

# SCS 7<sup>TH</sup> ANNUAL CONFERENCE

**Strength and Conditioning:  
A fundamental tool for performance  
improvement, injury and disease  
prevention at different stages of life.**



Date

**09<sup>th</sup>-11<sup>th</sup> October 2024**



Location

**Universidad Católica de  
Murcia, UCAM, Murcia, Spain**



Web page

**[https://www.scs.academy/  
scs-annual-meeting/](https://www.scs.academy/scs-annual-meeting/)**



Email

**events@scs.academy**

## SPONSORS



Fytexia



playermaker



VALD

OverGenes



MYOCENE



SMART COACH



## PARTNERS



SPANISH SPORTS  
UNIVERSITY

inefc

Generalitat de Catalunya



Universidad  
Europea  
del Atlántico



COMITÉ OLÍMPICO  
ESPAÑOL



BCD travel



## SCIENTIFIC PARTNERS



Asociación Española de  
Ciencias del Deporte





# WELCOME

On behalf of the Strength and Conditioning Society (SCS) and the Universidad Católica San Antonio de Murcia (UCAM), it is a pleasure to invite you to the 7th Annual SCS Conference to be held at the Catholic University of Murcia (UCAM), Murcia, Spain in the fall of 2024.

SCS members have a common interest in the broad field of strength and conditioning, and include a diverse group of sport science professionals for both the health, performance and fitness industry. Through its multidisciplinary team of sport science and clinical professionals, the SCS aims to examine strength training and conditioning from a multifaceted perspective, including all physiological, biomechanical, psychological and epidemiological aspects.



**MARÍA DOLORES  
GARCÍA MASCARELL**

**UCAM President**



**PEDRO E. ALCARAZ**

**SCS President**

Thus, it strives to improve knowledge in the area of strength and conditioning and its broad application to sports performance, sports medicine, injury prevention, rehabilitation and health improvement.

As in previous years, the event will encourage the dissemination of up-to-date strength and conditioning research, providing practitioners and researchers with the opportunity to present and discuss their latest findings on the topics outlined above. In addition, the SCS, in collaboration with UCAM, will recognize professional and academic excellence in the field of strength and conditioning and will award the "Strength and Conditioning Coach of the Year Award," the "Emerging Strength and Conditioning Coach of the Year Award" and the "Strength and Conditioning Coach Career Achievement Award" to outstanding practitioners, and the "Young Investigator Award" and the "Applied Science Award" to notable researchers. The conference will be a gathering of colleagues and friends. We invite you to this scientifically and socially rewarding, memorable and enjoyable meeting.

**See you in Murcia, Spain!**





# VENUE

**Murcia, a major city in south-eastern Spain, is the capital and most populous city of the Autonomous Community of the Region of Murcia.**

Our Region is characterized by its mild, sunny weather. Beaches, country sides, cities, traditions, folklore, culture, and of course sports and health merge into a dynamic, active set of touristic attractions. The restaurants of this land known as Europe's orchard will cater for all tastes from traditional Spanish cooking to Michelin star luxury.





# MEETING POINT - UCAM UNIVERSITY

Since its creation, the **Catholic University of Murcia (UCAM)** has considered **sports** as one of its fundamental pillars. It implements a university model that, every year with more strength, tries to instill in its students the motivation, spirit and love for sport.

But UCAM's ambition is not only to offer its students the possibility of joining prestigious clubs. The university is committed to helping athletes from various disciplines balance their studies with their sports careers at the highest level. **This continued commitment to sport has been rewarded in terms of results with the consolidation of the UCAM as one of the best universities in Spain in sports.**

The Spanish Olympic Committee and the Catholic University of Murcia joined forces in 2012 in a sports and educational project conceived with a central idea: **to allow high-level athletes to combine their higher education with training and competitions.**

In Rio 16, the Spanish team had more than fifty athletes linked to UCAM, winning 24 medals (15 Olympic and 9 Paralympic), being the second university in the world with more medals in the Olympic event, only behind Stanford (United States). In Tokyo 20, UCAM's athletes won 17 medals.

The Faculty of Sport and UCAM Research Center High Performance Sports aim to achieve a leading education and research infrastructure, located in the Region of Murcia, but with the vocation of being an international reference center. The members already in place are the seed for the consolidation of a first class center with the necessary resources to establish new lines of research and promote the current ones. The Research Center currently hosts elite athletes such as **Mireia Belmonte, Mariano García, Ilia Topuria, Pedro Acosta**, among more than 60 sponsored Olympians and UCAM Murcia teams to help in their preparation and improve their high sporting performance.



# SCHEDULE AT A GLANCE

	09/10 WEDNESDAY			10/10 THURSDAY			11/10 FRIDAY
8:30 - 9:30	Opening Ceremony (9:00 h)			Posters Session (8:30 h)			YIA FINALISTS & ASA FINALISTS (8:30 h)
9:30 - 10:15	Iñigo Mújika Basque Country University (ESP)			Emmanuel López ASPIRE Academy (QAT)			Anthony J. Blazevich Edith Cowan University (AUS)
10:15 - 11:00	Nicola Maffiuletti Schulthess Clinic (SUI)			Irina Zelenkova Zaragoza University (ESP)			Luis Suárez Arrones Lugano CF (SUI)
11:00 - 11:30 COFFEE BREAK							
11:30 - 12:15	Kirsten Legerlotz Humboldt University (GER)			M <sup>a</sup> Carmen Gómez-Cabrera University of Valencia (ESP)			José María Villalón Atlético de Madrid (ESP)
12:15 - 13:00	Eduardo Cadore Universidade Federal do Rio Grande do Sul (BRA)			Lars L. Andersen National Research Centre for the Working Environment (DEN)			Francesco Della Villa Isokinetic Group (ITA)
13:00 - 13:15 BREAK							
13:15 - 14:15	Oral Comm. YIA (Temple)	Oral Comm. YIA (Hi-Tech)	Oral Com m. YIA (Asse mby Hall)	Oral Comm. ASA (Temple)	Oral Comm. ASA (Hi-Tech)	Oral Comm. ASA (Assem bly Hall)	CLOSING & AWARDS CEREMONY
14:15 - 16:00 LUNCH							
Workshops  16:00 - 17:00 (Free entrance until full capacity)	WS 1 Ramón Lago Ruiloba (ESP)  Practical Application of Isoinertial Flywheel Training  Sponsored by EInercial			WS 8 Anna Ollé (ESP)  The new era of strength & conditioning & injury rehabilitation  Sponsored by MCLSsalud			WS 14 Rafael Aarón (ESP) Evaluation of CMJ and SJ jumps using force platforms. Practical cases of readaptation processes Sponsored by Kistler
Workshops  16:00 - 17:00 (Free entrance until full capacity)	WS 2 Javier Escobar (ESP) The role of genetics and microbiota in high performance sports  Sponsored by Overgenes			WS 9 Marco Pozzo (ITA) Theory and practice of monitoring strength training with different technologies  Sponsored by SmartCoach			WS 15 Manuel López Segovia (ESP) GPS systems as a solution to improve performance and health Sponsored by UBIKO
Workshops  16:00 - 17:00 (Free entrance until full capacity)	WS 3 Antonio Exposito (ESP) Force-Velocity Quadrant with ForceDecks, What Superhero Am I? Sponsored by VALD			WS 10 Juan I. Cacho & Fco. Javier Martínez-Noguera (ESP) 2S-Hesperidina and its effects on sports performance  Sponsored by HTBA			WS 16 Steve Barrett & Guest (UK) Understanding the kicking and mechanical outcomes of team sports: Implications for Performance & Return to Play  Sponsored by PlayerMaker
Workshops  16:00 - 17:00 (Free entrance until full capacity)	WS 4  TBC  Sponsored by TECHNOGYM						



# SCHEDULE AT A GLANCE

	09/10 WEDNESDAY	10/10 THURSDAY	11/10 FRIDAY
Workshops 17:30 - 19:00	<b>WS 5</b> <b>Aldo Martínez (ESP) &amp; Glenn Castro (USA)</b> World championship peak performance: Strength & Conditioning & Nutrition in UFC	<b>WS 11</b> <b>Manuel Moya &amp; Alex Javaloyes (ESP)</b> Heart Rate Variability and Training  <b>Sponsored by AECD</b>	<b>WS 17</b> <b>Juanjo Brau (ESP)</b> Return to Play (RTP) in Professional Football from a physiotherapeutic perspective
Workshops 17:30 - 19:00	<b>WS 6</b> <b>José Francisco López Gil &amp; Marcela González-Gross (ESP)</b> Childhood Obesity & Strength Training	<b>WS 12</b> <b>Elena Santana Sosa (ESP)</b>  Cancer & Strength Training  <b>Sponsored by ALADINA Foundation</b>	<b>WS 18</b> <b>Julio Calleja &amp; Nicolás Terrados (ESP)</b>  Recovery strategies in High Performance Sports
Workshops 17:30 - 19:00	<b>WS 7</b> <b>Julián Alcázar &amp; Ángel I. Fernández (ESP)</b> Stronger seniors for a healthier life: power assessment and multi-component training <b>Sponsored by EXERNET</b>	<b>WS 13</b> <b>Francesco Cuzzolin (ITA)</b> New Trends in Strength Training in Team Sports	<b>WS 19</b> <b>Thue Kvorning (DEN)</b> Testing and training in Olympic Athletes

**CONGRESS OFFICIAL LANGUAGES: ENGLISH & SPANISH**  
 (BIDIRECTIONAL TRANSLATION WILL BE PROVIDED)

## SCIENTIFIC LINES

- Strength & conditioning in team-sports.
- Strength, power and speed training.
- Neuromuscular basis of strength & conditioning.
- Strength & conditioning in the different ages of life.
- Injury prevention and return-to-play
- Biomechanics and motion analysis.
- Exercise physiology.
- Biochemistry and molecular biology of exercise.
- Clinical exercise physiology: exercise & health.
- Training and testing.

# KEYNOTE SPEAKERS



**LARS L. ANDERSEN**

**National Research Centre for the Working  
Environment (DEN)**

*"Strength Training for musculoskeletal pain in workers"*



**ANTHONY J. BLAZEVIK**

**Edith Cowan University (AUS)**

*"Elastic powered humans: How to build and drive the  
muscle-tendon system"*



**EDUARDO CADORE**

**Universidade Federal do Rio Grande do Sul (BRA)**

*"Power to prolong healthy aging and independence  
in older adults"*



**FRANCESCO DELLA VILLA**

**ISOKINETIC Group (ITA)**

*"Optimizing the Rehabilitation Process Post-ACL  
Reconstruction"*

# KEYNOTE SPEAKERS



**Mª CARMEN GÓMEZ-CABRERA**

**University of Valencia (ESP)**

*"Exercise redox biology from health to performance"*



**KIRSTEN LEGERLOTZ**

**Humboldt University (GER)**

*"Adaptations to resistance training – women and children first"*



**EMMANUEL LÓPEZ**

**ASPIRE Academy (QAT)**

*"Qatar football performance methodology: Aspire Academy the new generation of players"*



**NICOLA MAFFIULETTI**

**Schulthess Clinic (SUI)**

*"Muscle and mental fatigue: implications for strength & conditioning"*



# KEYNOTE SPEAKERS



**IÑIGO MUJIKA**

**Basque Country University (ESP)**

*"Maintaining physical performance: the minimal dose of exercise needed to preserve endurance and strength over time"*



**LUIS SUAREZ ARRONES**

**Lugano CF (SUI)**

*"Guidelines for the implementation of flywheel resistance training technology in football"*



**JOSÉ MARÍA VILLALÓN**

**Atlético de Madrid (ESP)**

*"Injury prevention and conservative treatment in high-performance sports"*



**IRINA ZELENKOVA**

**Zaragoza University (ESP)**

*"Altitude training's impact on team sports performance"*

# WORKSHOP SPEAKERS



**RAFAEL  
AARÓN (ESP)**

**KISTLER**

Evaluation of CMJ and SJ jumps using force platforms. Practical cases of readaptation processes



**JULIÁN  
ALCÁZAR (ESP)**

**EXERNET**

Stronger seniors for a healthier life: power assessment and multi-component training



**STEVE BARRETT (UK)**

**PLAYERMAKER**

Understanding the kicking and mechanical outcomes of team sports: Implications for Performance & Return to Play



**JUANJO BRAU  
(ESP)**

**University of Barcelona  
(ESP)**

Return to Play (RTP) in Professional Football from a physiotherapeutic perspective



**JULIO  
CALLEJA-GONZÁLEZ  
(ESP)**

**University of Oviedo**

Recovery strategies in High Performance Sports



**FRANCESCO  
CUZZOLIN (ITA)**

**ELPA**

New trends in Strength Training in Team Sports



**JAVIER ESCOBAR  
(ESP)**

**OVERGENES**

The role of genetics and microbiota in high performance sports



**ANTONIO EXPOSITO  
(ESP)**

**VALD**

Force-Velocity Quadrant with ForceDecks, What Superhero Am I?



# WORKSHOP SPEAKERS



**ÁNGEL I. FERNÁNDEZ**  
(ESP)

**Zaragoza University**

Stronger seniors for a healthier  
life: power assessment and  
multi-component training



**ALEX**  
**JAVALOYES (ESP)**

**AECD**

Heart Rate Variability  
and training



**RAMÓN**  
**LAGO RUILOBA (ESP)**

**EINERCIAL**

Practical application of  
isoinertial flywheel  
training



**JOSÉ FRANCISCO**  
**LÓPEZ GIL (ECU)**

**Global Matrix**

Childhood obesity  
& strength training



**ALDO**  
**MARTINEZ (ESP)**

**UCAM**

World championship peak  
performance: Strength &  
conditioning & nutrition  
in UFC



**ELENA SANTANA**  
**SOSA (ESP)**

**ALADINA**  
**Foundation**

Cancer & strength  
training



**ANNA OLLÉ (ESP)**

**MLC-Salud**

The new era of strength &  
conditioning & injury  
rehabilitation

# WORKSHOP SPEAKERS



**MARCO POZZO**  
(ITA)

**SMART-COACH**

Theory and practice  
of monitoring strength  
training with different  
technologies



**NICOLÁS  
TERRADOS** (ESP)

**University of Oviedo**

Recovery strategies in High  
Performance Sports



**THUE  
KVORNING** (DEN)

**Team Denmark (DEN)**

Testing and training  
in Olympic Athletes



**JUAN I. CACHO**  
(ESP)

**HTBA**

2S-Hesperidina and its  
effects on sports performance



**FCO. JAVIER  
MARTÍNEZ-NOGUERA**  
(ESP)

**HTBA**

2S-Hesperidina  
and its effects on sports  
performance



**MANUEL LÓPEZ  
SEGOVIA** (ESP)

**UBIKO**

GPS systems  
as a solution to improve  
performance and health



**GLENN  
CASTRO** (USA)

**UFC**

World championship  
peak performance:  
Strength & conditioning  
& nutrition in UFC



**MARCELA  
GONZÁLEZ-GROSS**  
(ESP)

**Global  
Matrix**

Childhood Obesity  
& Strength Training



# COMMITTEES

## HONORARY PRESIDENT

M<sup>a</sup> Dolores García Mascarell

## CONGRESS PRESIDENT

Pedro E. Alcaraz (Catholic University of Murcia, ESP)

## SCIENTIFIC COMMITTEE

**President:** Anthony J. Blazeovich (ECU, AUS)

**Vice-president:** : Aarón Manzanares (Catholic University of Murcia, ESP)

**Secretary:** Konstantinos Spyrou (Catholic University of Murcia, ESP)

## Members:

Pedro E. Alcaraz (Catholic University of Murcia, ESP)  
 Lars L. Andersen (National Research Centre for the Working Environment, DEN)  
 Ignacio Ara (Universidad Castilla La Mancha, ESP)  
 Luis María Alegre Durán (Universidad Castilla La Mancha, ESP)  
 Martim Bottaro (Universidade de Brasília, BRA)  
 Eduardo L. Cadore (Federal Uni. of Rio Grande do Sul, BRA)  
 Domenico Cherubini (Catholic University of Murcia, ESP)  
 Linda Chung (Catholic University of Murcia, ESP)  
 Elena Conde Pascual (Catholic University of Murcia, ESP)  
 Francesco Cuzzolin (University of Udine, ITA)  
 Álvaro Díaz Aroca (Catholic University of Murcia, ESP)  
 Julio Calleja González (Universidad del País Vasco, ESP)  
 Francisco Cuenca-Fernández (Uni. Pablo de Olavide, ESP)  
 Stephan Dufour (University of Strasbourg, FRA)  
 Francisco Esparza-Ros (Catholic University of Murcia, ESP)  
 James Fisher (Solent University, UK)  
 Tomás T. Freitas (Catholic University of Murcia, ESP)  
 Tomás García Calvo (University of Extremadura, ESP)  
 José M. García de Frutos (Catholic University of Murcia, ESP)  
 Juan Alfonso García Roca (Catholic University of Murcia, ESP)  
 Noelia González Galvez (Catholic University of Murcia, ESP)  
 Thomas Huyghe (Catholic University of Murcia, ESP)

Thue Kvorning (University of Southern, DEN)  
 Kirsten Legerlotz (Humboldt University, GER)  
 Nicola Maffiuletti (Schulthess Clinic, SUI)  
 Bruno Manfredini Baroni (Fed. Uni. of Rio Grande do Sul, BRA)  
 Elena Marín-Cascales (Catholic University of Murcia, ESP)  
 Francisco Javier Martínez (Catholic University of Murcia, ESP)  
 Adrian Mateo Orcajada (Catholic University of Murcia, ESP)  
 Iñigo Mujika (Universidad del País Vasco, ESP)  
 Francesc Cos Morera (Universidad de Barcelona, ESP)  
 Laura Nieto Torrejón (Catholic University of Murcia, ESP)  
 Hugo Olmedillas (University of Oviedo, ESP)  
 Carmen D. Quero Calero (Catholic University of Murcia, ESP)  
 Javier Reina Abellán (Catholic University of Murcia, ESP)  
 Eduardo Sáez de Villarreal (Pablo Olavide University, ESP)  
 Pedro Sánchez González (Catholic University of Murcia, ESP)  
 James Steele (Solent University, UK)  
 Nicolás Terrados (Regional Unit of Sports Medicine, ESP)  
 Luis Suárez-Arrones (Lugano FC, SUI)  
 José María Villalón (Atlético de Madrid FC, ESP)  
 Germán Vicente Rodríguez (University of Zaragoza, ESP)  
 Irina Zelenkova (University of Zaragoza, ESP)



# COMMITTEES

## LOCAL ORGANIZING COMMITTEE

**Presidents:** Lourdes Meroño García y Cristian Marín Pagán  
(Universidad Católica de Murcia, ESP)

**Secretary::** Elena Marín y Ginés Jiménez  
(Universidad Católica de Murcia, ESP)

## Members:

Tomás Abelleira Lamela (Catholic University of Murcia, ESP)  
Lucia Abenza Cano (Catholic University of Murcia, ESP)  
Augusto André Andrade (Catholic University of Murcia, ESP)  
Rosario Álvarez (Catholic University of Murcia, ESP)  
Linda Chung (Catholic University of Murcia, ESP)  
Elena Conde Pascual (Catholic University of Murcia, ESP)  
Isabel del Águila (Catholic University of Murcia, ESP)  
Álvaro Díaz Aroca (Catholic University of Murcia, ESP)  
José C. Díaz del Campo A.  
(Catholic University of Murcia, ESP)  
Alberto Castillo Díaz (Catholic University of Murcia, ESP)  
Alejandro Espeso García (Catholic University of Murcia, ESP)  
Tomás T. Freitas (Catholic University of Murcia, ESP)  
José M. García de Frutos (Catholic University of Murcia, ESP)  
Juan Alfonso García Roca (Catholic University of Murcia, ESP)

Beatriz Garrido López (Catholic University of Murcia, ESP)  
Sebastián Gómez Lozano (Catholic University of Murcia, ESP)  
Noelia González Galvez (Catholic University of Murcia, ESP)  
Maziar J. Hamad (Catholic University of Murcia, ESP)  
Thomas Huyghe (Catholic University of Murcia, ESP)  
Alejandro Leiva Arcas (Catholic University of Murcia, ESP)  
Fco. Javier Martínez (Catholic University of Murcia, ESP)  
Fco. de Asis Mendoza (Catholic University of Murcia, ESP)  
M<sup>a</sup> Trinidad Morales (Catholic University of Murcia, ESP)  
Laura Nieto Torrejón (Catholic University of Murcia, ESP)  
Antonio Martínez Serrano (Catholic University of Murcia, ESP)  
Juan Carlos Salinas (Catholic University of Murcia, ESP)  
Pedro Sánchez González (Catholic University of Murcia, ESP)  
David Blay Tapia (Catholic University of Murcia, ESP)  
Jon Imaz Arrese (Catholic University of Murcia, ESP)





# SCIENTIFIC & PROFESSIONAL AWARDS

## SCS Young Investigator Award (YIA)

- **Eligibility:** First author (presenter) must be 30 years of age or less.
- **Evaluation Criteria:** Creativity, effort, attention to scientific detail, and presentation skills during oral presentation sessions.
- **Selection Process:**
  - Eighteen semi-finalists will present their works in an oral communication session for 8 minutes on the Wednesday (you will need to make a short Powerpoint presentation for the oral communication session). All YIA candidates that do not meet the minimum criteria will present their abstracts as poster.
  - Three finalists will be chosen by the SCS Awards Committee based on the quality of poster presentations. Finalists will present their work in an oral session on Friday 11<sup>th</sup> October.

## SCS Applied Science Award

- **Evaluation Criteria:** Creativity, effort, and applicability to sport, coaches, or athletes.
- **Selection Process:**
  - Eighteen semi-finalists will present their works in an oral communication session for 8 minutes on the Thursday (you will need to make a short Powerpoint presentation for the oral communication session). All ASA candidates that do not meet the minimum criteria will present their abstracts as poster.
  - Three finalists will be chosen by the SCS Awards Committee based on the quality of poster presentations. Finalists will present their work in an oral session on Friday 11<sup>th</sup> October.
- **Additional Considerations:** The SCS Awards Committee will consider the similarity between the submitted abstract and the oral presentation. Abstracts can be submitted and presented both in Spanish or English, but only those in English are selected for publication in Sports Journal and for the awards.

\*Abstracts will be published in Sports Journal\*



## SCS Emerging Strength and Conditioning Coach

- **Eligibility:** Coaches aged 30 years or less.
- **Evaluation Criteria:**
  - **Justifying Report (1-50 points):** Includes position held, sport modality, scientific basis, work methods, performance evaluation, and load control.
  - **Achievements (10-30 points):** Evidence of athletes' achievements in national/international competitions.
  - **Relevance of the Modality (1-20 points):** Based on the sport's popularity and resources. Scoring will be provided based on the following link: <https://www.rookieroad.com/sports-by-country/>
- **Submission:** Email all information to [events@scs.academy](mailto:events@scs.academy)
- **More Information:** <https://www.scs.academy/emerging-strength-and-conditioning-coach/>



PLACE	SCHEDULE	MODERATORS	TITLE
HiTech	13:15-13:25	Carmen Daniela Quero - Hugo Olmelillas	Artificial Intelligence and Bioinformatics driven exploration of bioactive compounds for enhanced athletic performance
HiTech	13:25-13:35	Carmen Daniela Quero - Hugo Olmelillas	Leveraging the Power of "AI Swarms" in High Performance Sports: A Practical, Low-Code, and Open-Source Framework for Designing Multi-Agent Collaboration Systems
HiTech	13:35-13:45	Carmen Daniela Quero - Hugo Olmelillas	Residual Eccentric Strength Deficits In Amateur Rugby Players With Previous Hamstring Injury
HiTech	13:45-13:55	Carmen Daniela Quero - Hugo Olmelillas	Joint torque variability as a marker of neuromuscular fatigue: a step towards injury prevention?
Templo	13:15-13:25	Konstantinos Spyrou - Eduardo Cadore	Maturity Status as a Modulator in the Assessment of Strength in Young Soccer Players
Templo	13:25-13:35	Konstantinos Spyrou - Eduardo Cadore	Impact of Relative Age and Maturation on Linear Acceleration in Soccer Academy Players from a Professional Club
Templo	13:35-13:45	Konstantinos Spyrou - Eduardo Cadore	Variations of Fitness Performance and Training Load between higher and lower-level young soccer players
Templo	13:45-13:55	Konstantinos Spyrou - Eduardo Cadore	Effects of core centering training on balance, trunk control, and athletic performance in adolescent female volleyball players.
Salón de Actos	13:15-13:25	Luis Alegre - Antonio Martínez-Serrano	Age-Specific Considerations in Strength and Conditioning Programs: A Narrative Review
HiTech	13:55-14:05	Carmen Daniela Quero - Hugo Olmelillas	Impact of menopause on rate of force development and maximal isometric strength.
Salón de Actos	13:25-13:35	Luis Alegre - Antonio Martínez-Serrano	Relationship Between Maximal Handgrip Strength and Peak Power in University Athletes
Salón de Actos	13:35-13:45	Luis Alegre - Antonio Martínez-Serrano	Acute responses to traditional and cluster-set squat training with different loss velocity on executive functions.
Salón de Actos	13:45-13:55	Luis Alegre - Antonio Martínez-Serrano	Comparison of Full Range and Variable Range of Motion Protocols in Bench Press: Impact on 1RM and Repetitions to Failure
Salón de Actos	13:55-14:05	Luis Alegre - Antonio Martínez-Serrano	Acute mechanical and metabolic response together with the time course of recovery of Bench-Press training with different volumes isolating the effect of fatigue
Templo	13:55-14:05	Konstantinos Spyrou - Eduardo Cadore	Acute and delayed responses in women and men with similar relative strength
Salón de Actos	14:05-14:15	Luis Alegre - Antonio Martínez-Serrano	Eccentric phase velocity determines the load-velocity relationship in the squat jump and bench press throw exercise: a preliminary study
Templo	14:05-14:15	Konstantinos Spyrou - Eduardo Cadore	Effects of neuromuscular training on stable versus unstable surfaces on unipodal force production in non-dominant limb in professional soccer players.
HiTech	14:05-14:15	Carmen Daniela Quero - Hugo Olmelillas	Stair-climbing versus machine-based resistance exercise to improve muscle power among older adults



# PRESENTATIONS

PLACE	SCHEDULE	MODERATORS	TITLE
Salón de actos	13:45-13:55	Eduardo Sáez de Villareal - Thue Kvorning	Desarrollo de un test de ruptura para cuantificar la carga relativa durante ejercicios focalizados en el tronco en posiciones funcionales.
HiTech	13:15-13:25	Linda Chung - Irina Zelenkova	Association between nutritional status and upper and lower extremity muscle strength in children and adolescents with cystic fibrosis
HiTech	13:25-13:35	Linda Chung - Irina Zelenkova	Concurrent training in older people after valve replacement surgery. A randomized controlled study.
HiTech	13:35-13:45	Linda Chung - Irina Zelenkova	Voluntary use of step-tracker mobile apps by adolescents does not maintain the benefits on physical activity level and adiposity variables obtained during a period of mandatory use
HiTech	13:45-13:55	Linda Chung - Irina Zelenkova	A lab on a strap: the promising future of continuous measuring lactate in sweat.
Salón de actos	13:15-13:25	Eduardo Sáez de Villareal - Thue Kvorning	Criteria-based progression in the late stage rehabilitation of a professional soccer player after peroneal tendon injury
Salón de actos	13:25-13:35	Eduardo Sáez de Villareal - Thue Kvorning	Effectiveness of Extracorporeal Shock Wave Therapy in chronic Achilles and patellar tendinopathy: a randomized controlled trial
Templo	13:15-13:25	Tomás T. Freitas - Julio Calleja	Exploring determinants of agility in futsal: A cross-sectional study
Templo	13:25-13:35	Tomás T. Freitas - Julio Calleja	Differences in countermovement vertical jump force-time metrics between professional and semi-professional male basketball players
Templo	13:35-13:45	Tomás T. Freitas - Julio Calleja	The Athlete's Brain in Default Mode: A Systematic Review of Methods, Measurements, and Insights (2004-2024)
Templo	13:35-13:45	Tomás T. Freitas - Julio Calleja	THE MAXIMUM VELOCITY OF SPRINT AS A REFERENCE TO MONITORING SOCCER LOAD.
Salón de actos	13:35-13:45	Eduardo Sáez de Villareal - Thue Kvorning	Effects of a multicomponent training and a detraining period on cognitive and functional performance of older adults at risk of frailty.
Templo	13:45-13:55	Tomás T. Freitas - Julio Calleja	Classification of basketball players based on multidirectional speed performance: Thresholds of change of direction deficit
Templo	13:55-14:05	Tomás T. Freitas - Julio Calleja	Effects of different Velocity Loss Thresholds with and without Blood Flow Restriction during the Squat Exercise on Strength Gains and Jump Performance
Salón de actos	13:55-14:05	Eduardo Sáez de Villareal - Thue Kvorning	Comparison of two training protocols with different velocity losses in the set on bench press performance
HiTech	13:55-14:05	Linda Chung - Irina Zelenkova	Effects of Movement Velocity in Squat Training with and without Blood Flow Restriction



## KEY DATES

Abstract submission and registration opening:	15 <sup>th</sup> April 2024
Abstract submission deadline, & end of super early bird registration:	30 <sup>th</sup> June 2024
Notification to authors about acceptance:	31 <sup>st</sup> July 2024
End of early bird registration & deadline for registration for presenting authors:	15 <sup>th</sup> August 2024

## RECERTIFICATION CREDITS

The purpose of continuing education is to encourage certified individuals to stay abreast of evolving knowledge and skills in the profession; and to promote the ongoing competency of those certified.

In general, CEUs are based on the number of contact hours (or actual clock hours) undertaken to complete an activity or event. **This conference attendance is recognized as 2 credits of recertification.**

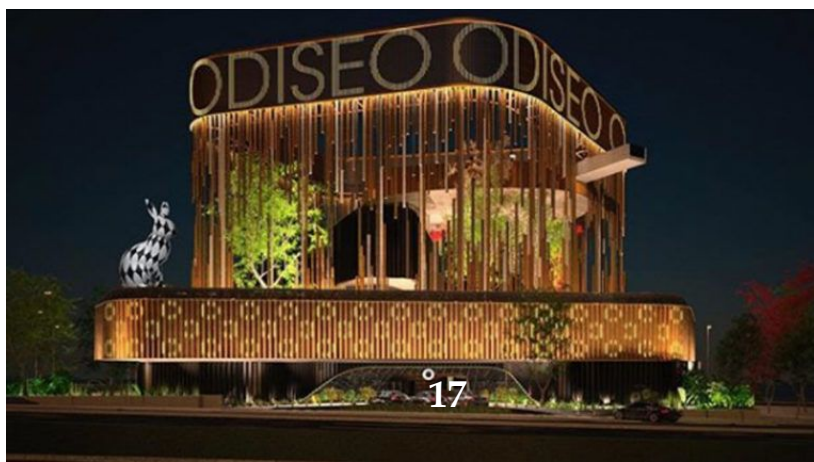


# REGISTRATION FEES

	<b>Super Early Registration <i>Up to 30<sup>th</sup> June 2024</i></b>	<b>Early Registration <i>1<sup>st</sup> July to 15<sup>th</sup> August 2024</i></b>	<b>Late Registration <i>After 15<sup>th</sup> August 2024</i></b>
<b>SCS members or certified</b>	<b>120 €</b>	<b>150 €</b>	<b>200 €</b>
<b>Non-members</b>	<b>160 €</b>	<b>200 €</b>	<b>260 €</b>
<b>Students + SCS members</b>	<b>80 €</b>	<b>100 €</b>	<b>130 €</b>
<b>Students non-members</b>	<b>100 €</b>	<b>120 €</b>	<b>156 €</b>
<b>UCAM Students*</b>	<b>100 €</b>	<b>100 €</b>	<b>100 €</b>
<b>SCS Affiliated Society/Association/ Institution</b>	<b>140 €</b>	<b>170 €</b>	<b>220 €</b>
<b>UCAM members</b>	<b>120 €</b>	<b>150 €</b>	<b>200 €</b>
<b>3 Workshops (one for each day of the congress) (*until full capacity)</b>	<b>50 €</b>	<b>65 €</b>	<b>80 €</b>
<b>Accompanying person</b>	<b>100 €</b>	<b>150 €</b>	<b>200 €</b>
<b>Gala Dinner at Odiseo</b>	<b>40 €</b>	<b>40 €</b>	<b>40 €</b>

Meals are included in the price. In addition, each participant will be given an exclusive congress T-shirt.

UCAM undergraduate students will be able to obtain 1.5 extra credits for attending the event.



# PROGRAMME

WEDNESDAY OCTOBER 09th, 2024

07:30- 09:30	<b>Registration</b>
09:00- 09:30	<b>OPENING CEREMONY: "Silence" (Neoclastic Dance) at UCAM Temple</b>
09:30-10:15	<p>"Maintaining physical performance: the minimal dose of exercise needed to preserve endurance and strength over time"</p> <p><b>Speaker:</b> Iñigo Mújika   Basque Country University (ESP)</p> <p><b>Chair:</b> Hugo Olmedillas (ESP)</p>
10:15 - 11:00	<p>"Muscle and mental fatigue: implications for strength &amp; conditioning"</p> <p><b>Speaker:</b> Nicola Maffiuletti   Schulthess Clinic (SUI)  </p> <p><b>Chair:</b> Thomas Huyghe (BEL)</p>
11:00 - 11:30	<b>COFFEE BREAK</b>
11:30 - 12:15	<p>"Adaptations to Resistance Training – women and children first"</p> <p><b>Speaker:</b> Kirsten Legerlotz   Humboldt University (GER)</p> <p><b>Chair:</b> Anthony J. Blazevich (AUS)</p>
12:15 - 13:00	<p>"Power to prolong healthy aging and independence in older adults"</p> <p><b>Speaker:</b> Eduardo L. Cadore   Uni. Fed. do Rio Grande do Sul (BRA)</p> <p><b>Chair:</b> Germán Vicente Rodríguez (ESP)</p>
13:00 - 13:15	<b>BREAK</b>
13:15 - 14:15	<p>Oral Comm. YIA (Templ)   Oral Comm. YIA ( Hi-Tech)   Oral Comm. YIA (Assembly Hall)</p>
14:15 - 16:00	<b>LUNCH</b>

# PROGRAMME

WEDNESDAY OCTOBER 09th, 2024

16:00 - 17:00	<b>WORKSHOP 1 "Practical Application of Isoinertial Flywheel Training"</b> (Free access until the capacity is complete) <b>Speaker: Ramón Lago Ruiloba (ESP)   Sponsored by: EINERCIAL</b> <b>Chair: Mad J. Hamad</b> <b>Location: Pista USC</b>
16:00 - 17:00	<b>WORKSHOP 2 "The role of genetics and microbiota in high performance sports"</b> (Free access until the capacity is complete) <b>Speaker: Samuel Fernández (ESP) &amp; Blanca Bermejo (ESP)</b> <b>Sponsored by: OVERGENES®</b> <b>Chair: Cristian Marín (ESP)</b> <b>Location: CIARD</b>
16:00 - 17:00	<b>WORKSHOP 3 "Force-Velocity Quadrant with ForceDecks, What Superhero Am I?"</b> (Free access until the capacity is complete) <b>Speaker: Antonio Exposito (ESP)   Sponsored by: VALD</b> <b>Chair: Antonio Martínez Serrano (ESP)</b> <b>Location: HI-TECH Planta Baja</b>
17:00- 17:30	<b>BREAK</b>
17:30 - 19:00	<b>WORKSHOP 4 "World championship peak performance: Strength &amp; conditioning &amp; nutrition in UFC"</b> <b>Speaker: Aldo Martínez (ESP) &amp; Glenn Castro, UFC (USA)</b> <b>Chair: Aarón Manzanares (ESP)</b> <b>Location: HI-TECH Planta Baja</b>
17:30 - 19:00	<b>WORKSHOP 5 "Childhood Obesity &amp; Strength Training"</b> (Pre-selected in the registration form and until the capacity is complete) <b>Speakers: Marcela González-Gross (ESP)   INEF (ESP) &amp; José Francisco López Gil (ESP)   Universidad de las Américas (ECU)</b> <b>Chair: Elena Marín Cascales (ESP)</b> <b>Location: CIARD</b>
17:30 - 19:00	<b>WORKSHOP 6 "Stronger seniors for a healthier life: power assessment and multi-component training"</b> (Pre-selected in the registration form and until the capacity is complete) <b>Speakers: Julián Alcázar   UCLM (ESP) &amp; Ángel I. Fernández (ESP)   Zaragoza University (ESP)   Sponsored by: EXERNET</b> <b>Chair: Eduardo L. Cadore (BRA)</b> <b>Location: Pista USC</b>



THURSDAY OCTOBER 10th, 2024

08:30- 09:30	<b>POSTERS SESSION</b>
09:30-10:15	<p>"Qatar football performance methodology: Aspire Academy the new generation of players"</p> <p><b>Speaker:</b> Emmanuel López   <b>ASPIRE Academy (QAT)</b></p> <p><b>Chair:</b> Pedro E. Alcaraz (ESP)</p>
10:15 - 11:00	<p>"Altitude Training's Impact on Team Sports Performance"</p> <p><b>Speaker:</b> Irina Zelenkova   <b>Zaragoza University (ESP)</b></p> <p><b>Chair:</b> Thue Kvorning (DEN)</p>
11:00 - 11:30	<b>COFFEE BREAK</b>
11:30 - 12:15	<p>"Exercise redox biology from health to performance"</p> <p><b>Speaker:</b> M<sup>a</sup> Carmen Gómez-Cabrera   <b>University of Valencia (ESP)</b></p> <p><b>Chair:</b> Ignacio Ara Royo (ESP)</p>
12:15 - 13:00	<p>"Strength Training for musculoskeletal pain in workers"</p> <p><b>Speaker:</b> Lars L. Andersen   <b>National Research Centre for the Working Environment (DEN)</b></p> <p><b>Chair:</b> Eduardo Sáez de Villarreal (ESP)</p>
13:00 - 13:15	<b>BREAK</b>
13:15 - 14:15	<p>Oral Comm. ASA (Temple)   Oral Comm. ASA ( Hi-Tech)   Oral Comm. ASA (Assembly Hall)</p>
14:15 - 16:00	<b>LUNCH</b>

THURSDAY OCTOBER 10th, 2024

16:00 - 17:00	<b>WORKSHOP 7 “The new era of strength training, physical conditioning and injury rehabilitation”</b> (Free access until the capacity is complete) <b>Speaker:</b> Anna Ollé (ESP)   <b>Sponsored by:</b> MCL SALUD®   <b>Chair:</b> Carmen D. Quero Calero <b>Location:</b> BOXCROSS (USC)
16:00 - 17:00	<b>WORKSHOP 8 “Theory and practice of monitoring strength training with different technologies”</b> (Free access until the capacity is complete) <b>Speaker:</b> Marco Pozzo   <b>Sponsored by:</b> SMARTCOACH®   <b>Chair:</b> José Manuel García de Frutos (ESP) <b>Location:</b> CIARD
16:00 - 17:00	<b>WORKSHOP 9 “2S-Hesperidina and its effects on sports performance”</b> (Pre-selected in the registration form and until the capacity is complete) <b>Speaker:</b> Juan I. Cacho (HTBA) & Fco. Javier Martínez-Noguera (UCAM) (ESP)   <b>Sponsored by:</b> HTBA <b>Chair:</b> Rosario Álvarez Gil (ESP) <b>Location:</b> HI-TECH Planta baja
17:00- 17:30	<b>BREAK</b>
17:30 - 19:00	<b>WORKSHOP 10 "Heart Rate Variability and Training"</b> (Pre-selected in the registration form and until the capacity is complete) <b>Speaker:</b> Alex Javaloyes & Manuel Moyá (ESP)   <b>Sponsored by:</b> AECD <b>Chair:</b> Linda H. Chung (CAN) <b>Location:</b> HI-TECH Planta baja
17:30 - 19:00	<b>WORKSHOP 11 “Cancer &amp; Strength Training”</b> (Pre-selected in the registration form and until the capacity is complete) <b>Speaker:</b> Elena Santana Sosa (ESP)   <b>Sponsored by:</b> ALADINA FOUNDATION <b>Chair:</b> José Francisco López Gil (ESP) <b>Location:</b> CIARD
17:30 - 19:00	<b>WORKSHOP 12 “New trends in Strength Training in Team Sports”</b> (Pre-selected in the registration form and until the capacity is complete) <b>Speaker:</b> Francesco Cuzzolin (ITA)   <b>Sponsored by:</b> TECHNOGYM <b>Chair:</b> Julio Calleja González (ESP) <b>Location:</b> BOXCROSS (USC)

FRIDAY OCTOBER 11th, 2024

08:30- 09:30	<b>YIA FINALISTS &amp; ASA FINALISTS</b>
09:30-10:15	<p><b>"Elastic powered humans: How to build and drive the muscle-tendon system"</b></p> <p><b>Speaker: Anthony J. Blazevich   Edith Cowan University (AUS)</b></p> <p><b>Chair: Kirsten Legerlotz (GER)</b></p>
10:15 - 11:00	<p><b>"Guidelines for the Implementation of Flywheel Resistance Training Technology in Football."</b></p> <p><b>Speaker: Luis Suárez Arrones   Lugano CF (SUI)</b></p> <p><b>Chair: Marco Pozzo (ITA)</b></p>
11:00 - 11:30	<b>COFFEE BREAK</b>
11:30 - 12:15	<p><b>"Injury prevention and conservative treatment in high-performance sports"</b></p> <p><b>Speaker: José María Villalón   Atlético de Madrid (ESP)</b></p> <p><b>Chair: Irina Zelenkova (RUS)</b></p>
12:15 - 13:00	<p><b>"Optimizing the Rehabilitation Process Post-ACL Reconstruction."</b></p> <p><b>Speaker: Francesco Della Villa   ISOKINETIC Group</b></p> <p><b>Chair: José María Villalón (ESP)</b></p>
13:00 - 13:15	<b>BREAK</b>
13:15 - 14:15	<b>CLOSING &amp; AWARDS CEREMONY: "Call" (Neoclassical dance in two movements) at UCAM Temple</b>
14:15 - 16:00	<b>LUNCH</b>



FRIDAY OCTOBER 11th, 2024

16:00 - 17:00	<p><b>WORKSHOP 13</b> "Evaluation of CMJ and SJ jumps using force platforms. Practical cases of readaptation processes" (Free access until the capacity is complete)</p> <p><b>Speaker:</b> Rafael Aarón (ESP)   <b>Sponsored by:</b> KISTLER</p> <p><b>Chair:</b> Luis M. Alegre Durán (ESP)</p> <p><b>Location:</b> BOXCROSS (USC)</p>
16:00 - 17:00	<p><b>WORKSHOP 14</b> "GPS systems as a solution to improve performance and health" (Free access until the capacity is complete)</p> <p><b>Speaker:</b> Manuel López Segovia (ESP)   <b>Sponsored by:</b> UBIKO</p> <p><b>Chair:</b> Kostas Spyrou (GRE)</p> <p><b>Location:</b> HI-TECH Planta baja</p>
16:00 - 17:00	<p><b>WORKSHOP 15</b> "Understanding the kicking and mechanical outcomes of team sports: Implications for Performance and Return to Play" (Free access until the capacity is complete)</p> <p><b>Speaker:</b> Steve Barrett &amp; Guest   <b>Sponsored by:</b> PLAYERMAKER® (UK)   <b>Chair:</b> Maziar J. Hamad (CAN)</p> <p><b>Location:</b> CIARD</p>
17:00- 17:30	<b>BREAK</b>
17:30 - 19:00	<p><b>WORKSHOP 16</b> "Return to Play (RTP) in Professional Football from a physiotherapeutic perspective" (Pre-selected in the registration form and until the capacity is complete)</p> <p><b>Speaker:</b> Juanjo Brau (ESP), Former F.C. Barcelona   <b>Chair:</b> Javier Reina (ESP)</p> <p><b>Location:</b> HI-TECH Planta Baja</p>
17:30 - 19:00	<p><b>WORKSHOP 17</b> "Recovery strategies in High Performance Sports" (Pre-selected in the registration form and until the capacity is complete)</p> <p><b>Speaker:</b> Julio Calleja-González, UPV (ESP) &amp; Nicolás Terrados, COE (ESP)</p> <p><b>Chair:</b> Tomás T. Freitas (POR)</p> <p><b>Location:</b> BOXCROSS (USC)</p>
17:30 - 19:00	<p><b>WORKSHOP 18</b> "Testing and training in Olympic Athletes" (Pre-selected in the registration form and until the capacity is complete)</p> <p><b>Speaker:</b> Thue Kvorning (DEN)   <b>Team Denmark</b> (DEN)</p> <p><b>Chair:</b> Alejandro Leiva (ESP)</p> <p><b>Location:</b> CIARD</p>

# TRAVEL INFORMATION

## TRAVEL TO MURCIA

### **From International Airport Región de Murcia (31 km to Murcia):**

- Take a taxi to Murcia for € 30.

### **From Alicante Airport (75 km to Murcia)**

- Option 1: Take the bus number 6 to the center of Alicante (€ 1.20). Then, take the Alsa bus to Murcia, available every hour (€ 6.11).
- Option 2: Take the Alsa bus to Murcia available every two hours (€ 5.15).

### **From Valencia Airport (270 km to Murcia):**

- Take the Alsa bus to Murcia, available at 9h45, 13h30 and 20h45 (€ 28)

### **From Madrid Airport (400 km to Murcia):**

- Option 1: Take the Alsa bus to Murcia, available at 8h45, 11h45, 13h45 or 23h45 (€ 29.60).
- Option 2: Go to the center of Madrid by Metro (€ 1.50) to Estación Sur. There, take a Alsa bus to Murcia, available every two hours (€ 29.6).
- Option 3: Go to the center of Madrid by Metro (€ 1.50) to Atocha. There, take a RENFE train to Murcia, available every three hours (€ 46).



# MOBILITY

## TRAVEL TO UCAM UNIVERSITY FROM MURCIA



- **Option 1: By Bus:** Take the Latbus 44 available every 15/30 min (€ 1.35) to UCAM.



- **Option 2: By Tram:** Take the Tranvia available every 10 mins (€ 1.50) to Los Rectores/Terra Natura. Then, take the one to UCAM Los Jerónimos, available every 20 min.

## ACCOMMODATION

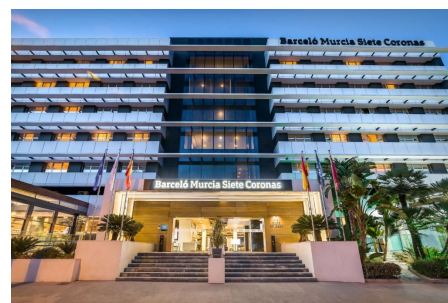
As a tourist destination, Murcia has a wide range of hotels for all economic levels, from budget hostels to luxury hotels. In addition, the Conference Organization has established agreements with various hotels to offer the closest accommodation and all possible facilities.

### BARCELÓ SIETE CORONAS 4\*\*\*\*

Superior double room for single use: 95 €

Superior double room: 110 €

Price per room per night, buffet breakfast and VAT included, until complete a specific number of rooms.

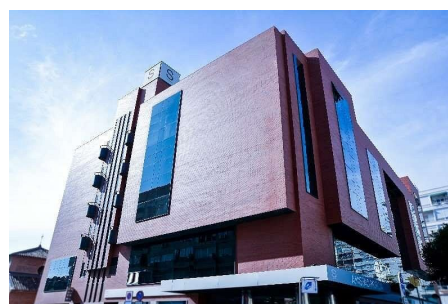


### SERCOTEL AMISTAD 4\*\*\*\*

Superior double room for single use: 88 €

Superior double room: 100 €

Price per room per night, buffet breakfast and VAT included, until complete a specific number of rooms.



### SERCOTEL JC1 4\*\*\*\*

Superior double room for single use: 74 €

Superior double room: 84 €

Price per room per night, buffet breakfast and VAT included, until complete a specific number of rooms.





# SCS 7<sup>TH</sup> ANNUAL CONFERENCE

**Strength and Conditioning:**  
A fundamental tool for performance  
improvement, injury and disease  
prevention at different stages of life.



Date

**09<sup>th</sup> - 11<sup>th</sup> October 2024**



Location

**Universidad Católica de  
Murcia, UCAM, Murcia, Spain**



Web page

**[https://www.scs.academy/  
scs-annual-meeting/](https://www.scs.academy/scs-annual-meeting/)**



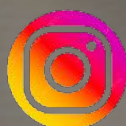
Email

**events@scs.academy**

We hope this gathering of colleagues and  
friends will be a scientifically and socially  
rewarding, memorable and enjoyable  
experience.

**Welcome to Murcia (España)!**

**Strength & Conditioning Society**  
Plaza Circular, 8, Apdo. 2157,  
CP 30.008, Murcia, SPAIN



**@S\_C\_Society**

**SCS - STRENGTH & CONDITIONING SOCIETY**



**UCAM-MURCIA 2024**  
**09<sup>th</sup> - 11<sup>th</sup> October**

**SCS - 7<sup>th</sup> ANNUAL CONFERENCE**

Catholic University of Murcia, Spain

