbiosis between Wolbachia and filarial nematodes – consequences for the innate response*

17.15-18.00

**Joanne Webster**

Imperial College London, UK

*Host-schistosome evolution and coevolution*

19.00

Dinner

20.30-22.00

Poster session I

## Wednesday, 6 May

### Session 3: Environmental stressors and innate immunity

Chair: Paul Schmid-Hempel, ETH Zürich, CH

09.00-09.45

**Richard Pipe**

Marine Biological Association, UK

*Effects of environmental factors on immune function and bacterial infection in developmental stages of marine bivalves*

09.45-10.30

**Bernd Sures**

University of Duisburg-Essen, DE

Lecture

10.30-11.00

Coffee break

11.00-11.45

**Jukka Jokela**

Swiss Federal Institute of Aquatic Sciences and Technology, CH

*Trade-offs in invertebrate immune systems*

11.45-12.30

**Ken Wilson**

Lancaster University, UK

*The impact of macronutrients on immune function and disease resistance in insects*

12.30

Lunch

14.00-14.45

**Jay Evans**

USDA Beltsville, US

*Environmental and genetic aspects of honey bee disease resistance*

14.45-15.00

**Michael Simone**

University of Minnesota, US

*Resin collection and social immunity in honey bees*  
(short talk)

15.00-15.15	<b>Olivia Roth</b> University of Münster, DE <i>Paternally derived immune priming for offspring in the red flour beetle, <i>Tribolium castaneum</i></i> (short talk)
15.15-15.30	<b>François Criscuolo</b> University of Strasbourg, FR <i>Expression of avian UCP in immune cells: a new effector controlling immune response in birds?</i> (short talk)
15.30-16.00	Coffee break
16.00-19.00	Poster Session II
19.00	Dinner

### Thursday, 7 May

## Session 4: Introduction to model systems and vectors of disease

Chair: Sunetra Gupta, University of Oxford, UK

09.00-09.45	<b>Hilary Hurd</b> Keele University, UK <i>Speculations on the complexity of malaria / mosquito interactions</i>
09.45-10.30	<b>Yannis Michalakis</b> CNRS Montpellier, FR <i>Polyparasitism: consequences on mosquito hosts and their microsporidian parasites</i>
10.30-11.00	Coffee break
11.00-11.45	<b>George Christophides</b> Imperial College London, UK <i>Mosquito immunity to malaria: resistance vs. tolerance and imponderables</i>
11.45-12.30	<b>David Schneider</b> Stanford University, US <i>How the fruit fly alters its environment as a part of its innate immune response</i>
12.30	Lunch
Afternoon	Half-day free time
19.00	Dinner

### Friday, 8 May

## Session 5: Innate immunity and disease in a changing world

Chair: Hilary Hurd, Keele University, UK

09.00-09.45	<b>Eugene Rosenberg</b> Tel Aviv University, IL <i>The role of microorganisms on innate immunity</i>
09.45-10.00	<b>Caroline Palmer</b> Newcastle University, UK <i>The effect of warmer water on coral immunity</i>

10.00-10.15	<b>Robert Puschendorf</b> James Cook University, AU <i>The effect of environmental conditions on an emerging infectious disease in wild frogs</i> (short talk)
10.15-10.30	<b>Douglas Woodhams</b> University of Zürich, CH <i>Enhancing amphibian immunity: the interaction of antimicrobial peptides and microbiota on amphibian skin</i> (short talk)
10.30-11.00	Coffee break
11.00-11.45	<b>Peter Hudson</b> Penn State University, US <i>Dualities of infection: coinfection and disease dynamics in a variable world</i>
11.45-12.00	<b>Samuel Alizon</b> ETH Zürich, CH <i>Nested models to study parasite evolution: the case of co-infections</i> (short talk)
12.30	Lunch
14.00-14.45	<b>Ana Rivero</b> CNRS Montpellier, FR <i>Interaction between insecticide resistance and transmission by vectors</i>
14.45-15.30	<b>Andrew Dobson</b> Princeton University, US <i>The eye of the finch: systems biology of an emergent avian pathogen</i>
15.30-16.00	Coffee break
16.00-16.45	<b>Sunetra Gupta</b> University of Oxford, UK <i>Effects of immune selection on the evolution of pathogen diversity</i>
16.45-17.30	<b>Richard Lucius</b> Humbolt University, Berlin, DE <i>Decrease of infections and increase of allergies in industrialised countries: the role of parasitic worms</i>
18.00-19.30	Forward Look Plenary Discussion
20.00	Get-together & Conference Dinner

## **Saturday, 9 May**

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08.00 Breakfast & Departure

## **Abstracts, Posters & Short Oral Presentations**

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There will be no short talks other than those listed on the programme. All other abstracts are accepted as posters. The list of accepted posters is available from [www.esf.org/conferences/09223](http://www.esf.org/conferences/09223).

Posters can be fixed with pins onto poster panels. Recommended poster size is 140 cm high x 100 cm wide. Use letters and drawings that can be read from approximately 100 cm distance.