

# GENETICS AND MECHANISMS OF SUSCEPTIBILITY TO INFECTIOUS DISEASES

November 21-24, 2007 - Institut Pasteur, Paris, France

## SCIENTIFIC PROGRAM

Wednesday November 21<sup>th</sup>, 2007

**2.00-3.00 pm                      Opening Ceremony**

Chair:

**Rudi Balling**, *German Research Centre for Biotechnology, Braunschweig, Germany*

Welcome address:

**Alice Dautry**, *General Director of Institut Pasteur, Paris, France*

Keynote lecture:

**Philippe Gros**, *McGill University, Montreal, Canada*

Simple and Complex Genetic Control of Susceptibility to Infectious Diseases:  
Lessons from the Laboratory Mouse

**3.00-6.30 pm                      Session 1 - Primary Immunodeficiencies**

Chairs:

**Jim di Santo**, *Institut Pasteur, Paris, France*

**Chris Goodnow**, *Australian National University, Canberra, Australia*

- **Mary Elen Conley**, *Saint Jude Children's Research Hospital, Memphis, USA*  
Defects in B Cell Development: Different Infections at Different Ages
- **Jean-Laurent Casanova**, *INSERM, Paris, France*  
*Herpes Simplex Virus* Encephalitis: a Novel Group of Primary Immunodeficiencies
- **G rard Orth**, *Institut Pasteur, Paris, France*  
Genetics of Epidermodysplasia Verruciformis: Clues to Host Responses to Papillomaviruses
- **Alain Fischer**, *INSERM, Paris, France*  
Genetically Determined Susceptibility to the Epstein-Barr virus
- **Yoshihiro KAWAOKA**, *University of Wisconsin, Madison, USA/Institute of Medical Science, Tokyo, Japan*  
Why Influenza Kills and will Kill Again

4 Selected talks

**6.30-8.30 pm                      Poster session with wine and cheese**

  
INSTITUT PASTEUR

Genetics  
and Mechanisms  
of Susceptibility  
To Infectious  
Diseases

  
EMBO

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## SCIENTIFIC PROGRAM

  <b>Genetics and Mechanisms of Susceptibility To Infectious Diseases</b> 	<p style="text-align: center;"><b>Thursday November 22<sup>th</sup>, 2007</b></p>
	<p><b>9.00-12.30 pm Session 2 - Genetics of common infectious diseases</b></p> <p style="text-align: center;"><u>Chairs:</u> <b>Genevieve Milon</b>, Institut Pasteur, Paris, France <b>Erwin Schurr</b>, McGill University, Montreal, QC, Canada</p> <ul style="list-style-type: none"><li>● <b>Alexandre Alcaïs</b>, <i>INSERM Paris, France</i> Anatomy of Genetic Predisposition to Leprosy</li><li>● <b>Laurent Abel</b>, <i>INSERM Paris, France</i> Human Genetics of Tuberculosis: a Continuous Spectrum of Predisposition</li><li>● <b>Alain Dessein</b>, <i>INSERM Marseille, France</i> Using Genetics to Understand Pathogenesis in Human Leishmaniasis and Schistosomiasis</li><li>● <b>Etienne Pays</b>, <i>Université Libre de Bruxelles, Gosselies, Belgium</i> Mechanisms of Human Resistance and Susceptibility to Infection by African Trypanosomes</li><li>● <b>Anavaj Sakuntabhai</b>, <i>Institut Pasteur, Paris, France</i> Genome scan linkage analysis of clinical malaria</li></ul> <p>4 Selected talks</p>
	<p><b>12.30-2.00 pm Lunch</b></p>
	<p><b>2.00-6.30 pm Session 3 - Genetic and functional studies of resistance to viruses</b></p> <p style="text-align: center;"><u>Chairs:</u> <b>Antoine Gessain</b>, <i>Institut Pasteur, Paris, France</i> <b>Philippe Despres</b>, <i>Institut Pasteur, Paris, France</i></p> <ul style="list-style-type: none"><li>● <b>Michael Malim</b>, <i>King's College London, London, UK</i> APOBEC Proteins, Cytidine Deamination and Intrinsic Resistance to HIV Infection</li><li>● <b>Mary Carrington</b>, <i>SAIC-Frederick, Inc, Bethesda, USA</i> The Influence of Genetic Variation at the HLA and KIR loci on HIV Disease</li><li>● <b>Philip Goulder</b>, <i>University of Oxford, Oxford, United Kingdom</i> Control of HIV-1 Mediated by HLA class I</li><li>● <b>Anavaj Sakuntabhai</b>, <i>Institut Pasteur, Paris, France</i></li><li>● <b>Otto Haller</b>, <i>University of Freiburg, Freiburg, Germany</i> Interferon Induced GTPases in Anti Viral Resistance</li><li>● <b>Lennart Svensson</b>, <i>University of Linköping, Linköping, Sweden</i> Mendelian Resistance to Human Norovirus Infections: Genetic and Functional studies</li></ul> <p>4 Selected talks</p>

	<b>6.30-8.30 pm</b>	<b>Poster session with wine and cheese</b>
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### **S C I E N T I F I C   P R O G R A M**



## Friday November 23<sup>th</sup>, 2007

### 9.00-12.30 am Session 4 - Non mammalian models to study host genetics of infections

Chairs:

**Jonathan Ewbank**, *Centre d'Immunologie de Marseille-Luminy, Marseille, France*

**Bruno Lemaitre**, *Centre de Génétique Moléculaire, Gif-sur-Yvette, France*

- **Jean-Luc Imler**, *IBMC, Strasbourg, France*  
Antiviral defenses in Drosophila
- **Sara Cherry**, *University of Pennsylvania, Philadelphia, USA*  
Identification of Antiviral Innate Immune Pathways in Drosophila
- **Jonathan Hodgkin**, *University of Oxford, Oxford, United Kingdom*  
Susceptibility to Bacterial Disease in the Nematode *C. elegans*

4 Selected talks

### 12.30-2.00 pm Lunch

### 2.00-6.00 pm Session 5 - Mouse models to study host genetics of infections

Chairs:

**Jean-Jacques Pantier**, *Institut Pasteur, Paris, France*  
**Philippe Avner**, *Institut Pasteur, Paris, France*

- **Bruce Beutler**, *The Scripps Research Institute, La Jolla, USA*  
ENU Mutagenesis in the Analysis of Immunity in Mice
- **Dirk Heinz**, *GBF Braunschweig, Braunschweig, Germany*  
Structural Basis of Bacterial Invasion
- **Sylvia Vidal**, *McGill Center for Host Resistance, Montréal, Canada*  
Molecular Mechanisms of Innate Resistance to Mouse Cytomegalovirus Infection
- **Simon Foote**, *Menzies Research Institute, Melbourne and Hobart, Australia*  
Early Host Events in the Chabaudi Model of Malarial Infection

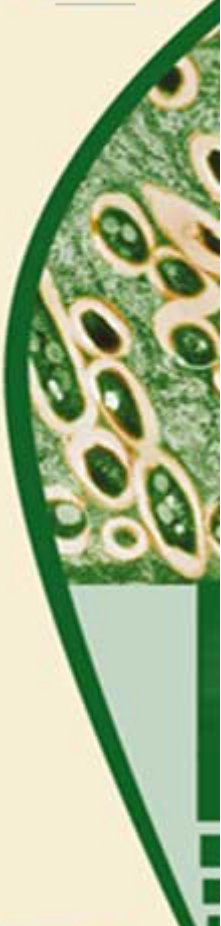
4 Selected talks

### 8.30 pm Gala Dinner

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## SCIENTIFIC PROGRAM

  <b>Genetics and Mechanisms of Susceptibility To Infectious Diseases</b> 	<b>Saturday November 24<sup>th</sup>, 2007</b>
	<b>9.00-12.30 am Session 6 - Infections, chronic inflammation and autoimmune diseases</b>
	<u>Chairs:</u>  <b>Jean Pierre Hugot</b> , <i>Robert Debré hospital, Paris, France</i> <b>Philippe Sansonetti</b> , <i>Institut Pasteur, Paris, France</i>
	<ul style="list-style-type: none"><li>● <b>Philippe Sansonetti</b>, <i>Institut Pasteur, Paris, France</i> Deciphering How Pathogenic Bacteria Modulate Host Immune Responses</li><li>● <b>Chris Goodnow</b>, <i>Australian National University, Canberra, Australia</i> Cellular and Genetic Mechanisms of Self Tolerance and Autoimmunity</li><li>● <b>Anthony W. Segal</b>, <i>University College London, London, United Kingdom</i> Crohn's is an Immunodeficiency Disease</li><li>● <b>Silvia Bolland</b>, <i>Bethesda, USA</i> TLR gene dosage and its effect on autoimmune disease</li></ul> <p>4 Selected talks</p>
	<b>12.30-2.00 pm Lunch</b>
	<b>2.00-6.00 pm Session 7 - The impact of pathogens on human evolution and their diseases</b>
	<u>Chairs:</u>  <b>Simon Wain-Hobson</b> , <i>Institut Pasteur, Paris, France</i> <b>François Renaud</b> , <i>Centre de Recherche I.R.D., Montpellier, France</i>
	<ul style="list-style-type: none"><li>● <b>Dominic Kwiatkowski</b>, <i>University of Oxford, Oxford, United Kingdom</i> Malaria and Human Evolution - New Genomic Approaches</li><li>● <b>Lluis Quintana-Murci</b>, <i>Institut Pasteur, Paris, France</i> Human Genome Variability, Natural Selection and Infectious Disease</li><li>● <b>Michael Bamshad</b>, <i>University of Washington, Seattle, USA</i></li></ul> <p>4 Selected talks</p>
	Concluding remarks: