ARGENTINE JOURNAL OF CARDIOLOGY

SCIENTIFIC ORGAN OF THE ARGENTINE SOCIETY OF CARDIOLOGY

EDITORIAL BOARD

Director
RAÚL A. BORRACCI †
Universidad Austral, Buenos Aires

Deputy Director
JORGE THIERER
Instituto Universitario CEMIC, CABA

Associated Directors
JOSÉ LUIS BARISANI
Hospital Presidente Perón
DARÍO C. DI TORO
Hospital Argerich, CABA
MARÍA AMALIA ELIZARI
Instituto Cardiovascular Buenos Aires, CABA
CLAUDIO C. HIGA
Hospital Alemán, CABA
LUCIANO LUCAS
Instituto Universitario Hospital Italiano de Buenos Aires, CABA
WALTER M. MASSON
Instituto Universitario Hospital Italiano de Buenos Aires, CABA

Consultant Editor
HERNÁN C. DOVAL
Hospital Italiano de Buenos Aires, CABA

SAC Representative
DAMIÁN HOLOWNIA
Instituto Antonio Heluane Centro de Diagnóstico Médico, San Miguel de Tucumán, Tucumán.

Basic Sciences´ Editor
BRUNO BUCHHOLZ
Universidad de Buenos Aires, CABA

Board Members
BIBIANA DE LA VEGA
Hospital Zenón Santillán, Tucumán
JAVIER GUETTA
Instituto Universitario CEMIC, CABA
GUILLERMO E. LINIADO
Hospital Argerich, CABA
JORGE LOWENSTEIN
Cardiodiagnóstico Investigaciones Médicas de Buenos Aires, CABA
GASTÓN RODRÍGUEZ GRANILLO
Instituto Médico ENERI, CABA
Clínica La Sagrada Familia, CABA
PABLO ROURA
Instituto Argentino de Diagnóstico y Tratamiento, CABA
JORGE C. TRAININI
Universidad de Avellaneda, Buenos Aires
MARIANO TREVISÁN
Sanatorio San Carlos, Bariloche

STATISTICAL CONSULTANT
JAVIER MARIANI
Hospital El Cruce, Buenos Aires

EDITORIAL COORDINATION
PATRICIA LÓPEZ DOWLING
MARIELA ROMANO

HONORARY BOARD

MARCELO V. ELIZARI (ARG)
GUILLERMO KREUTZER (ARG)
JOSÉ NAVIA (ARG)

INTERNATIONAL EDITORIAL BOARD

AMBROSIO, GIUSEPPE (ITA)
University of Perugia School of Medicine, Perugia
ANTZELEVITCH, CHARLES (USA)
Masonic Medical Research Laboratory
BADIMON, JUAN JOSÉ (USA)
Cardiovascular Institute, The Mount Sinai School of Medicine
BARANCHUK, ADRIÁN (CAN)
Queen's University, Kingston
BAZÁN, MANUEL (CUB)
INCOR, La Habana
BLANKSTEIN, RON
Harvard Medical School (EEUU)
BRUGADA, RAMÓN (ESP)
Cardiology Department, The Thorax Institute, Hospital Clinic, University of Barcelona, Barcelona
CABO SALVADOR, JAVIER
Departamento de Ciencias de la Salud de la Universidad de Madrid UDIMA (ESPAÑA)
CAMM, JOHN (GBR)
British Heart Foundation, St. George's University of London
CARRERAS COSTA, FRANCESC (ESPAÑA)
Hospital de la Santa Creu i Sant Pau, Universitat Autònoma de Barcelona
CHACHQUES, JUAN CARLOS (FRA)
Pompidou Hospital, University of Paris Descartes, Paris
DEMARIA, ANTHONY N. (USA)
UCSD Medical Center, San Diego, California
DI CARLI, MARCELO (USA)
Harvard Medical School, Boston, MA
EVANGELISTA MASIP, ARTURO (ESPAÑA)
Instituto Cardiológico. Quirónsalud-Teknon, Barcelona
EZEKOWITZ, MICHAEL (USA)
Lankenau Medical Center, Medical Science Building, Wynnewood, PA
FEIGENBAUM, HARVEY (USA)
Indiana University School of Medicine, Indianapolis
FERRARI, ROBERTO (CAN)
University of Alberta, Edmonton, Alberta
FERRARIO, CARLOS (USA)
Wake Forest University School of Medicine, Winston-Salem
FLATHER, MARCUS (GBR)
Royal Brompton and Harefield NHS Foundation Trust and Imperial College London
FUSTER, VALENTIN (EE.UU)
The Mount Sinai Medical Center, New York
GARCÍA FERNÁNDEZ, MIGUEL ÁNGEL (ESPAÑA)
Universidad Complutense de Madrid. Facultad de Medicina
JUFFÉ STEIN, ALBERTO (ESP)
Department of Cardiology, A Coruña University Hospital, La Coruña
KASKI, JUAN CARLOS (GBR)
St George's University of London, Cardiovascular Sciences Research Centre, Cranmer Terrace, London

INTERNATIONAL EDITORIAL BOARD
KHANDERIA, BIJOY (USA)
Aurora Cardiovascular Services
KRUCOFF, MITCHELL W. (USA)
Duke University Medical Center, Durham
LÓPEZ SENDÓN, JOSÉ LUIS (ESP)
Hospital Universitario La Paz, Instituto de Investigación La Paz, Madrid
LUSCHER, THOMAS (CHE)
European Heart Journal, Zurich Heart House, Zürich, Switzerland
MARZILLI, MARIO (ITA)
Cardiothoracic Department, Division of Cardiology, University Hospital of Pisa
MAURER, GERALD (AUT)
Univ.-Klinik für Psychiatrie und Psychotherapie I, Christian-Doppler-Klinik, Salzburg
MOHR, FRIEDRICH (GER)
Herzzentrum Universität Leipzig, Leipzig
MOSS, ARTHUR (USA)
University of Rochester Medical Center, New York
NANDA, NAVIN (USA)
University of Alabama at Birmingham, Birmingham
NEUBAUER, STEFAN
University of Oxford and John Radcliffe Hospital (GRAN BRETAÑA)
NILSEN, DENNIS (NOR)
Department of Cardiology, Stavanger University Hospital, Stavanger
PALACIOS, IGOR (USA)
Massachusetts General Hospital
PANZA, JULIO (USA)
MedStar Washington Hospital Center, Washington, DC
PICANO, EUGENIO (ITA)
Institute of Clinical Physiology, CNR, Pisa
PINSKI, SERGIO (USA)
Cleveland Clinic Florida
RASTAN, ARDAWAN (GER)
Universitäts-Herzzentrum Freiburg-Bad Krozingen
SERRUYS, PATRICK W.
Imperial College (GRAN BRETAÑA)
SICOURI, SERGE (USA)
Masonic Medical Research Laboratory, Utica
THEROUX, PIERRE (CAN)
University of Toronto, Ontario
TOGNONI, GIANNI (ITA)
Consorzio Mario Negri Sud, Santa Maria Imbaro, Chieti
VENTURA, HÉCTOR (USA)
Ochsner Clinical School-The University of Queensland School of Medicine, New Orleans
WIELGOSZ, ANDREAS (CAN)
University of Calgary, Calgary, Alberta
ZIPES, DOUGLAS (USA)
Indiana University School of Medicine, Indianapolis

ARGENTINE SOCIETY OF CARDIOLOGY

BOARD OF DIRECTORS

President
ALEJANDRO R. HERSHSON

President Elect
HÉCTOR R. DESCHLE

1st Vicepresident
CLAUDIO R. MAJUL

2nd Vicepresident
RODRIGO A. DE LA FABA

Secretary
RICARDO A. VILLARREAL

Treasurer
ENRIQUE FAIRMAN

Prosecretary
RICARDO A. VILLARREAL

Protreasurer
VERÓNICA I. VOLBERG

Regular Board Members
BLANCA M. LOSADA
MARIO J. SZEJFELD

Deputy Board Members
MARÍA D. LUCONI
DAMIÁN E. HOLOWNIA
RICARDO LEÓN DE LA FUENTE
JORGE M. CASAS

Past President
JOSÉ L. NAVARRO ESTRADA

Argentine Journal of Cardiology is property of the Sociedad Argentina de Cardiología.
ISSN 2314-2278 ISSN electronic version 2314-2286 - Trademark registry N° 5198451
Indexed en SciELO, Scopus, Embase, LILACS, Latindex, Redalyc, Dialnet y DOAJ. Included in the U.S. National Library of Medicine (NLM)
VOL 89 Nº 4 AUGUST 2021
Scientific and administrative address
Azcuénaga 980 - (1115) Buenos Aires - Argentina / Tel.: +54-11-4961-6027/8/9 / Fax: +54-11-4961-6020 / e-mail: revista@sac.org.ar
web site: www.sac.org.ar / http://ppct.caicyt.gov.ar/index.php/rac
Web - digital edition
CF Brand Design & Communication - e-mail: estanislao@cfdisenografico.com.ar / www.cfdisenografico.com.ar