



# The International Society of Exercise and Immunology

## 16<sup>th</sup> ISEI SYMPOSIUM – Preliminary PROGRAMME

### Training the Immune System for New Challenges

Campus of the University of Vienna, Austria

9<sup>th</sup> – 12<sup>th</sup> September 2024

#### MONDAY, 9<sup>TH</sup> OF SEPTEMBER 2024

12:00 – 15:30 Registration and poster mounting (Hörsaalzentrum, Hof 2, Campus)

15:30 – 16:00 **Opening of the Symposium**  
**Richard Simpson (ISEI President), Barbara Wessner (Symposium Chair, ISEI President Elect)**

16:00 – 17:00 **WELCOME KEYNOTE SPEECH – Christoph BOCK (Austria)**  
“Looking into the past and future of cells: Epigenetic cell states in immunity”  
Chairs: Richard Simpson (USA) and Barbara Wessner (Austria)

17:00 – 20:00 **WELCOME RECEPTION**

Welcome Reception will be held at the Aula am Campus (Hof 1.11), Spitalgasse

#### TUESDAY, 10<sup>TH</sup> OF SEPTEMBER 2024

07:30 – 08:30 Registration and poster mounting (Hörsaalzentrum, Hof 2, Campus)

08:30 – 10:00 **SESSION 1: Immuno – Oncology 1 – Presidential Lecture**  
**Chairs: xxx**

08:30 – 09:00 **SIMPSON, Richard (USA)**  
“Exercise as an immune adjuvant for adoptive cell therapies in hematologic malignancies”

09:00 – 09:30 **THOR STRATEN, Per (Denmark)**  
“The exercise of mobilizing the immune system in cancer patients”

09:30 – 09:45 **KOELWYN, Graeme (Canada)**  
“Exercise modulation of the tumor microenvironment and cancer cell phenotypes”

09:45 – 10:00 **LAVOY, Emily (USA)**  
“Longitudinal Relationships Between Inflammation and Somatic Symptoms and Depression in Breast Cancer Patients During and After Chemotherapy?”

10:00 – 10:30 **Coffee break**

**10:30 – 12:00** **SESSION 2: Immuno – Oncology 2**

**Chairs:** xxx

**10:30 – 10:45** **BATATINHA, Helena (USA)**

“Isoproterenol infusion improves the composition and function of G-CSF mobilized allogeneic peripheral blood hematopoietic cell grafts.”

**10:45 – 11:00** **MCKENZIE, Grace (USA)**

“Daratumumab Augments Exercise Expanded  $\gamma\delta$  T-cells Cytotoxic Function against Multiple Myeloma”

**11:00 – 11:15** **COX, Phoebe (UK)**

“Evaluating the effect of interval cycling over 3-hours on peripheral blood concentrations of hematopoietic stem and cytolytic natural killer cells.”

**11:15 – 11:30** **MCDUGAL, London (USA)**

“Exercise-mobilized donor lymphocyte infusions enhanced with cytokines have increased polyfunctionality and anti-leukemia activity.”

**11:30 – 11:45** **SPILIOPOULOU, Polyxeni (Greece)**

“Effects of exercise training in the bone marrow immune microenvironment of multiple myeloma patients after first-line treatment.”

**11:45 – 12:00** **LEUCHTE, Katharina (Denmark)**

“Dynamics of T cell specificity before and after high-intensity aerobic exercise (INHALE study).”

**12:00 – 13:30** **Lunch/Board Meeting**

**13:30 – 15:00** **SESSION 3: Muscle – Immune Interaction**

**Chairs:** xxx

**13:30 – 14:00** **PEAKE, Jonathan (Australia)**

“Using -omics technologies to understand exercise-induced muscle damage.”

**14:00 – 14:30** **CAPOROSI, Daniela (Italy)**

“Exercise-induced systemic response: the role of circulating extracellular vesicles.”

**14:30 – 14:45** **KISTNER, Timothy (USA)**

“Single-cell transcriptomic and proteomic changes in peripheral blood mononuclear cells during and after an acute exercise bout.”

**14:45 – 15:00** **TONG, Yishan (Japan)**

“Effects of 3-(4-Hydroxy-3-methoxyphenyl)propionic Acid on Enhancing Grip Strength and Inhibiting Protein Catabolism Induced by Exhaustive Exercise.”

**15:00 – 15:30** **Coffee break**

**15:30 – 17:00** **SESSION 4: Brain – Immune Interaction**

**Chair:** xxx

**15:30 – 16:15** **FLESHNER, Monika (USA)**

“A Fresh Perspective on Exercise Immunology: It’s All in the Brain.”

- 16:15 – 16:30 **RIEHL, Lydia (Austria)**  
“Exploring the impact of the signal transducer gp130 in the sensory neuron-gut-brain axis.”
- 16:30 – 16:45 **RICHMOND, Claudia (UK)**  
“Childhood adversity and respiratory infection risk in adulthood: a prospective cohort study in military recruits.”
- 16:45 – 17:00 **QIPO, Orgesa (Belgium)**  
“Dose-response relationship of resistance training and the effects on circulating biomarkers of inflammation or neuroplasticity in older adults: A Systematic Review and Meta-Analysis.”

17:00 – 20:00 **POSTER SESSION**

Poster viewing and judging of ECR posters

**WEDNESDAY, 11<sup>TH</sup> OF SEPTEMBER 2024**

08:30 – 10:00 **SESSION 5: Ageing Immune System**  
Chairs: xxx

- 08:30 – 09:00 **TEIXERA, Ana (Portugal)**  
“Ageing: the anti-inflammatory power of lifelong exercise.”
- 09:00 – 09:30 **KRÜGER, Karsten (Germany)**  
“Exercise effects on the dynamic interactions between inflammation and T-cell ageing.”
- 09:30 – 09:45 **GEBHARDT, Kristina (Germany) - tbc**  
“Associations of PBMC respiration with immunological and metabolic markers in healthy elderly”
- 09:45 – 10:00 **AKALP, Kaan (Portugal)**  
“Effects of Simultaneous Cognitive Training and Group Aerobic Exercise on Inflammation and Cognitive Functions in Older Persons: Preliminary Results.”

**10:00 – 10:30 Coffee break**

10:30 – 12:00 **SESSION 6: Challenging the Immune System**  
Chairs: xxx

- 10:30 – 11:00 **SCHERNHAMMER, Eva (Austria)**  
“Stress biology and the circadian system: exercise with the clock.”
- 11:00 – 11:30 **WALSH, Neil (UK)**  
“Sleep (restriction), human performance and the immune system.”
- 11:30 – 11:45 **NOLTE, Svenja (Germany)**  
“Interaction of erythropoiesis, iron metabolism and innate immunity in athletes training at artificial altitude.”
- 11:45 – 12:00 **TYSON, Hayley (UK)**  
“Respiratory infection and exertional heat illness risk: interim findings from a prospective cohort study in military recruits.”

<b>12:00 – 13:30</b>	<b>Lunch</b>
<b>13:30 – 15:00</b>	<b>SESSION 7: Immuno-Nutrition</b> <b>Chairs: xxx</b>
13:30 – 14:00	<b>NEUBAUER, Oliver (Austria)</b> “Dietary Nitrate, Exercise, and the Immune System.”
14:00 – 14:30	<b>SUZUKI, Katsuhiko (Japan)</b> “Effects of fluid intake on exercise-induced organ damage and inflammation in athletes.”
14:30 – 14:45	<b>CAPERUTO, Erico (Brazil)</b> “Combining L-leucine supplementation and high-intensity interval sprinting exercise to induce changes in plasma cytokines.”
14:45 – 15:00	<b>FRASCHETTI, Emily (Canada)</b> “Immunonutrition: Influence of a high-dairy diet on immune cell populations following a high-fat meal challenge.”
<b>15:00 – 15:30</b>	<b>Coffee break</b>
<b>15:30 – 17:00</b>	<b>SESSION 8: Gut – Immune Interaction</b> <b>Chairs: xxx</b>
15:30 – 16:00	<b>WOODS, Jeffrey (USA)</b> “Fitness from Within: Exploring the Exercise Gut Microbiota Connection.”
16:00 – 16:15	<b>HENNINGSEN, Kayla (Australia)</b> “The impact of ultra-marathon trail running on the gastrointestinal bacterial composition- Is there cause for concern?”
16:15 – 16:30	<b>SCRIVIN, Rachel (Australia)</b> “The impact of 48-h carbohydrate loading with varied FODMAP content on faecal bacterial profile prior to exertional stress.”
16:30 – 16:45	<b>MARKOFSKI, Melissa (USA)</b> “Acute exercise increases circulating cytotoxic gut-homing T cells in middle-aged to older adults.”
16:45 – 17:00	<b>CHO Eunhan (USA) - tbc</b> “The effects of 12-weeks of aerobic exercise on circulating myokines in colorectal cancer survivors.”
<b>19:00 – 22:00</b>	<b>SYMPOSIUM DINNER (Reception of the Mayor of the City of Vienna)</b>  <b>Fuhrgassl-Huber, Hauerkuchl, Neustift am Walde 66, 1190 Vienna</b>

## THURSDAY, 12<sup>TH</sup> OF SEPTEMBER 2024

### 08:30 – 10:00 **SESSION 9: Optimizing Immunity Through Exercise**

Chairs: xxx

#### 08:30 – 09:00 **ROSA-NETO, José Cesar (Brazil)**

“Endurance Exercise: Metabolic Adaptations in Immune Cells and Their Impact on Immuno-Fitness.”

#### 09:00 – 09:15 **PROSCHINGER, Sebastian (Germany)**

“A 10-week multi-modal high-intensity interval training beneficially modulates the T cell compartment in relapsing-remitting multiple sclerosis.”

#### 09:15 – 09:30 **SICK, Johanna (Austria)**

“Exercise rehabilitation in post COVID-19 patients: A randomized controlled trial of different training modalities.”

#### 09:30 – 09:45 **LEITE, Geovana (USA)**

“Exercise mobilizes multi-potent viral-specific T-cells enhancing the IFN-response after viral peptide stimulation in healthy humans.”

#### 09:45 – 10:00 **SARDELI, Amanda Veiga (UK)**

“Lifelong physical activity maintains the immune system of older adults.”

### 10:00 – 10:30 **Coffee break**

### 10:30 – 11:15 **SESSION 10: Travel Award Session**

Chairs: xxx

#### 10:30 – 10:45 **VON AH MORANO, Ana Elisa (Brazil)**

“Immune responses during physical exertion under heat stress: implications on the mechanisms of heat stroke.”

#### 10:45 – 11:00 **SALEIHAN, Omid (Iran)**

“The effects of mixed sour cherry and honey supplementation on Muscle soreness, (CK, LDH, and Mb) and Plasma biomarkers of inflammation (IL6 and CRP) in resistance trained males.”

#### 11:00 – 11:15 **PAULA-VIEIRA, Rosa Helena Ramos (Brazil)**

“Caloric Deficiency in Older Adults Results in Impaired Lung Function involving Pulmonary Immunosuppression.”

### 11:30 – 12:30 **CLOSING OF THE SYMPOSIUM**

**Early Career Researcher and Travel Award Ceremony**



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