



18th EAACI Immunology Winter School

Basic Immunology Research in Allergy and Clinical Immunology

23 - 26 January 2020

Chamonix, France

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Preliminary Scientific Programme

Thursday, 23 January 2020

- 18:00 - 18:45 Welcome Reception
- 18:45 - 19:00** **Introduction to the Winter School**
Eva Untersmayr-Elsenhuber, Austria
- 19:00 - 20:00** **Immuno-metabolism: the effects of obesity and diet on immune cell functions, Lydia Lynch, United States**
Chair: Cristina Gomez-Casado, Spain
- 20:00 - 22:00 Dinner

Friday, 24 January 2020

- 08:00 - 09:00** **Type-2 differentiation: The new view on allergic sensitisation, Carsten Schmidt-Weber, Germany**
Chair: Stefanie Eyerich, Germany
- 09:00 - 09:20 Coffee Break
- 09:20 - 11:00** **Oral Abstracts Presentation I**
Carsten Schmidt-Weber, Germany | Stefanie Eyerich, Germany
- 09:20 - 09:45 001: Depletion of Regulatory T-Cells Facilitates Allergic Sensitization Towards Allergens Without Protease-Activity in Mice
Anne-Charlotte Jonckheere, Belgium

- 09:45 – 10:10 O02: Transplacental Immune Training for Future Protection Against Allergic Airways Inflammation
Kyle T Mincham, Australia
- 10:10 – 10:35 O03: Aberrant Acylcarnitine Metabolism Drives Pro-Inflammatory Macrophage Activation In NSAID-Exacerbated Respiratory Disease
Antonie Friedl, Germany
- 10:35 – 11:00 O04: Identification of Severity-Related Biomarkers In HDM-Allergic Asthma
María Isabel Delgado Dolset, Spain
- 11:00 - 14:00 Break
- 14:00 – 16:00** **Practical Course on Big data analysis: transcriptomics, metabolomics, CyTOF and flow cytometry**
Milena Sokolowska, Switzerland / Domingo Barber, Spain/ Jozef Janda, Czech Republic
Chair: Andrzej Eliazewicz, Poland
- 16:30 - 17:30** ***Injury induced lung inflammation, Bernhard Ryffel, France***
Chair: Milena Sokolowska, Switzerland
- 17:30 - 17:50 Coffee Break
- 17:50 - 19:30** **Oral Abstracts Presentation II**
Chairs: Bernhard Ryffel, France | Milena Sokolowska, Switzerland
- 17:50 – 18:15 O05: Immuno-Matrix Role For IL-13 During Acute Lung Injury and Repair
Alistair Chenery, United Kingdom
- 18:15 – 18:40 O06: A Heligmosomoides Polygyrus Induced Serum-Borne Factor Promotes Monocytosis And Protects Against Respiratory Syncytial Virus Infection in The Lung
Matthew Burgess, United Kingdom
- 18:40 – 19:05 O07: House Dust Mite Sensitization Drives RIG-I Inflammasome Activation and Delays Its Antiviral Activity in Asthma
Urszula Radzikowska, Switzerland
- 19:05 – 19:30 O08: Surfactant Protein A (SP-A) Reduces Human Rhinoviruse C (HRV-C) Binding, Replication, And Inflammation Responses in Nasal Epithelial Cells from Children with And Without Asthma
Sasipa Tanyaratsrisakul, United States
- 19:30 - 21:00 Dinner
- 21:00 - 22:00** **Poster Session I**
Topic 1 Asthma | P01 – P08
Chairs: Bernhard Ryffel, France | Rodrigo Jimenez-Saiz, Spain
- P01: Sphingosine-1-Phosphate Induces Bronchoconstriction and Increases Hyperresponsiveness In Human Airways
Thomas James Aidan Maguire, United Kingdom

P02: Recapitulating the Epigenetic Landscape of Asthmatic Bronchial Epithelial Cells In Vitro
Jonathan O'Loughlin, United Kingdom

P03: Investigating the Role of Epidermal Growth Factor Receptor (EGFR) In Airway Remodelling During Early Life Allergic Airway Disease
Helen Stölting, United Kingdom

P04: Predictive Biomarkers from Exhaled Nitric Oxide and Bronchoalveolar Lavage Of The Dual Allergic Response In Allergic Asthma Patients
Nicole Van Der Burg, Sweden

P05: Neutrophil Migration Via Lung Lymphatic Vessels During Aspergillus Fumigatus Conidia-Induced Inflammation
Anastasia Smirnova, Russia

P06: Discovering Why Thurdenstorms Produce Asthma Exacerbations in Grass Allergic Patients
Guadalupe Hernández-Ramírez, Spain

P07: The Effect of Bacterial Lysates on Exacerbations in Moderate-Severe Asthma: The Breathe Study
Geertje Maria De Boer, The Netherlands

P08: The Modulatory Effect Of IL-33 On HRV-16 Infection and Inflammatory Cytokine Expression in The Pulmonary Endothelium in The Immunopathology of Asthma
Adrian Lukasz Gajewski, Poland

Topic 2 Adaptive immunity | P09 – P18

Chairs: Adrian Hayday, United Kingdom | Anna Sediva, Czech Republic

P09: Natural Induction of Tolerance To Honeybee-Venom In Non-Allergic Beekeepers, Michael Dittmar, Germany

P10: Ribosome Profiling to Identify Differentially Regulated Translational Events in Differentiating Human T Cell Populations
Jana Koch, Switzerland

P11: IL-10 Producing B Cell Upregulation Can Be Measured in Induced Sputum After AIT
Lisa Christa Pechtold, Germany

P12: Human Tonsil Tissue Is A Viable Source for The Magnetic Enrichment of Isotype-Specific Memory B Cells That Can Be Utilised in The Future Investigation of IgE Antibody Responses
Thomas Moore, United Kingdom

P13: Anti-Inflammatory Effect Of Omega-3 Fatty Acids on Activated CD4+T Cells
Paulina Wawrzyniak, Switzerland

P14: Human Tissue-Resident T Cell Subsets Trough Bioinformatics: A Landscape
Luigi Cari, Italy

P16: Severe Olive Pollen Allergic Patients Present A Distinct T Cells and Innate Lymphoid Cells (ILCs) Profile
Juan Rodriguez-Coira, Spain

P17: Omalizumab Restores the Capacity of Human Plasmacytoid Dendritic Cells to Induce Foxp3+ Regulatory T Cells
Jacobo López-Abente, Spain

P18: IL-25R-Expressing B Cells in Chronic Rhinosinusitis with Nasal Polyps
Semah Abdu, United Kingdom

Topic 3 Microbiome and metabolism | P19 – P27

Chairs: Caspar Ohnmacht, Germany | Wojciech Feleszko, Poland

P19: The Influence of Microbial-Derived Metabolites on Bone Health
Alexandra Wallimann, Switzerland

P20: Involvement of Cytonemes As A New Extracellular Antimicrobial Mechanism of Mast Cells
Soraya Mezouar, France

P21: IRF5 Regulates Airway Macrophage Metabolic Responses to Viral Challenge
Gesa J Albers, United Kingdom

P22: Dietary Intervention with Specific Postbiotics Promotes the Adaptive Immune Response in A Murine Influenza Vaccination Model
Veronica Ayechu-Muruzabal, The Netherlands

P23: Transglutaminase 2 Regulates Metabolic Reprogramming of Macrophages
Fiona Henkel, Germany

P24: Topographical Diversity of The Upper Respiratory Tract Microbiome in Chronic Rhinosinusitis Patients
Katleen Martens, Belgium

P25: Modification of The Microbiome in Psoriasis Patients by Systemic Treatment with Apremilast
Gabriele Perazzolli, Italy

P27: Pollen Reduce the Pro-Inflammatory and Antiviral Cytokine Response of Human Dendritic Cells
Behnam Vafadari, Germany

Saturday, 25 January 2020

- 08:00 - 09:00** **Unmet need in immunological mechanisms in AIT: key cellular players, *Domingo Barber, Spain***
Chair: Inge Kortekaas Krohn, Belgium
- 09:00 - 09:20 Coffee Break
- 09:20 - 11:00** **Oral Abstracts Presentation III**
Chairs: Domingo Barber, Spain | Inge Kortekaas Krohn, Belgium
- 09:20 - 09:45 O09: B Cells Responses in Allergic Children During Oral Immunotherapy Comparison to Natural Tolerance
Pattraporn Satitsuksanoa, Switzerland
- 09:45 - 10:10 O10: Food Allergy Prevention and Treatment with Highly Nitrated Food Proteins
Nazanin Samadi, Austria
- 10:10 - 10:35 O11: VH Gene Lineage of Ara H 2 And 6 Specific B Cell Receptors Differs Between Allergic, Tolerant and Non-Atopic Donors
Anna M Ehlers, The Netherlands
- 10:35 - 11:00 O12: Proteomic Profile of Exosomes in Anaphylaxis
Emilio Nuñez-Borque, Spain
- 11:00 - 16:30 Break
- 16:30 - 17:30** **The contribution of the microbiome to intestinal tolerance induction, *Caspar Ohnmacht, Germany***
Chair: Eva Untersmayr-Elsenhuber, Austria
- 17:30 - 17:50 Coffee Break
- 17:50 - 19:30** **Oral Abstracts Presentation IV**
Chairs: Caspar Ohnmacht, Germany | Eva Untersmayr-Elsenhuber, Austria
- 17:50 - 18:15 O13: The Relationship Between Airway Microbial Composition and Granulocytes in Severe Preschool Wheeze and Childhood Asthma
Katie L Bonner, United Kingdom
- 18:15 - 18:40 O14: Early Life Exposure to The Mycotoxin Deoxynivalenol Enhances the Susceptibility to Develop Ovalbumin-Specific Food Allergy in Mice
Negisa Seyed Toutouchi, The Netherlands
- 18:40 - 19:05 O15: Alterations of The Gut Microbiome Depend on The Allergic and Non-Allergic Immune Status in Mice
Elke Korb, Austria
- 19:05 - 19:30 O16: *Pichia kudriavzevii* is an Asthma-Exacerbating Yeast of The Infant Gut Microbiota Inhibited by Bacterial Short Chain Fatty Acids
Weronika Barcik, Canada
- 19:30 - 21:00 Dinner
- 21:00 - 22:00** **Poster Session II**
- Topic 4 Immunotherapy and biologicals | P28 – P34**

Chairs: Domingo Barber, Spain | Thomas Eiwegger, Canada

P28: A Serum Proteomics Approach to Allergen-Specific Immunotherapy Biomarker Discovery

Dries Paul Van Elst, Poland

P29: Alum And MPLA, Adjuvants Used in Allergen Vaccines as Trigger for NET Release in Human Neutrophils

Jasmine Karacs, Austria

P30: Short-Term Sublingual Immunotherapy with Recombinant Mal D 1 Induces Functional Blocking IgG1 Antibodies which Accord with Improvement of Apple Allergy

Gabriela Sánchez Acosta, Austria

P31: Ligelizumab Treatment Reduces Soluble FcεR1α Concentration in Serum of CSU Patients in A Dose-Dependent Manner

Giulio Macchiarella, Switzerland

P32: Identification of Epitopes of Mal D 1-Specific IgG Antibodies Induced by Sublingual Immunotherapy with Recombinant Mal D 1 Or Bet V 1

Dominika Polak, Austria

P33: Characterization of The Affinity of Mal d 1-Specific IgG Antibodies Induced by Sublingual Immunotherapy with Recombinant Bet v 1 Or Mal d 1

Maria Regina Strobl, Austria

P34: Enzymatic Support of Gastric Digestion Alleviates Clinical Symptoms and Enhances Efficacy of Oral Immunotherapy in A BALB/C Food Allergy Mouse Model

Johanna Rohrhofer, Austria

Topic 5 Allergen molecules | P35 – P42

Chairs: Lydia Lynch, United States | Jozef Janda, Czech Republic

P35: Development of An Autologous In Vitro Co-Culture System to Explore T-Cell-Mediated Hepatocyte Toxicity

Serat-E Ali, United Kingdom

P36: BAT With Molecular Allergens Of Aspergillus Spp.: From Extract To Molecules To Enhance Diagnosis Of Allergic Broncho-Pulmonary Aspergillosis

Moïse Michel, France

P37: An Investigation into The Role of MHC Class II in Carbamazepine Hypersensitivity Reactions

Kanoot Jaruthamsophon, United Kingdom

P38: The Role of Pru P 3-Ligand Complex in Mucosa

Zulema Gonzalez-Klein, Spain

P39: Compound Hypersensitivity and Immune Checkpoint Inhibitors

Sean Hammond, United Kingdom

P40: IgE From Birch Pollen Allergic Patients Binds to A Patient Specific Subset of Conformational Epitopes of The Major Allergen, Bet V 1

Stefanie Schmalz, Austria

P42: Molecular and Immunological comparison of several Ara H 2 Products
Öykü Üzülmöz, Austria

Topic 6 Barriers and allergy | P43 – P50

Chairs: Carsten Schmidt-Weber, Germany| Andrzej Eliaszewicz, Poland

P43: The Effect of Rhinovirus HRV-16 On Barrier Properties and Regeneration of Vascular Endothelium In The Pathogenesis Of Asthma
Mateusz Gawrysiak, Poland

P44: The Effect of Human Rhinovirus HRV-16 On Angiogenesis In 3D Cultures
Aleksandra Likonska, Poland

P45: Necroptosis Is Mediated by Type I Immune Response in Inflammatory Skin Diseases
Manja Jargosch, Germany

P47: Histamine Decreases Sensory Nerve Activation Threshold in TRPV1-Mediated Nasal Hyperreactivity In Allergic Rhinitis
Wout Backaert, Belgium

P48: Comparing SCFAs In Their Potency to Reduce Intestinal Epithelial Activation and Barrier Disruption After In Vitro Exposure to Pro-Inflammatory Cytokines
Sandra Korsten, The Netherlands

P49: Effects of Protease Allergens on Airway Epithelial Cell-Derived Matrix Metalloproteases
Dilara Karaguzel, Turkey

P50: Do Respiratory Epithelial Cells 'remember' Early Life Microbial Exposure Through Epigenetic Changes?
Piotr Janas, United Kingdom

Sunday, 26 January 2020

08:00 - 09:00 **Molecular mechanisms of tissue surveillance by local T cells at body surfaces, Adrian Hayday, United Kingdom**
Chair: Jozef Janda, Czech Republic

09:00 - 09:20 Coffee Break

09:20 - 11:00 **Oral Abstracts Presentation V**
Chairs: Adrian Hayday, United Kingdom| Jozef Janda, Czech Republic

09:20 – 09:45 O17: Macrophage Metabolic Activation as A Marker of Trained Innate Immunity
Antonie Friedl, Germany

09:45 – 10:10 O18: The Immunomodulatory Role of The Carbohydrate A10 (Ca10) From Ehrlich Tumor Cells to Promote Tolerance by Acting on Dendritic Cells
Leticia Martin-Cruz, Spain

- 10:10 – 10:35 O19: Bacterial Skin Infection Impact on Allergic Airway Inflammation
Mariem Radhouani, Austria
- 10:35 – 11:00 O20: Neutrophil Chemotaxis as A Biomarker to Stratify Phenotypes in Pre-School Wheeze and School Aged Asthma
Ashley Hoffland, United Kingdom
- 11:00 - 11:30 **Closing Ceremony and Prize Giving**
Milena Sokolowska, Switzerland