BIOGRAPHICAL SKETCH

NAME: TANIA ZAGLIA

eRA COMMONS USERNAME (credential, e.g., agency login):

POSITION TITLE: **ASSOCIATE PROFESSOR (UNIVERSITY OF PADOVA)**

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	Start Date	Completion Date	FIELD OF STUDY
Department of Biomedical Sciences, University of Padova, via Ugo Bassi 58/B, 35131 Padova, Italy	Associate Professor	2022	-present	Mechanisms in ALS and Arrhythmic diseases; structure and function of autonomic innervation of striated muscles
Department of Biomedical Sciences, University of Padova, via Ugo Bassi 58/B, 35131 Padova, Italy	Assistant Professor	2020	-present	Mechanisms in ALS and Arrhythmic diseases; structure and function of autonomic innervation of striated muscles
Veneto Institute of Molecular Medicine, Via Orus 2, 35129 Padova	Group Leader	2017	-present	Mechanisms in ALS and Arrhythmic diseases; structure and function of autonomic innervation of striated muscles
Department of Cardiac, Thoracic, Vascular Sciences and Public Health, University of Padova, via Giustiniani 2, 35131 Padova, Italy	Assistant Professor	2017	2020	Mechanisms of Arrhythmogenic Cardiomyopathy; Muscle and heart sympathetic innervation
Department of Biomedical Sciences, University of Padova, via Ugo Bassi 58/B, 35131 Padova, Italy	Post-doc	2015	2017	Biophysics and signaling mechanisms of cardiac neurogenic control
Veneto Institute of Molecular Medicine, Via Orus 2, 35129 Padova	Telethon Junior Researcher	2013	2015	Disease mechanisms of cardiac arrhythmias; signaling mechanisms of heart proteostasis
Department of Biomedical Sciences, University of Padova, via Ugo Bassi 58/B, 35131 Padova, Italy	Excellence Res Fellowship	2011	2013	Sympathetic neuron dependent regulation of heart proteostasis
Department of Biomedical Sciences, University of Padova, via Ugo Bassi 58/B, 35131 Padova, Italy	Post-doc	2007	2011	Cardiac regeneration mediated by extracardiac stem and progenitor cells
Dept of Pathological Anatomy, University of Padova	PhD in Cardiovascular Sciences	2004	2007	Cardiac stem cells and heart regeneration

PERSONAL STATEMENT

My research career has been mainly focused on neuro-cardiology and neuro-muscular communication. At the beginning of my career, I dedicated myself to studying the cardiogenic potential of cardiac and extra-cardiac stem cells. As senior postdoc, I switched my interest to the understanding of the molecular mechanisms controlling cardiac trophism, underlying

genetic and acquired arrhythmias, and the neurogenic regulation of heart structure and function. In February 2017, I was recruited by the University of Padova as RTD-A, and as PI by the Veneto Institute of Molecular Medicine (VIMM), where I started my independent research group (https://www.vimm.it/scientific-board/tania-zaglia). In 2018, my research activity was evaluated by the Scientific Advisory Board of the VIMM, acknowledging that "the quality of [her group's] science is excellent". I have received independent funding from several agencies, as detailed below. In 2020, I was recruited from the University of Padova as RTD-B. Currently, I am Associate Professor and I am leading the "Cell signaling in Cardiomyopathies lab" at the VIMM. My research aims at defining disease mechanisms in: i) Arrhythmogenic Cardiomyopathy (supported by PRIN-2015; PRIN-2021; Eccellenza Cariparo 2017-2021; Ricerca Finalizzata 2019-2023); and ii) ALS (supported by ARISLA, 2017-2018; STARS UNIPD 2019-2021; ARISLA 2023-2026).

POSITIONS, SCIENTIFIC APPOINTMENTS AND HONORS

EDUCATION:
2007. PhD in Cardiovascular Sciences, Department of Biomedical Sciences, University of Padova (UNIPD), Padova, Italy.
2003. Master degree in Biological Sciences (*magna cum laude*), UNIPD, Padova, Italy.

CURRENT POSITIONS:
2022-present, Associate Professor, Department of Biomedical Sciences, UNIPD, Padova, Italy.
2017-2022, Assistant Professor, Department of Cardiac, Thoracic, Vascular Sciences and Public Health & Department of Biomedical Sciences, UNIPD, Padova, Italy.
2017-present, Principal Investigator at the VIMM, Italy. https://www.vimm.it/scientific-board/tania-zaglia

PREVIOUS POSITIONS:
2015-2017, Senior post-doctoral fellow UNIPD, Padova, Italy. Molecular-Cardiology lab Prof. Mongillo.
2013-2015, Telethon Junior Researcher. VIMM, Padova, Italy. Supervisor: Prof. Marco Mongillo.
2011-2013, Excellence Research Fellowship, University of Padova. Department of Biomedical Sciences, UNIPD, Italy.
2007-2011, Postdoctoral fellowship supported by the EU 6th Framework Programme HeartRepair. Department of Experimental Biomedical Sciences, UNIPD, Italy.

INSTITUTIONAL TEACHING ACTIVITIES:
2024-present, Course of Human Physiology, Degree course in Neuro and Psychomotricity of Developmental Age, University of Padova, Medical School.
2020-present, Course of Human Physiology, Degree course in Physiotherapy, University of Padova, Medical School.
2015-present, Course of Human Physiology, Degree course in Nursing, University of Padova, Medical School.

INSTITUTIONAL RESPONSIBILITIES:
2023-present. Faculty Committee, PhD school in Biomedical Sciences, UNIPD.
2018-2023. Faculty Committee, PhD school in Translational Specialistic Medicine G.B. Morgagni, *curriculum* Cardiovascular Sciences, UNIPD.
2018-2019: Member of the National Nursing Licensure Committee, Padova site.
2017-present. Member of the Scientific board of the Veneto Institute of Molecular Medicine.
2016-present. Scientific organizer of Internal Annual Seminars for the School of Nursing, UNIPD.
2015-present. Faculty Committee, School of Nursing, UNIPD.

AWARDS: 2024- Excellence in Teaching, University of Padova. Padova. IT; 2023- Excellence in Teaching, DBS, University of Padova. Padova. IT; 2016- Best poster presentation. Frontiers in Cardiovascular Biology (ESC). Florence. Italy; 2012- Young Investigator Award. Heart Failure (International Society for Heart Research). Belgrade; 2012- Best poster presentation. Frontiers in Cardiovascular Biology (ESC). London; 2012- Travel Award. Frontiers in Cardiovascular Biology (ESC). London; 2010- Best Oral Presentation. IV annual Prize Ennio Manzin-Mario Fioretti. Marostica (Italy); 2006- Best Oral Presentation. "G. Olivetti" award. XVII Scientific Meeting of the Italian Study Group on Cardiovascular Pathology. Mira (Italy).

MEMBERSHIPS OF SCIENTIFIC SOCIETIES: 2019-present. Member of the Physiological Society**; 2018-present.** Member of the 'Italian Society of Cardiovascular Research' (SIRC); **2017-present.** Member of the Working group of Cardiac Development of the ESC; **2012-present.** Member of the International Society for Heart Research (ISHR).

EDITORIAL ACTIVITIES: 2024- Editorial board of *American Journal of Physiology*. **2024-** Guest editor of the special issue 'Molecular and Cellular Mechanisms of Neuro-Cardiac Interactions' in *Cells*. **2021-present.** Guest editor of the special issue 'Cardiovascular Neuromodulation: Mechanisms and therapies' in *Frontiers in Physiology*. **2019-2021.** Editorial Board member of the *Journal of Physiology*. **2018-present.** Scientific Evaluator of the Abstracts for the European Society of Cardiology (ESC) congress (2018 ESC Monaco; 2019 ESC Paris; 2020 Amsterdam; 2021 London). **2018.**

Scientific reviewer of ICGEB Research Grants, Collaborative Research program. **2016-present.** Reviewer for Cardiovascular Research, Am J of Physiology, Circulation, Frontiers in CardioVascular Biomedicine, PlosONE.

SELECTED ORAL PRESENTATIONS: **2024** UCLA Cardiac Neurobiology Distinguished Speaker Seminar, UCLA Cardiac Arrhythmia Center; **2024** ISAN Oxford (UK); **2024** ISHR European section, Tolouse, FR; **2023** ISHR European section, Porto, PT; **2023** 50th European Muscle Society congress, Florence, IT; **2023**, Muscle day, Padova, IT; **2021** SIRC National congress, Imola, IT; **2021** ISHR European section, Turin, IT; **2021** EHRA congress; **2020** SIRC National congress, Imola, IT; **2019** ESC world congress, Paris, France; **2019** ISHR world congress, Beijing, China. **2018** Notice, Firenze, IT. **2018** Symposium on Amyotrophic Lateral Sclerosis, Genova, IT. **2017** ISHR congress (European session). Hamburg. **2016** Frontiers in Cardiovascular Biology. Firenze (IT). **2015** Forum Electrophysiology. Nerves and Arrhythmias. Padova (IT). **2015** ISHR (European session). Bourdeaux (France). **2014** Frontiers in Cardiovascular Biology. Barcellona (Spain). **2014** PhD course in Medical Sciences and Master in Cardiovascular Pathology. Padova (IT). **2013** Riley Heart Research Center Annual Retreat. Indianapolis, USA. **2012** Heart Failure (ISHR) Belgrade (Serbia). **2010** The IV Annual Venetian Institute of Molecular Medicine Meeting. Marostica (Italy). **2008** The 2nd HeartRepair Annual Meeting. Madrid (Spain). **2007** The 1st HeartRepair Annual Meeting. Newcastle (UK). **2006** XVII Annual Scientific Meeting of the Italian Study Group on Cardiovascular Pathology. Venice, IT.

ORGANISATION OF SCIENTIFIC MEETINGS:
2016. Organizing committee, early career investigator sections, XXII ISHR world congress, Buenos Aires, Argentina.

PUBLICATIONS. **Total number of publications: 47. H-index:20 (Scopus). Citations: 6131.**
The 85% of paper were published in top 25% journals.
Complete List of Published Work in Scopus:https://www.scopus.com/authid/detail.uri?authorId=9043227700
Complete List of Published Work in PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=zaglia+T

RESEARCH SUPPORT:

> PRIN- Research Project of National Interest (MIUR). Novel interrelationship among cardiomyocyte, sympathetic nervous system and gut microbiota abnormalities in the development of doxorubicin-induced cardiomyopathy: a translational study. (2023-2025, 187999 euros). Unit coordinator.
> AriSLA. Are sympathetic neurons additional targetable players in ALS? (2023-2026, 234300 euros). Project coordinator.
> SID–University of Padova. Arrhythmogenic Cardiomyopathy: a killer in disguise lethally blasting the heart for unceasing corruption of the crosstalk between sympathetic neurons and target cells. (2021-2023, 35000 euros). Coordinator.
>STARS- Consolidator Grant (University of Padova). PEEPING AT SYMPATHETIC INNERVATION OF NORMAL AND DISEASED SKELETAL MUSCLES THROUGH OPTOGENETICS. (2020-2023, 140000 euros) Project coordinator.
> AriSLA. Optogenetic modulation of the adrenergic component of motor nerves to understand the mechanisms of muscle atrophy and neurodegeneration in ALS. (2017-2019, 55000 euros) Project coordinator.
> Cariparo Fundation. Searching for disease modifiers in arrhythmogenic cardiomyopathy: focus on exercise and sexual hormones to chase novel targets to prevent sudden death. (2018-2021, 360000 euros). Unit coordinator.
>PRIN -Research Project of National Interest. Arrhythmogenic cardiomyopathy: cross-talk among cardiomyocytes, stromal cells and sympathetic neurons in disease pathogenesis. (2017-2019, 220000 euros). Unit coordinator.
> Italian Ministry of Health. Identification and targeting of novel pathogenic mechanisms in Arrhythmogenic Cardiomyopathy (ACM). (2019-2022, 365945 euros). Unit coordinator.
> SID – University of Padova. Cardiac neurons as drivers of the electrophysiological fate of the myocardium. (2017-2019, 68000 euros). Project coordinator.
>AFM-TELETHON (ref. 19996). Functional assessment of skeletal muscle β2-adrenoceptor modulation by the catecholaminergic component of motor nerves, explored using in vivo optogenetics and multiphoton imaging. (2016-2018, 48000 euros). Project coordinator.
>Excellence Grant from University of Padova (GRIC101133). Structural and functional characterization of 'sympathetic neuron-cardiomyocyte' junction in normal and diseased hearts. (2011-2013, 85000 euros). Coordinator.

MAJOR COLLABORATIONS@University of Padova: Prof Marco Mongillo (optogenetics-based assessment of arrhythmia mechanisms, biophysics of neuro-cardiac communication); Prof Marco Sandri (signaling mechanisms in proteotoxicity cardiomyopathies); Profs Domenico Corrado and Cristina Basso (cell signaling in arrhythmogenic diseases); Prof Bonaldo (cell signaling in cardiomyopathies); @Florida University (USA): Dr Stephen Chelko (disease mechanisms in Arrhythmogenic Cardiomyopathy); @Indiana Center for Musculoskeletal Health (USA): Dr Monte Willis (signaling in hypertrophic cardiomyopathies); @University of Paris: Dr Mario Pende (CRISPR/cas9 technology and cardiac metabolomic); @University of Rome: Prof Antonio Musarò (disease mechanisms in Amyotrophic Lateral Sclerosis); Prof

Sebastiano Sciarretta (signaling mechanisms in proteotoxicity cardiomyopathies); @University of Florence: Prof Leonardo Sacconi (optical mapping in preclinical models of cardiac arrhythmias); @Humanitas Institute (Milan): Dr Daniele Catalucci (microRNAs and signaling in cardiac hypertrophy); @University of Parma: Prof Michele Miragoli (development of biotechnological tools for in vitro assessment of neuro-cardiac connection).

SUPERVISION ACTIVITY. I am supervising the scientific activity of 1 post-doc (Vittoria Di Mauro, DBS), 3 PhD students (Nicola Moro, 2nd year PhD student and Anna Guazzo, 1st year PhD student in Biomedical Sciences; Induja Perumal Vanaja, 2nd year MSCA individual fellowship, DCTV), 2 research fellows (Laura Poli and Aurora Gastaldello) and 5 master students. From 2015 to present, I supervised the scientific activity of one junior post-doc (Marco Ronfini), 7 PhD students of whom Anna Di Bona spent part of her PhD in the lab of Dr. Pende (INSERM Institute, Paris), to generate a novel knock-in mouse model of Arrhythmogenic Cardiomyopathy, and Arianna Scalco worked at Johns Hopkins University and discovered the impact of psychosocial stress on Arrhythmogenic Cardiomyopathy. From 2010, I supervised 23 undergraduate thesis projects at the University of Padova or Pavia (School of Medicine, Pharmacy, Molecular Biology, Biotechnology, Biology). All lab members have participated yearly to international meetings concerned with the topic of their projects and have all received recognitions for their presentations.

21 January 2025 Tania Zaglia