#### PERSONAL INFORMATION

#### Parenti Rosalba

Dipartimento di Scienze biomediche e biotecnologiche − Torre Biologica -Via Santa Sofia, 97. 95123 −
 Catania - Italy

095 4781134

parenti@unict.it

https://www.biometec.unict.it/it

#### **WORK EXPERIENCE**

# 01.10.2023 to date Full Professor Physiology

University of Catania

Teaching and Research Activities

## 2003 - 2023 Associate Professor Physiology

University of Catania

Teaching and Research Activities

#### 1996 - 2003 Researcher of Physiology

University of Catania

Teaching and Research Activities

Academic activities

#### **EDUCATION AND TRAINING**

## 2014 Research Management and Internationalization of Competence Profiles

Specialized training of managerial, technical-commercial and scientific profiles for the economic enhancement of BRIT and University research in the Mediterranean Area

University of Catania

#### 2005 - 2007 Reasearcher Collaborator

CNR - Functional Genomics Center - Institute of Neurological Sciences - Catania

Research Activity: Analysis of the genomic profile of cortical neurons in physiological conditions and exposed to apoptotic damage induced by exposure to beta-amyloid.

#### 1997 - 1998 Reasearcher Collaborator

CNR - International Institute of Genetics and Biophysics - Napoli

Research Activity: Analysis of the genomic and chromosomal organization of the Cx36 and generation of the animal model Cx36 knock-out.

#### 1992-1995 PhD in Neuroscience

University of L'Aquila

Research and Training activity

## 1994 VISITING RESEARCHER

CNRS URA. Paris - Ecole Normale Superieure. Developpment et evolution du systeme nerveux, equipe atipe niveau 3.

Research Activity

1985-1989 Degree in Pharmacy

University of Catania

1981-1985

Classical high school

"Mario Cutelli" Institute, Catania

## **WORK ACTIVITIES**

1996 to date Teaching Activity

University of Catania

Physiology courses in the following main degree courses

- Medicine and Surgery
- Pharmacy
- Medical Biotechnologies
- Motor Sciences
- Specialization in Nutrition Sciences

**2017 to date** Scientific Manager - "Radioactive Drug and Hadrontherapy Chain".

University of Catania

Partners:

- Cannizzaro Emergency Hospital of Catania.
- National Southern Laboratories of the National Institute of Nuclear Physics.
- CNR Institute of Bioimaging and Molecular Physiology.

2007 to date Member of PhD College in "Biotechnologies"

University of Catania

2018-2022 Director of the II level Master "Molecular and translational imaging: from preclinical to clinical"

University of Catania

#### **INSTITUTIONAL ACTIVITIES**

2009 to date Deputy Rector

University of Catania

- 2017-to date: "Center for Advanced Preclinical in vivo Research CAPiR"
- 2008-2017: "Animal house for preclinical experimentation"
- 2009-2012: "Communication"

2012-2016 Academic Senator

University of Catania

2009-2012 Deputy Director - Department of Biomedical and Biotechnological Sciences

University of Catania

University of Catania

2008-2009 Deputy Director - Department of Physiological Sciences

University of Catania

## **RESEARCH ACTIVITIES**

#### 1. Neuroscience

- Analysis of cerebellar input and output pathways
- Neuroinflammation and Neurodegeneration

- Connexin-mediated neuro-glia cross-talk
- 2. Development and characterization of advanced biotechnology
  - Regenerative Medicine
  - Preclinical Imaging
- 3. From physiological phenotype to tumor phenotype
  - Tumoral microenvironment
  - Advanced technologies for cancer treatment

# **RESEARCH FUNDS**

Active grants	Tipology	Year	Ruolo
	META-CONNECT - "Analisi integrata di immunometaboliti e pathway molecolari nell'omeostasi delle connessioni neurogliali", (PNRR) MISSIONE 4 NBFC SPOKE 6 - BAC ABISSI	2024	Scientific Manager
	<b>Anthem</b> – "AdvaNced Technologies for Human-centrEd Medicine" PROJECT CODE: PNC0000003 Piano complementare PNRR linea 1a	2023	Scientific Manager Pilot 4.4–Spoke 4
	BCT – Breast Cancer Therapy con radiosensibilizzanti in radioterapia convenzionale e protonterapia. FSC 2014/2020, Patto di sviluppo per la Regione Siciliana	2021	Scientific Manager - Unict
	<b>PON Research and Innovation 2014-2020</b> .  BONE++ . Svil MicroNanotecn per Predit, Diagn, Terapia e Tratt Rigen delle Alteraz Patol Osso e Osteo-Articol". Codice identificativo ARS01_00693.	2020	Scientific Manager Unict
Completed grants (last 10 years)	Tipology	Year	Ruolo
	PON "R&C" 2007-2013 - PON03PE_00216_1. Settore Salute dell'uomo/Scienze della Vita.  Drug delivery: vehicles for sustainable innovation.	2020	Scientific Manager Biometec Dept, Unict
	Research Contract – Freedom Waves srl. Titolo: Valutazione ed implementazione degli effetti di sonoporazione e rilascio dei farmaci in campo preclinico con il sistema prodotto dalla Freedom Waves e denominato Waver System.	2021	Scientific Manager Biometec Dept, Unict
	<b>PO FESR Sicilia 2014-2020</b> . Azione 1.1.5. Title: <i>LiverSmartDrug</i> - Micro e nanosistemi innovativi per la cura efficace del Tumore al Fegato. Progetto N° 087219090463.	2020	Scientific Manager Biometec Dept, Unict
	PRIN 2017 - 2017XKWWK9_004 "PBCT, Proton Boron Capture Therapy".	2019	Scientific Manager Biometec Dept, Unict
	PON Research and Innovation 2014-2020.  "ADAS+, "Development of advanced technologies and systems for car safety through Sustainable Mobility Sector platforms" Leader: STMicroelectronics.	2018	Scientific Manager Biometec Dept, Unict
	PO FESR Sicilia 2014-2020. Action 1.1.5. Title: DiOncoGen Diagnostica Innovativa. D.D.G. n. 3313/5S del 06/11/2019. Capofila: Istituto Oncologico del Mediterraneo SPA.	2017	Scientific Manager Biometec Dept, Unict
	Research Contract - FinCeramica Faenza SpA. Title of the Research: Characterization of innovative biomaterials for	2017	Scientific Manager

osteo-chondral regeneration. Duration 10 months.

**Research Contract** - Bionap Srl. Title of the Research: In vitro evaluation of natural Mediterranean substances to assist osteocartilage regeneration.

2017

Scientific Manager

**Research Contract** - Etna Biotech Srl. Title of the Research: Valuation of bioactive molecules to be used as immunostimulants and immunomodulators in vaccine candidates.

2015

Scientific Manager

#### **EDITORIAL ACTIVITIES**

# Invited Guest Editor and Editorial board

Invited Guest editor:

- International Journal of Molecular Sciences". Special Issue "Connexins Multifaceted Apects in homeostasis and disease". Nunzio Vicario & Rosalba Parenti.
- "Disgnostics" Special Issue "Immunomarkers and Molecular Markers in the Diagnosis of Malignant Tumors". Gaetano Magro, Paolo Vigneri & Rosalba Parenti.
- "International Journal of Molecular Sciences". Special Issue "Neuroglial Cross-talk in Neuroprotection and Plasticity". Nunzio Vicario & Rosalba Parenti
- "Acta Histochemica" Elsevier. Special Issue "Immunomarkers in human developing and pediatric neoplastic tissues" Gaetano Magro, Giuceppe Musumeci & Rosalba Parenti.

Editorial board: Frontiers Physiology; Oxidative Medicine and Cellular Longevity; Mediterranean Journal of Biosciences; Current Gene Therapy; International Journal of Pediatric & Neonatal Care; Experimental and Therapeutic Medicine.

#### **MEETING AND CONGRESS**

#### Chairman - Organizer

- 2024 Local Organising Committee "17th Annual Meeting of Young Researchers in Physiology (YRP2024), May 22-24, 2024, Museo Diocesano, Catania
- 2022 ExpoLab "L'innovazione delle Biotecnologie nella Ricerca Scientifica", 21-23 Settembre 2022, Torre Biologica, Università di Catania.
- 2021: Meeting "Novel Translational Approaches in hematological malignancies: from bench to bedside", 05-06 novembre 2021, Torre Biologica Ferdinando Latteri, Catania.
- 2020: Co-Organizer Meeting "In vivo modelling of hematological malignancies: from bench to bedside", 31 gennaio-1 febbraio 2020, Torre Biologica Ferdinando Latteri, Catania.
- 2019: Co-organizer Meeting "Imaging: new frontiers from Preclinical studies to Clinical applications", 10 Maggio 2019, Aula Magna Rettorato, Palazzo Centrale - UNICT.
- 2019: Co-organizer Course "Biostatistics methods for clinical and basic research" SIS, 5-8/3/2019, Torre Biologica Ferdinando Latteri, Catania.
- 2018: Chairman Meeting "Imaging techniques in the cellular, tissue and preclinical sector", 22 marzo 2018, Torre Biologica Ferdinando Latteri, Catania.
- 2018: Co-organizer Meeting "Preclinical Research: objectives, needs and current legislation" 19-20 dicembre 2018, Torre Biologica Ferdinando Latteri Catania.
- 2018: Chairman Meeting Section "Bioingegneria e Biomateriali" V Congresso Nazionale della SIMCRI – 25-27/10/2018, Hotel Capotaormina – Taormina.
- 2018: Co-organizer Workshop "Experimental Microsurgery Course", 9-11/10/2018, Torre Biologica Ferdinando Latteri, Catania.
- 2018: Chairman Meeting Section "New Materials and Nanotechnologies for Innovative therapeutic Approaches" Convegno Nanoinnovation 11-14 Settembre 2018, Università La Sapienza, Roma.
- 2018: Co-organizer Meeting "ZF-MED: Zebrafish and other aquatic models in mediterranean labs" 12 Giugno 2018, Torre Biologica Ferdinando Latteri, Catania.
- 2016: Co-organizer 67°National Congress of the Società Italiana di Fisiologia SIF. 21-23/9/2016, Monastero dei Benedettini, Catania.
- 2016: Chairman Meeting Section "The Animal Model and the Preclinical Imaging". Smart Science. L'innovazione nelle biotecnologie tra ricerca e diagnostica. 25-26/2/2016, Hotel Nettuno, Catania
- 2015: Chairman Session "Toward a translational medicine of cognitive disorders Computation as a driver of translational medicine" - 5th Edition of the International School of Functional Genomics-September 28th-30th, 2015 - Sheraton, Catania.

# SCIENTIFIC SOCIETIES, RESEARCH CENTERS

Member of the Società Italiana Fisiologia (SIF)

Member of the Associazione Biologia Cellulare e Differenziamento (ABCD)

Association to INFN – LNS Assciation to CNR- IBFM

**Coordinator** of Scientific Council of the Center for Advanced Preclinical in vivo Research

**Deputy Director** of the Research Center "Imaging molecolare, preclinico e traslazionale (IMPRonTE)", University of Catania

**Member** of the following Research Centers of the University of Catania: a) "Prevenzione, Diagnosi e Cura dei Tumori (C.R.S. Pre.Di.C.T.)"; "Diagnosi e Terapia delle Malattie Rare"; "Tecniche e Chirurgie Mini-invasive"; "Attività motorie" – CRAM; "Centro di Ricerca per la Riduzione del Danno da Fumo" - CoEHAR

# PERSONAL SKILLS AND COMPETENCES

LANGUAGE ITALIAN

OTHER LANGUAGE
• Reading ability
• Writing ability
• Oral expression ability

ENGLISH

EXCELLENT

EXCELLENT

EXCELLENT

GOOD

#### **ADDITIONAL INFORMATIONS**

STATEMENT OF RESEARCH INTERESTS

As Head of the Cellular and Molecular Physiology Laboratory at the Physiology Section of the Department of Biomedical and Biotechnological Sciences, she has extensive experience in the following functions: i) planning and coordination of research activities; ii) definition of objectives and development roadmap. In fact, she coordinates a research team that includes numerous researchers and post-docs engaged in different research fields. Experience and competence in the field of neuroinflammation and tumoral microenviroment, including the complex neuro-glial and intercellular cross-talk, the molecular players and the pathways involved, as well as in different preclinical approaches both in vitro, in vivo and ex-vivo, represent the strong point of her scientific production.

# PUBLICATIONS AND METRICS

- Total number of publications in peer-review journals (Scopus): 158 papers
- Total number of citations (Scopus): 3.997 citations
- H-index (Scopus): **34 h-index**

Source: Scopus 12/02/2025. https://www.scopus.com/authid/detail.uri?authorld=57792357200

Catania, 12 febbraio 2025