



Università degli Studi di Salerno
Dipartimento di Medicina, Chirurgia e Odontoiatria
Cattedra di Cardiologia

Salerno, 19th December 2024

To the Nominating Committee
for the position of ISHR-ES Council membership

Dear Colleagues,

With this letter, I would like to propose my candidacy as a council member of the ISHR European Section.

I am a Translational cardiologist, and my vocation is to try to exploit the best of all my skills and knowledge in cardiovascular physiopathology from bench to bedside.

I graduated in medicine in 2001 from Federico II, University of Naples. I worked as a postdoc and then as a faculty member at Thomas Jefferson University, Philadelphia (Center for Translational Medicine, Prof WJ Koch), studying the role of the GRKs in cardiac metabolism and insulin resistance during HF. Here, I was awarded a postdoctoral fellowship by AHA in 2009. I returned to Italy in 2012 at the University of Salerno, where I am currently an Associate Professor at the Faculty of Medicine, working as a clinician and molecular cardiologist. My studies focus on the multiple roles GRKs play in the physiopathology of cardiovascular diseases, particularly on the part of the adrenergic system in regulating cardiac metabolism and mitochondrial function through the GRKs' subcellular localization and activity. Nonetheless, my research extends to other contexts of translational medicine, as evidenced by publications, such as using Machine Learning algorithms to diagnose and predict worsening heart failure.

I have been a nucleus member of the ESC Working Group on Myocardial Function. I joined the working group in 2012, became a Nucleus Member in 2016, and participated in my first Nucleus meeting during the ESC congress held in Rome.

Therefore, I started contributing to the main activities of the WG, including the organization of the biannual joint meeting and the drafting of the position papers.

Among my first activities, I contributed to and promoted collaboration and networking with the WG on Takotsubo syndrome to draft a document combining the pathology's clinical, physiopathological, and molecular aspects. The joint meeting held in the wonderful Ravello with eminent experts of the field produced two important works, to which I had the pleasure and honor of contributing to the drafting: Pathophysiology of Takotsubo Syndrome - a joint scientific statement from the Heart Failure Association Takotsubo Syndrome Study Group and Myocardial Function Working Group of the European Society of Cardiology - Part 1 and 2, published in European Journal of Heart Failure.

Moreover, I brought my knowledge of molecular and physiopathological mechanisms of heart failure to other works. I proposed my vision for realizing a new paper on the molecular mechanisms of acute heart failure, recently published in Cardiovascular Research.

Since 2018, I have been entrusted with the task of treasurer of the WG, whose activity has allowed me to understand the rules for the management mechanisms of the WG by the ESC. This position allowed me to contribute significantly and with all my enthusiasm to organizing the biannual joint meetings held in Naples in May 2019 and recently in November 2023, putting all my efforts into the search for sponsors and trying to make it a successful event.

From 2020, as an ex-officio, I continued to maintain this position, collaborating with the components of the Nucleus in the development of the activities and the construction of the needed budget.

Finally, in November 2024, I became part of the HFA Committee on Basic and Translational Research.

Hoping that you will find my application worthy of evaluation,

I remain.

Sincerely,

Michele Ciccarelli MD, PhD

Associate Professor of Cardiology

University of Salerno, Italy



Curriculum Vitae

Michele Ciccarelli, MD, PhD, FHFA

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EDUCATION AND TRAINING

	MONTH/YEAR	DEGREE/YR/SUBJECT
GRADUATE/PROFESSIONAL SCHOOL		
School of Medicine, "Federico II" University of Naples	September 1995- November 2001	MD, <i>cum laude</i> , 2001
GRADUATE MEDICAL EDUCATION		
School of Cardiology, "Federico II" University of Naples	October 2002 – October 2006	Cardiologist, <i>cum laude</i> , 2006
GRADUATE/PROFESSIONAL SCHOOL		
"Federico II" University of Naples	January 2007 – January 2010	PhD, 2010

POSTDOCTORAL FELLOWSHIP EXPERIENCE (for PhD's or MD/PhD's)

INSTITUTION	MONTH/YEAR
Laboratory of Prof Bruno Trimarco, "Federico II" University Naples, Italy Role of the endothelial border in development of Hypertension	September 2001 – August 2005
Laboratory of Prof Walter J Koch, Thomas Jefferson University, Philadelphia, Pennsylvania Mechanisms of neoangiogenesis: role of adrenergic system	August 2005 - October 2005
Laboratory of Prof Bruno Trimarco, "Federico II" University Naples, Italy Role of the beta 2 adrenergic receptor in neoangiogenesis	October 2005 – May 2007
Laboratory of Prof Walter J Koch, Thomas Jefferson University, Philadelphia, Pennsylvania Heart failure and defective cardiac metabolism: role of GRKs	May 2007 – February 2012

Laboratory of Prof Walter J Koch, Temple University,

Philadelphia, Pennsylvania

Heart failure and mitochondrial functions

February 2012 – December 2012

EMPLOYMENT/ACTIVITIES/RESPONSIBILITIES

Post-Doctoral fellow at Thomas Jefferson University of Philadelphia

May 2007 – February 2012

Assistant Professor at Temple University of Philadelphia

February 2012 - December 2012

Adjunct Professor at Temple University of Philadelphia

April 2012 – April 2014

Assistant Professor at the University of Salerno

December 2012 – December 2017

Associate Professor of Cardiovascular disease

University of Salerno

October 2018 – present

Treasurer of the Nucleus Member WG on Myocardial Function –

European Society of Cardiology

August 2018 – August 2023

Responsible for Animal Welfare and large animal facility "LAMeTa"-

University of Salerno

August 2020 – present

Coordinator of the WG "Cardiology Rehabilitation"

Italian Society of Cardiology

December 2022 – present

RESEARCH INTEREST

- Molecular and pathophysiological mechanisms of Cardiac diseases: Role of G protein-coupled receptor Kinases (GRKs) on cardiac metabolism and functions
- Role of the endothelium in regulating vascular functions: Role of GRKs and GPCRs in vasomotor responses, angiogenesis, and inflammations.
- Developing new molecular target for treating cardiovascular diseases: identification, characterization, and synthesis of new drugs.
- Application of -omics analysis on the different HF phenotypes: Identification of novel biomarkers for HF treatment and prognosis.
- Application of AI and ML techniques to clinical and preclinical models of HF: Identification of the features and their relation to HF trajectory and outcome.

TEACHING INTEREST

Molecular and Clinical Cardiology, new approaches for treatment of Cardiovascular diseases.

PROFESSIONAL ACTIVITIES

EDUCATIONAL

Course of Gene Therapy in Internal Medicine at "Federico II" University of Naples	2004-2007
Member of the Academy Board of the PhD program "Healthy Aging" and "Translational Medicine"- University of Salerno	Sept 2013 – present
Member of the Academy Board of the PhD program "CardioPATH"- University of Naples "Federico II"	Sept 2021 – present
Teaching course on Cardiovascular Disease at the Faculty of Medicine and healthcare professions, University of Salerno	October 2013 - present

PROFESSIONAL PUBLICATIONS (Editor, Reviewer, etc):

Reviewer: *British Journal of Pharmacology, Atherosclerosis, Hypertension, Cardiovascular Diabetology, Journal of Molecular Cardiology, Medicine, Scientific Reports, ESC Heart Failure, Eur J of Heart Failure, Eur Heart Journal, Frontiers etc.*

Associate Editor: *Translational Medicine@Unisa, ESC-Heart Failure, Frontiers in cardiovascular medicine, Frontiers in Endocrinology, Clinical Diabetes and Endocrinology, Cardiovascular Diabetology – Endocrinology Reports.*

PROFESSIONAL MEMBERSHIP

Member of the following societies: Fellow of HFA (FHFA), Member of the HFA Committee on Basic and Translational Research; past -Nucleus member of the Working group on Myocardial function of European Society of Cardiology, ESC Professional Member, Italian Society of Hypertension, Italian Society of Cardiology, Coordinator of the WG "Cardiology Rehabilitation"-Italian Society of Cardiology, American Heart Association (AHA).

NATIONAL AND INTERNATIONAL COLLABORATIONS

Walter J Koch, PhD	Temple University of Philadelphia, PA, USA
Gerald W Dorn II, MD	Washington University at St Lois, MO, USA
Anastasios Lymperopoulos	Nova University, Ft Lauderdale, FL, USA
Petronila Penela , PhD	Universidad Autonoma de Madrid, Spain
Gaetano Santulli MD, PhD	Columbia University, NY, USA
Guido Iaccarino MD, PhD	"Federico II" University of Naples, Italy
Bruno Trimarco, MD	"Federico II" University of Naples, Italy
Nahza Hamdani, PhD	Ruhr-University Bochum

AWARDS, HONORS AND FELLOWSHIP

Italian Society of Hypertension (SIIA) Prize for Young Investigator	2002
Italian Society of Internal Medicine (SIMI) – Sanofi Aventis award for best presented project	2004
Italian Society of Hypertension Award “Salvatore Campus” for young investigator abroad	2006
American Heart Association (AHA) Post-Doctoral Fellowship	2009-2011
Young Investigator Travel Award of American Heart Association (AHA)	2010

PUBLICATIONS

H-index: 39; Total citations: 4413 (Scopus Database-Dec 2024)

152 peer-reviewed journal articles; 4 chapters; >500 Abstracts presented as poster and oral presentations at National and International meetings.

Publications representative of the research activity:

Michele Ciccarelli, J Kurt Chuprun, Giuseppe Rengo, Erhe Gao, Zhengyu Wei, Raymond J Peroutka, Jessica Gold, Anna Gumpert, Mai Chen, Nicholas J Otis, Gerald W Dorn 2nd, Bruno Trimarco, Guido Iaccarino, Walter J Koch. ***G protein-coupled receptor kinase 2 activity impairs cardiac glucose uptake and promotes insulin resistance after myocardial ischemia*** *Circulation*. 2011 May 10;123(18):1953-62. doi: 10.1161/CIRCULATIONAHA.110.988642. Epub 2011 Apr 25.

Michele Ciccarelli, Daniela Sorriento, Antonietta Franco, Anna Fusco, Carmine Del Giudice, Roberto Annunziata, Ersilia Cipolletta, Maria Gaia Monti, Gerald W Dorn 2nd, Bruno Trimarco, Guido Iaccarino. ***Endothelial G protein-coupled receptor kinase 2 regulates vascular homeostasis through the control of free radical oxygen species.*** *Arterioscler Thromb Vasc Biol*. 2013 Oct;33(10):2415-24. Doi 10.1161/ATVBAHA.113.302262. Epub 2013 Aug 15.

Jessica Gambardella, Daniela Sorriento, Maria Bova, Mariarosaria Rusciano, Stefania Loffredo, Xujun Wang, Angelica Petraroli, Laura Carucci, Ilaria Mormile, Marco Oliveti, Marco Bruno Morelli, Antonella Fiordelisi, Giuseppe Spadaro, Pietro Campiglia, Marina Sala, Bruno Trimarco, Guido Iaccarino, Gaetano Santulli, **Michele Ciccarelli**. ***Role of***

Endothelial G Protein-Coupled Receptor Kinase 2 in Angioedema. *Hypertension*. 2020 Nov;76(5):1625-1636. doi: 10.1161/HYPERTENSIONAHA.120.15130. Epub 2020 Sep 8.

Michele Ciccarelli, Inês Falcão Pires, Johann Bauersachs, Luc Bertrand, Christophe Beauloye, Dana Dawson, Nazha Hamdani, Denise Hilfiker-Kleiner, Linda W van Laake, Frank Lezoualc'h, Wolfgang A Linke, Ida G Lunde, Peter P Rainer, Antonella Rispoli, Valeria Visco, Albino Carrizzo, Matteo Dal Ferro, Davide Stolfo, Jolanda van der Velden, Serena Zacchigna, Stephane Heymans, Thomas Thum, Carlo Gabriele Tocchetti. ***Acute heart failure: mechanisms and pre-clinical models-a Scientific Statement of the ESC Working Group on Myocardial Function.*** *Cardiovasc Res*. 2023 Nov 15;119(14):2390-2404. doi: 10.1093/cvr/cvad088.

Di Pietro P, Abate AC, Izzo C, Toni AL, Rusciano MR, Folliero V, Dell'Annunziata F, Granata G, Visco V, Motta BM, Campanile A, Vitale C, Prete V, Gatto C, Scarpati G, Poggio P, Galasso G, Pagliano P, Piazza O, Santulli G, Franci G, Carrizzo A, Vecchione C, **Ciccarelli M.** ***Plasma miR-1-3p levels predict severity in hospitalized COVID-19 patients.*** *Br J Pharmacol*. 2025 Jan;182(2):451-467. doi: 10.1111/bph.17392. Epub 2024 Nov 21.

Loria F, Mone P, Rispoli A, Di Fonzo R, Masarone D, Mancusi C, Correale M, Vitullo A, Granatiero M, Mazzeo P, Mercurio V, Fiore F, Di Sarro E, Falco L, Izzo C, Campanile A, Virtuoso N, Stabile E, Bonanno S, Dattilo G, Tocchetti CG, Santulli G, Vecchione C, **Ciccarelli* M**, Visco V. ***The effects of Dapagliflozin in a real-world population of HFrEF patients with different hemodynamic profiles: worse is better.*** *Cardiovasc Diabetol*. 2024 Nov 22;23(1):423. doi: 10.1186/s12933-024-02515-5.

*Corresponding Author

Visco V, Robustelli A, Loria F, Rispoli A, Palmieri F, Bramanti A, Carrizzo A, Vecchione C, Palmieri F, **Ciccarelli M**, D'Angelo G. ***An explainable model for predicting Worsening Heart Failure based on genetic programming.*** *Comput Biol Med*. 2024 Nov;182:109110. doi: 10.1016/j.combiomed.2024.109110. Epub 2024 Sep 6. PMID: 39243517 Free

Date and signature

December 19th, 2024

Michèle Beaulieu