

2nd MuscleTech Network Workshop

The "2nd Muscletech Network Workshop" with the motto "From Translational Research to Translational Medicine" strives to encourage cooperation by getting researchers from universities and clinical centres to work towards a common goal, IMPROVE HUMAN HEALTH.

The "2nd Muscletech Network Workshop" aims to bridge and foster collaboration between MuscleTech Network members, clinical research institutions and leading international research groups via a series of scientific debates; to create new partnerships, promote research, identify opportunities and address the scientific challenges on skeletal muscle and tendon.



From translational research to translational medicine



2nd MuscleTech Network Workshop: From Translational Research to Translational Medicine

Venue:



Museu Colet
c/ Buenos Aires, 56 Barcelona – Spain

For further information:

www.biocat.cat/cidc
www.muscletechnetwork.org

Organized by:



International Center for Scientific Debate



2nd MuscleTech Network Workshop

From Translational Research to Translational Medicine

BARCELONA, 27th - 29th SEPTEMBER 2010

MuscleTech Network

Muscletech Network is a scientific platform aiming to generate knowledge and cutting edge research in the field of skeletal muscle and tendon through innovation in the prevention, diagnosis and treatment of illness, injuries, diseases, and myopathies devoted to translate the scientific discoveries into practical applications to improve human health.

MuscleTech Network is an initiative of the Fundació Futbol Club Barcelona and Leitat Technological Centre with the support of the General Secretariat for Sport of the Government of Catalonia.

www.muscletechnetwork.org

International Center for Scientific Debate

The International Center for Scientific Debate (ICSD) is an initiative of Biocat, with the support of "la Caixa" Obra Social Foundation, which aims to drive first-rate international scientific events to promote dialogue, collaboration and open exchange of ideas, projects and knowledge among experts of renowned national and international prestige. The ICSD aims to generate advanced debate on the various disciplines that are linked to the life sciences field and their repercussion on society, contributing to Catalonia's position as a country of scientific excellence.

www.biocat.cat/cidc



Monday 27th

- 12:00 Opening**
 Futbol Club Barcelona*
 Mr. Eusebi Cima. President of LEITAT Technological Centre
 Mr. Enric Banda. Director of Science, Research and Environment of "la Caixa" Foundation
 Mr. Manel Balcells. President of the Executive Committee of Biocat
 Ms. Marina Geli*. Health Department of the Government of Catalonia
 Mr. Josep-Lluís Carod-Rovira. Vice-president of the Government of Catalonia
 *Speaker to be confirmed
- 12:30 One year after the launch of MuscleTech Network**
 Francesc X. Roca. LEITAT Technological Center
- 12:45 Presentations**
Apunts, Medicina de l'Esport Online Sports Medicine Magazine
 Ramon Balius. CEARE, Catalan Sports Council, Barcelona
Clinical Practice Guide for muscular injuries. Epidemiology, diagnosis, treatment and prevention
 Gil Rodas. Futbol Club Barcelona
- 13:15 Lunch**
- 14:30 Key note lectures**
From research to medical sport support
 José Luis Terreros. National Sports Council
Design of Human Muscle: Implications for Muscle Injury
 Richard Lieber. University of California at San Diego
Skeletal muscle plasticity: from molecules to training protocols
 Carlo Reggiani. University of Padua
Different types of hamstring strains in sports
 Carl Askling. Karolinska Institute
- 16:30 Coffee break**
- 16:45 MTN 2010 projects**
Induced Muscle Damage and Induced Intermittent Hypoxia
 Ginés Viscor. University of Barcelona
Muscle and tendon injury biomarkers
 Roser Cussó. University of Barcelona

- Longitudinal studies of hamstring muscle injuries in athletes**
 Ramon Balius. CEARE, Catalan Sports Council
Research on the use of PRP and mesenchymal cells
 Lluís Orozco / Robert Soler. ITRT - Teknon Medical Centre
FEM - Forum EGARSAT del Músculo
 Chair: Gil Rodas. Futbol Club Barcelona

Tuesday 28th

- 9:00 From molecular genetics to protein expression**
Regenerative medicine based on stem cells: Implications for muscle regeneration and repair
 Johnny Huard. University of Pittsburgh
Human muscular variations: comparative, evolutionary and developmental perspectives
 Rui Diogo. George Washington University
MacArdle disease: from genetics to exercise
 Antoni L. Andreu. Institut de Recerca Hospital Vall d'Hebron
 Rosa Artells. University of Barcelona (discussion panel member)
 Chairs: Gil Rodas. Futbol Club Barcelona
 Josep Potaú. University of Barcelona
- 10:30 Coffee break**
- 11:00 From protein expression to sarcomere**
Skeletal muscle mass and function with increased use or disuse: lessons from Space
 Per A. Tesch. Mid Sweden University / Karolinska Institute
Search of targets for the prevention of muscle loss: DOR a regulator of autophagy
 Antonio Zorzano. Institut Recerca Biomedica Barcelona
Mechanisms of muscle membrane repair: The dysferlin model
 Eduard Gallardo. Research Institute Hospital St Pau
 Ginés Viscor. University of Barcelona (discussion panel member)
 Chair: Roser Cussó. University of Barcelona
- 12:30 Lunch**
- 14:00 From sarcomere to muscular fibres**
Development of biological approaches to improve muscle healing after injury
 Johnny Huard. University of Pittsburgh
Hyperbaric Oxygenation in prevention and treatment of sports injuries
 Jordi Desola. Hyperbaric Therapy Unit of Barcelona

- Respiratory muscle function and structure: injury and repair capacity**
 Mauricio Orozco-Levi. Institut Municipal Investigacions Mèdiques
 Xavier Peirau (discussion panel member)
 Chair: Ramon Segura. Medical School of Physical Education

- 15:30 Coffee break**
15:45 From muscular fibres to muscle-tendon junction

- New concepts in biological muscular regeneration: MRI Survey**
 Mario Padrón. European Soc. of Musculoskeletal Radiology
Application of elastography in muscle injury diagnosis
 Lluís Til. GIRSANE. High Performance Center. Sant Cugat del Vallès
Morphological, anatomical, histological and medical imaging techniques towards the study of the soleus muscle
 M^a Isabel Miguel. University of Barcelona
 Franchek Drobnic. GIRSANE. High Performance Center. Sant Cugat del Vallès (discussion panel member)
 Chairs: Ramon Balius. CEARE, Catalan Sports Council
 Jordi Puigdemívol. Futbol Club Barcelona

- 17:15 Partnering meetings**

Wednesday 29th

- 9:00 Evolution and adaptability of muscles - diseases and disorders**
Training adaptation of hamstring muscle
 Geoffrey Verrall. University of Adelaide
MRI and proteomic studies in normal and pathological muscles
 M^a Isabel Illa. Research Institut Hospital de la Sta Creu i St Pau
Studies of the Muscular Research Group at Hospital Clinic
 Josep M^a Grau. Barcelona Clinic Hospital
 Mauricio Monaco. Futbol Club Barcelona (discussion panel member)
 Chair: Enric Caceres. Autonomous University of Barcelona
- 10:30 Coffee break**
- 11:00 The tendon**
Tendon hypertrophy; Is it possible? Do we want it? How can we target it?
 Per Aagaard. University of Copenhagen

- Is eccentric loading better than concentric in rehab of tendinopathy?**
 Henning Langberg. University of Copenhagen
Doppler signal in tendinopathy: significance and novel treatments
 Peter Malliaras. European College of Sports and Exercise Physicians (ECOSEP). University of London
 Carles Pedret. MAPFRE Tennis Medicine Centre (discussion panel member)
 Chair: Daniel Medina /Gil Rodas. Futbol Club Barcelona

- 12:30 Lunch**
14:00 From muscle-tendon junction to neuro-biomechanics
The Anterior Cruciate Ligament (ACL) Injury Enigma
 Scott McLean. University of Michigan
Mechanisms of hamstring muscle injury: Implications for return to sport and other musculoskeletal disorders
 Geoffrey Verrall. University of Adelaide
Muscle response under stress and catabolic status. The Critical Illness Myopathy
 Jaume Coll. Hospital Universitari Germans Trias i Pujol
 Rosa Angulo. Catalanian National Ins. of Physical Education (discussion panel member)
 Chairs: Mariona Violan. Catalanian Sports General Secretariat
 Ricard Pruna. Futbol Club Barcelona

- 15:30 Coffee break**
15:45 Biomechanics of muscle injury
Use of resistance training in the prevention and rehabilitation of muscle-tendon injury
 Per Aagaard. University of Copenhagen
Biomechanics of Skeletal Muscle Injury
 Richard Lieber. University of California
Muscle strength imbalances and injuries
 Joaquim Chaler. EGARSAT-SUMA Intermutual
 Xavier Balius. GIRSANE High Performance Centre Sant Cugat del Vallès (discussion panel member)
 Chair: Angel Cotorro. MAPFRE Tennis Medicine Centre
 Xavier Valle. Sport's Medicine School, University of Barcelona
- 17:15 Conclusions and closing remarks**
 Carles Pedret. MAPFRE Tennis Medicine Centre