

## 1. Day - Wednesday, 5 July 2023

<b>Workshop 1</b>	<b>T- and B cell memory and immune regulation</b>
<i>Room: Davos 1</i>	<i>Chairs: Hermelijn Smits, Jens Stein</i>
14:30 - 14:40	WS1 <b>Nadine Cadosch</b> Pericardial fat-associated lymphoid clusters control T cell activation and differentiation during autoimmune myocarditis
14:40 - 14:50	WS2 <b>Daniela Claudino Carvoeiro</b> A chemokine-driven feedback loop prevents aberrant T cell activation/ overstimulation by terminating their crosstalk with dendritic cells
14:50 - 15:00	WS3 <b>Jannes Gavel</b> Resident Th2 memory cells in allergic asthma
15:00 - 15:10	WS4 <b>Sahine Lameire</b> The Ste20 kinase TAOK3 controls development, homeostasis and activation of abeta T cells
15:10 - 15:20	WS5 <b>Mara Cetty Spinella</b> Functional and molecular analysis of SKAP2 in T lymphocytes
15:20 - 15:30	WS6 <b>Paul Engeroff</b> Novel mechanisms in the regulation of serum IgE levels and anaphylaxis

<b>Workshop 2</b>	<b>Swiss Young Immunologists Society Workshop Autoimmune diseases, tumor and immune mechanisms</b>
<i>Room: Davos 2</i>	<i>Chairs: Annika Hausmann, Paola Martínez-Murillo</i>
14:30 - 14:40	W07 <b>Lenka Sukenikova</b> The emerging role of autoreactive T cells in Guillain-Barré syndrome
14:40 - 14:50	W08 <b>Ziyang Tan</b> Persistent T cell expansions are found in the peripheral blood of patients with pediatric solid tumor using longitudinal single cell profiling
14:50 - 15:00	W09 <b>Anne-Cathrine Vogt</b> Probing monoclonal antibody specificity for Alzheimer's vaccine design
15:00 - 15:10	W10 <b>Tiphaine Voisin</b> Transcriptional reprogramming of skin-innervating sensory neurons in allergic contact dermatitis

<b>Workshop 3</b>	<b>Allergy and Asthma</b>
<i>Room: Forum</i>	<i>Chairs: Stokes Peebles, Philippe Gevaert</i>
14:30 - 14:40	W11 <b>Andrzej Eljaszewicz</b> Changes in the structure of lung extracellular matrix in acute and chronic house dust mite-induced experimental asthma
14:40 - 14:50	W12 <b>Tanzeela Hanif</b> The role of peripheral blood MxA levels during a first acute wheezing episode; Associations with the duration of hospitalization and subsequent report of asthma symptoms
14:50 - 15:00	W13 <b>Nadine Herrmann</b> Circulating microRNA in atopic dermatitis – considering atopic comorbidities
15:00 - 15:10	W14 <b>Tina Hartert</b> Long-term Effects of Respiratory Syncytial Virus Infection in Infancy on Asthma in Childhood
15:10 - 15:20	W15 <b>Elena Ratti</b> Characterization of PD-L1 as novel therapeutic target in mastocytosis
15:20 - 15:30	W16 <b>Cansin Sackesen</b> Hymenoptera Venom Allergy in Children and Adults: Characteristics, Severity, and Immunological Changes During Immunotherapy

19:30 **Poster presentations of workshops 1 - 3**, Room: Main Corridor

## 2. Day - Thursday, 6 July 2023

<b>Workshop 4</b>	<b>Epithelial barriers and immune response</b>
<i>Room: Davos 1</i>	<i>Chairs: Ismail Ogülür, Charlotte Menne Bonefeld</i>
14:30 - 14:40	W17 <b>Daniel Cook</b> CFTR Regulates Airway Epithelial IL-33 Release and IL-33 Dependent Inflammation
14:40 - 14:50	W18 <b>Manru Li</b> Household laundry detergents cause barrier dysfunction and induce inflammation in mouse and human skin

- 14:50 - 15:00 W19 **Deborah Minzaghi**  
Topical exposure to Bisphenol A activates keratinocytes and induces symptoms resembling atopic dermatitis
- 15:00 - 15:10 W20 **Emma Ruysseveldt**  
The nasal basal cells shift towards a pro-inflammatory state in allergic rhinitis
- 15:10 - 15:20 W21 **Dieudonné Togbe**  
Chronic ozone exposure induces hyperreactivity and COPD-like lung pathology that is dependent on cholinergic signalling
- 15:20 - 15:30 W22 **Mu Xian**  
Budesonide repairs the barrier damage caused by PM2.5 to eosinophilic nasal polyp epithelial cells but not non-inflammatory nasal epithelium

#### **Workshop 5** **Viral infections and COVID-19**

*Room: Davos 2* *Chairs: Urszula Radzikowska, Andreas Wack*

- 14:30 - 14:40 W23 **Oral Alpan**  
A new model for long-COVID
- 14:40 - 14:50 W24 **Matthew Burgess**  
Gut helminth infection promotes lung anti-viral immunity in a monocyte dependent manner
- 14:50 - 15:00 W25 **Elisabeth De Leeuw**  
How do allergens, RSV infection and maternal allergy conspire to promote allergy and asthma in newborns
- 15:00 - 15:10 W26 **Corinna Holetschek**  
Early multi-dimensional immune correlates of asymptomatic versus severe COVID-19
- 15:10 - 15:20 W27 **Katharina Röltgen**  
Immune imprinting and breadth of variant recognition in SARS-CoV-2 infection and vaccination
- 15:20 - 15:30 W28 **Oliver Wirz**  
Dissecting SARS-CoV-2-specific B cell responses in vaccinated individuals and infected patients

#### **Workshop 6** **Epigenomics and transcriptomics in immune regulation**

*Room: Forum* *Chairs: Isabelle Arnold, Burkhard Ludewig*

- 14:30 - 14:40 W29 **Katja Baerenfaller**  
Following the footprints to detect polypeptides encoded by non-coding RNA
- 14:40 - 14:50 W30 **Marian Abigaile Bataclan**  
Regulation of mast cell functions by Regnase RNA-binding proteins
- 14:50 - 15:00 W31 **Martin Pook**  
Epigenetic and transcriptomic landscape of skin homing CLA+ CD4+ memory T-cells in Atopic dermatitis and Psoriasis
- 15:00 - 15:10 W32 **Yusi Liu**  
Structure and Bioactivity of FIP-nha (Nectria haematococca): Glycosylation contributes to Fip-nha's thermostability, resistance to proteolysis and immunomodulatory activity
- 15:10 - 15:20 W33 **Damir Zhakparov**  
GeneSelectR: A machine learning-based R package for feature selection and biological assessment in RNAseq analysis of complex biological datasets

#### **Workshop 7** **Novel vaccines for immuno therapy and immune modulations**

*Room: Sertig* *Chairs: Hidde Ploegh, Cevdet Ozdemir*

- 14:30 - 14:40 W34 **Matias Ciancaglini**  
Non-cytolytic viral vaccine vectors induce type I interferon and establish long-lived effector-differentiated CD8 T cell memory
- 14:40 - 14:50 W35 **Romano Josi**  
A tetravalent nanovaccine against head and neck carcinoma selectively induce dendritic cells activation
- 14:50 - 15:00 W36 **Sercan Keskin**  
Immunological Characterization of PLGA Encapsulated mRNA Expressing Crimean-Congo Haemorrhagic Fever Virus (CCHFV) Nucleocapsid Protein (NP)
- 15:00 - 15:10 W37 **Alessandro Pardini**  
Versatile and scalable nanoparticle vaccine as a scaffold against newly emerging influenza viruses
- 15:10 - 15:20 W38 **Dominik Rothen**  
Immunogenicity evaluation of novel VLP-based vaccines against all four DENV serotypes in a preclinical trial

17:00 - 17:10 **Award Ceremony for workshop prizes of workshops 1 - 3**, Room: Davos 1

19:30 **Poster presentations of workshops 4 - 7**, Room: Main Corridor

### 3. Day - Friday, 7 July 2023

<b>Workshop 8</b>	<b>Treatment and diagnosis of immune disorders</b>
<i>Room: Davos 1</i>	<i>Chairs: Monique Vogel, Fintan Moriarty</i>
15:30 - 15:40	W39 <b>Cristina Benito-Villalvilla</b> The role of IgE and regulatory T cells in Crohn's disease
15:40 - 15:50	W40 <b>Lukas Heeb</b> Comprehensive analysis of human IL-4 receptor subunits shows compartmentalization in steady state and dupilumab treatment
15:50 - 16:00	W41 <b>Kiran Kumar Mudnakudu Nagaraju</b> Microdelivery of Allergen Powder for Safe and Effective Epicutaneous Immunotherapy
16:00 - 16:10	W42 <b>Mirjam Schenk</b> BCG-hydrogel as immunotherapy in melanoma
16:00 - 16:10	W43 <b>Abhinav Kaushik</b> Infrared molecular fingerprinting and protein expression in firefighters
16:10 - 16:20	W44 <b>Paola Martínez-Murillo</b> Evaluation of extracellular vesicles as noninvasive early predictive markers for severe COVID-19
16:20 - 16:30	W45 <b>Zahava Vadasz</b> Truncated-semaphorin3A is a potential regulatory molecule to restore immune homeostasis in immune-mediated diseases
<b>Workshop 9</b>	<b>Food allergy and gastro intestinal tissue injury</b>
<i>Room: Davos 2</i>	<i>Chairs: Christoph Schneider, Olaf Perdijk</i>
15:30 - 15:40	W46 <b>Annika Hausmann</b> Recapitulation of human colonocytes in situ by human colon organoids in vitro and after orthologous transplantation
15:40 - 15:50	W47 <b>Ismail Ögülür</b> Gut epithelial barrier damage caused by dishwasher detergents and rinse aids
15:50 - 16:00	W48 <b>Yagiz Pat</b> Effect of commonly used food additives on gut barrier
16:00 - 16:10	W49 <b>Jan Věcek</b> Probiotic bacteria Escherichia coli O83:K24:H31 stimulates the neonatal mucosal immune system and promotes a tolerogenic environment in the newborn gut
16:10 - 16:20	W50 <b>Duygu Yazici</b> Epithelitis: barrier disruption and activation of pro-inflammatory molecules in gut epithelial cells by food emulsifiers
16:20 - 16:30	W51 <b>Marit Zuurveld</b> An advanced in vitro human mucosal immune model to predict food sensitizing allergenicity risk: a proof of concept using ovalbumin as model allergen
<b>Workshop 10</b>	<b>B cell subsets and immune regulation</b>
<i>Room: Forum</i>	<i>Chairs: Gunilla Karlsson Hedestam, Di Yu</i>
15:30 - 15:40	W52 <b>Mirela Dimitrova</b> Selective attrition of high-affinity B cells in the late phase of chronic viral infection
15:40 - 15:50	W53 <b>Inés Lammens</b> Allergen induced IgA production in lung Tertiary Lymphoid Organs (TLO) is instructed by the TLO niche
15:50 - 16:00	W54 <b>Sanjana Narang</b> Human immunoglobulin kappa and lambda light chain gene variation in individuals from Africa, Asia, and Europe
16:00 - 16:10	W55 <b>Allyssa Phelps</b> Pathogenic IgE-fated B cell memory retains functional plasticity
16:10 - 16:20	W56 <b>Stijn Vanhee</b> Development of novel transgenic mouse models to elucidate clonal adaptive immune responses towards house dust mite Der p2 in allergic airway disease
16:20 - 16:30	W57 <b>Anouk von Borstel</b> Allergen-specific type 2 memory B cells in bee venom allergy are modified following ultra-rush immunotherapy
18:35 - 18:45	<b>Award Ceremony for workshop prizes of workshops 4 - 7</b> , Room: Davos 1
19:30	<b>Poster presentations of workshops 8 - 13</b> , Room: Main Corridor

## 4. Day - Saturday, 8 July 2023

<b>Workshop 11</b>	<b>Immune metabolism</b>
<i>Room: Davos 1</i>	<i>Chairs: Milena Sokolowska, Oscar Palomares</i>
14:15 - 14:25	W58 <b>Bart Everts</b> O-GlcNAcylation is a crucial post-translational modification for T helper 2 cell polarization by dendritic cells
14:25 - 14:35	W59 <b>Inés Jardon Parages</b> Immunometabolic reprogramming of bronchial epithelium in asthma and during viral infection
14:35 - 14:45	W60 <b>Jana Koch</b> Protein Prenylation in T cell activation
14:45 - 14:55	W61 <b>Abhijeet Kulkarni</b> Metabolomics of circulating human memory CD4+T effector and T regulatory cells reveals that phenylalanine is a metabolic checkpoint of pathogenic Th2 cells development
14:55 - 15:05	W62 <b>Naiqi Wang</b> Finely-tuning of Glutathione peroxidase 4 (GPX4)-ferroptosis axis to regulate the homeostasis and function of TFH cells
15:05 - 15:15	W63 <b>Seyram Maureen Duphey</b> Interleukin-13 and interleukin-22 differentially regulate glycolysis in keratinocytes of patients with atopic dermatitis
<b>Workshop 12</b>	<b>Allergy and Asthma and parasites</b>
<i>Room: Davos 2</i>	<i>Chairs: Johan Garssen, Oral Alpan</i>
14:15 - 14:25	W64 <b>Ruben Fernandez-Santamaria</b> Protein G'-grafted mesoporous silica nanoparticles for IgG removal in the context of in vitro allergy diagnosis
14:25 - 14:35	W65 <b>Anne-Sofie Halling</b> Skin barrier and immune biomarkers predict development of childhood atopic dermatitis
14:35 - 14:45	W66 <b>Abhinav Kaushik</b> Multiplexed tissue imaging for immune cells profiling during peanut allergy immunotherapy
14:45 - 14:55	W67 <b>Nadine Serhan</b> Role of prenatal stress-induced fetal imprinting in offspring susceptibility to develop allergic skin inflammation
14:55 - 15:05	W68 <b>Kyle T. Cunningham</b> A family of helminth-derived TGF-beta mimics provide key insights to Treg and innate immune cell activation
<b>Workshop 13</b>	<b>Innate immune response</b>
<i>Room: Forum</i>	<i>Chairs: Yasutaka Mitamura, Hamida Hammad</i>
14:15 - 14:25	W69 <b>Xiaogang Feng</b> IL-17RB in tuft cells controls IL-25-mediated tonic ILC2 activation to maintain their proliferative potential
14:25 - 14:35	W70 <b>Krzysztof Krawczyk</b> Protective effect of halophilic archaea – Halorhabdus rudnickae and Natrinema salaciae - against genotoxic effect induced by Staphylococcal enterotoxin B (SEB) on human dendritic cells
14:35 - 14:45	W71 <b>Andreas Ruhl</b> Th2-dependent disappearance of alveolar macrophages in a mouse model of allergic airway inflammation
14:45 - 14:55	W72 <b>Marcin Surmiak</b> Dysregulation of the mTOR signalling pathway in neutrophils - a possible link to the pathophysiology of granulomatosis with polyangiitis
14:55 - 15:05	W73 <b>Sebastian Wawrocki</b> Non-immune cells circulating in peripheral blood and their potential role
15:05 - 15:15	W74 <b>Reihane Ziadlou</b> Multiplexed spatial mapping of panniculitis: Deciphering the immune profile of inflammatory subcutaneous adipose tissue microenvironment
12:00 - 12:10	<b>Award Ceremony for workshop prizes of workshops 8 - 10</b> , Room: Davos 1
14:55 - 15:15	<b>Award Ceremony for workshop prizes of workshops 11 - 13</b> (will be given directly after the workshops by the chairpersons)