Oral Session 1: Genomics, Environmental Factors and Precision Medicine

Date: Monday, 1 October
Time: 8:00 - 10:15

1. 8:00 Genetic analysis of lung function genes for asthma and chronic obstructive pulmonary disease (COPD) - Deborah A. Meyers

2. 8:15 Genome-wide association study of asthma in The Consortium on Asthma Among African-ancestry Populations in the Americas (CAAPA) recapitulates asthma risk loci in non-African populations - Kathleen C. Barnes

3. 8:30 Transplant of Amish but not Hutterite gut microbiota is sufficient to protect germ-free mice from experimental asthma - Donata Vercelli

4. 8:45 Infant immune response and severity of respiratory syncytial virus infection is associated with future respiratory morbidity in early childhood - Tina Hartert

5. 9:00 Fish oil supplementation in pregnancy reduces risk of childhood asthma partly through the bacteriome and virome - Hans Bisgaard

6. 9:15 Sputum metagenomic profiling reveals airway dysbiosis in severe asthma linked to neutrophilic inflammation - Peter H. Howarth

7. 9:30 Integrated genome-wide expression of lung immuno-inflammatory, injury and repair pathways identifies molecular phenotypes of asthma: Possible magnification by high dose β2 agonist use - Brian Modena

8. 9:45 Regulation of Syk activity in the FcεRI signaling pathway by antiviral innate immune adaptor MAVS - Yuko Kawakami

9. 10:00 RNA degradation acts as an anti-viral mechanism deficient in the asthmatic airway epithelium - Rocio Teresa Martinez-Nunez

10.15-11.00 Coffee break
Oral Session 2: Detector and Effector Cells: Dendritic cells, monocytes/macrophages, neutrophils, eosinophils, and epithelial cells
Date: Monday, 1 October
Time: 11:00 – 13:30

10. 11:00 Women and men differ - boys and girls, not so much: constitutive innate immunoregulatory homeostasis in vivo - Kent T. HayGlass

11. 11:15 Simultaneous induction of tolerance to multiple allergens by regulatory dendritic cells from asthmatic and peanut allergic subjects - John Robert Gordon

12. 11:30 Impaired germinal center reaction in STAT3-HIES (Hyperimmunoglobulin E syndromes) patients favors development of IgE-producing B cells and plasma cells - Willem Van de Veen

13. 11:45 Combining immunofluorescent imaging and micro-CT to visualize cells and 3D networks in human lung tissue - Jane Anne Warner

14. 12:00 Neutrophil extracellular trap formation requires OPA1-regulated glycolytic ATP production - Hans-Uwe Simon

15. 12:15 IL-13 mediated neutrophilic airway inflammation and hyperresponsiveness is corticosteroid-resistant - Hans Michael Haitchi

16. 12:30 Neutrophils promote allergic inflammation by presenting allergen to specific CD4+ T-cells - Barbara Bohle

17. 12:45 Evidence of mast cell activation in Zika virus infection - Adrian Piliponsky

18. 13:00 New insights into the intracellular regulation of human basophil responses - Bernhard F. Gibbs

19. 13:15 Skin barrier released sphingosine-1 phosphate promotes antimicrobial activity in mast cells - Anna Di Nardo

13:30 Lunch

Relaxing Lecture
Date: Monday 1 October
Time: 16:00 – 17:00
Dr Andreu Veá, Digital Champion for Spain at the European Commission
Poster Session 1:
Date:     Monday 1 October
Time:     17:00 – 19:00

Genetic and Environmental Factors, Effector and Immunoregulatory Cells in Allergy and Asthma, Dendritic Cells, Mast Cells, Monocytes and Granulocytes, Lymphocytes and Mediators of Immunoregulation

Moderators:  Kathleen Barnes, Eugene Bleecker, Joshua Boyce, Mitchell Grayson, Bettina Jensen, Sally Wenzel

*Genetic and Environmental Factors, Effector and Immunoregulatory Cells in Allergy and Asthma*

20. A polymorphism in thymic stromal lymphopoietin (TSLP) is associated with chronic rhinosinusitis with nasal polyps and aspirin-exacerbated respiratory disease in the Japanese population - Tomomitsu Hirota

21. Allergen-nanoparticle conjugates at the lung epithelial barrier – insights into particle uptake and immune responses - Albert Duschi

22. Post-transcriptional gene dysregulation as a novel mechanism underlying severe asthma corticosteroid non-responsiveness – Jennifer Rynne

24. Low-cost sensor array devices as a method for reliable assessment of exposure to traffic-related air pollution on development of allergy and asthma - Natalia Mykhaylova

25. Gastrointestinal *Staphylococcus aureus*, immune responses to its enterotoxins and regulatory T cell dysfunction in childhood food allergy - Anne Marie Singh

26. Interleukin 23; a glimpse into the understanding of nonallergic eosinophilic asthma - Heung-Woo Park

27. Environmental factors controlling the peripheral differentiation of ILC2 - Shigeo Koyasu

28. HLA I shield tumor skin T lymphocytes from NK-cell-mediated elimination - Emmanuella Guenova

*Dendritic Cells, Mast Cells, Monocytes and Granulocytes*

29. Galectin-3 Activates human IgE-bearing cells to secrete pro-inflammatory cytokines - John T. Schroeder

30. High fat diet exacerbates skin inflammation independent of obesity: Saturated fatty acids as key players - Jan C. Simon
31. Innate immune signals induce the accumulation of lung mast cells during influenza infection in mice - Jenny Hallgren Martinsson

32. *In vivo* mast cell activation by the MRGPRX2 receptor ligands in CSU and healthy subjects - Sarbjit S. Saini

33. Inhibiting protein isoprenylation suppresses IgE- and IL-33-induced mast cell function - John J. Ryan

34. Cockroach extract down-regulates interleukin-13-induced CCL26 expression in human airway epithelial cells - Harissios Vliagoftis

35. Structural alterations of allergens at the surface of engineered nanoparticles can modify their biological impact on phagocytic cells - Martin Himly

36. Human mast cells derived from peripheral blood of peanut allergic subjects have a unique IL-31 expression compared to non-allergic individuals - Bettina M. Jensen

*Pathophysiology of Allergic Disorders and Inflammation*

37. Novel mimotopes bind to IgE and block peanut allergen-induced activation of sensitized RBL SX-38 cells - Stephen C. Dreskin

38. Surfactant protein D alleviate ozone and cigarette-induced lung inflammation and emphysema in murine model of COPD - Miao-Hsi Hsieh

39. Role of epithelial cells in aspirin-exacerbated respiratory disease - Hae-Sim Park

40. Phenotypes of allergen-specific T-cells in peanut and tree nut allergic patients, asymptomatically sensitized and non-sensitized tolerant subjects - Lars K. Poulsen

41. Immune cell phenotype and functional defects in Netherton syndrome - Annamari Ranki

42. Analysis of microRNA expression in the lung and bone marrow of IL-33 challenged mice - Madeleine Radinger

43. Cutaneous immune responses to external stimuli in terms of inducible skin-associated lymphoid tissue (iSALT) - Kenji Kabashima

44. Role of histaminergic H4 receptors in anti-inflammatory and lung anti-fibrotic activity of glucocorticoids - Emanuela Masini
Oral Session 3: Lymphocytes and Mediators of Immunoregulation
Date: Tuesday, 2 October
Time: 8:00 - 10:00

45. 8:00 Retinoic acid controls lung homeostasis by converting group 2 innate lymphoid cells to a regulatory phenotype - Hideaki Morita

46. 8:15 The role of RORα and Innate Lymphoid cells in Mucosal Inflammatory Disease - Kelly M. McNagny

47. 8:30 IL-33 promotes the egress of group 2 innate lymphoid cells from the bone marrow - R. Stokes Peebles Jr.

48. 8:45 Pathogenic Th2 (Tpath2) cells in airway inflammation: Fibrosis inducing Tpath2 cells - Toshinori Nakayama

49. 9:00 Crucial roles for basophils in Th2 and non-Th2 immune responses - Hajime Karasuyama

50. 9:15 Generation of a novel Der p 1-specific CD8 T cell receptor transgenic mouse - David M. Kemeny

51. 9:30 Thymic stromal lymphopoietin (TSLP) confers steroid resistance to airway lymphoid cells in asthma by engaging a novel MEK-ERK kinase 2 (MEK2)-chromobox 7 (CBX7) signaling pathway - Rafeul Alam

52. 9:45 Use of classical and non-classical initiation codons for translation of human thymic stromal lymphopoietin (TSLP) determines its secretory pathway - Donna E. Davies

10.00 – 10.30 Coffee break

Oral Session 4: Food and Drug Allergies, Gastrointestinal Disorders and Autoimmunity
Date: Tuesday, 2 October
Time: 10:30 – 13:15

53. 10:30 Lack of gut lactobacilli in early life associates with a Th2 skewed cytokine/chemokine profile in plasma, elevated FeNO levels as well as allergy at 1-10 years of age - Eva Sverremark-Ekström

54. 10:45 A potential role for soluble Toll-like receptor 2 in the regulation of oral tolerance development - Jean S. Marshall
55. 11:00 Antibody repertoires in the gastrointestinal tract of peanut allergic individuals - Scott D. Boyd

56. 11:15 Evidence of an abnormal epithelial barrier in active, untreated and corticosteroid-treated eosinophilic esophagitis - Dagmar Simon

57. 11:30 Specific IgG4 and IgE antibodies to cow’s milk proteins in pediatric eosinophilic esophagitis - Thomas A.E. Platts-Mills

58. 11:45 Immunoprofile of alpha-Gal- and B-antigen-specific responses differentiate red meat allergic patients from healthy individuals - Marianne van Hage

59. 12:00 IgE to the mammalian oligosaccharide alpha-Gal is associated with coronary atheroma volume and plaques with unstable characteristics - Jeffrey M. Wilson

60. 12:15 Holo-beta-lactoglobulin prevents allergic sensitization and promotes arylhydrocarbon receptor activation - Franziska Roth-Walter

61. 12:30 Two oral daily doses of ibrutinib, an FDA-approved irreversible inhibitor of Bruton’s tyrosine kinase (BTK), markedly inhibits or eliminates skin test responses and IgE-mediated basophil activation ex vivo in adults with food allergy - Bruce Bochner

62. 12:45 Tissue-specific stem cell origin of allergic and autoimmune diseases - Toshiaki Kawakami

63. 13:00 Identification of 2 distinct early life eczema and non-eczema phenotypes with high risk for asthma development in a prospective birth cohort: redefining the atopic march - Gurjit K. Khurana Hershey

13:15 Lunch

Oral Session 5: Asthma, Rhinitis and Atopic Dermatitis
Date: Wednesday, 3 October
Time: 8:00 - 9:45

64. 8:00 Diminished IL-6 responses during picornavirus-induced asthma exacerbations are associated with chronic airway obstruction - Fernando Martinez

65. 8:15 Atopic dermatitis subjects colonized with *Staphylococcus aureus* have a distinct phenotype and endotype - Lisa A. Beck

66. 8:30 Lipid-mediator governed molecular phenotyping of asthma sub-phenotypes - Sven-Erik K. Dahlén
67. 8:45 Genetic variation in surfactant protein-A2 alters responses to IL-13 in Asthma - Monica Kraft

68. 9:00 Circulating miRNAs and airways responsiveness in asthma - Kelan Tantisira

69. 9:15 Antisense Technologies – An emerging field for the development of new therapeutic Molecules: Anti-GATA3 DNAzyme as a prototypic example - Harald Renz

70. 9:30 The functional implications of airway epithelial cell remodeling - Nora A. Barrett

9.45 - 10.30 Coffee break

Oral Session 6: Urticaria, Angioedema, Anaphylaxis, Mastocytosis and Mast Cell Activation Disorders
Date: Wednesday, 3 October
Time: 10:30 - 11:45

71. 10:30 Mechanisms of allergen-induced activation of “Itch Nerves” terminating in mouse skin - Bradley J. Undem

72. 10:45 The role and relevance of IgE, FceRI, and mast cells in the pathogenesis and treatment of chronic urticaria - Marcus Maurer

73. 11:00 Ceramide-CD300f interaction in mast cells inhibits IgE-dependent and independent anaphylactic responses - Jiro Kitaura

74. 11:15 Antigen rapid IgE desensitization is driven by differential phosphorylation of SHIP1, Lyn, Syk and p38 MAPK at suboptimal antigen doses - Mariana C. Castells

75. 11:30 The efficacy and safety of venom immunotherapy in patients with clonal mast cell disorders and hymenoptera venom anaphylaxis - Theo Gulen

102. 11:45 Genetic restriction of antigen-presentation dictates allergic sensitization and disease in humanized mice - Winfried F. Pickl
Carl Prausnitz Lecture
Date: Wednesday, 3 October
Time: 12:00 - 13:00

Stephen T Holgate FMedSci, Medical Research Council Clinical Professor, University of Southampton, UK

Poster Session 2:
Date: Wednesday 3 October
Time: 17:00 - 19:00

Biomarkers of Allergy, Asthma and COPD, Allergens and Diagnosis of Allergy, Allergen Specific Immunotherapy

Moderators: Stephen Durham, Stephen Dreskin, Ronald van Ree, Jane Warner

Allergens, Biomarkers and Diagnosis of Allergy

76. Alterations in cord blood hemopoietic progenitor cell surface receptor expression precede atopy: a 1 year follow up in a longitudinal birth cohort study - Loubna Akhabir

77. Time to challenge food allergy diagnosis? - Magnus P. Borres

78. Comparative analysis of specific allergen levels in baked milk challenge materials - James P. Hindley

79. A new set of cockroach allergens reveals new major components and different patterns of B and T cell immunodominance in a US population of cockroach allergic patients - Anna Pomés

80. Development of a potential allergic reaction predictor tool for peanut challenges - Sharon Chinthrajah

81. Robust marker selection and cost reduction for basophil activation test usage with high specificity and sensitivity - Uta Jappe

82. Raster-scan optoacoustic mesoscopy for precision assessment in allergy patch testing of the skin - Ulf G. Darsow

83. Mugwort pollen is the main vector for outdoor endotoxin - Jeroen Buters

84. Calcium binding protein, spermatid-associated 1: A biomarker of stress with an anti-inflammatory motif - Dean Befus

85. Periostin in allergic bronchopulmonary aspergillosis: serum levels and its expression in the lungs - Koichiro Asano
Allergen Specific Immunotherapy

86. Grass pollen immunotherapy: relationships among clinical response to nasal allergen challenge, seasonal symptoms, nasal tissue eosinophils and the impact of treatment compliance - Aarif Eifan

87. Diverse and highly cross-reactive T cell responses in ragweed allergic patients from different geographical regions - Peter A. Würtzen

88. Hypoallergenic properties of a hybrid protein from Dermatophagoides pteronyssinus allergens - Leonardo Puerta

89. Immunological biomarkers of successful immunotherapy - Pawel Gajdanowicz

90. The immunomodulation effect of secreted peptide, LGp40, from Lactobacillus gasseri LGP40 in allergic diseases - Pei-Chi Chen

91. Knowledge of pulmonologists, allergists, ENTs and paediatricians related to maintenance treatment of asthma - Désirée E. Larenas Linnemann

23. Reduced bitter taste perception of intranasal azelastine in chronic rhinosinusitis without nasal polyps (CRSsNP) - Glenis Kathleen Scadding

 Oral Session 7: Allergens and diagnosis of allergy

Date: Thursday, 4 October
Time: 8:00 – 9:00

92  8:00  Cycrophilin – a novel cross-reactive determinant in peanut - Jonas Lidholm

93  8:15  Multidimensional endotypes in patients with allergic reactions revealed by topological data analysis of clinical and immunological parameters: Associations between mast cell mediator release, atopy and reaction severity - Rana Abadalkareem

94  8:30  Interaction patterns between component-specific IgE antibodies in component-resolved diagnostics and prediction of asthma: Machine learning approach - Adnan Custovic

95  8:45  Basophil activation as determined by basogranulin release, and altered expression of membrane-bound and intracellular basogranulin stores: Sensitive means for diagnosing allergic sensitivity - Mohammad Alzahrani
Paul Kallos Lecture
Date: Thursday, 4 October
Time: 9:00 – 10:00

Fiona Powrie FRS FMedSci, Director of the Kennedy Institute of Rheumatology, University of Oxford, UK

10.00 -10.30 Coffee break

Oral Session 8: Pathophysiology of allergic disorders and inflammation
Date: Thursday, 4 October
Time: 10:30 - 13:00

96 10:30 Epithelial barrier dysfunction in asthma: new role for protein kinase D - Steve N. Georas

97 10:45 IL-24 causes epidermal barrier dysfunction downstream of the IL-13/periostin pathway in allergic skin inflammation - Kenji Izuhara

98 11:00 Novel role for the acute phase protein serum amyloid A in the initiation of type 2 immunity - Ursula Smole

99 11:15 The leukotriene E4 receptor CysLT3R regulates airway brush cell function and Type 2 inflammation - Lora Bankova

100 11:30 Cysteiny1 leukotriene receptor 2 drives lung immunopathology through a platelet and high mobility box 1-dependent mechanism - Joshua A. Boyce

101 11:45 Differential prostaglandin E homeostasis explains sex differences in aspirin-exacerbated respiratory disease - Katherine Cahill

103 12:15 Genomic and transcriptomic analyses of clara cell secretory protein (CC16) as a biomarker for asthma and chronic obstructive pulmonary disease (COPD) - Eugene R. Bleecker

104 12:30 Adam33 null mice do not exhibit post-natal airway hyperresponsiveness as a consequence of maternal allergy - Marieke Wandel

105 12.45 House dust mite sensitization and challenge protects against a lethal paramyxoviral respiratory infection - Mitchell H. Grayson

13:00 – 13:30 – CIA Business Meeting
Poster Session 3:
Date: Thursday 4 October
Time: 17:00 – 19:00

Treatment of Immune Disorders, Pathophysiology of Allergic Disorders and Inflammation, Urticaria and Angioedema, Clinical Aspects of Allergic Disorders

Moderators: Adnan Custovic, Marta Ferrer Puga, Marcus Maurer, Thomas Platts-Mills, Claudia Traidl-Hoffmann

Treatment of Immune Disorders

107 Neutralizing natural anti-IL-17F autoantibodies may protect from asthma - Annamari Ranki

108 Ascaris lumbricoides cystatin has strong anti-inflammatory effects on mice respiratory allergic inflammation - Sandra Coronado

109 Modulation of human T cell responses to peanut allergen through treatment of dendritic cells with STAT6-inhibitory peptide. A management approach for food allergies - Christine T. McCusker

110 Development of trans-cultural National Asthma Guidelines, broadly accepted by local physicians, using the ADAPTE approach - Désirée E. Larenas Linnemann

111 Distinct immune cell phenotypes are associated with response to therapy in rheumatoid arthritis - Thomas Issekutz

Urticaria, Anaphylaxis and Angioedema

112 Anaphylaxis to monoclonal antibodies: new classification of symptoms and desensitization approach - Mariana C. Castells

113 Elevated plasma S1P levels are associated with protection from anaphylaxis during food challenges in food allergic pediatric patients - Eva Untersmayr-Elsenhuber

114 A Subset of patients with mast cell activation syndrome (MCAS) associated with postural orthostatic tachycardia syndrome (POTS) and Ehlers-Danlos Syndrome (EDS) have classic clinical MCAS features - Mariana C. Castells

115 The effect of omalizumab in mastocytosis patients. Prospective double-blind placebo-controlled multicentre study - Peter Schmid-Grendelmeier

116 Children with limited cutaneous mastocytosis often present with systemic symptoms - Mariana C. Castells
**Clinical Aspects of Allergic Disorders**

117  Management of pediatric cases of anaphylaxis at school and day-care - Moshe Ben Shoshan

118  Risk factors for severe systemic sting reactions in wasp and honeybee venom allergic patients - Sara Micaletto

119  Alcohol hyper-responsiveness in chronic rhinosinusitis with nasal polyps - Philippe Gevaert

120  Burden of disease and individual suffering in adults with severe atopic eczema (AE) - Johannes Ring

121  Chronic pruritus in skin diseases - more common and more severe than we thought - Martin Metz

122  Hypersensitivity to NSAIDs: results of an Austrian cohort study - Wolfram Hoetzenecker

123  Patient education for adults and children with atopic dermatitis in Switzerland - Martin Glatz

124  A case of type-1 allergy to polyethylene glycols in vaginal suppository and cream - Jan C. Simon

125  A novel handheld digital device for objective assessment of skin lesions in atopic dermatitis and urticaria - Maja A. Hofmann

126  Duration of eczema from its onset and its severity are risk factors of food allergy at 2 years of age - Yukihiro Ohya

127  Early Detection of Gastroduodenal Disorders in Patients with Common Variable Immunodeficiency - Gilda Varricchia

---

**Oral Session 9: Mast Cells and Basophils**

Date:     Friday, 5 October
Time:     9:00 – 10:30

128  9:00  Auto-antibodies to IgE and FceRI and the natural variability of SYK expression in basophils in the general population - Donald W. MacGlashan

129  9:15  Specific expression profiles of microRNA in human mast cell-derived exosomes in innate and acquired immunity - Yoshimichi Okayama
130 9:30 Interleukin-33 induces histidine decarboxylase transcription and histamine accumulation in skin-derived mast cells by a mechanism involving p38 mitogen-activated protein kinase, but not c-Jun N-terminal kinase - Torsten Zuberbier

131 9:45 Interleukin-33 enhances the permissiveness of mast cells for rhinovirus replication via increased ICAM1 expression - Emily J. Swindle

132 10:00 Divergent effects of acute or prolonged Interleukin 33 exposure on mast cell IgE-mediated function - Gunnar Nilsson

133 10:15 Exosome-mediated uptake of mast cell tryptase into the nucleus of melanoma cells: a novel mechanistic axis regulating proliferation and gene expression in tumor cells - Gunnar Pejler

10.30 – 11.00 Coffee break

Oral Session 10: Allergen specific immunotherapy
Date: Friday, 5 October
Time: 11:00 – 13:30

134 11:00 Pollen exposure weakens Innate defense against respiratory viruses - Claudia Traidl-Hoffmann

135 11:15 Transcriptomic and proteomic signature of allergen-specific CD4+ T and regulatory T cells during allergen-specific immunotherapy - Milena Sokolowska

136 11:30 Epigenetic changes in SATB1 gene in FoxP3 regulatory T cells reflect Immune tolerance status during grass pollen subcutaneous and sublingual immunotherapy - Mohamed H. Shamji

137 11:45 Sublingual grass pollen tablet immunotherapy: local and systemic allergen-specific IgA represents a distinct mechanism of long-term tolerance - Stephen R. Durham

138 12:00 Nanoparticles as an effective adjuvant for oral peanut immunotherapy - Marta Ferrer Puga

139 12:15 Efficacy and safety of AR101: Results of the Phase 3 Peanut Allergy Oral Immunotherapy Study for Desensitization (PALISADE) trial - Andrea Vereda

140 12:30 A randomized clinical trial of passive immunotherapy with single-dose anti-Fel D 1 monoclonal antibodies R1908-1909 in cat-induced rhinoconjunctivitis: Clinical efficacy endpoints and biomarkers - Mohamed H. Shamji
141  12:45  Impact of allergen-specific immunotherapy on cells of the lower airways - Ulrich M. Zissler

142  13:00  Predictors of severe adverse events during venom immunotherapy (VIT), and the use of omalizumab as adjunct to VIT in patients with systemic adverse events - Peter Korosec

13.15 Closing remarks