XIII ISEI SYMPOSIUM SCIENTIFIC PROGRAMME

“Training our immune system for health and performance”

Tuesday 11th July

14:00- 17:30 Registration
17:30- 19:30 Welcome Reception (Sta Clara –à-Velha Monastery)

Wednesday 12th July

8:00- 9:00 Day registration and poster mounting
9:00- 9:30 Opening of the Symposium
9:30- 10:30 Session 1: Presidential Symposium & Honorary Lecture
Chairs: Maree Gleeson (AUS) and Ana Maria Teixeira (PT)

9:30 Katsuhiko Suzuki (JP): Cytokine response to exercise and its modulation
10:00 Romain Meeusen (BE): Exercise and the Brain
10:30- 11:00 Tea/Coffee break

11:00- 12:30 Session 2 –How to Maintain Athletes Health
Chairs: Nicholas West (AUS) and Luís Rama (PT)

11:00 Maree Gleeson (AUS): Regulation of Mucosal Immunity and Impact of Exercise
11:30 David Pyne (AUS): Quantitative interpretation of immune test results in athletes

Oral presentations
12:00 Naroa Etxebarria (AUS): Lost in translation - Getting your research message across
12:15 Candice Colbey (AUS): Immune cell profiles distinguish Australian Olympic athletes with or without URS

12:30- 14:00 Lunch

14:00- 15:30 Session 3 – Immune Responses to Exercise
Chairs: Neil Walsh (UK) and Cristina Monteiro (PT)

14:00 Karsten Krüger (GE): Exercise, lymphocyte life span and adaptation

Oral Presentations
14:30  Selma van Staveren (NL): Multidimensional analysis reveals increasing phenotypic changes in the total neutrophil compartment during 8 consecutive days of endurance exercise.

14:45  Erik D. Hanson (USA): Submaximal aerobic exercise induces mait cell lymphocytosis but does not alter homing and activation markers.

15:00  Diogo V. Leal (UK): Endocrine, immune and inflammatory adaptations in men following exercise induced chronic stress.


15:30  A. L. Moura (PT): Anaphylaxis during physical exercise.

15:45- 16:00  Tea/Coffee break

16:00- 17:30  Session 4 – Immune Responses to Extreme Challenges
   Chairs: Richard Simpson (USA) and Glen Davison (UK)

16:00  Neil Walsh (UK) - Immune Responses to Extreme Challenges

   Oral Presentations

16:30  Austin B. Bingley (USA): Dysregulated NK-cell function during long-duration spaceflight.

16:45  Nadia H Agha (USA): The impact of a 6-month mission to the International Space Station (ISS) on salivary antimicrobial proteins.

17:00  Rhiannon Snipe (AUS): Can carbohydrate and protein intake prevent gut-immune perturbations induced by exertional-heat stress?

17:15  Mauro Vaisberg (BR): Differences in the nasal neutrophil count between marathoners with or without exercise-induced bronchoconstriction.

17:30  Karsten Krüger (DE): Effects of therapeutic exercise training on systemic inflammation in smoke-exposed mice.

17:45-18:45  Poster viewing and judging of Early Career Researcher posters

Thursday 13th July

8:00- 9:00  Day registration and poster mounting

9:00- 10:30  Session 5 – Exercise and Metabolism
   Chairs: David Nieman (USA) and Raul Martins (PT)

9:00  Amira Klip (CAN) - Exercise and Metabolism

   Oral Presentations

9:30  Claúdia R. Cavaglieri (BR): Associations between metabolic and inflammatory changes in obese middle-age men after 24 weeks of combined training.
9:45 Liliana Baptista (PT): Multifactorial cardiovascular risk intervention in an early stage of Type 2 diabetes in older adults: the effect of exercise training and metformin.

10:00 Arwel W. Jones (UK): Vitamin D status modulates innate immune responses and metabolic profiles following acute prolonged cycling.

10:15 Melissa M. Markofski (USA): Moderate activity, not vigorous activity is associated with a higher percent of circulating classic monocytes positive for CX3CR1 and CCR2.


10:45- 11:00 Tea/Coffee break

Session 6 – Skeletal Muscle Regeneration and Adaptation
Chairs: David Pyne (AUS) and Carlos Fontes Ribeiro (PT)

11:00 Benedicte Chazaud (FR): Macrophages during skeletal muscle regeneration: from experimentation in mouse to human physiology


Oral communications

12:00 Oliver Neubauer (AUS): Novel time-course related linkages of skeletal muscle gene networks with blood inflammation and muscle damage markers following endurance exercise.

12:15 Yuzuru Sakamoto (JP): A role of DAP12, an activating-type immunoregulatory molecule in skeletal muscle regeneration

12:30- 14:00 Lunch (ISEI Board Meeting – Sala Jardim)

Session 7 – Modulating Diseases Outcome by Exercise
Chairs: Karsten Kruger (GE) e Benoit Dugué (FR)

14:00 Pernille Hojman (DK): Running from Cancer: A Role for Exercise-Mediated Control of Cancer Through Regulation of Immune Function.

14:30 Ryoichi Nagatomi (JP): Lessons from Natural Killer Deficient Patients – Implication In Exercise Immunology

Oral communications

15:00 Michael Harrison (IR): Influence of sprint interval exercise and continuous aerobic exercise on circulating angiogenic leukocytes in older adults.

15:15 Sven P. Hoekstra (SW): Elevated core temperature: not only useful in the context of exercise to combat chronic low-grade inflammation?

15:30 Testimony of a patient with Rheumatoid Arthritis (Sponsored by Holmes Place)
15:45- 16:00  Tea/Coffee break

16:00- 17:30  **Session 8 – Nutritional Intervention in Exercise**
Chairs: Cláudia Cavagliani (BR) and Jonathan Peake (USA)

16:00  **David Nieman (USA):** Impact of Nutrition on Metabolic and Immune System Recovery from Heavy Exertion: Value of Multi-Omics Approaches

16:30  **Lindy Castell (UK):** Can Nutritional Supplements Help Exercise-induced Immunodepression?

**Oral communications**

17:00  **Glen Davison (UK):** Bovine Colostrum supplementation enhances sensitivity of the in vivo immune response to a novel antigen following prolonged exercise.

17:15  **Matheus Uba-Chupel (PT):** Exercise and supplementation with taurine in the elderly: effects on immune and blood-brain barrier integrity markers.

17:30  **Juliana Santos (BR):** Influence of Vitamin D and inflammation on sleep disorders in sedentary and street runners.

17:45- 18:45  Poster viewing and judging of Earlier Career Researcher Award

19:30  **Symposium Dinner – Quinta das Lágrimas**

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**Friday 14th July**

9:00- 10:30  **Session 9 – Immunosenescence and Exercise**
Chairs: Eduardo Ortega (ES) and Barbara Wessner (AT)

9:00  **Richard Simpson (USA):** Mobilizing T-Cells With Exercise for Adoptive Transfer Immunotherapy

9:30  **Ana Teixeira (PT):** Effects of Lifelong Training on T Lymphocytes Senescence

**Oral presentations**

10:00  **Forrest L. Baker (USA):** Relationships between cardiorespiratory fitness and markers of senescence and exhaustion in peripheral blood CD8+ T-cells and NK-cells.

10:15  **Masataka Uchida (JP):** Chronic responses of inflammation and macrophage function to exercise training in various tissues of senescent mice.

10:30- 11:00  Tea/Coffee break

11:00- 12:30  **Session 10 – Exercise and the Gut Microbiota: From Brain to Muscle**
Chairs: Ryoichi Nagatomi (JP) and José Pedro Ferreira (PT)
11:00  **Monika Fleshner (USA):** Early Life Exercise Promotes Favorable Changes in Gut Microbial Ecology, Persistent Stress Robustness, and Metabolic Health

11:30  **Jorge Ruas (SW):** The Effects of Exercise Training on Kynurenines, Metabolism, and Mental Health

**Oral presentations**

12:00  **Nicholas West (AUS):** Exercise, the microbiota and immune regulation.

12:15  **Bernardo A. Petriz (BR):** Analysis of moderate aerobic exercise on the gut microbiota from mice induced to obesity with high fat diet.

12:30-13:30  Closing of the Symposium and Earlier Career Researcher Awards  
*(Sponsored by iKeys)*

  *Farewell*