



## 17<sup>th</sup> EAACI Immunology Winter School

Basic Immunology Research in Allergy and Clinical Immunology

24 – 27 January 2019

Trysil, Norway

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### SCIENTIFIC PROGRAMME

#### Thursday, 24 January 2019

- 18:00 - 18:45 Welcome Reception
- 18:45 - 19:00** **Introduction to the Winter School**  
***Jürgen Schwarze, United Kingdom***
- 19:00 - 20:00** **Innate lymphoid cells in mucosal inflammation**  
***Jenny Mjösberg, Sweden***  
*Chair: Madeleine Radinger, Sweden*
- 20:00 - 22:00 Dinner

#### Friday, 25 January 2019

- 08:00 - 09:00** **Regulatory T Cell Subversion as a Key Pathogenic Mechanism in Allergic Disorders**  
***Talal Chatila, United States***  
*Chair: Milena Sokolowska, Switzerland*
- 09:00 - 09:20 Coffee Break

**09:20 - 11:00**

**Oral Abstracts presentation I – Lymphocytes**

*Chair: Milena Sokolowska, Switzerland | Talal Chatila, United States*

09:20 - 09:45

001 - Activated Th2 Cells Are Characterized By Fatty Acid Metabolism In Vivo

*Graham Anthony Heieis, United Kingdom*

09:45 - 10:10

002 - Experimental Rhinovirus Infection Induces Extensive Antiviral Response In Circulating B Cells From Asthmatic Patients

*Oliver F Wirz, Switzerland*

10:10 - 10:35

003 - MicroRNA Expression Patterns In IL-33 Challenged Bone Marrow And Lung – Role Of MTOR And MAPK Signaling Pathways

*Emma Winberg, Sweden*

10:35 - 11:00

004 - In Vivo T Regulatory Cell Regulation During Human Rhinovirus Infection

*Kirstin Jansen, Switzerland*

11:00 - 16:30

Break

**16:30 - 17:30**

**Dendritic cells and macrophages in promotion and regulation of pulmonary type 2 inflammation**

**Andrew S. MacDonald, United Kingdom**

*Chair: Jürgen Schwarze, United Kingdom*

17:30 - 17:50

Coffee Break

**17:50 - 19:30**

**Oral Abstracts presentation II – Asthma & Asthma models**

*Chair: Jürgen Schwarze, United Kingdom | Andrew S. MacDonald, United Kingdom*

17:50 - 18:15

005 - Human Volatilome Analysis To Identify Individuals With Asthma In Clinical Settings

*Mariana Valente Farraia, Portugal*

18:15 - 18:40

006 - Staphylococcus Aureus-Derived Serine Protease-Like Protein D Induces Allergic Asthma, Dependent On The Genetic Background Of Mice

*Sharon R. Van Nevel, Belgium*

18:40 - 19:05

007 - Preventing Airway Mucus By Delivering Allergen Via Microprojection Array Skin Patches To Mice

*Nicole Monica Dawn van der Burg, Australia*

19:05 - 19:30

008 - FcεRI Expression In Peripheral Blood Mononuclear Cells In The Context Of Asthma

*Jonatan Leffler, Australia*

19:30 - 21:00

Dinner

**21:00 - 22:00**

**Poster Session I**

**Topic 1: Basic and Clinical Immunology | P01-P10**

*Chair: Isabella Quinti, Italy | Florenina Sava, United Kingdom*

P01 - Phenotypic And Functional Landscape Of B-Cells In Essential Mixed Cryoglobulinemia

*Stefania Colantuono, Italy*

P02 - Respiratory Tract Colonization By H. Influenzae And S. Pneumoniae In Common Variable Immunodeficiency: Risk-Factors And Clinical Consequence In Patients With Humoral Defect

*Federica Pulvirenti, Italy*

P03 - Immunoglobulin G Subclass Deficiencies In Children And Adults: Immunological And Clinical Profile And Need For Immunoglobulin Replacement Therapy?

*Jarno F.C. De Craemer, Belgium*

P04 - HLA -B52\* Is Strongly Associated With Disease Severity In Takayasu's Arteritis Patients In Serbia

*Maja Stojanovic, Serbia*

P05 - Functional Inhibitory Siglec-6 Is Upregulated In Human Colorectal Cancer-Associated Mast Cells

*Yingxin YU, The Netherlands*

P06 - The Role Of The Transcription Factor T-Bet In B Cell Differentiation And Function

*Imran Akdemir, Turkey*

P07 - Stress Hormones, Cell Immunity And Genetic Polymorphism Of Protein Coding GABRA6 Gene Among Different Professional Groups

*Mariya Vlado Ivanovska, Bulgaria*

P08 - Wasp Venom Allergy In A Patient With Systemic Mastocytosis: A Challenging Therapeutic Approach

*Maria Luís Marques, Portugal*

P09 - Modulation Of Vascular Endothelial Growth Factor And Matrix Metalloproteinase-9 Production By Metoprolol In Human Hematopoietic Cells

*Fatemeh Hajighasemi, Iran*

P010 - Th17- And Th22- Related Cytokines In Arterial And Venous Blood Of Patients Affected By Systemic Sclerosis (SSc) With And Without Digital Ulcers (DU)

*Stefania Nicola, Italy*

## **Topic 2: Innate immunity and epithelial barriers | P11-P18**

*Chair: Frode Jahnsen, Norway | Edward Pearce, Germany*

P011 - Characterization Of Alum-Induced NET-Formation In Human Neutrophils

*Manuel Reithofer, Austria*

P012 - Electrical Impedance Spectroscopy For The Assessment Of Skin Epithelial Barrier Defects

*Arturo Ottavio Rinaldi, Italy*

P013 - The Effect Of Bacteriophages On Innate Lymphoid Cells

*Anna Globinska, Switzerland*

P014 - Oral Mucosa Remodeling Occurs In Severe Allergic Patients

*Javier Sanchez Solares, Spain*

P015 - Novel Evidence That BAFF Directly Regulate Epithelial Barrier Function

*Andrzej Eljaszewicz, Poland*

P016 - Bacillus Calmette-Guérin Immunotherapy Boosts Innate Immunity In Recurrent Respiratory Papillomatosis

*Evelina Vetskova, Bulgaria*

P017 - Activation And Maturation Differences Between Myeloid And Monocyte-Derived Dendritic Cells In Patients With Immediate Allergic Reactions To Betalactams

*Rubén Fernández-Santamaría, Spain*

P018 - Activated Intestinal Epithelial Cells Conditioned With 2'-Fucosyllactose And CpG ODN Might Instruct MoDC To Drive Th1 Differentiation

*Veronica Ayechu Muruzabal, The Netherlands*

**Topic 3: Allergens and allergic inflammation | P19-P26**

*Chair: Stefanie Eyerich, Germany | Talal Chatila, United States*

P019 - Structure Based Epitope Grafting As A Tool For Exploring The Conformational IgE Epitopes Of The Major Birch Pollen Allergen, Bet V 1  
*Stefanie Schmalz, Germany*

P020 - Adolescent Preconceptional Smoking Alters The Body Weight Of The Next Generation In A Sex-Specific Manner  
*Barbara Hammer, Germany*

P021 - Mast Cell Heterogeneity Landscape In Fetal Skin: An Effector Player In Pediatric Allergies?  
*Rasha Msallam, Singapore*

P022 - Longitudinal Immunoglobulin Heavy-Chain Repertoire Profiling Of Memory B Cell, Plasmablasts And Plasma Cells From Peripheral Blood Of Individuals With Birch Pollen Allergy  
*Artem Ilyich Mikelov, Russia*

P024 - Identification And Purification Of 38KDa Major Allergen From A Common Indoor Fungus *Aspergillus Ochraceus* Found In Eastern India  
*Sangeeta Roy, India*

P025 - Characterization Of Amoxicillin- And Clavulanic Acid-Specific T-Cells In Patients With Amoxicillin-Clavulanic Acid Hypersensitivity Reactions  
*Adriana Ariza Veguillas, Spain*

P026 - Post-Translational Modifications Of Major Allergens Bet V 1 And Ara H 2 Expressed In *Nicotiana Benthamiana* Plants  
*Öykü Üzülmöz, Turkey*

**Saturday, 26 January 2019**

**08:00 - 09:00**      **Clinical and immunological consequences of sublingual immunotherapy with recombinant allergens**

***Barbara Bohle, Austria***

*Chair: Henry Mc Sorley, United Kingdom*

09:00 - 09:20      Coffee Break

**09:20 - 11:00**      **Oral Abstracts presentation III – Allergens & tolerance induction**

*Chair: Henry Mc Sorley, United Kingdom | Barbara Bohle, Austria*

09:20 - 09:45      O09 - A New Hypoallergenic Ara H 2 Mutant For Potential Use In AIT-In Vitro And In Vivo Studies

*Angelika Tscheppe, Austria*

- 09:45 - 10:10 O10 - Polymerized Allergoids Coupled To Non-Oxidized Mannan (PM) Drive Monocyte Differentiation Into Tolerogenic Dendritic Cells And Anti-Inflammatory Macrophages  
*Cristina Benito Villalvilla, Spain*
- 10:10 - 10:35 O11 - A Novel Pectate Lyase Allergen Hel A 6: Characterization And In Silico Multi-Epitope Vaccine Designing  
*Nandini Ghosh, India*
- 10:35 - 11:00 O12 - Development Of A Potential New Vaccine Candidate For House Dust Mite Allergen Immunotherapy By Destroying IgE-Binding While Preserving Immunogenicity Of The Major Allergen Der P 2.  
*Lisa Naomi Pointner, Austria*
- 11:00 - 16:30 Break
- 16:30 - 17:30 The role of the microbiome in allergy and asthma**  
***Liam O'Mahony, Ireland***  
*Chair: Eva Untersmayr, Austria*
- 17:30 - 17:50 Coffee Break
- 17:50 - 19:30 Oral Abstracts presentation IV – Epithelium & microbes**  
*Chair: Eva Untersmayr, Austria | Liam O'Mahony, Ireland*
- 17:50 - 18:15 O13 - Heligmosomoides Polygyrus Infection Induces Anti-Viral Gene Expression In The Lung Epithelium And Immune Cells  
*Matthew Oliver Burgess, United Kingdom*
- 18:15 - 18:40 O14 - JAK1/3-Inhibition Preserves Epidermal Morphology In Full Thickness 3D Skin Models Of Atopic Dermatitis And Psoriasis  
*Karlijn Lieve Clarysse, Belgium*
- 18:40 - 19:05 O15 - The Gut-Lung Axis Backwards: Allergic Airway Diseases Modulate The Microbial Composition In The Gut  
*Elke Korb, Austria*
- 19:05 - 19:30 O16 - Lactobacillus Casei AMB-R2 Restores Nasal Epithelial Barrier Integrity In Chronic Rhinosinusitis By Increasing The Expression Of Tight Junctions  
*Katleen Martens, Belgium*
- 19:30 - 21:00 Dinner
- 21:00 - 22:00 Poster Session II**
- Topic 4: Mechanisms and treatment of food allergy | P27-P34**  
*Chair: Madeleine Radinger, Sweden | Jenny Mjösberg, Sweden*
- P027 - Efficacy And Safety Of Low-Dose Oral Immunotherapy For Patients With Wheat-Induced Anaphylaxis  
*Ken-ichi Nagakura, Japan*
- P028 - Impact Of Mouse Feed Composition On Immune Response And Food Allergy Development  
*Nazanin Samadi, Austria*
- P029 - In Vitro And In Vivo Evaluation Of A Combination Of Dietary ScGOS:LcFOS And N-3 PUFA In Prevention Of Cow's Milk Allergy  
*Kirsten Szklany, Denmark*

P030 - Jug R 6 Is The Allergenic Vicilin Present In Walnut Kernels Responsible For IgE Cross-Reactivities To Other Tree Nuts And Seeds  
*Pawel Dubiela, Austria*

P031 - Household Exposure To Food Allergens: A Risk For Sensitization?  
*Izabel Alvares, United Kingdom*

P032 - Functional And Phenotypic Analysis Of Allergen-Specific B Cells In Cow's Milk Allergy And Tolerance  
*Patraporn Satitsuksanoa, Switzerland*

P033 - Titanium Dioxide Nanoparticles May Prevent Food Allergy And Anaphylaxis Development  
*Natalia Aliakhnovich, Belarus*

P034 - Unprocessed Cow's Milk Suppresses Allergic Symptoms In A Murine Model For Food Allergy – A Potential Role For Epigenetics  
*Suzanne Abbring, The Netherlands*

### **Topic 5: Respiratory allergies and asthma | P35 - P43B**

*Chair: Hermelijn Smits, The Netherlands | Andrew S. MacDonald, United Kingdom*

P035 - Association Between Circulating And Mucosal Associated Type 2 Innate Lymphoid Cells In Patients With Asthma  
*Lobna Abdelaziz Abdelazim Abdelaziz Elkorashi, Egypt*

P036 - Association Of CD14 Rs2569190 Polymorphism With Perennial Allergic Rhinitis In The Population Of Kiev, Ukraine  
*Taras Petrovych Baranovskyi, Ukraine*

P037 - Glucocorticoid Signaling In Different Asthma Phenotypes – A Potential Role For mRNA-MiRNA Interactions  
*Julie Marie Weidner, Sweden*

P038 - The Role Of Sphingosine-1-Phosphate In The Pathogenesis Of Asthma  
*Thomas James Aidan Maguire, United Kingdom*

P039 - MicroRNA Expression In Cytokine Stimulated Airway Epithelial Cells And Their Involvement In Asthma Related Pathways  
*Elisabeth Ax, Sweden*

P040 - Clinical And Immunological Approaches Between The Obesity Asthma Phenotype  
*Marina Marina Bantulà Fonts, Spain*

P041 - House Dust Mite (HDM) Allergen Induces Type 2 Inflammation In A Novel Experimental Asthma Model In Guinea Pig  
*Patricia Ramos-Ramirez, Sweden*

P042 - Characteristics of patients admitted to emergency department for asthma attack: a real life study  
*Monica Fornero, Italy*

P043 - Protocol For Randomized, Outcome Assessor Blinded, Clinical Study: The ATOM Study: Asthma Severity In Women: The Influence Of Training And Menopause  
*Erik Sören Halvard Hansen, Denmark*

## **Topic 6: Allergy treatment and immunomodulation**

*Chair: Barbara Bohle, Austria | Jan Gutermuth, Belgium*

P044 - Safety Of Subcutaneous Allergen Immunotherapy In Seniors- 2 Year Observational Study

*Piotr Lacwik, Poland*

P046 - Therapeutic Effects Of Mesenchymal Stem Cells In An Animal Model Of Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis

*In Young Oh, South Korea*

P047 - The Role Of Allergen-Specific IgG Antibodies In The Induction Of Clinical Tolerance For The Birch Pollen-Related Apple Allergy

*Gabriela Sánchez Acosta, Austria*

P048 - Mapping The Antibody Specificity In Birch-Related Soy Allergic Patients Before And After Allergen Immunotherapy

*Lisbeth Ramirez Caballero, Germany*

P049 - Tolerance Induction By Prophylactic Epicutaneous Allergen-Specific Immunotherapy In A Preclinical Model Of Hymenoptera Venom-Sensitized Mice

*Mathias Schuppe, Germany*

P050 - Assessment Of The Potential Anti-Inflammatory Effect Of Phytocannabinoids In An In Vitro Mouse Inflammatory Model System

*Noémi Miltner, Hungary*

## **Sunday, 27 January 2019**

**08:00 - 09:00**

**Dynamic metabolic reprogramming during macrophage activation**

***Edward Pearce, Germany***

*Chair: Frode Jahnsen, Norway*

09:00 - 09:20

Coffee Break

**09:20 - 11:00**

**Oral Abstracts presentation V – Innate immunity**

*Chair: Edward Pearce, Germany | Frode Jahnsen, Norway*

O17 - House Dust Mite Drives Pro-Inflammatory Eicosanoid Reprogramming And Macrophage Effector Functions

*Fiona Henkel, Germany*

O18 - Induction Of In Vitro And In Vivo Cross-Tolerance In Birch Pollen Allergic Patients With Associated Food Allergy By Human Tolerogenic IL-10 Modulated Dendritic Cells

*Patricia Vanessa Rostan, Germany*

O19 - Neutrophils Promote Allergic Inflammation By Presenting Allergen To Specific CD4+ T-Cells

*Dominika Polak, Austria*

O20 - Reprogramming Of Lipid Mediator Metabolism Determines Macrophage „training“ During Type 2 Immune Responses

*Antonie Friedl, Germany*

11:00 - 11:30

Closing Ceremony and Prize Giving

*Eva Untersmayr, Austria*