

The 17th ISEI Symposium - ISEI 2026 Tokyo -

SCIENTIFIC PROGRAM

Version as of June 17, 2026 - Updated regularly

Day 1 - Thursday, 27 August

Keynote

Chair	Katsuhiko Suzuki	Waseda University	Link	Link 2
	Masashi Miyashita	Waseda University	Link	Link 2
	Ryoichi Nagatomi	How can exercise immunology contribute to everyday life? A suggestion for need-oriented exercise immunology		

Day 2 - Friday, 28 August

Session 1 - Immune mechanisms & regulation * YIA: candidates of the young investigator award

Chair	Chin Leong Lim	Nanyang Technological University VinUniversity	Link
	Cláudia Regina Cavaglier	University of Campinas	Link
	Emily LaVoy	T cell metabolism and function differs by cardiorespiratory fitness level and with acute exercise	
	Heejae Lee	YIA* High-intensity interval training (HIIT) induces persistent and divergent remodelling of T cell immunity	
	Julian Moser	YIA Acute exercise and extracellular vesicle responses: Immunological and methodological insights from a systematic review sub-analysis	
	Ena Yoshida	YIA Leukocyte, interleukin-6, and chemokine responses to moderate-intensity aerobic exercise during the menstrual and luteal phases	

Session 2 - Host defence, infection & vaccination

Chair	Richard J. Simpson	The University of Arizona	Link
	Nicholas West	Griffith University	Link
	James Turner	The influence of latent Cytomegalovirus infection on adipose tissue in healthy men	
	Katharina Leuchte	Acute HIIT widely modifies immunity: Dynamics of virus-specific CD8+ T cells, immunomodulatory serum proteins and chemokine receptor expression on lymphocytes	
	Seiichi Sato	Mechanical lung expansion triggers antiviral innate immune responses in vivo	
	Tung-Lin Lu	YIA Effects of long-term glutamine supplementation on gut microbiota during training periodization of cross-country skiers	

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Session 3 - Inflammation & resolution

Chair	Brandt Pence	University of Memphis	Link
	Yuri Hosokawa	Waseda University	Link
	Jonathan Peake	Exercise-induced muscle damage and its effects on the serum proteome	
	Ivan Bautmans	Strength training affects intracellular stress response in peripheral immune cells	
	Masato Kawashima	Neutrophil depletion alters early repair responses and delays skeletal muscle regeneration following crush injury	
	Cong Wu	YIA Disuse-induced muscle atrophy impairs inflammatory regulation and delays skeletal muscle regeneration following acute injury	

Session 4 - Methods, omics & systems approaches

Chair	Jonathan Peake	Queensland University of Technology	Link
	Barbara Wessner	University of Vienna	Link
	Nicholas West	Divergent peripheral (muscle) and systemic (whole blood) immune gene expression following prolonged intense exercise: A spatial and transcriptomic analysis	
	Brandt Pence	Comprehensive proteomic profiling in the WELCOM cohort identifies reduced inhibin/activin betaC in physically active women	
	Jongbok Lee	Precision-prescribed HIIT at 110% RCP abolishes plasma multi-omic heterogeneity across training backgrounds	
	Timothy M. Kistner	CITE-seq reveals rare immune cell populations while maintaining concordance with flow cytometry in exercise-mobilized PBMCs	

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Day 3 - Saturday, 29 August

Session 5 - Nutrition, metabolism & immunometabolism

Chair	Emily LaVoy	University of Houston	Link	Link 2
	Masashi Miyashita	Waseda University	Link	Link 2
	Ana Maria Teixeira	Lifelong exercise is associated with metabolic capacity and remodeling in cytotoxic and unconventional T cells		
	Ruheea Taskin Ruhee	Short-term sulforaphane intake modulates exercise-induced oxidative stress in healthy adults		
	Therdtham Chawrai	YIA The effects of four weeks of ketone ester supplementation on systemic and adipose tissue inflammation in healthy older adults: a randomised controlled trial		
	Emily C. Frascetti	YIA Feeding recovery: Post-exercise nutrition influences immune cell dynamics		

Session 6 - Ageing, growth & development

Chair	Barbara Wessner	University of Vienna	Link	
	Guillaume Spielmann	Louisiana State University	Link	
	Zsolt Radák	Exercise slows epigenetic aging, while pro-inflammatory bacterial species in the gut accelerate it		
	Paulo F. de Almeida-Neto	Biological maturation modulates neutrophil mobilization and IL-8 responses following repeated sprint exercise in adolescent athletes		
	Yishan Tong	YIA Effects of 3-(4-hydroxy-3-methoxyphenyl)propionic acid on regulating oxidative stress and muscle fiber composition		
	Xiang Pan	YIA Gut microbiota and childhood mental health through a physical-fitness versus physical-activity decoupling lens: a microbiota–gut–brain study in children aged 6–9 years		

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Session 7 - Lifestyle & metabolic disease

Chair	Ana Teixeira	University of Coimbra	Link
	Llion Roberts	Griffith University	Link
	Cláudia Regina Cavaglieri	Regular physical activity and reduction of neurogenic obesity may mitigate premature immunosenescence in people with spinal cord injury	
	Brian J. Andonian	Exercise training and hypocaloric diet modulate markers of lymphocyte aging and inflammation in older adults with rheumatoid arthritis	
	Gabriela Mandú Gimenes	YIA Effect of gut microbiota depletion on glucose tolerance and T lymphocytes profile in a model of non-obese type 2 diabetes	
	Chuwen Xue	YIA Metabolic improvements in obese mice induced by combined black ginger extract supplementation and endurance exercise	

Session 8 - Cancer & tumor immunology

Chair	Cláudia Regina Cavaglier	University of Campinas	Link
	James Turner	The University of Birmingham	Link
	Richard J. Simpson	Exercise as an immune adjuvant for allogeneic cell therapies: An overview of the Allo-X trial	
	Gitte Holmen Olofsson	High-intensity interval training enhances immunotherapy efficacy in metastatic non-small cell lung cancer: results from the randomized HI AIM trial with integrated translational analyses	
	Forrest L. Baker	Exercise-expanded $\gamma\delta$ T cells show in vitro and in vivo anti-myeloma potential and daratumumab-mediated ADCC	
	Moe Sugasaki	YIA Inflammatory cytokine interleukin-1 induced bone formation in the model of bone metastasized cancer	

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Day 4 - Sunday, 30 August

Session 9 - Environmental & physiological stress

Chair	Kumpei Tanisawa	Waseda University	Link
	Paulo Francisco de Almeida-Neto	Federal University of Rio Grande do Norte Natal	Link
	Chin Leong Lim	Immune responses during physical exertion under heat stress: implications on the mechanisms of heat stroke	
	Llion A Roberts	Inflammatory mediated adaptation to blood flow restricted resistance exercise: A state of the art	
	Masaki Inada	Differential gene responses for slow-twitch and fast-twitch muscles in muscular atrophy and hypertrophy	
	Sandro M. Hirabara	Determination of metabolic parameters and lymphocyte profile in military police officers with metabolic syndrome	

Session 10 - Clinical issues

Chair	Ryoichi Nagatomi	Tohoku University	Link
	Eisuke Ochi	Hosei University	Link
	John Sullivan	YIA	Exercise mobilized T-cells upregulate CD137 after blinatumomab stimulation and have enhanced effector function against B-ALL
	Randy Chou	YIA	Exercise-expanded $\gamma\delta$ T cells show enhanced responsiveness to bispecific antibody redirection in hematological malignancies
	Ken-ichi Okada	Effects of adjuvant /neoadjuvant chemotherapy combined with exercise therapy in pancreatic cancer	
	Michiya Tanimoto	Activities of the cancer and exercise working group: Bridging evidence and practice in exercise oncology	

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Day 2 - Friday, 28 August

Poster Presentation

* YIA: candidates of the young investigator award

1	Yuzuru Sakamoto		Effects of long-term voluntary running exercise on allergy-related immune cell dynamics and immune checkpoint receptor-mediated immunoregulation
2	Amara Cassandra dos Anjos Alves	YIA*	The influence of bone marrow hematopoietic activity in low-grade inflammation in lean type 2 diabetes
3	Linda Ericsson	YIA	Immunophenotype characterization of CD8+ T cells and NK cells following aerobic exercise and resistance exercise in healthy individuals.
4	Muhammad Arkan Rahmat	YIA	The effects of high-intensity interval training on T-cell activation in patients with rheumatoid arthritis: A scoping review
5	Ting-Cheng WU	YIA	Probiotic and prebiotic supplementation for respiratory immune modulation in athletes versus asthma: A comparative meta-analysis
6	Ming-Ru Chiang		Transient alterations of salivary mucosal immunity following vaccination in adolescent female athletes
7	Rui Curi		Neutrophil function in elite athletes with high-intensity exercise induced bronchospasm
8	Cheng-Lin Tsai		Effects of pre-maximal isometric contraction on eccentric exercise induced muscle damage and pulse wave velocity of the knee extensor
9	Emelyn Mathot	YIA	Strength training as an immune rejuvenation strategy: evidence from the SPRINT project
10	Zong-Jia Wu	YIA	Reduced glucose availability elevates electrical pulse stimulation-induced oxidative stress in C2C12 myotubes
11	Shiva Ebrahimpour Nosrani	YIA	Exercise-induced inflammatory modulation and muscle endurance in older women at risk of sarcopenia
12	Yutaka Matsumoto		Dose optimization of topical methyl salicylate: 10% wintergreen oil attenuates exercise-induced soleus inflammation without impairing performance
13	Rio Yagi		Age-related differences in gene expression following percutaneous absorption of wintergreen oil in mice
14	Yutaro Hara	YIA	Acute systemic inflammatory responses induced by transdermal absorption of wintergreen oil in mice
15	Daisuke Shiiba		Development of a patch-free murine model of epicutaneous sensitization using a highly viscous carboxymethyl cellulose solution
16	Kayla Henningsen	YIA	The impact of a polyphenol rich sugarcane extract nutrition intervention on exercise-associated bacteraemia in response to exertional-heat stress
17	Haruki Kobori	YIA	The utility of a small animal grip strength measurement device as a model for studying exercise-induced muscle damage

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18	Muhammad Sulthan Arya Rasyad	YIA	Immunometabolic reprogramming by GLP-1 receptor agonists in inflammatory skin diseases: A scoping review of omics, immune regulation, and exercise-technology interactions
19	Naufal Reginald Abiyasa	YIA	Wearable technology for monitoring immune stress and exercise-induced physiological responses: A scoping review
20	Kayla Anindya	YIA	Wearable sweat biosensors and saliva-based biomarker monitoring in exercise immunology: A scoping review
21	Ricardo JS Costa		Can exercise-associated leukocytosis be used as a surrogate screening biomarker for exercise-induced gastrointestinal syndrome - A feasibility exploration
22	Hung-Wen Liu		Sex differences in appetite regulation and energy intake following moderate-load resistance exercise
23	Hayato Tsukamoto		No effect of flavanol-rich cocoa on salivary cortisol and secretory immunoglobulin A concentrations at rest and after exercise under cognitive fatigue
24	Hsin-Hua Li		Epigallocatechin gallate attenuates hydrogen peroxide-induced atrophy-related responses in C2C12 myotubes
25	Chin Hsu		Metabolomic profiling of immunometabolic responses following antrodia camphorata supplementation and prolonged exercise
26	Tania Pithon-Curi		Effects of cardiovascular rehabilitation in plasma lipidome profiles of myocardial infarction patients with and without type 2 diabetes mellitus
27	Jiapeng Huang	YIA	8-week kaempferia parviflora extract administration improves submaximal exercise capacity in mice by enhancing skeletal muscle antioxidant gene expression and plasma antioxidant capacity
28	Chung-Kai Wang	YIA	Glutamine and iron supplementation optimizes mucosal immunity against high-intensity resistance exercise stress in women during the mid-luteal phase
29	Angelika Pritama Naldita Haloho	YIA	Beyond moderate-to-vigorous physical activity: Low-intensity physical activity and immunometabolic regulation — A scoping review
30	Chieh-Yu Yang	YIA	Probiotic effects on immunity, cytokines, and URTI in athletes: A systematic review and meta-analysis
31	Queennyva Rumaisya	YIA	Probiotic supplementation for endurance and athletic performance in athletes: A scoping review
32	Ryo Miyazaki		Comparative analysis of the discriminative ability of GDF-15 and FGF21 for prefrailty and frailty in community-dwelling older adults
33	Jai-Sing Yang		Association between serum creatinine-to-body weight ratio, exercise, and muscle mass: A large-scale cross-sectional study in the Taiwan biobank
34	Sohrab Rezaei	YIA	Effects of taurine supplementation combined with exercise training on inflammatory and oxidative stress biomarkers in older women with sarcopenia
35	Kaan Akalp	YIA	The influence of simultaneous aerobic and cognitive training (Activ4Brain) intervention on cognition, inflammatory markers and neuroprotective factors
36	Nasda Aliatus Sya'bana	YIA	The role of exercise in modulating immunosenescence-related mechanisms in brain aging and neuroprotection: A scoping review

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37	Tomoya Kasugai	YIA	Cellular senescence induced by the DNA alkylation damage response on myoblast differentiation
38	Orgesa Qipo	YIA	Impact of acute blood flow restriction training and high intensity resistance training on BDNF and IGF-1 levels in healthy older men
39	Ayumi Goto		CREG1 ameliorates diabetic pathology and enhances voluntary exercise in a mouse model of diabetes mellitus
40	Thomas G. Bissen	YIA	The association between body composition and immune cell mobilization during acute exercise in young adults
41	Luiz Eduardo Ferraz Rodrigues	YIA	Effect of resistance exercise on insulin resistance in skeletal muscle in a non-obese type 2 diabetic animal model
42	Megan M. Lo	YIA	Habitual physical activity patterns of children are related to NK cell mobilization following high-intensity intermittent exercise
43	Eloise May	YIA	β -adrenergic sensitivity is preserved in circulating peripheral blood mononuclear cells in young adults with obesity
44	Hong Shik Park	YIA	The effects of inspiratory muscle strength training on β 2-adrenergic mediated cAMP signaling in young adults with obesity
45	Kyoma Sasaoka	YIA	Associations of meditation, budo, and geido with mindfulness-related measures: WASEDA'S health study
46	Shuo Wang	YIA	Time-of-day exercise and redox adaptation in obese mice: muscle-derived extracellular vesicle miRNAs as candidate regulators
47	Tomoko Fukazawa		Effects of Chios Mastiha extract and exercise intervention on blood biochemistry and oxidative stress markers in middle aged men
48	Michelle Burr	YIA	Acute exercise enhances the potency of cytokine-induced killer cells against hematological malignancies
49	Xue-Hua Ling	YIA	Phenotypic landscape mapping by multiparametric high-content screening reveals divergent modulators of cancer cachexia-associated muscle atrophy
50	Laurence Poirier	YIA	Immune signatures of exercise-mobilized NK cells in aging cancer patients undergoing treatment identified by single-cell RNA sequencing
51	Helena Batatinha		Impact of heat exposure on immune responses during endurance exercise in triathletes.
52	Yoshitaka Ohno		The effect of environmental heat stress on the morphological changes in cultured skeletal muscle cells during proliferation
53	Shinsuke Tamai		Effects of high-concentration carbon dioxide hot water immersion and contrast water therapy on salivary human herpesvirus 6 and 7 levels.
54	Yichang Wang	YIA	Effects of menopausal status on body temperature responses during exercise in the heat
55	Yun-Ru Wu	YIA	LGG attenuates PM2.5- and allergen-induced airway inflammation through immune rebalancing: A co-exposure model for exercise-associated airway disease

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56	Hiyori Nogawa	YIA	Effects of acute resistance exercise combined with hypoxic exposure maintained until immediately after exercise on metabolic and hormonal responses
57	Eriko Iino	YIA	The effects of different beverage intake during field sports exercise in severe heat on dehydration and secretory immunoglobulin A
58	Audinny Putri Prettisia	YIA	Exercise-induced immune responses in tropical hot-humid environments: A scoping review
59	Gen Tanabe		Nonlinear relationship between salivary flow rate and secretory IgA concentration in athletes
60	Fumi Asanuma	YIA	Self-assessed immune function and associated risk factors among Japanese firefighters