

## CONFERENCE REPORT: 2024 PADUA – 5 DAYS ON MUSCLE AND MOBILITY MEDICINE (2024PDM3)

Padua, Italy, 27 February–2 March 2024

The International Scientific Conference entitled “Padua Days on Muscle and Mobility Medicine in Padova (Pdm3)” was held at the Petrarca Hotel in the Spa of the Euganean Hill (Padova), Italy, in the San Luca Hall of the Convent of Santa Giustina in Prato della Valle, Padova, Italy. Pdm3 was led by prof. Ugo Carraro and prof. Sandra Zampieri. This series of international meetings on the biology, anatomy, physiology, management, and rehabilitation of muscles was first held in 1985. Over five days, presentations were given by scientists and medical staff from Argentina, Austria, Belgium, Brazil, Canada, Denmark, Egypt, France, Germany, Iceland, Ireland, Italy, Romania, Russia, Slovenia, Switzerland, the United Kingdom, and the United States. Among all participants, four colleagues from the Institute for Kinesiology Research, Science and Research Centre Koper presented their work: Prof. Rado Pišot (*Simulating weightlessness with inactivity models on Earth: research experience of the Bedrest Centre in Koper*), Prof. Boštjan Šimunič (*The relevance of Tensiomyographic results in disuse studies*), Assoc. prof. Uroš Marušič (*Sensorimotor adaptations during bed rest: insights from high-density electroencephalography*) and Kaja Teraž (*Muscle sparing effect of high-protein diet with excess leucine in short-term bed rest*).

From all scientific sections, a section of *Impact of inactivity on human physiological systems* was almost entirely dedicated to the presentation of results obtained in our latest bed rest campaign (SBI 2023 bed rest study). Authors presented the differences in bed rest consequences between younger and older male participants at the level of muscle oxidative metabolism, muscle molecular impairment of neuromuscular junction, protective role of protein supplements during the bed rest period, deterioration of muscle function, muscle activation at the level of motor units and muscle-tendon system, deterioration of central nervous system, and change in muscle tension.

Kaja Teraž, Boštjan Šimunič

## POROČILO S KONFERENCE: DNEVI MEDICINE MIŠIC IN MOBILNOSTI V PADOVI (2024PDM3)

Padova, Italija, 27. februar–2. marec 2024

Mednarodna znanstvena konferenca Dnevi medicine mišic in mobilnosti v Padovi (Pdm3) je potekala v hotelu Hotel Petrarca Terme Montegrotto Padova, Italija. Konferenco sta vodila prof. Ugo Carraro in prof. Sandra Zampieri. Mednarodno srečanje o biologiji, anatomiji, fiziologiji, upravljanju in rehabilitaciji mišic je prvič potekalo 1985. Letos so v petih dneh potekale predstavitve znanstvenikov in zdravstvenega osebja iz Argentine, Avstrije, Belgije, Brazilije, Kanade, Danske, Egipta, Francije, Nemčije, Islandije, Irske, Italije, Romunije, Rusije, Slovenije, Švice, Združenega kraljestva in ZDA. Med udeleženci so svoje delo predstavili tudi sodelavci z Inštituta za kineziološke raziskave Znanstveno-raziskovalnega središča Koper, in sicer prof. dr. Rado Pišot (ang. *Weightlessness with inactivity models on Earth: research experience of the Bedrest Centre in Koper*), prof. dr. Boštjan Šimunič (ang. *The relevance of Tensiomyographic results in disuse studies*), izr. prof. dr. Uroš Marušič (ang. *Sensorimotor adaptations during bed rest: insights from high-density electroencephalography*) in Kaja Teraž (ang. *Muscle sparing effect of high-protein diet with excess leucine in short-term bed rest*).

V sklopu konference je potekala sekcija *Impact of inactivity on human physiological systems*, v kateri so se posvečali predvsem predstavitvi rezultatov iz zadnje kampanje BEDREST (študija gibalne neaktivnosti SBI 2023). Avtorji so predstavili razlike v posledicah gibalne neaktivnosti med mlajšimi in starejšimi moškimi udeleženci na ravni oksidativnega metabolizma mišic, molekularne okvare živčno-mišičnega spoja, vloge beljakovinskih dopolnil v prehrani, poslabšanja mišične funkcije, mišične aktivacije na ravni motoričnih enot in skeletno-mišičnega sistema, poslabšanja centralnega živčnega sistema in drugih.

Kaja Teraž, Boštjan Šimunič