

## Scientific program:

### MONDAY, June 27

09:00	Registration
12:15	OPENING CEREMONIES
13:00	Survival of the fitter
13:40	Why we run
14:20	Physical activity enhances longevity
15:00	Break
15:30	Lifelong exercise as a countermeasure against age-related decline in ability to function
16:00	Promoting health-enhancing physical activity: successful examples
16:30	Responsibility of sport and exercise medicine in preventing chronic disease
18:30	Reception of the city of Kuopio Town Hall

### TUESDAY, June 28

08:00	Pulmonary limits to maximal cardiorespiratory performance in health and disease
08:30	Limitations to maximal cardiorespiratory performance in health and disease
09:00	The clinical importance of maximal cardiorespiratory performance: the past, present and future
09:30	Cardiopulmonary exercise testing for risk prediction in major surgery
10:00	Break
10:30	Towards a personalised approach in exercise-based cardiovascular rehabilitation: how can translational research help?
11:00	CPET imaging in cardiology: applications and perspectives
11:30	Exercise and endothelium
12:00	Exercise and retinal microvascular function across the lifespan
12:30	Lunch

13:45	Too much exercise for cardiovascular health? Myth or fact?
14:15	Exercise training in patients and athletes with arterial hypertension
14:45	Exercise training and physical activity in patients with heart failure
15:15	The clinical benefit of high-intensity interval training outweighs the potential risks
18:30	Oral presentations at Old Harbour restaurant at Kuopio Passenger Harbour

### WEDNESDAY, June 29

08:00	Role of inactivity in the development of metabolic syndrome
08:40	The Fat, but Fit paradox
09:20	A time to eat, a time to exercise: circadian biology and metabolic health
10:00	Break
10:30	Mitochondria and aging - the role of exercise as a countermeasure
11:10	Exercise as a modulator of intestinal microbiome
<b>MARTTI J. KARVONEN YOUNG INVESTIGATOR AWARD PRESENTATIONS</b>	
11:45	Finalist 1
12:00	Finalist 2
12:15	Finalist 3
12:30	Lunch

### RALPH S. PAFFENBARGER JR. ABSTRACT COMPETITION

13:45	Finalist 1
14:00	Finalist 2
14:15	Finalist 3
14:30	<b>PUIJO SYMPOSIUM 2014 HONORARY LECTURE</b> Dr Martin Halle, Germany

### THURSDAY, June 30

08:30	Methods for quantifying individual response variance
09:10	The human risks of bias in medical and rehabilitation research and practice
09:50	How to design the optimal exercise-based RCT – ask the experts moderator Dr Antti Malmivaara, Finland
10:30	Break
<b>PUIJO SYMPOSIUM HALL OF FAME: VIRTUAL (OR ON THE SPOT) GREETINGS FROM THE GIANTS OF EXERCISE MEDICINE</b>	
11:00	Dr Ilkka Vuori, FIN
11:30	Dr Steven Blair USA
12:00	Recipient of Heikki Pekkarinen Memorial Award
12:30	Lunch
13:45	Martti J. Karvonen Young Investigator Awarding ceremony
14:00	Ralph S. Paffenbarger Jr Abstract Awarding ceremony
14:15	Understanding the cellular and molecular mechanisms of physical activity-induced health benefits
15:00	Closing of the Symposium Dr Martin Halle, Germany

We reserve the right to update or change the program. Please check the latest news from the website [www.puijosymposium.org](http://www.puijosymposium.org)

## TOPICS:

ROLE OF INACTIVITY IN CHRONIC DISEASES:  
EVOLUTIONARY INSIGHT AND  
PATHOPHYSIOLOGICAL MECHANISMS

FROM BENCH TO BEDSIDE...TO THE COMMUNITY  
HEALTH

FROM SCIENCE TO CLINICAL PRACTICE I –  
Cardiorespiratory performance

FROM SCIENCE TO CLINICAL PRACTICE II -  
Cardiovascular diseases

FROM SCIENCE TO CLINICAL PRACTICE III -  
Metabolic diseases

METHODOLOGICAL FRONTIERS OF EXERCISE  
MEDICINE

### Important dates:

Deadline for abstracts March 31, 2022  
(Ralph S. Paffenbarger Jr. Poster Award and  
Martti J. Karvonen Young Investigator Award).

Notification of the acceptance will be  
made by April 15, 2022.

Deadline for early bird  
registration fee March 31, 2022.

**More information:**  
[www.puijosymposium.org](http://www.puijosymposium.org)

## Invited speakers:

Bernd Heinrich, USA  
Daniel Lieberman, USA  
Jonathan Myers, USA  
Urho Kujala, Finland  
Alejandro Lucía Mulas, Spain  
Tommi Vasankari, Finland  
Mats Börjesson, Sweden  
Alan Batterham, UK  
Antti Malmivaara, Finland  
Nicolle Kränkel, Germany  
Marco Guazzi, Italy  
Paul Thompson, USA  
Josef Niebauer, Austria  
Matthias Wilhelm,  
Switzerland  
Arno Schmidt-Trucksäss,  
Switzerland  
Henner Hanssen, Switzerland

Martin Halle, Germany  
Jerome Dempsey, USA  
Andrew Jones, UK  
P. Darrell Neuffer, USA  
Frank Booth, USA  
Denny Levett, UK  
Ilkka Vuori, Finland  
Steven Blair, USA  
Andrea Ticinesi, Italy  
Mark Tarnopolsky,  
Canada  
John Hawley, Australia  
Mikael Fogelholm,  
Finland  
Juha Hartikainen, Finland  
Trine Moholdt, Norway

## Organized by:

**Kuopio Research Institute of  
Exercise Medicine,  
Foundation for Research in  
Health Exercise and Nutrition**

## PUIJO SYMPOSIUM SECRETARIAT

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[www.puijosymposium.org](http://www.puijosymposium.org)

# The International 23rd Puijo Symposium

**“Physical Exercise for  
Health Promotion and  
Medical Care -**

**Translation of Research  
Evidence to Everyday  
Practise”**

**June 27 - 30, 2022**

**Kuopio, Finland**