



Invitation to the Conference

Food, Microbiota and Immunity

*"For strong immunity –
feed your microbiota well"*

June 7–10, 2017, Castle T eš , Czech Republic

This conference is intended for approx. 90–100 participants, especially PhD students and young researchers. The conference will include a poster session, which will provide an excellent opportunity for early career researchers in immunology, microbiology and food research to meet prominent experts in these dynamic fields. The meeting is organized as part of **Strategy of Czech Academy of Sciences AV21: “Foods for the Future”** in cooperation with Czech Immunological Society, EFIS and the immunological foundation Homunculus.

Conference fee is waived for all participants.

Organizing Committee:

Helena Tlaskalová-Hogenová, Miloslav Kverka

Martin Bilej, Jiří Hrdý, Hana Kozáková, Luca Vannucci

Preliminary Program:

Wednesday June 7

- 17:00 Arrival
18:00 - 19:00 Dinner
19:00 - 19:15 **Opening Ceremony**
(**Helena Tlaskalová-Hogenová, Martin Bilej and Miloslav Kverka**)

Chairperson: Martin Bilej

- 19:15 - 20:00 **Keynote Lecture – P emysl Ber ík (Canada)**
The interplay between the intestinal microbiota and the brain
20:00 - 22:00 **Welcome Cocktail**

Thursday June 8

Session: Gut Physiology

Chairpersons: **Jerry Wells (The Netherlands) and Pavel Drastich (Czech Republic)**

- 9:00 - 9:20 **Vladimír Ko ínek (Czech Republic):**
Intestinal epithelial cell renewal
9:20 - 9:40 **Tor Savidge (USA):**
Microbial neuroregulators of intestinal inflammation
9:40 - 10:00 **Maayan Levy (Israel):**
Control of intestinal immunity by the microbiome
10:00 - 10:20 **Martin Schwarzer (France):**
Microbiota and selected lactobacilli strains sustain mouse juvenile growth
dynamics upon undernutrition
10:20 - 10:40 **Discussion**
10:40 - 11:00 Coffee Break

Session: Innate Immunity and Inflammation

Chairpersons: **Omry Koren (Israel) and Helena Tlaskalová-Hogenová (Czech Republic)**

- 11:00 - 11:20 **Marina Freudenberg (Germany):**
Lipopolysaccharide sensing in innate immunity
11:20 - 11:40 **Dominik Filipp (Czech Republic):**
Enteric alpha-defensins, thymus and microbiota: Essential players of intestinal
autoimmunity

- 11:40 - 12:00 **Holm Uhlig (United Kingdom):**
Defective bacterial handling in inflammatory bowel disease – insights from rare Mendelian disorders
- 12:00 - 12:20 **Discussion**
- 12:20 - 14:00 Lunch

Session: Inflammation and Cancer

Chairpersons: **Michael Russell (USA) and Blanka ěhová (Czech Republic)**

- 14:00 - 14:20 **Ronnie Apte (Israel):**
IL-1 in colon inflammation and carcinogenesis
- 14:20 - 14:40 **Luca Vannucci (Czech Republic):**
Microbiota and mucosal structure relationships: the example of germ-free animal conventionalization
- 14:40 - 15:00 **Pavel Vodi ka (Czech Republic):**
Could nutritional supplements modulate the conventional therapy of colorectal cancer?
- 15:00 - 15:20 **Discussion**
- 15:20 - 15:40 Coffee Break

Session: Microbiota – Diet Interaction

Chairpersons: **Irma Schabussova (Austria) and Jan Kope ný (Czech Republic)**

- 15:40 - 16:00 **Ulrich Steinhof (Germany):**
Immunological and microbiological effects of dietary protein vs. dietary fibers
- 16:00 - 16:20 **Miloslav Kverka (Czech Republic):**
Diet, gut microbiota and mucosal immunity in intestinal homeostasis, inflammation, and cancer
- 16:20 - 16:40 **Vojt ch Rada (Czech Republic):**
Effect of prebiotics on intestinal bacteria
- 16:40 - 17:00 **Discussion**
- 17:00 - 18:00 **Panel Discussion** (Panelists: TBA)
- 18:00 - 20:00 Dinner
- 20:00 - 22:00 **Posters (Cheese and Wine)**

Friday June 9

Session: Pathogens and Commensals

Chairpersons: **Marina Freudenberg (Germany) and Ludmila Prokešová (Czech Republic)**

- 9:00 - 9:20 **Michael Russell (USA):**
Thinking globally, acting locally: using the mucosal immune system to distinguish pathogens and commensals
- 9:20 - 9:40 **Peter Šebo (Czech Republic):**
PAMP versus MAMPS: What makes molecular patterns of pathogens different from structures of commensals
- 9:40 - 10:00 **Sabina Górska (Poland):**
Structural diversity and biological significance of polysaccharide produced by *Lactobacillus* bacteria
- 10:00 - 10:20 **Ursula Wiedermann (Austria):**
Microbiome, probiotics and vaccination
- 10:20 - 10:40 **Discussion**
- 10:40 - 11:00 Coffee Break

Session: Methodological Aspects

Chairpersons: **Tor Savidge (USA), ...**

- 11:00 - 11:20 **Marek Šinkora (Czech Republic):**
Microbial colonization as driving factor in porcine gut lymphocyte development
- 11:20 - 11:40 **Jiří Janata (Czech Republic):**
Oral microbiota in health and periodontal disease
- 11:40 - 12:00 **Petr Baldrián (Czech Republic):**
Methods used in microbiome research
- 12:20 - 12:40 **Discussion**
- 12:40 - 14:00 Lunch
- 14:00 - 18:00 **Trip to Tel**
- 19:00 - 22:00 **Barbecue Evening**

Saturday June 10

Session: Microbiota and Allergy

Chairpersons: **Ulrich Steinhoff (Germany) and Ludmila Tuřková (Czech Republic)**

- 9:00 - 9:20 **Hana Kozáková (Czech Republic):**
Effect of probiotics on allergic sensitisation
- 9:20 - 9:40 **Irma Schabussova (Austria):**
Impact of microbiota on the development of allergy: Challenging the nose and the gut
- 9:40 - 10:00 **Jiří Hrdý (Czech Republic):**
Early administration of *E. coli* O83:K24:H34 prevents allergy development
- 10:00 - 10:20 **Božena Cukrowska (Poland):**
Microbial programming and the role of probiotics in allergy development

10:20 -10:40 **Discussion**
10:40 -11:00 Coffee Break

Session: Influencing the Development of Microbial Ecology

Chairpersons: **Holm Uhlig (United Kingdom) and Ji í Nevoral (Czech Republic)**

11:00 - 11:20 **Jerry Wells (USA):**
Age-associated impairment of the mucus barrier function is associated with profound changes in microbiota and immunity

11:20 - 11:40 **Omry Koren (Israel):**
Antibiotics in infancy: what is happening to the microbiome?

11:40 - 12:00 **Discussion**

12:00 - 12:30 **General Discussion**

12:30 - 14:00 Lunch

14:00 Departure