



SYMPOSIUM
SENSITIZING PROPERTIES OF PROTEINS

11-13 April 2012

**Prague Marriott Hotel
V Celnici 8
Prague, 110 00 Czech Republic**

BOHEMIA II

Sponsored by:
ILSI Health and Environmental Sciences Institute
Protein Allergenicity Technical Committee
(with speaker travel support from ILSI Europe)

FINAL PROGRAM

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WEDNESDAY, 11 APRIL 2012

8:30 **Welcome and introductions**
Dr. Gregory Ladics (DuPont Agricultural Biotechnology, USA)

SESSION I: FOOD-SPECIFIC FACTORS

8:45 Prevalence of allergies around the globe: the big eight (ten? thirteen?)
Dr. Montserrat Fernández-Rivas (Hospital Clínico San Carlos, Spain)

9:15 Variability of individual protein contents in crops
Dr. Gregory Ladics (DuPont Agricultural Biotechnology, USA)

9:45 Food processing and the food matrix – effects on the allergenicity of foods
Prof. Clare Mills (University of Manchester, United Kingdom)

10:15 BREAK

10:35 Matrix effects on allergenicity
Dr. Christal Bowman (US Environmental Protection Agency, USA)

11:05 Allergen-specific pattern recognition receptor pathways
Dr. Marsha Wills-Karp (Johns Hopkins University Bloomberg School of Public Health, USA)



11:35 Danger signals from allergens: proteolytic action
Dr. Ronald van Ree (University of Amsterdam, The Netherlands)

12:05 Discussion – Session I

12:30 LUNCH

**SESSION II: EXPERIENCES FROM THE HUMAN FOOD CHAIN – WHAT CAN BE
LEARNED FROM THE EPIDEMIOLOGICAL AND CLINICAL STUDIES?**

14:00 Describing patterns of IgE sensitization to molecules using modern technologies
Dr. Adriano Mari (Allergome - Allergy Data Laboratories sc, Italy)

14:30 New proteins in the food chain: Is there evidence of new sensitization and allergies?
Dr. Richard Goodman, PhD (FARRP, University of Nebraska, USA)

15:00 Digestibility and sensitization
Dr. Isabella Pali (University of Vienna General Hospital, Austria)

15:30 BREAK

15:50 Factors modifying allergen sensitization and predisposition to allergic diseases
Dr. Simon Hogan (University of Cincinnati, USA)

16:20 Discussion – Session II

17:00 Adjourn Day One

18:00 – 19:30 RECEPTION

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THURSDAY, 12 APRIL 2012

8:30 **Welcome – Day Two**
Dr. Gregory Ladics (DuPont Agricultural Biotechnology, USA)

SESSION III: *IN VITRO* AND *IN SILICO* MODELS FOR SENSITIZATION

8:40 Allergenicity of linear versus conformational epitopes
Dr. Anna Pomés (Indoor Biotechnologies Inc., USA)

9:10 Allergen protein families – what makes them so peculiar?
Dr. Karin Hoffmann-Sommergruber (University of Vienna General Hospital, Austria)



9:40 Implementation of the results from the EU Framework Programme 6 funded project
Sens-it-iv
Dr. Erwin Roggen (Novozymes AS and 3Rs Management and Consultancy, Denmark)

10:10 BREAK

10:30 Translational testing of allergenicity of proteins: from animal testing to in vitro testing with
mouse intestinal organoids
Dr. Joost J. Smit (Utrecht University, The Netherlands)

11:00 Tools and technologies for immunogenicity and allergenicity risk management
Dr. Jeremy W. Fry (ProImmune Limited, United Kingdom)

11:30 Discussion – Session III

12:00 LUNCH

SESSION IV: HOST-SPECIFIC FACTORS

13:15 The role of the epithelium in sensitization
Dr. Emily Swindle (University of Southampton, United Kingdom)

13:45 Dendritic cells: subtypes and how they are activated
Maud Plantinga, MSc (Ghent University, Belgium)

14:15 T-cell subtypes and plasticity: which are relevant in the allergic phenotype?
Prof. Lars K. Poulsen (Gentofte Hospital, Denmark)

14:45 BREAK

15:15 B-cell isotype switch and the longevity of the IgE-antibody response
Dr. Lone Hummelshøj (Copenhagen University Hospital, Denmark)

15:45 Sub-populations at risk: age and co-morbidity as risk factors for developing food allergy
Dr. Jonathan Hourihane (University of Cork, Ireland)

16:15 Discussion – Session IV

17:00 Adjourn Day Two



FRIDAY, 13 APRIL 2012

8:30 Welcome – Day Three

Dr. Gregory Ladics (DuPont Agricultural Biotechnology, USA)

SESSION V: ANIMAL MODELS FOR SENSITIZATION

8:40 The BALB/c mouse model of allergy for the assessment of sensitizing properties of proteins and foods and their alteration by environmental conditions

Dr. Jean-Michel Wal (INRA-CEA, France)

9:10 The rat brown Norway model to assess the oral sensitizing properties of food proteins

Dr. André H. Penninks (TNO Triskelion BV, The Netherlands)

9:40 Limitations and possibilities of animal models for human allergenic risk evaluation

Dr. Charlotte Madsen (Technical University of Denmark, Denmark)

10:10 BREAK

10:30 The mouse cholera toxin model for evaluating protein allergenicity

Dr. Joost J. Smit (Utrecht University, The Netherlands)

10:40 Conclusions: How close are we to predicting allergenicity of new proteins?

Dr. Corinne Herouet-Guicheney (Bayer CropScience, France)

11:10 Discussion – Session V

11:40 Closing Remarks

Dr. Gregory Ladics (DuPont Agricultural Biotechnology, USA)

12:00 ADJOURN SYMPOSIUM