

CARLO REGGIANI - CURRICULUM VITAE

Name and surname : **Carlo Reggiani**
Place and date of birth: Pavia, February 12, 1948
Citizenship: Italian

Current position:

Emeritus Professor of Physiology at the Department of Biomedical Sciences, Medical School, University of Padua, Italy.

Education and training:

- Medical degree at the Medical School of the University of Pavia (1972)
- Specialization in Cardiology at the University of Pavia (1977)
- Research training at the Institute of Human Physiology-University of Pavia (1974-1978)
- Visiting scientist at the Department of Pharmacology, University of Lund (Sweden), in the laboratory of Professor Paul Edman (1980-1984)

Professional Positions:

- Full Professor of Human Physiology at the University of Padova from November 1999 to October 2018
- Full Professor of Human Physiology at the University of Pavia from November 1991 to October 1999
- Associate Professor of Human Physiology at the University of Pavia from March 1984 to October 1991
- Assistant Professor of Human Physiology at the University of Pavia from May 1978 to March 1984

Academic Appointments

- Member of the Council of the School of Medicine, University of Padova, from 2012 to 2018
- Director of the School of Specialization in Sport Medicine at the Medical Faculty of the University of Padova , 2009-2012
- Director of the graduate course of Human Movement Science (Scienze Motorie) of the University of Padova from 2009 to 2017
- Director of the Physiology section of the Department of Anatomy and Physiology, Medical School, University of Padova 2005-2011.

- Secretary of the National PhD Program in Physiology (Milano, Pavia, Bologna, Sassari and Cagliari) (1984 – 1999).
- Vice-Director of the Institute of Human Physiology, University of Pavia (1990 -1999).
- Director of the School of Specialization in Sport Medicine at the Medical Faculty of the University of Pavia . 1998-1999

Teaching experience

Teaching Human Physiology to medical students In the Medical School of the University of Padova since November 1999 to September 2018

Teaching Human and Exercise Physiology to students of the graduate course of Human Movement Science (Scienze Motorie) of the University of Padova from 2008 to 2018.

Teaching Human Physiology to medical students In the Medical School of the University of Pavia since 1984 to 1998.

Thesis Supervisor in the Ph.D. program in Physiology (Universities of Pavia, Milano, Bologna, Sassari and Cagliari) from 1984 to 1999, in the PhD program in Neuroscience, University of Padova from 2000 to 2012 and in the PhD program of Biomedical Sciences from 2012 to 2018.

Professor of Muscle and Exercise Physiology at the School of Specialization in Sport Medicine at the Medical Faculty of the University of Pavia from 1984 to 1999 and at the School of Specialization in Sport Medicine at the University of Padova from 2000 to 2018.

From 1984 to 1999, in charge of the course of Human Physiology of the Dentist School and of one of the four courses of Human Physiology of the Medical School of the University of Pavia.

Prizes and honors

Premio Feltrinelli - Accademia Italiana dei Lincei , 2014

Professional Organization Membership

Member of the following professional organizations:

Italian Physiological Society (SIF): president for the period 2011-2014

Physiological Society (UK)

European Society for Muscle Research (ESMR): member of the steering committee

Biophysical Society

Italian Federation of the Medical Professional Associations (FNOM)

Editorial Positions and Activities

Associate Editor of the Journal of Physiology, 2009 to 2014.
Member of the Editorial Board of American Journal Physiology-Cell Physiology 2002-2010.
Associate Editor of BMC Physiology, 2008 to present.
Associate Editor of Biology (MDPI group)
Member of the Editorial board of Circulation Research from 1996 to 1999.
Member of the Editorial Board of Annales kinesiologiae
Member of the Editorial Board of European Journal of Translational Myology
Reviewer for J. Physiol (London), American Journal Physiology, Pflugers Arch (Europ. J. Physiol.), J. Appl. Physiol., BMC Biology....

Technical and Scientific appointments

In charge of the Laboratory of Muscle Biophysics at the Department of Biomedical Sciences, University of Padova since 1999: main research lines: structure-function relation of myosin, paralogous and orthologous myosin isoforms, intracellular signals and gene expression regulation in skeletal muscles, intracellular calcium as a signal in skeletal muscle.

Head of the Laboratory of Muscle Physiology at the Institute of Human Physiology, University of Pavia from 1984 to 1999: main research lines: short term and long term regulation of cardiac contractility, myosin isoforms and contractile performance in cardiac and skeletal muscles

Authors of 268 original articles indexed on PubMed, 14 invited reviews , with a total of 16000 citations and h index 56 (Scopus) or 24000 citations and h index 67 (Google Scholar).

Main grants for Research

1) European Union

- grant (1995-1998) “ Energy transduction in muscle “ in the frame of Human Capital and Mobility (4th framework program)
- grant (1999-2002) “Energy transduction in muscle and related motility systems: structure, function and mechanics “ in the frame of Human Potential Research Training network (5th framework program)
- grant (2009-2012) “MyoAge (7th framework program)
- Interregio Grant “PANGeA” (2011-2014)

NATO grant for the project “Myosin light chain and cardiac contractility “ in collaboration with University of Yerevan (Armenia)

2) Italian Ministry of University and Research (MIUR): PRIN

- 1998-2000: “Mechano-chemical transduction in sarcomeric myosins”
- 2000-2002: “Mechano-chemical transduction in sarcomeric myosins :Structure-function relation in myosin orthologous isoforms

- 2002-2003: "Mechano-chemical transduction in sarcomeric myosins :From gene to protein and function: ortholog myosin identification and biophysical characterization in mammalian skeletal muscles"
- 2004-2005: "Mechano-chemical transduction in sarcomeric myosins : Sarcomeric Myosin Isoforms: genes, proteins and motor function"
- 2006-2007 "Regulatory mechanisms in skeletal muscle plasticity"
- 2008-2010 "Skeletal muscle fiber plasticity studied at microgenomics level"
- 2017-2020 " Novel developments in studies of Ca²⁺ entry mechanisms: relevance to skeletal muscle function and diseases"

- 3) **Progetti di Eccellenza CARIPARO:** 2010-2012 " Microgenomics of individual myofibres: high-resolution expression profiles in skeletal muscle physiology and pathology".
Progetti di Eccellenza CARIPARO: 2012-2014 "Modeling And Monitoring Motions In Proteins"

4) Telethon

- grant n 373 – 1994-1997: " Hyperthyroid and hypothyroid myopathies "
- grant n 1017 – 1998-1999: "A novel mechanism of calcium mediated regulation of muscle contraction: functional characterization".
- grant n GP0229Y01 – 2001-2003 "The dystrophin mediated link between cytoskeleton and extracellular matrix : biophysical studies on ionic conductances and mechanical properties of the sarcolemma"
- grant n GGP04113 – 2004-2005 "Collagen VI myopathies: from mouse therapy to human trials"
- grant n GGP08153A – 2009-2011 "Calsequestrins in calcium homeostasis and potential role in inherited human skeletal muscle diseases".
- grant n GGP 13213 – 2013-2016 "Altered calcium handling in Central Core Disease and Malignant Hyperthermia: understand molecular mechanisms and genetic background to develop innovative therapeutic interventions"

5) Italian Space Agency (ASI)

- 1997-1999 "Effetto dell'inattività' e dell'assenza di peso sul sistema contrattile del muscolo scheletrico. Regolazione genica e proprietà funzionali."
- 1999-2002 "Load and activity- dependent mechanisms which control muscle growth and function"
- 2006-2009 "Mechanisms of force and mass reduction in experimental models of muscle atrophy" and "Space flight and loss of strength in upper limb muscles "
- 2011-2014 "Preventing muscle atrophy during space flights by interfering with Akt-FoxO-Atrogin-1 signaling"


Thesis' Director

Supervisor in the Ph.D. program in Physiology (Pavia, Milano, Bologna, Sassari and Cagliari) and in the PhD program in Neuroscience (Padova)

- R. Bottinelli (Myosin isoforms and cardiac contractility, 1988),
- M. Canepari (Study of regulation of atrial myocardium contractility in vitro, 1993),
- M.C. Zanardi (Alteration of skeletal muscle contractility due to tropomyosin mutations, 1996),
- M.A. Pellegrino (Heterogeneity of sarcomeric proteins and contractile performance in human skeletal muscle fibres, 1998),
- R. Rossi (Role of ryanodine receptor isoforms in excitation-contraction coupling in mouse skeletal muscles, 1999)
- F. Morello (Modifications of rat skeletal muscle fibres during development due to beta 2 agonist clenbuterol, 1999)
- Marta Canato (Murine model of muscle dystrophy due to mutations of collagene VI, 2006)
- Nicola Cacciani (HIF-1 (Hypoxia Inducible Factor-1) role in the adaptation of muscles to hypoxia and exercise 2006)
- Marco Quarta (Calcium signals in myogenics cells and muscle fibers: an integrated study, 2007)
- Lina Cancellara (A study of functional and molecular properties of human single muscle fibres, 2010)
- Giuseppe Marcolin (Perineal lesions in professional cyclists, 2010)
- Davide Ippolito (Comparison of different training protocols on postural stability in the elderly, 2010)
- Francesco Pacelli (Evaluation of strength and mass of shoulder muscles, 2010)
- Alessandro Grainer (Regulation of pain threshold during exercise, 2012)
- Leonardo Nogara (EPR studies on cross bridge dynamics, 2015)
- Giulio Rosati (Biosensor for detection of myogenic cells growth, 2015)
- Gaia Butera (Mitochondrial adaptation in parvalbumin knockout muscle fibers, 2019)

Co-supervisor of European PhD Thesis

- Cyril Bozzo : “Variations de la phosphorylation de la chaine legere de myosine en relation avec la plasticité du muscle squelettique” in 2004, University of Lille (France)
- Belle Roels: “Systemic and muscular adaptations to different hypoxic training protocols” in 2005, University of Montpellier (France)



Carlo Reggiani

Padova 21/03/2024