

Workshop Program 1. Day - Wednesday, 6 July 2022

Workshop 1	B-cells in immune response
<i>Room: Davos 1</i>	<i>Chairs: Menno van Zelm, Mübecce Akdis</i>
14:30 - 14:40	WS01 Lacin Cevhertas Characterization of B cell responses in metastatic melanoma under checkpoint inhibitor therapy
14:40 - 14:50	WS02 Sharon Kagan Ben Tikva Spatial expression programs in germinal centers reveal a T cell-dependent post selection site
14:50 - 15:00	WS03 Pattraporn Satitsuksanoa Characterization of single allergenspecific IgE+ B cell from cow's milk allergic children during the oral immunotherapy
15:00 - 15:10	WS04 Richard Chahwan <i>Intercellular epigenomic signaling during B cell maturation</i>
Workshop 2	Infections, microbiome and metabolism
<i>Room: Davos 2</i>	<i>Chairs: Yasutaka Mitamura, Bernd Lepenies</i>
14:30 - 14:40	WS05 Michael Berger Improving T cell activation by limiting mitochondrial-derived ATP transfer to the cytosol
14:40 - 14:50	WS06 Mengting Huang Distinct metabolic reprogramming of airway epithelium in asthma in response to infection with rhinovirus
14:50 - 15:00	WS07 Lalita Oparija-Rogenmozere The role of lipid kinase PI3Kgamma enzyme complexes in metabolic syndrome
15:00 - 15:10	WS08 Alexandra Wallimann Antibiotic therapy for orthopedic device-related infection: Prolonged microbiome disturbances and systemic responses of relevance to bone health
15:10 - 15:20	WS09 Pierre-Yves Mantel Investigating the role of cellular communication to promote bacterial infections during malaria
Workshop 3	T-cells, innate lymphoid cells and immune response
<i>Room: Forum</i>	<i>Chairs: Nicole Joller, Ibon Eguiliz</i>
14:30 - 14:40	WS10 Sonia Aristin Characterizing the role of regulatory T (Treg) cells in colorectal cancer
14:40 - 14:50	WS11 Leticia Martin-Cruz The tumor-associated carbohydrate A10 (Ca10) from Ehrlich tumor cells promotes functional regulatory T cells
14:50 - 15:00	WS12 Pedro Ventura Concomitant deletion of Shp-1 and Shp-2 in T cells fails to improve anticancer responses
15:00 - 15:10	WS13 Riekje Winzer Human effector T cell-derived extracellular vesicles convey immune suppression by CD73-mediated adenosine generation
15:10 - 15:20	WS14 Rabia Ülkü Kokmaz C5a signalling in myeloid cells regulates ILC2 development through unique, cell-dependent mechanisms
19:30	Poster presentations of workshops 1 - 3, Room: Main Corridor

Workshop Program 2. Day - Thursday, 7 July 2022

Workshop 4	Transcriptomics
<i>Room: Davos 1</i>	<i>Chairs: Pierre-Yves Mantel, Zsolt Komlosi</i>
14:30 - 14:40	WS15 Jana Koch Characterization of Protein Prenylation in T helper 1 cell activation
14:40 - 14:50	WS16 Claire Ma Stimulation strength controls the rate of initiation but not the molecular organization of the TCR-induced signalling network
14:50 - 15:00	WS17 Klara Ruppova Curation and integration of single-cell RNA-Seq data for meta-analysis
15:00 - 15:10	WS18 Damir Zhakparov Machine Learning reveals patterns in transcriptomics and clinical datasets associated with atopic dermatitis in African children
Workshop 5	COVID-19 mechanisms and treatment
<i>Room: Davos 2</i>	<i>Chairs: Volker Thiel, Carlo Cerva</i>
14:30 - 14:40	WS19 Özge Ardicli Exposure to avian coronavirus vaccines is associated with increased levels of SARS-CoV-2-cross-reactive antibodies
14:40 - 14:50	WS20 Elisabeth de Leeuw Efficacy and Safety of the Investigational Complement C5 Inhibitor Zilucoplan in Patients Hospitalized with Covid-19: an RCT
14:50 - 15:00	WS21 Urszula Radzikowska Rhinovirus-induced epithelial RIG-I inflammasome activation suppresses antiviral immunity and promotes inflammatory responses in virus-induced asthma exacerbations and COVID-19
15:00 - 15:10	WS22 Tiziano Schweizer Blunted sFasL signalling exacerbates TNF-driven neutrophil necroptosis in critically ill COVID-19 patients
15:10 - 15:20	WS23 Philippe Gevaert Waning levels of SARS-CoV-2 neutralizing antibodies in the nasal mucosa after SARS-CoV-2 vaccination
Workshop 6	Biologicals and molecular aspects in diagnosis and treatment
<i>Room: Forum</i>	<i>Chairs: Araceli Diaz Perelas, Willem van de Veen</i>
14:30 - 14:40	WS24 Nishelle Dsouza Expression, Purification and biochemical characterization of recombinant Blomia tropicalis allergens
14:40 - 14:50	WS25 Kevin Plattner On the role of glycan in the protection against anaphylaxis by anti-IgE IgG antibodies
14:50 - 15:00	WS26 Inna Tulaeva BM325, a component of the recombinant grass pollen allergy vaccine BM32 can overcome immunological HBV- non-responsiveness
15:00 - 15:10	WS27 Ana Xavier Targeting PI3Kg complexes containing the p84 protein to attenuate allergy without impact on host immunity
15:10 - 15:20	WS23 Alexandra Lee Quantitative Analysis of Urinary Cytokines in Food Allergic and Healthy Twins
17:00 - 17:15	Award Ceremony for workshop prizes of workshops 1 - 3 , Room: Davos 1
19:30	Poster presentations of workshops 4 - 6 , Room: Main Corridor

Workshop Program 3. Day - Friday, 8 July 2022

Workshop 7 Epithelial responses and barrier

Room: Davos 1 Chairs: Mario Zaiss, Silvia Melgar

- 15:00 - 15:10 WS29 **Alessandro Cutilli**
Chemotherapy-induced damage of the intestinal epithelium attracts T cells and enhances T cell activation
- 15:10 - 15:20 WS30 **Taryn Liu**
Exploratory Studies On Human GI Resident Gamma Delta T Cells Before and After Peanut Oral Immunotherapy
- 15:20 - 15:30 WS31 **Ismail Ögüller**
Gut epithelial barrier damage by commonly used emulsifiers polysorbate-20 and polysorbate-80
- 15:30 - 15:40 WS32 **Ella Sandrine Parsons**
Detection of Gut and Mucosal Peptides in Plasma in Atopic Individuals through TOMAHAQ
- 15:40 - 15:50 WS33 **An-Sofie Viskens**
Fluticasone propionate suppresses the SARS-CoV-2 induced increase in respiratory epithelial permeability in vitro

Workshop 8 Swiss Young Immunology Scientists Workshop Novel mechanisms of immune response

Room: Davos 2 Chairs: Daniela Latorre, Annika Hausmann

- 15:00 - 15:10 WS34 **Olivia Bucheli**
Correlating cellular functionalities and metabolic fluxes on the single-cell level - a proof-of-concept study of individual antibody-secreting cells in mice
- 15:10 - 15:20 WS35 **Jean de Lima**
How Do Lung T cells Shape Local Immunity During Infection?
- 15:20 - 15:30 WS36 **Lydia Kirsche**
Restoring a Dysregulated Immune Response Caused by Early-life Antibiotic Exposure
- 15:30 - 15:40 WS37 **Fabian Luther**
Effector functions of human Th9 cells depend on PPAR-g-regulated glucose metabolism
- 15:40 - 15:50 WS38 **Sarah Mundt**
CNS-specific tolerance: controlled immune surveillance without causing trouble
- 15:50 - 16:00 WS39 **Federica Piattini**
Monocyte-derived alveolar macrophages autonomously determine severe outcome of respiratory viral infection

Workshop 9 Vaccines in COVID-19

Room: Forum Chairs: Pia Gattinger, Luca M. Zaeck

- 15:00 - 15:10 WS40 **Daryl Geers**
mRNA-based COVID-19 booster vaccination after Ad26.COV2.S priming induces cross-reactive humoral and cellular immune responses to multiple SARS-CoV-2 variants
- 15:10 - 15:20 WS41 **Michael Jäger**
Investigation of humoral and cellular immune response against SARS-CoV-2 BA.1 and BA.2 of twice vaccinated as well as boosted individuals
- 15:20 - 15:30 WS42 **Eliott Lafon**
three COVID-19 vaccines against variants of concerns
- 15:30 - 15:40 WS43 **Dominik Rothen**
Intranasal administration of a VLP-based vaccine induces neutralizing antibodies against SARS-CoV-2 and variants of concern
- 15:40 - 15:50 WS44 **Anne-Cathrine Vogt**
Virus-like particles (VLPs) are efficient tools for boosting mRNA-induced antibodies

17:30 - 17:45 **Award Ceremony for workshop prizes of workshops 4 - 6**, Room: Davos 1

19:30 **Poster presentations of workshops 7 - 12**, Room: Main Corridor

Workshop Program 4. Day - Saturday, 9 July 2022

Workshop 10	Mechanisms in asthma, allergy and immune regulation
<i>Room: Davos 1</i>	<i>Chairs: R. Sharon Chitinhrajah, Caroline Reduit</i>
14:00 - 14:10	WS45 Manal Bel imam Detection of food-antigen specific antibodies in the plasma of eosinophilic esophagitis patients
14:10 - 14:20	WS46 Ruben Fernandez-Santamaria Dendrimer-Based Silica Particle as a platform for Quantification of IgE specific to Amoxicillin and Benzylpenicillin
14:20 - 14:30	WS47 Taryn Liu CD8+ T cell differentiation status correlates with the feasibility of sustained unresponsiveness to food allergy immunotherapy
14:30 - 14:40	WS48 Mariem Radhouani From local infection to multi-organ crosstalk: Skin infection induced eosinophil mobilization and its impact on asthma development
14:40 - 14:50	WS49 Marlena Tynecka MSC mediated regulation of lower airway remodeling in eosinophilic and neutrophilic experimental asthma model
14:50 - 15:00	WS50 Rabia Ülkü Korkmaz Short- and long- term effects of post-natal dysbiosis in pulmonary development and function
15:00 - 15:10	WS51 Jez Marston Single-cell transposable element expression in B-cell differentiation in pseudotime
Workshop 11	Innate immunity
<i>Room: Davos 2</i>	<i>Chairs: Greta Guarda, Marie Charlotte Brüggem</i>
14:00 - 14:10	WS52 Heike Hawerkamp Haemophilia-mediated bleeding induces red pulp macrophage expansion
14:10 - 14:20	WS53 Renate Bauer Intranasal allergic sensitization to birch pollen extract is reduced in NLRP3-deficient animals
14:20 - 14:30	WS54 Jozefien Declercq Chitinases in the lung: do they influence the development of allergic airway disease?
14:30 - 14:40	WS55 Asma Farhat A bone to pick: The impact of an ageing bone marrow on bleomycin induced lung fibrosis
14:40 - 14:50	WS56 Ashok Kumar Selective induction of cell death in human M1 macrophages by Smac mimetics is mediated by cIAP-2 and RIPK-1/3 through the activation of mTORC1
14:50 - 15:00	WS57 Anthony Lefebvre Impact of Nasopharyngeal Carcinoma Exosomes on Maturation and Function of Human Dendritic Cells
Workshop 12	Autoimmunity
<i>Room: Forum</i>	<i>Chairs: Thomas Conlon, Klaus Warnatz</i>
14:00 - 14:10	WS58 Chakib Hamoudi The purinergic receptor P2X4 promotes Th17 development and its inhibition reduced the severity of arthritis
14:10 - 14:20	WS59 Evelyn Peelen IMU-935, an Orally Available ROR γ T Inverse Agonist in Phase 1 Clinical Trial for Psoriasis, Inhibits Th17-Dependent Autoimmunity without Inducing Thymocyte Aberrations
14:20 - 14:30	WS60 Chris Platsoucas Clonally expanded gamma/delta TCR+T-cells are present in skin biopsies and peripheral blood of patients with Systemic Sclerosis (SSc)
14:30 - 14:40	WS61 Ying Wong The identification of genetic and epigenetic changes that contribute to Type 1 diabetes (T1D)
14:40 - 14:50	WS62 Lena Siewert Microbial triggering of myelin-specific immune cells in the gut drives central nervous system inflammation
14:50 - 15:00	WS63 Radka Cisarova Tolerogenic dendritic cells and its optimal application routes during prevention of type 1 diabetes: NOD and NOD-SCID mice models
15:00 - 15:10	Award Ceremony for workshop prizes of workshops 7 - 9, Room: Davos 1 Award Ceremony for workshop prizes of workshops 10 - 12 (will be given directly after the workshops by the chairpersons)