



Summary activity for Gerardo Bosco MD PhD

Gerardo Bosco is a physiologist at University of Padova, director for a Master II level in Hyperbaric Medicine and scientific coordinator for Sport Sciences Faculty and High Education Course in Technical and health management in the hyperbaric chamber environment. He graduated at University of Chieti-Pescara as MD and PhD in muscle pathophysiology; residencies in Diving and Hyperbaric Medicine and Clinical Nutrition Sciences. He was a student and then assistant in Human physiology and Residency in Diving Medicine directed by PG Data at University of Chieti; then he moved to USA and he has been a fellow at SUNY Upstate Medical University in Syracuse, Dept. of Physiology and a research scientist for two years in the Dept. of Anesthesia, directed by EM Camporesi.

Clinical activities: he worked as internist physician in Chieti and Padova, as hyperbaric physician at Ravenna and Brescia, and as medical director for HBO center at Salerno and San Marino Republic.

Research activities: he performed several experimental projects in cells, animals and in humans during opensea performance and simulated environment;

Actually, Dr Bosco lab in Environmental Physiology & Medicine is a collaborative research facility housed in the Department of Biomedical Sciences (DSB), physiology section at Padua University. He brought to the DSB dept established research and training programs in diving physiology and basic mechanisms of oxygen therapy (hyperbaric medicine). The lab utilizes two experimental hyperbaric chambers for cells and animals and two multiplace chambers for patients and volunteers provided by ATIP Medical Center of Padova, for conducting modern biomedical

research and investigation on organisms ranging from unicellular to humans. It has been established in 2012 by the Trustees of the Dept of Biomedical Sciences, University of Padova and ATIP.

The mission is to identify the molecular and cellular mechanisms involved in the body's response to artificial atmospheres and altered pressure environments; various cellular processes at the molecular level due to the effects of pressure per se, gas partial pressure alone, and/or the production of secondary reaction productions such as O₂-induced free radicals. The Lab with the recruitments included students and junior faculty with research interests in molecular genetics, biochemical toxicology, pharmacology and sport sciences will maintain excellence in systems physiology and has established premier programs to study the pathophysiology of oxygen toxicity in neurology and pulmonary medicine, diving related stresses, and mechanisms of hypoxic response in humans. Dr Bosco organized a Master course II level in Hyperbaric Medicine (HBO) at the University of Padova and he is a director. He is actively involved in various collaborations, as attested by the various publications performed with different national and international groups. Furthermore, he is a visiting professor for HBO at Greiswald University-Gemany, for Diving physiology at SUNY Syracuse and USF Tampa USA; member of the international faculty at Duke Dive Medicine-Duke University USA, executive board of the Italian Society of Diving and Hyperbaric Medicine (SIMSI); member of Istituto Interuniversitario di Miologia (IIM), Italian Society of Physiology SIF, European and US societies of Diving and Hyperbaric Medicine (EUBS, UHMS).
Reviewer: European journal of applied physiology, Journal of Applied Physiology, UHMS Journal, Plos One, Critical Care, Anesthesiology, Diving Hyperb Med Journal, Lung, Aerospace Medicine.
Tutor of several students doing thesis in Pharmaceutical Sciences, Medicine, Movement Sciences and High Education courses at the University of Padova.