



**UNICA**  
UNIVERSITÀ DEGLI STUDI  
DI CAGLIARI

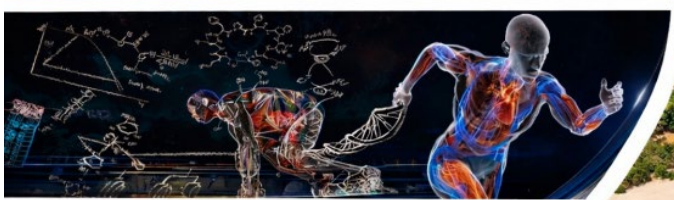


REGIONE AUTONOMA DE SARDIGNA  
REGIONE AUTONOMA DELLA SARDEGNA



**SARDIGNA CHIRCAS  
SARDEGNA RICERCHE**

## 5th UNICA SPORT SCIENCE INTERNATIONAL CONFERENCE



1-3 July 2026 - Pula, Sardinia, Italy

## Final Programme



**ForteVillage**  
SARDINIA



**UNIVERSITY OF CAPE TOWN**  
IYUNIVESITHI YASEKAPA - UNIVERSITEIT VAN KAAPSTAD



**SISMES**  
SOCIETÀ ITALIANA DELLE SCIENZE MOTORIE E SPORTIVE



**CANTINE DI  
DOLIANOVA**



**USSIC**

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2026

*More than a conference*

# Final Programme

**5th UNICA SPORT SCIENCE INTERNATIONAL CONFERENCE**  
**Pula, Sardinia, Italy**  
**1-3 July 2026**

Organized by



**UNIVERSITÀ DEGLI STUDI  
DI CAGLIARI**

Facoltà di Medicina e Chirurgia  
Dipartimento di Scienze Mediche e Sanità Pubblica  
*Corsi di Laurea Triennale in Scienze delle Attività Motorie e Sportive  
e Magistrale in Scienze delle Attività Motorie Preventive e Adattate*

In collaboration with



**SARDIGNA CHIRCAS  
SARDEGNA RICERCHE**

## WELCOME MESSAGE

**Dear Colleagues, Friends, and Participants,**

It is our great pleasure to welcome you to the 5th UNICA Sport Science International Conference (USSIC 2026), taking place from 1–3 July 2026 in Sardinia, Italy.

This year's conference will be hosted across two outstanding venues: the Sardinia Science and Technology Park, one of the leading research and innovation hubs in the Mediterranean region, and Forte Village Resort, internationally recognized as one of the world's leading sport and wellness destinations. This unique combination reflects the spirit of USSIC 2026, bringing together scientific excellence, technological innovation, health promotion, and high-performance sport within an exceptional Mediterranean setting.

Over the years, USSIC has grown into an international platform where researchers, practitioners, health professionals, coaches, and students come together to exchange knowledge, foster collaborations, and discuss the latest developments in Sport and Exercise Sciences.

This year's edition brings together experts from numerous countries and disciplines, reflecting the increasingly interdisciplinary nature of our field. From exercise physiology, genetics, biomechanics, training and testing, nutrition, and sports medicine to psychology, dual career, public health, and Exercise as Medicine, USSIC 2026 aims to promote dialogue across traditional boundaries and encourage innovative approaches to sport, health, and human performance.

A distinctive feature of this edition is the strong focus on the role of physical activity and exercise as powerful tools for health promotion, disease prevention, and personalized medicine. Through keynote lectures, invited sessions, oral presentations, workshops, and round tables, participants will have the opportunity to explore both cutting-edge scientific evidence and practical applications.

We are particularly proud to host the Genetics Symposium, one of the few international scientific forums dedicated to the rapidly evolving field of sport and exercise genomics. The symposium will bring together several of the world's leading experts who have contributed to shaping current knowledge in this field, providing a unique opportunity to discuss the latest scientific advances and future directions in sport and exercise genomics.

We are also particularly proud to host the conference in Sardinia, a unique environment where science, sport, culture, and nature converge. The combination of academic venues, research infrastructures, and world-class sport facilities offers an exceptional setting for scientific exchange and networking.

We would like to express our sincere gratitude to all speakers, authors, reviewers, institutional partners, sponsors, students, and volunteers whose contribution has made this event possible.

We hope that USSIC 2026 will provide not only a stimulating scientific experience but also an opportunity to establish new collaborations, strengthen existing partnerships, and inspire future research initiatives. We wish you a productive conference and a pleasant stay in Sardinia.

Warm regards,

**Prof. Myosotis Massidda and Prof. Filippo Tocco**

*Conference Chairs*



**SCIENTIFIC Committee****CONFERENCE CHAIRS****FILIPPO TOCCO** and **MYOSOTIS MASSIDDA**

Department of Medical Sciences and Public Health, University of Cagliari, ITALY

**MEMBERS****SEBASTIANO BANNI**, Department of Biomedical Sciences and Public Health, University of Cagliari, ITALY**MAURO GIOVANNI CARTA**, Department of Medical Sciences and Public Health, University of Cagliari, ITALY**MARIA GIOVANNA GHIANI**, Department of Medical Sciences and Public Health, University of Cagliari, ITALY**MASSIMILIANO PAU**, Department of Mechanical, Chemical and Materials Engineering, University of Cagliari, ITALY**ORGANISING Committee****CONFERENCE CHAIRS****MYOSOTIS MASSIDDA** and **FILIPPO TOCCO**

Department of Medical Sciences and Public Health, University of Cagliari, ITALY

**MEMBERS****GIUSEPPE ALLEGRA**, Sport and Exercise Science Degree Programme, University of Cagliari, ITALY**ROSSELLA ANGIUS**, Sardegna Ricerche, ITALY**SIMONE DESSI'**, Department of Medical Sciences and Public Health, University of Cagliari, ITALY**MARIA GIOVANNA GHIANI**, Department of Medical Sciences and Public Health, University of Cagliari, ITALY**SYLWIA KIEPUSZEWSKA**, Department of Medical Sciences and Public Health, University of Cagliari, ITALY**MARCELLO SAN FELICE**, CUS Cagliari, ITALY**GIUSEPPE SERRA**, Sardegna Ricerche, ITALY**MARIA VINCENZA ZONCA**, Faculty of Medicine and Surgery, University of Cagliari, ITALY**AWARDS Committee (Oral Communications)****CARLO CASTAGNA**, Pegaso University, ITALY**LAURA CAPRANICA**, University of Rome "Foro Italico", ITALY**MALCOLM COLLINS**, University of Cape Town, SOUTH AFRICA**KINGA HUMINSKA-LISOWSKA**, Gdansk University of Physical Education and Sport, POLAND**SUSANA POVOAS**, Maia University, PORTUGAL**AWARDS Committee (Poster presentations)****ATTILIO CARRARO**, Free University of Bozen-Bolzano, ITALY**VALENTINA GINEVICIENE**, Vilnius University, LITHUANIA**HIROSHI KUMAGAI**, Tohoku University, JAPAN**DIEGO PRIMAVERA**, University of Cagliari ITALY**ALISON V. SEPTEMBER**, University of Cape Town, SOUTH AFRICA**THOMAS YVERT**, Polytechnic University of Madrid, SPAIN

## INVESTIGATION AWARDS

The USSIC 2026 Investigation Awards aim to recognize outstanding scientific contributions presented during the Conference. Participation in the competition is reserved exclusively for authors who have formally applied for the award during the abstract submission process.

Communications will be evaluated by the dedicated Awards Committees according to scientific quality, originality, methodological rigor, relevance to Sport and Exercise Sciences, and quality of presentation.

Awards will be assigned in the following categories:

### Young Investigator Awards (First author aged 35 years or younger)

- Best Oral Communication
- Best Poster Presentation

### Senior Investigator Awards (First author older than 35 years)

- Best Oral Communication
- Best Poster Presentation

### USSIC Exercise as Medicine Excellence Award

In line with the main theme of USSIC 2026, the Scientific Committee may assign the USSIC Exercise as Medicine Excellence Award to the contribution that best highlights the role of physical activity and exercise in health promotion, disease prevention, rehabilitation, personalized medicine, healthy ageing, or the management of chronic conditions. The award may be assigned to either an oral communication or a poster presentation, regardless of the age category of the presenting author.

**The winners will be announced and awarded during the Closing Statement and Awards Ceremony.**



INVITED SPEAKERS



**Ildus AKHMETOV**  
Liverpool John Moores  
University  
[UNITED KINGDOM]



**Attilio CARRARO**  
University of Bozen-  
Bolzano  
[ITALY]



**Laura CAPRANICA**  
University of Rome  
"Foro Italico"  
[ITALY]



**Carlo CASTAGNA**  
Pegaso University  
[ITALY]



**Alessandra CARUCCI**  
University of Cagliari  
[ITALY]



**Malcolm COLLINS**  
University of Cape Town  
[SOUTH AFRICA]



**Nir EYNON**  
Monash University  
[AUSTRALIA]



**Thalia DARNANVILLE**  
INSA Lyon  
[FRANCE]



**Valentina GINEVICIENE**  
Vilnius University  
[LITHUANIA]



**Kinga HUMINSKA-  
LISOWSKA**  
Gdansk University  
[POLAND]



**Hiroshi KUMAGAI**  
Tohoku University  
[JAPAN]



**Susana POVOAS**  
University of Maia  
[PORTUGAL]



**Alison V. SEPTEMBER**  
University of Cape Town  
[SOUTH AFRICA]



**Bruno PERRA**  
CONI Sardegna  
[ITALY]



**Thomas YVERT**  
Polytechnic University of  
Madrid  
[SPAIN]

# USSIC 2026 Scientific Programme - Wednesday 1 July 2026

## Sardinia Science and Technology Park | Pula, Sardinia, ITALY

### REGISTRATION AND CONFERENCE WELCOME

10:00	Registration Opens
14:45	Registration Closes
15:00	Conference Welcome and Greetings from the Authorities

### USSIC 2026 – 3<sup>rd</sup> GENETIC SYMPOSIUM on Physical Performance and Sport Injuries

<b>CHAIRS:</b>	<b>Myosotis MASSIDDA</b> University of Cagliari [ITALY] 	<b>Filippo TOCCO</b> University of Cagliari [ITALY] 	<b>Carla Maria CALO'</b> University of Cagliari [ITALY] 
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### 15:30 – 15:55 KEYNOTE LECTURE

Time	Invited Speaker	Title
15:30 – 15:55	<b>Malcolm COLLINS</b> University of Cape Town [SOUTH AFRICA]	Two Decades of Research on Genetic Risk Factors for ACL Rupture: Have We Made Significant Progress?

### 16:00 – 17:00 INVITED LECTURES – I SESSION

Time	Invited Speaker	Title
16:00 – 16:20	<b>Hiroshi KUMAGAI</b> Tohoku University [JAPAN]	The role of mitochondrial microproteins in skeletal muscle function.
16:20 – 16:40	<b>Alison V. SEPTEMBER</b> University of Cape Town [SOUTH AFRICA]	Rethinking ACL Injury Risk: Polygenic Regulation of Mechanobiology, Angiogenesis and Extracellular Matrix Homeostasis.
16:40 – 17:00	<b>Valentina GINEVICIENE</b> Vilnius University [LITHUANIA]	Genetic Markers of Sports Performance: from Candidate Genes to Multi-Omics Integration.

### 17:00 – 17:30 COFFEE BREAK

### 17:30 – 18:35 INVITED LECTURES – II SESSION

Time	Invited Speaker	Title
17:30 – 17:50	<b>Ildus AKHMETOV</b> Liverpool John Moores University [UNITED KINGDOM]	Genetic Determinants of Long-Term Remodeling of Human Muscle Fiber Type and Size in Response to Endurance and Power Training.
17:50 – 18:10	<b>Kinga HUMINSKA-LISOWSKA</b> Gdansk University [POLAND]	Building the Athlete Profile: What Inflammatory and Adrenergic Genes Can Tell Us About Exercise Response.
18:10 – 18:30	<b>Thomas YVERT</b> Polytechnic University of Madrid [SPAIN]	Genetic Influence on Non-Contact Injury Severity in Elite Youth Football.

### 18:30 Closing statement

18:45 **CANTINE DOLIANOVA Wine Tasting** (Activity reserved to Authorities, Speakers and Committee Members)

# USSIC 2026 Scientific Programme -Thursday 2 July 2026

## Forte Village Resort | Santa Margherita di Pula, Sardinia, ITALY

### GENERAL PROGRAMME

8:30 - Registration Opens
8:55 - Registration Closes
9:00 - Conference Welcome and Greetings from the Authorities
9:15 - Keynote Lecture, Nir EYNON [AUSTRALIA]
9:45 - Oral Communications
11:10 - Coffee Break
12:20 - Invited Lecture, Attilio CARRARO [ITALY]
12:40 - Oral Communications
13:15 - Lunch Break
15:00 - Invited Lecture, Susana POVOAS [PORTUGAL]
15:20 - Oral Communications
16:30 - Coffee Break
17:00 - Poster Session and Evaluation
18:30 - Oral Communications: FIBROGENHIIT Project Special Session
19:30 - Closing Statements and Awards Ceremony

### MORNING SESSION DETAILED PROGRAMME

#### 09:15 – 09:45 KEYNOTE LECTURE

**Chairs:** Myosotis MASSIDDA, Filippo TOCCO, University of Cagliari [ITALY]

Time	Invited Speaker	Title
09:15 – 09:45	Nir EYNON Monash University [AUSTRALIA]	Multi-OMIC approach to identify exercise & healthy ageing biomarkers in females and males.

#### 09:45 – 11:10 ORAL COMMUNICATIONS – EARLY MORNING SESSION

#### 9:45 – 10:35 SPORTS & EXERCISE MEDICINE & HEALTH (MH)

**Chairs:** Laura CAPRANICA [ITALY], Luigi ATZORI [ITALY], Carlo CASTAGNA [ITALY]

Time	Speaker	Title
9:45 – 9:55	Beata LUBKOWSKA Gdansk University of Physical Education and Sport [POLAND]	Microbial Communities Across Sports Surfaces: Exploring the Biology of Athletic Environments.
9:55 – 10:05	Elisa FARRIS University of Cagliari [ITALY]	Decision Making Under Exercise Stress During Ramadan Fasting: A Case Study in Football Refereeing.
10:05 – 10:15	Magdalena DZITKOWSKA-ZABIELSKA Gdansk University of Physical Education and Sport [POLAND]	GDF15 Concentration in Physically Active Seniors and Its Association with Exercise Intervention.
10:15 – 10:25	Giovanna Maria GHIANI University of Cagliari [ITALY]	Effects of Community-Based Structured Exercise on Functional Capacity in Older Women with Chronic Diseases: Results from the "Active Communities" Project in ASL Sulcis.
10:25 – 10:35	Antonio DELL'OSA National University of Tierra del Fuego [ARGENTINA]	Cole Model as Refined and Non-Invasive Method to Prodromal Diagnosis of Structural Damage Incoming in Athletes of Asymmetric Arms Sports.

# USSIC 2026 – Scientific Programme - Thursday 2 July 2026

## Forte Village Resort – Pula, Sardinia, ITALY

### 10:40 – 11:10 BIOMECHANICS (B) / PSYCHOLOGY, SOCIAL SCIENCES & HUMANITIES (SH)

**Chairs:** Diego PRIMAVERA [ITALY], Massimiliano PAU [ITALY], Attilio CARRARO [ITALY]

Time	Speaker	Title
10:40 – 10:50	<b>Federico ARIPPA</b> University of Cagliari [ITALY]	Analysis of Force-Time Characteristics and Inter-Limb Asymmetry in CMJ and SJ.
10:50 – 11:00	<b>Ricardo André BIRRENTO AGUIAR</b> University of Murcia [SPAIN]	Analysis of Rule Adaptation in Youth Futsal: Perspectives from Coaches and Experts.
11:00 – 11:10	<b>Matteo Bruno LODI</b> University of Cagliari [ITALY]	Contactless Dual-mmWave Radar Simulation for Athlete Gait Profiling and Return-to-Play Screening.

### 11:10 – 11:40 COFFEE BREAK

### 11:40 – 12:20 ORAL COMMUNICATIONS – MID MORNING SESSION

### 11:40 – 12:20 GENETICS & EPIGENETICS (GE)

**Chairs:** Malcolm COLLINS [SOUTH AFRICA], Hiroshi KUMAGAI [JAPAN], Kinga HUMINSKA-LISOWSKA [POLAND]

Time	Speaker	Title
11:40 – 11:50	<b>Firzana FIRFIROY</b> University of Cape Town [SOUTH AFRICA]	Polygenic Architecture of ACL Rupture: Evidence for COL12A1 and HSPG2 Gene–Gene Interactions Across Cohorts.
11:50 – 12:00	<b>Svitlana DROZDOVSKA</b> National University of Ukraine on Physical Education and Sport [UKRAINE]	Effectiveness of Weight Loss in Obese Individuals with Different Genetic Profiles in Response to Aerobic and Resistance Exercise.
12:00 – 12:10	<b>Patrizia PROIA</b> University of Palermo [ITALY]	Comparative Effects of Two Probiotic Formulations on Aerobic Metabolism-Related DNA Methylation.
12:10 – 12:20	<b>Thomas DE BERARDINI</b> University of Cagliari [ITALY]	ACE, ACTN-3 and training response in women: integration with metabolomics.

### 12:20 – 12:40 INVITED LECTURE

**Chairs:** Filippo TOCCO [ITALY], Myosotis MASSIDDA [ITALY]

Time	Invited Speaker	Title
12:20 – 12:40	<b>Attilio CARRARO</b> Free University of Bozen-Bolzano [ITALY]	Physical Activity and Mental Health: The Evidence.

### 12:40 – 13:10 ORAL COMMUNICATIONS – LATE MORNING SESSION

### 12:40 – 13:10 PHYSIOLOGY & NUTRITION (PN)

**Chairs:** Sebastiano BANNI [ITALY], Alberto CONCU [ITALY], Maria Giovanna GHIANI [ITALY]

Time	Speaker	Title
12:40 – 12:50	<b>Claudio INTINI</b> University of Cagliari [ITALY]	Conjugated Linoleic Acid Promotes Anti-Inflammatory and Chondrogenic MSC Phenotypes Through Lipid Metabolic Remodeling in 2D and 3D Collagen Scaffolds for Cartilage Repair.
12:50 – 13:00	<b>Federica FRAU</b> University of Cagliari [ITALY]	Symmetry of the Upper and Lower Limbs in Streetlifting Athletes.
13:00 – 13:10	<b>Monica CABBOI</b> University of Cagliari [ITALY]	Nutritional Impact of Short-Term Sodium Butyrate Supplementation on Bioactive Fatty Acid-Derived Lipid Mediators in Healthy Adults.

### 13:15 – 14:30 LUNCH BREAK

# USSIC 2026 – Scientific Programme - Thursday 2 July 2026

## Forte Village Resort – Pula, Sardinia, ITALY

### AFTERNOON SESSION DETAILED PROGRAMME

#### 15:00 – 15:20 INVITED LECTURE

**Chairs:** Myosotis MASSIDDA [ITALY], Filippo TOCCO [ITALY]

Time	Speaker	Title
15:00 – 15:20	<b>Susana Povoas</b> University of Maia [PORTUGAL]	Playing for Health: Recreational Team Sports in the Exercise is Medicine Framework.

#### 15:20– 16:20 ORAL COMMUNICATIONS – AFTERNOON SESSION

##### 15:20 – 16:20 TRAINING & TESTING (TT)

**Chairs:** Alison V. SEPTEMBER [SOUTH AFRICA], Carlo CASTAGNA [ITALY], Laura CAPRANICA [ITALY]

Time	Speaker	Title
15:20 – 15:30	<b>Zsuzsanna GEP</b> University of Pécs [HUNGARY]	Yoga Training for Better Stress Regulation in University Students.
15:30 – 15:40	<b>Alessandra Perra</b> University of Cagliari [ITALY]	Feasibility and Preliminary Effects of Immersive Virtual Reality Cognitive Training in Older Adults with Mild Cognitive Impairment: A Randomized Controlled Trial.
15:40 – 15:50	<b>Marta BICHOWSKA-PAWESKA</b> Gdansk University of Physical Education and Sport [POLAND]	Stability of Arterial Occlusion Pressure Across the Menstrual Cycle: Implications for Blood Flow Restriction Training Prescription.
15:50 – 16:00	<b>Manuel PITZALIS</b> University of Cagliari [ITALY]	The Force-Velocity Profile in the Kettlebell Swing for Testing Power Performance.
16:00 – 16:10	<b>Ricardo André BIRRENTO AGUIAR</b> University of Murcia [SPAIN]	Does One Size Fit All? How Modified Rules Shift the Plyometric Landscape in Youth Basketball.
16:10 – 16:20	<b>Agata LATOCHA</b> Academy of Physical Education in Katowice [POLAND]	Adding Blood Flow Restriction to Systemic Hypoxia Training at 3500 m Enhances Strength, Neuromuscular Performance, Muscle Mechanical Properties, and Antioxidant Markers.

#### 16:30 – 17:00 COFFEE BREAK

#### 17:00 – 18:30 POSTER SESSION AND EVALUATION

##### PHYSIOLOGY & NUTRITION (PN) POSTERS

**Chairs:** Hiroshi KUMAGAI [JAPAN], Laura CAPRANICA [ITALY], Attilio CARRARO [ITALY], Thomas YVERT [SPAIN]

N.	Presenter	Title
1	<b>Natalija Kurmazovic</b> Faculty of Pharmacy, University of Belgrade [SERBIA]	Dietary Habits in Breath-Hold Divers: Assessing Dietary Patterns, Energy Availability and Macronutrient Intake.
2	<b>Alessandra Meloni</b> University of Cagliari [ITALY]	Nutritional Status and Body Composition in Personalized HIIT Response: Evidence from the FIBROGENHIIT Study.
3	<b>Agnieszka Gren</b> The Jerzy Kukuczka Academy of Physical Education in Katowice [POLAND]	Caffeine Withdrawal and Exercise Performance. A Systematic Review and Study Protocol.
4	<b>Alessia Boatta</b> San Raffaele University [ITALY]	Strain-Dependent Effects of Probiotic Supplementation on Heat Shock Protein Expression in Response to Exercise.
5	<b>Nikodem Kostka</b> Slaski Uniwersytet Medyczny w Katowicach [POLAND]	Does the Form Matter? Effects of Different Sodium Bicarbonate Delivery Forms on Gastrointestinal Symptoms and Anaerobic Performance.
6	<b>Natalija Kurmazovic</b> Faculty of Pharmacy, University of Belgrade [SERBIA]	Nutritional Considerations in Breath-Hold Diving: A Focus on Nutritional Deficiencies and Micronutrient Intake

# USSIC 2026 – Scientific Programme - Thursday 2 July 2026

## Forte Village Resort – Pula, Sardinia, ITALY

### PHYSIOLOGY & NUTRITION (PN) POSTERS

<b>Chairs:</b>			Hiroshi KUMAGAI [JAPAN], Laura CAPRANICA [ITALY], Attilio CARRARO [ITALY], Thomas YVERT [SPAIN]
7	<b>Zofia Tkocz</b> Nutrition and Sport Performance Research Group [POLAND]	Effects of Enteric-Coated and Standard Sodium Bicarbonate Capsules on Gastrointestinal Symptoms During Exercise	
8	<b>Marco Pallazzoni</b> University of Cagliari [ITALY]	Cardiorespiratory Adaptations to Precision HIIT in Fibromyalgia: CPET Findings from the FIBROGENHIIT Project	

### TRAINING & TESTING (TT) AND BIOMECHANICS (B) POSTERS

<b>Chairs:</b>			Hiroshi KUMAGAI [JAPAN], Laura CAPRANICA [ITALY], Attilio CARRARO [ITALY], Thomas YVERT [SPAIN]
<b>N.</b>	<b>Presenter</b>	<b>Title</b>	
9	<b>Daria Militano</b> University of Cagliari [ITALY]	Indoor vs Outdoor Precision HIIT in Fibromyalgia: Functional Responder Patterns from the FIBROGENHIIT Study	
10	<b>Carolina Maurandi</b> University of Cagliari [ITALY]	Effectiveness of a Motor Exercise Protocol on Glenohumeral Mobility and Upper Limb Strength	

### TRAINING & TESTING (TT) AND BIOMECHANICS (B) POSTERS

<b>Chairs:</b>			Hiroshi KUMAGAI [JAPAN], Laura CAPRANICA [ITALY], Attilio CARRARO [ITALY], Thomas YVERT [SPAIN]
<b>N.</b>	<b>Presenter</b>	<b>Title</b>	
11	<b>Emanuel Piras</b> University of Cagliari [ITALY]	FIBROGENHIIT Project: Do Perceived Clinical Improvements Reflect Objective Functional Gains in Fibromyalgia?	
12	<b>Mattia Bassu</b> University of Cagliari [ITALY]	Correlation between session-RPE and heart rate-based training load (Edwards TRIMP) in amateur soccer players during a competitive mesocycle.	
13	<b>Federico Arrippa</b> University of Cagliari [ITALY]	Effects of Ramadan Intermittent Fasting on Postural Control, Dynamic Stability, and Neuromuscular Performance.	

### SPORTS & EXERCISE MEDICINE & HEALTH (MH) POSTERS

<b>Chairs:</b>			Alison V. SEPTEMBER [SOUTH AFRICA], Valentina GINEVICIENE [LITHUANIA], Diego PRIMAVERA [ITALY]
<b>N.</b>	<b>Presenter</b>	<b>Title</b>	
14	<b>Marco Gianneschi</b> University of Cagliari [ITALY]	Impact of Ramadan Fasting on Explosive Strength and Repeated Sprint Ability in an Elite Football Referee: A Case Study.	
15	<b>Magdalena Pronczuk</b> Gdansk University of Physical Education and Sport [POLAND]	Advancing Athlete Diagnostics in Badminton: A Neuromechanical Perspective.	
16	<b>Daniele Pistis</b> University of Cagliari [ITALY]	Effects of Ramadan Fasting on Sleep Duration and Recovery in a Competitive Referee: A Case Study.	
17	<b>Mattia Bassu</b> University of Cagliari [ITALY]	Effects of Ramadan Fasting on Yo-Yo Endurance Test Level 2 Performance in an Elite Soccer Referee: A Case Study.	
18	<b>Tiziano Cossu</b> University of Cagliari [ITALY]	Enhancing Tennis Serve Performance Through the Multi-Action Plan (MAP): A Case Study on Attentional Control and Psychophysiological Regulation.	
19	<b>Alessio Mulas</b> University of Cagliari [ITALY]	Effects of Ramadan Fasting on Maximal and Submaximal Aerobic Performance in an Elite Football Referee: A Case Study Using Cardiopulmonary Exercise Testing.	

### GENETICS & EPIGENETICS (GE) POSTERS

<b>Chairs:</b>			Alison V. SEPTEMBER [SOUTH AFRICA], Valentina GINEVICIENE [LITHUANIA], Diego PRIMAVERA [ITALY]
<b>N.</b>	<b>Presenter</b>	<b>Title</b>	
20	<b>Daniele Desogus</b> University of Cagliari [ITALY]	FIBROGENHIIT Project: Preliminary Gene-Environment Signals for Personalized Exercise Prescription in Fibromyalgia.	

# USSIC 2026 – Scientific Programme - Thursday 2 July 2026

## Fortè Village Resort – Pula, Sardinia, ITALY

### GENETICS & EPIGENETICS (GE) POSTERS

<b>Chairs:</b> Alison V. SEPTEMBER [SOUTH AFRICA], Valentina GINEVICIENE [LITHUANIA], Diego PRIMAVERA [ITALY]		
21	<b>Gabija Anikeviciute</b> Vilnius University [LITHUANIA]	Genome Wide Association Study of Performance Related Traits in Elite Lithuanian Athletes.
22	<b>Lorenzo Massa</b> University of Cagliari [ITALY]	Genetic Modulation of Precision HIIT Response in Fibromyalgia: Insights from the FIBROGENHIIT Project.

### PSYCHOLOGY, SOCIAL SCIENCES & HUMANITIES (SH) POSTERS

<b>Chairs:</b> Alison V. SEPTEMBER [SOUTH AFRICA], Valentina GINEVICIENE [LITHUANIA], Diego PRIMAVERA [ITALY]		
N.	Presenter	Title
23	<b>Andrea Manca</b> University of Cagliari [ITALY]	Multidimensional Psychological and Recovery Responses to Ramadan in an Elite Soccer Referee: A Case Study.
24	<b>Antoni Urru</b> University of Cagliari [ITALY]	Baseline Psychological Distress as a Predictor of Clinical and Functional Response in Fibromyalgia: Insights from the FIBROGENHIIT Study.
25	<b>Camilla Demetrio Bleic</b> University of Cagliari [ITALY]	Maintaining Confidence Under Restriction: General and Regulatory Self-Efficacy During Ramadan in an Elite Referee.
26	<b>Michele Piras</b> University of Cagliari [ITALY]	Autonomic Recovery and Fatigue Regulation During Precision HIIT in Fibromyalgia: Evidence from the FIBROGENHIIT Project.

### 18:30– 19:15 ORAL COMMUNICATIONS – FIBROGENHIIT PROJECT SPECIAL SESSION

<b>Chairs:</b> Filippo TOCCO [ITALY], Myosotis MASSIDDA [ITALY]		
Time	Speaker	Title
18:30 – 18:35	<b>Myosotis Massidda</b> University of Cagliari [ITALY]	Introducing the FIBROGENHIIT Project: Towards Precision Exercise in Fibromyalgia.
18:35 – 18:45	<b>Martina Meloni</b> University of Cagliari [ITALY]	Indoor vs Outdoor Precision HIIT in Fibromyalgia: Environmental Modulation of Exercise Response in the FIBROGENHIIT Project.
18:45 – 18:55	<b>Michele Ruggiu</b> University of Cagliari [ITALY]	Cardiorespiratory Fitness Parameters in Patients with Fibromyalgia: Pre-Evaluation Before HIIT Prescription.
18:55 – 19:05	<b>Massimo Fanni</b> University of Cagliari [ITALY]	Biopsychophysiological Predictors of Response to Precision HIIT in Fibromyalgia: Findings from the FIBROGENHIIT Project.
19:05 – 19:15	<b>Paolo Leo</b> University of Cagliari [ITALY]	Predictors of Exercise Progression in Fibromyalgia Patients Undergoing Precision HIIT: Insights from the FIBROGENHIIT Project.

### 19:30 – 20:00 CLOSING STATEMENT AND AWARDS CEREMONY

## FIBROGENHIIT PROJECT SPECIAL SESSION

### Exercise as Medicine in Fibromyalgia: Towards Precision Exercise

The FIBROGENHIIT Project is an innovative research initiative investigating the effects of personalized High-Intensity Interval Training (HIIT) in individuals with fibromyalgia. By integrating exercise science, clinical assessment, genomics, digital health technologies and environmental factors, the project aims to better understand individual responses to exercise and to contribute to the development of precision exercise interventions. The special session will present preliminary findings from the FIBROGENHIIT study, exploring physiological, psychological and genetic factors associated with exercise adaptation and clinical outcomes. FIBROGENHIIT represents an example of how Exercise as Medicine can evolve toward a more personalized, evidence-based and patient-centred approach.

**Lead Institution:** Department of Medical Sciences and Public Health, University of Cagliari

**Funding Agency:** Fondazione di Sardegna

**Principal Investigator:** Myosotis Massidda

**Scientific Team:** Filippo Tocco, Matteo Piga, Mauro Carta, Cristian Cadeddu Dessalvi, Carla M. Calò, M. Giovanna Ghiani.

**Research Fellows:** Michele Ruggiu, Martina Meloni, Massimo Fanni, Paolo Leo, Federico Fois, Riccardo Laconi.

**Student Researchers and Trainees:** Lorenzo Massa, Antoni Urru, Alessandra Meloni, Daria Miltano, Marco Pallazzoni, Angelo Mura, Michele Piras, Emanuel Piras, Carolina Maurandi, Daniele Desogus, Giuseppe Allegra.



# USSIC 2026 Scientific Programme – Friday 3 July 2026

## Sardinia Science and Technology Park | Pula, Sardinia, ITALY

### GENERAL PROGRAMME

9:00-9:20 – Registration of participants
9:25 - Conference Welcome and Greetings from the Authorities
9:30 - Lectio Magistralis on Exercise as Medicine
10:00 - Round Table on Exercise as Medicine: Toward Personalized Training
10:45 - Coffee Break
11:15 - Special Session on Dual Career. Policy & Practice Forum Healthy Athletes: Aligning Health, Education and Sport Systems
11:55 - Round Table on Dual Career: From Policy to Practice – Building Sustainable Pathways for Student-Athletes
12:30 - Active Expo – Exhibition Hall & Interactive Experience
13:30 – FAST LUNCH BREAK
14:30 - Active Expo – Exhibition Hall & Interactive Experience
16:00 - Orienteering Challenge (Technical Briefing + Competition)
20:30 - Conference Social Dinner, USSIC 2026 Memories Video and Orienteering Competition Award Ceremony
23:00 - USSIC Party

### MORNING SESSION DETAILED PROGRAMME

<b>09:30 – 09:55</b>	<b>LECTIO MAGISTRALIS ON EXERCISE AS MEDICINE</b>	
<b>Chairs:</b>	Filippo TOCCO [ITALY], Myosotis MASSIDDA [ITALY]	
<b>Time</b>	<b>Invited Speaker</b>	<b>Title</b>
09:30 – 09:55	Carlo CASTAGNA Pegaso University [ITALY]	From Elite Performance to Public Health: metascience, Team Sports, and the Future of Exercise as Medicine.
<b>10:00 – 10:45</b>	<b>ROUND TABLE ON EXERCISE AS MEDICINE: Toward Personalized Training</b>	
<b>Chairs:</b>	Myosotis MASSIDDA [ITALY] and Filippo TOCCO [ITALY]	
<b>Invited Guests</b>	Carlo CASTAGNA [ITALY], Attilio CARRARO [ITALY], Malcolm COLLINS [SOUTH AFRICA], Valentina GINEVICIENE [LITHUANIA], Hiroshi KUMAGAI [JAPAN], Alison V. SEPTEMBER [SOUTH AFRICA]	
10:45	COFFEE BREAK	
<b>11:15 – 11:55</b>	<b>SPECIAL SESSION ON DUAL CAREER: Policy &amp; Practice Forum Healthy Athletes, Sustainable Pathways: Aligning Health, Education and Sport Systems</b>	
<b>Chairs:</b>	Filippo TOCCO [ITALY], Myosotis MASSIDDA [ITALY]	
<b>Time</b>	<b>Invited Speakers</b>	<b>Title</b>
11:15 – 11:35	Laura CAPRANICA University of Rome "Foro Italico" [ITALY]	European Sport and Education: An Alliance for Health
11:35 – 11:55	Thalia DARNANVILLE INSA Lyon [FRANCE]	SAMEurope: Erasmus+ mobility for dual career students
<b>11:55 – 12:30</b>	<b>ROUND TABLE ON DUAL CAREER: From Policy to Practice – Building Sustainable Pathways for Student-Athletes</b>	
<b>Chairs:</b>	Myosotis MASSIDDA [ITALY] and Filippo TOCCO [ITALY], Nardino DEGORTES [ITALY]	
<b>Invited Guests</b>	Alessandra CARUCCI [ITALY], Laura CAPRANICA [ITALY], Thalia DARNANVILLE [FRANCE], Carlo CASTAGNA [ITALY], Attilio CARRARO [ITALY], Susana POVOAS [PORTUGAL], Bruno PERRA [ITALY]	
12:30 -13:30	Active Expo – Exhibition Hall & Interactive Experience	
13:30 - 14:30	FAST LUNCH BREAK	

## POLICY, PRACTICE AND FUTURE DIRECTIONS

### Exercise as Medicine: Towards Personalized Training

Physical activity is increasingly recognized as one of the most effective strategies for improving health, preventing disease and supporting healthy ageing. However, growing evidence demonstrates that individuals respond differently to the same exercise intervention, highlighting the need for more personalized approaches.

This round table brings together leading experts in sport science, exercise physiology, genetics, medicine and public health to discuss how advances in research can contribute to the development of individualized exercise prescriptions. Topics include exercise responsiveness, precision exercise medicine, genetic and biological determinants of adaptation, digital health technologies, long-term adherence and the integration of exercise into healthcare systems.

**The discussion aims to explore future directions capable of transforming Exercise as Medicine from a general recommendation into a truly personalized health strategy.**

### Healthy Athletes, Sustainable Pathways: Aligning Health, Education and Sport Systems

Supporting student-athletes requires coordinated action across universities, sport organizations, healthcare providers and policy makers. As dual career pathways become increasingly important worldwide, institutions face the challenge of ensuring that sporting excellence can coexist with academic achievement, personal development and long-term wellbeing.

This forum provides an opportunity to discuss current policies, best practices and future strategies for strengthening dual career systems at local, national and international levels. Particular attention is devoted to European initiatives, university engagement, mobility opportunities and collaborative models capable of promoting sustainable athlete development throughout the lifespan. Among the invited contributors are **Prof. Alessandra Carucci**, Vice Rector for International Affairs of the University of Cagliari, **Prof. Laura Capranica**, President of the European Athlete as Student (EAS) Network and member of the Consultative Committee Bureau of the Enlarged Partial Agreement on Sport (EPAS), Council of Europe, and **Dr. Thalia Darnanville**, European Project Manager of the SAMEurope Project, a European initiative dedicated to strengthening mobility opportunities and support systems for dual career student-athletes.

**The session reinforces the importance of building environments where education, health and sport operate together to support the next generation of athletes and active citizens.**

### USSIC 2026 – More than a Conference Beyond the Traditional Conference Format

*By bringing together scientific excellence, health promotion, education, policy development, innovation and real-world applications, USSIC creates a unique platform where **research is translated into action** and meaningful connections are fostered among **academia, healthcare systems, schools, sport organizations, industry partners and society**. **From Exercise as Medicine to Dual Career pathways**, from cutting-edge scientific research to outdoor experiences and community engagement, USSIC promotes an **integrated vision of sport science capable of generating impact far beyond the lecture hall**.*

## **ACTIVE EXPO, EXHIBITION HALL & INTERACTIVE EXPERIENCE**

**3 July 2026 | 12:30 – 13:30 / 14:30 – 16:30**  
**Sardinia Science and Technology Park | Pula, Sardinia, ITALY**

The ACTIVE EXPO brings together industry partners, research groups, healthcare professionals, sport organizations and outdoor activity providers committed to promoting health, physical activity, innovation and sustainability. Through demonstrations, practical experiences and educational activities, participants will have the opportunity to interact directly with experts and discover innovative approaches connecting sport science, health and active lifestyles.

### **Experience Areas Technology & Performance Assessment**

- Functional evaluation
- Baropodometry
- Force-velocity profiling

### **Exercise as Medicine**

- Injury prevention
- Exercise promotion
- Personalized exercise approaches

### **Sustainable & Green Sport**

- Sailing
- Nordic Walking
- Hiking and mountain activities

### **Sport Experience Zone**

- Golf putting
- Archery

*The Active Expo – Exhibition Hall & Interactive Experience has been curated by Giuseppe Allegra (University of Cagliari, Italy), in collaboration with Decathlon Cagliari.*



**USSIC 2026 – More than a Conference**

**Where science, innovation, health, sport and active lifestyles come together through direct experience.**

ACTIVE EXPO, EXHIBITION HALL & INTERACTIVE EXPERIENCE

3 July 2026 | 12:30 – 13:30 / 14:30 – 16:30

Sardinia Science and Technology Park | Pula, Sardinia, ITALY

Participating Partners

**Himalaya Lab.** Performance assessment technologies, force–velocity profiling and applied solutions for athlete monitoring and rehabilitation.

**Ortopedica Chessa.** Functional assessment and baropodometric analysis for sport performance, injury prevention and movement evaluation.

**FIBROGENHIIT Project.** Scientific research and innovation in personalized exercise medicine, fibromyalgia management, artificial intelligence and digital health technologies.

**Isola Sportiva.** Exercise promotion initiatives and practical demonstrations focused on physical activity and health enhancement.

**Decathlon Italia.** Sport equipment, outdoor activities and sustainable approaches to active lifestyles and recreation.

**Lega Navale Italiana – Sezione di Cagliari.** Promotion of sailing culture, water sports and sustainable interaction with the marine environment.

**ASD Sportivamente.** Nordic Walking demonstrations and educational activities promoting outdoor physical activity and healthy ageing.

**Club Alpino Italiano (CAI).** Mountain culture, hiking, environmental education and sustainable outdoor experiences.

**Italian Golf Federation.** Experience Area: Introduction to golf skills through interactive putting activities.

**Arcieri Cagliari.** Experience Area: Practical archery demonstrations highlighting concentration, coordination and precision skills.



**ORIENTEERING COMPETITION**  
**Orienteering Challenge 3 July 2026 | 16:00 – 18:30**  
**Sardinia Science and Technology Park | Pula, Sardinia, ITALY**

**Format:** Sprint Orienteering

**Location:** Pixinamanna Forest, Pixinamanna (Sardinia, Italy)

**Duration:** Approximately 120 minutes

**Participation:** Voluntary activity open to all registered USSIC participants

**Organized in collaboration with FISO Sardegna**

**Technical Coordination:** Giusto De Colle (FISO Sardegna)



FEDERAZIONE ITALIANA  
SPORT ORIENTAMENTO

**Delegazione SARDEGNA**

The USSIC Orienteering Challenge offers participants a unique opportunity to experience one of the most engaging outdoor sports, combining physical activity, navigation skills, decision-making and environmental awareness.

Held as a Sprint Orienteering Competition within the Pixinamanna Forest (Pixinamanna, Sardinia), the event provides an immersive outdoor experience in one of the island's most renowned natural environments.

Designed as both an educational and recreational activity, the competition promotes active lifestyles while encouraging participants to explore the surrounding landscape through a series of navigation tasks and checkpoints. It also offers an enjoyable introduction to the principles of orienteering and outdoor sport participation.

### **Programme**

#### **16:00 – 16:30 Technical Briefing and Introduction to Orienteering.**

Participants will receive an introduction to the fundamentals of orienteering, including:

- Map reading and interpretation
- Use of control points and checkpoints
- Route-choice strategies
- Safety procedures
- Competition rules and scoring system

#### **16:30 – 18:30 USSIC Orienteering Competition**

Participants will compete individually or in small teams on a specially designed sprint course within the Pixinamanna Forest, navigating between checkpoints using only a map and their decision-making skills. The activity combines physical effort, strategic thinking and environmental exploration, making it an ideal example of active sport tourism and experiential learning.

## ORIENTEERING COMPETITION

### Orienteering Challenge 3 July 2026 | 16:00 – 18:30

### Sardinia Science and Technology Park | Pula, Sardinia, ITALY

#### Why Orienteering?

Orienteering is widely recognized as an activity that simultaneously develops:

- Physical fitness
- Spatial orientation skills
- Problem-solving abilities
- Decision-making under time constraints
- Environmental awareness
- Teamwork and communication

The discipline represents an excellent example of how outdoor physical activity can promote both health and personal development while fostering a stronger connection with natural environments.

#### Awards

The competition will conclude with the presentation of the:  
USSIC Orienteering Challenge Awards

Prizes will be awarded to the best-performing participants and teams during the official Conference Dinner and Awards Ceremony.



**USSIC 2026 – More than a Conference**  
Learn, move, explore and compete: experiencing sport science beyond the lecture hall.

**UNICA SPORT SCIENCE INTERNATIONAL CONFERENCE 2026**  
In collaboration with  
**SARDEGNA RICERCHE - Sardinia Science and Technology Park**  
Pula, Sardinia, Italy



Sardegna Ricerche is the regional agency dedicated to promoting research, technological innovation and knowledge transfer in Sardinia. Through the management of the Sardinia Science and Technology Park, one of the leading research and innovation hubs in the Mediterranean area, Sardegna Ricerche supports collaboration between universities, research centres, institutions and enterprises, fostering scientific excellence and sustainable development.

USSIC 2026 is proud to be hosted within this outstanding environment, where science, innovation and international cooperation converge. The Sardinia Science and Technology Park provides an ideal setting for scientific exchange, interdisciplinary collaboration and the dissemination of innovative approaches in sport science, health promotion and Exercise as Medicine.

The partnership between the University of Cagliari and Sardegna Ricerche reflects a shared commitment to advancing research, supporting innovation and creating opportunities for knowledge transfer with tangible benefits for society.

**USSIC 2026 – More than a Conference**  
Connecting science, innovation and society through research, education and collaboration.

OFFICIAL CONFERENCE HEADQUARTERS HOTEL

FORTE VILLAGE RESORT

Santa Margherita di Pula, Sardinia, Italy



Recognized as one of the world's leading luxury resorts, Forte Village Resort serves as the official headquarters of USSIC 2026 and hosts the scientific activities of the Conference on 2 July 2026.

Located on the southern coast of Sardinia and surrounded by Mediterranean nature, the resort offers a unique environment where scientific excellence, sport, health, wellbeing and hospitality meet. Its world-class sport facilities, conference venues and wellness infrastructure make Forte Village an ideal setting for scientific exchange, professional networking and international collaboration.

The resort has hosted elite athletes, international teams, major sporting events and scientific meetings from around the world, providing participants with an outstanding conference experience in one of the Mediterranean's most prestigious destinations.

**USSIC 2026 – More than a Conference**

Where science, health, sport and hospitality come together in a timeless Paradise setting.

See you at

Conference Social Dinner and USSIC Night Party, *Friday July 3rd*

*An unforgettable evening awaits.  
The location of the Conference Dinner and Final Party will be  
announced shortly and communicated to all participants before  
the event.*



***Advancing science. Promoting health. Supporting education.***

***Inspiring active lifestyles.***





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SCIENZE DELL'ESERCIZIO FISICO E DELLO SPORT - SPORTS AND EXERCISE SCIENCES



**UNIVERSITÀ DEGLI STUDI  
DI CAGLIARI**

**Facoltà di Medicina e Chirurgia**  
**Dipartimento di Scienze Mediche e Sanità Pubblica**



**SARDIGNA CHIRCAS  
SARDEGNA RICERCHE**



**REGIONE AUTÒNOMA  
DE SARDIGNA  
REGIONE AUTONOMA  
DELLA SARDEGNA**



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