THE "ETTORE MAJORANA" FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE President: *Prof. Antonino Zichichi*



INTERNATIONAL SCHOOL OF ETHOLOGY "Danilo Mainardi" Directors of the School: Prof. Stefano Parmigiani and Prof. Paola Palanza

MENS SANA IN CORPORE SANO: PSYCHOBIOLOGICAL EFFECTS OF PHYSICAL ACTIVITY May 01-04, 2022 Erice, Sicily, ITALY

WORKSHOP ORGANIZERS

Davide Ponzi (Università di Parma, Italy) Hans- Georg Kuhn (University of Gothenburg. Sweeden) Cosimo Costantino (Università di Parma, Italy) Daniela Caporossi (Università di Roma 'Foro Italico', Italy) Alessandro Sale (C.N.R., Pisa, Italy) Stefano Parmigiani (Università di Parma, Italy)

PURPOSE OF THE WORKSHOP

The purpose of this interdisciplinary course is to bridge the gap between the various fields that are concerned with the question of physical activity and its implications for health and disease. Experts of different fields ranging from sport science, sport medicine and sport psychology will address and discuss the following topics :

 nutrition, training, biomechanics, physiology, kinesiology, injury prevention, rehabilitation, motivation, personality traits, and .mental health. This topics will be integrated with the perspective of evolutionary psychobiology and psychoneuroimmunology. Sex differences with respect to physiology, psychology and sport performance will be also explored.

The workshop is addressed to students and researchers in sport sciences (i.e. sport medicine and sport psychology), including PhD and undergraduate students of medical schools, psychology, sport sciences, neurobiology, etc.) as well as professional sports coaches and anyone interested in this interdisciplinary approach.

Information and Registration: http://schools.centromajorana.it/physexercise2022/info.html Registration Deadline: 21 March 2022



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Speakers

Daniela Caporossi (University of Roma, Italy) Exercise in the evolution of human neurobiology

Alessandro Sale (C.N.R. Pisa, Italy) Physical exercise and visual cortex plasticity: active training for amblyopia recovery

Francesca Cirulli (Istituto Superiore di Sanità, Roma, Italy) Healthy body healthy mind? Joining physical exercise and mental health in a neurobiological perspective

> Matteo Vandoni (University of Pavia, Italy) Affective responses during exercise: a way to a healthier and active lifestyle?

Valentina Bianco (IRCCS, Italy) Effects of motor experience on anticipatory brain functions

Georg Kuhn (University of Gothenburg, Sweden) Epidemiology, physical fitness early in life and its effect on brain diseases later in life

Martin Brüne (LWL University Hospital, Ruhr University, Germany) Somatic consequences of chronic psychological stress: the case of borderline personality disorders

> Antonio Frizziero (University-Hospital of Padova, Italy) The role of posture in rehabilitation

Cosimo Costantino (University of Parma, Italy) Functional overload of the muscle tendon

Domenico Gualtieri (University of Milan, Italy) The Truth of numbers. The Journey around a world of numbers: a football experience

> Marcello Maggio (Università di Parma, Italy) Physical activity and aging

Vassilios Fanos (University of Cagliari, Italy) Metabolomics and Microbiomics towards Sportomics

Ignacio Torres Aleman (University of Madrid, Spain) The multiple beneficial actions of exercise in the brain involve hormones with multiple actions in the brain

> Davide Ponzi and Stefano Parmigiani (University of Parma, Italy) **Psychobiology of sports competition: an evolutionary approach**

> > Alicia Salvador (University of Valencia, Spain) Sex differences in competitive behavior

Mirko Pesce (University of Chieti -Pescara, Italy) Emotions, Immunity and Sport: insights into psychobiological profile

Irene la Fratta (University of Chieti -Pescara, Italy) Challenge Sport: where the stress and anger encounter the endocrine and immune systems

Final round table on **The impact of a Darwinian perspective on sport medicine and health** Chairmen: Davide Ponzi and Stefano Parmigiani (University of Parma, Italy)