

## SCIENTIFIC PURPOSE AND AIMS

Musculoskeletal diseases are one of the most important clinical areas among the Western population in terms of prevalence, incidence and morbidity. An in-depth knowledge of the physiological mechanisms underlying skeletal and muscle homeostasis and the main alterations leading to the disease together with the analysis of all clinical and laboratory aspects necessary for the management of these disorders as well as the available therapeutic strategies are essential elements to adequately approach and manage such diseases. The course aims at providing the widest possible theoretical and practical notions on the different aspects of the bone and muscle during the life. In addition, the course aims to evaluate the role of sports and physical activity in musculoskeletal omeostasis To this end, the course ranges from anatomy, biology and genetics lectures to more strictly clinical and therapy/management topics, including translational research subjects with the aim of providing trainees with updated tools for the management and treatment of patients affected by musculoskeletal diseases. In the light of the complementarity and overarching nature of the topics it deals with, the course is intended for both staff in training, who will have a chance to supplement their knowledge, and specialists wishing to implement, sharpen and update their diagnostic and therapeutic knowledge. The Faculty of the course, made up of lecturers of national and international renown.

## SEDE DEL CORSO:

Istituti Biologici della Scuola di  
Medicina e Chirurgia  
Università degli Studi di Verona  
Str. le Grazie, 8, 37134 Verona VR

## RESPONSABILI SCIENTIFICI

### *Prof. Luca Dalle Carbonare*

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## PROVIDER (nr.314)

### SEGRETERIA ORGANIZZATIVA

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con il contributo non condizionante di:



UNIVERSITÀ  
di VERONA

Scuola  
di MEDICINA  
E CHIRURGIA

PhD School: Life and Health Sciences

Postgraduate Specialisation in  
Sport and Exercise Medicine

**MUSCLE AND BONE:  
EXERCISE, DIET AND TREATMENT**  
A journey from DNA to phenotype  
and physical performance



Aula E c/o Istituti Biologici della  
Scuola di Medicina e Chirurgia

Verona, 24/26 Settembre 2019

Accreditato ECM - 34,4 CREDITI

# PROGRAMMA FORMATIVO

September 24<sup>th</sup>

## ***Biological Science of Bone and Muscle***

- 8.30 Registration
- 9.00 Cellular and Molecular Biology of Bone  
(**Monica Mottes, Maria Teresa Valenti** - Verona)
- 10.00 Genetics of bone and muscle  
(**Giovanni Malerba**, Verona)
- 11.00 Physical activity and molecular pathways that control muscle mass and function  
(**Marco Sandri**, Padova)
- 12:00 New applications of the genome editing techniques to discover bone and muscle  
(**Donato Zipeto**, Verona)
- 13.00/14.00 Lunch
- 14.00 The morphology of normal bone and muscle and new insights in bone tissue regeneration  
(**Carlo Zancanaro**, Verona)
- 15.00 Biochemical approach to study bone and muscle  
(**Gianluca Salvagno**, Verona)
- 16.00 Instrumental approach to study bone and muscle  
(**Andrea Rossi**, Verona)
- 17.00 Spine, surgery and sport  
(**Massimo Balsano**, Verona)
- 20.00 Meet the expert and share the knowledge

September 25<sup>th</sup>

## ***Models for the study of muscle-skeletal system***

- 9.00 Bone diseases in animal models: experimental approaches with nanomedicine  
(**Alessandro Matté**, Verona)
- 10.00 Blood and Bone, *mouse*  
(**Lucia De Franceschi**, Verona)
- 11.00 Muscle and Bone, *zebra fish*  
(**Andrea Vettori**, Verona)
- 12.00 Experimental models alternative to lab animals  
(**Francesca Uberti**, Novara)
- 13.00/14.00 Lunch

## ***Bone and Muscle diseases in specific settings***

- 14.00 Bone and muscle diseases and immunology  
(**Claudio Lunardi**, Verona)
- 15.00 Relationship between Bone and Muscle diseases and Obesity  
(**Elena Zoico**, Verona)

**16:00**

**Aula Magna  
Lectio Magistralis**

**“I hit the jackpot: the sport as  
a motivation for the life”  
(Oscar De Pellegrin, Belluno)**

September 26<sup>th</sup>

## ***Therapeutical approaches Medical***

- 8.30 Vitamin D: effects on bone and muscle  
(**Angelo Pietrobelli**, Verona)
- 9.30 Nutraceuticals and physical performance  
(**Cristiano Chiamulera**, Verona)
- 10.30 Physical Activity as a strategy to prevent the diseases  
(**Federico Schena**, Verona)
- 11.30 Sport and bone health  
(**Marcello Ferrari**, Verona)
- 12.30 High altitude, physiological adaptations and physical performance  
(**Andrea Ermolao**, Padova)
- 13.00/14.30 Lunch

## ***Surgical***

- 14.30 Orthopedic surgery  
(**Bruno Magnan, Elena Samaila**, Verona)
- 15.30 Physical Therapy and rehabilitation  
(**Marialuisa Gandolfi, Alessandro Picelli**, Verona)
- 16:30 Laboratory: Methods of evaluation of bone density and composition  
Methods of evaluation of physical performance  
(**Luca Giuseppe Dalle Carbonare**, Verona)
- 18.30 Conclusions
- 19.00 CME Questionnaire