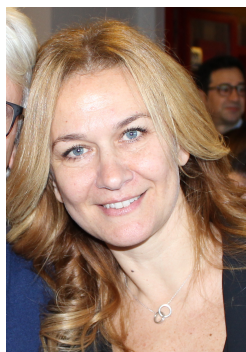


PERSONAL INFORMATION

Grazia Paola NICCHIA



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Sex Female | Date of birth 19/04/1972 | Nationality Italian

Enterprise	University	EPR
☐ Management Level	☒ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
☐ Mid-Management Level	☐ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

Sept 2022 - Today	ProRector University of Bari Aldo Moro
2018 - 2022	Deputy Director Department of Biosciences, Biotechnology and Biopharmaceutics, University of Bari Aldo Moro
2018 Today	Associated with CNR ISOF Bologna, Italy
2022 Today	Component of the Board of Director National Center for Gene Therapy and drug based on RNA technology
2006 - Today	Visiting Assistant Professor Neuroscience Department, Albert Einstein College of Medicine, Yeshiva University, New York, USA
2015 - 2017	Associate Professor Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari Aldo Moro
2004 - 2015	Assistant Professor Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari Aldo Moro
2004 - 2015	Visiting Instructor Neuroscience Department, Albert Einstein College of Medicine, Yeshiva University, Bronx, New York, USA

EDUCATION AND TRAINING

2003 - 2004	Post-doc (Research Associate) Neuroscience Department, Albert Einstein College of Medicine, Yeshiva University, Bronx, New York, USA
2000	PhD in Physiology University of Naples "Federico II", Naples, Italy Department of Biosciences, Biotechnologies and Biopharmaceutics (DBBB), University of Bari Aldo
1995	Biology Degree (magna cum laude) University of Bari Aldo Moro, Bari, Italy

WORK ACTIVITIES

Awards	2005 Award for Best Young Scientist in Physiology From the Italian Society of Physiology
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ADDITIONAL INFORMATION

Invited Talk

Nicchia GP. "Aquaporin biophysics in cell-biomaterial interaction". **Technical Meeting on Advanced Materials, Nanomaterials and Biophysics. U.S. – Italy Bilateral Agreement on Science & Technology Cooperation Embassy of Italy, Washington, (USA).** April 1, 2023.

Nicchia GP. 14th **U.S.-Italy Joint Commission Meeting on Science and Technology Cooperation.** Rome and Washington, DC (Hybrid: In-Person and Virtual) Ministry of Foreign Affairs of Italy, Farnesina, Rome. Jan 26-27, 2023.

Nicchia G.P. Aquaporin-4 assemblies embody brain astrocyte intelligence. Technical Meeting on Science and Technology Cooperation. Advanced Materials and Nanotechnologies. **The Importance of Basic Science in Science Diplomacy. Embassy of Italy, Washington DC – Auditorium** December 7th, 2021

Nicchia GP. "Stochastic Biophysical Interactions within Aquaporin-4 Assemblies". **2021 Air Force Scientific Research (AFOSR) Review Meeting, Arlington, VA (USA).** Nov 29-Dic 3, 2021

Nicchia GP. "Super-resolution microscopy analysis of Aquaporin-4 protein aggregates and actin cytoskeleton in glial cells". Symposium: Nanomaterials and nanoimaging: insight on neural cell physiology and pathology at the nanoscale. XIX **National Congress of the Italian Society of Neuroscience (SINS).** Online. 7-9 September 2021.

Nicchia GP. "Aquaporin water channel as novel target for biomaterial design and engineering: implications in health and disease". **National Congress of Biomaterial.** Lecce, Italy. 11-14 July 2021

Nicchia GP. "Water transport in brain cells: Aquaporin-4 supramolecular structure transition regulates adhesion, migration and differentiation dynamics of brain astrocytes". **2020 Air Force Scientific Research (AFOSR) Biophysics Program Review, Virtual.** Aug 31-Sept 4, 2020

Nicchia GP. "Aquaporin and water flux: a novel path for brain cell communication and dynamics". **Air Force Scientific Research (AFOSR) 2020 Smart Sensing Non-Classical Biology Workshop, Virtual.** June 17, 2020

Nicchia GP. "Aquaporin-4 supramolecular structure transition regulates brain astrocyte behaviour". **CNR - Institute of Organic Synthesis and Photoreactivity (ISOF) Department of Chemical Sciences and Materials Technologies, Bologna, Italy.** October 10, 2019

Nicchia GP. "Water transport in brain cells: Aquaporin-4 supramolecular structure transition regulates adhesion, migration and differentiation dynamics of brain astrocytes". **2019 Air Force Scientific Research (AFOSR) Review Meeting, Arlington, VA (USA).** May 6-10, 2019.

Projects

2022-2025 PNRR CN3

2022-2025 PNRR PE Neuroscience and Neuropharmacology

2020-2024 European: MARIE Skłodowska-CURIE ACTIONS Innovative Training Networks (ITN)

Disruptive materials, technologies & approaches to unravel the role of Astrocytes in brain function and dysfunction: towards to Glial interfaces – ASTROTECH. 3.980.000 Euro. Role Co-PI

2021-2023 USA: AFOSR (Air Force Office of Scientific Research)

Multiscale characterization of collective astrocyte dynamics (ASTROCOLL) 250.000\$. Role: Co-PI

2019-2022 USA: AFOSR (Air Force Office of Scientific Research)

Stochastic Biophysics of Molecular Interactions within Aquaporin-4 Assemblies 250.000\$. Role: Co-PI

2021-2023 Summer School (Regione Puglia)

Physiology and Biophysics of Water and Ion Channels, Second Edition (SPYWATCH 2.0) 20.000 Euro. Role: School Director

2019-2021 USA: NIH (National Institute of Health) R21

AQP4 isoforms and brain edema. 471.000\$. Role: Co-PI

2019-2021 USA: AFOSR (Air Force Office of Scientific Research)

Decoding astrocyte natural rhythms: Impact of actin and channel protein dynamics across scales (ASTRODYN) 250.000\$. Role: Co-PI

2018-2019 Summer School (Regione Puglia)

Physiology and Biophysics of Water and Ion Channels (SPYWATCH 2.0) 20.000 Euro. Role: School Director

2013- 2017 Italian Grant from MIUR, FIRB Call - FUTURE IN RESEARCH Program

Study on the pathophysiological role of D184E mutation in Aquaporin-4 gene. RBFR12SJA8. Role: Principal Investigator

2008 Italian Grant from the University of Bari, Research Project IDEA Young Investigators

Title: Study of the pathogenic role of a protein variant of Aquaporin-4 in a form of hereditary non-syndromic deafness. GRBA085SIS. Role: Principal Investigator

2007- 2009 Italian Grant from MIUR, PRIN 2006

Title: Study of the physiological role of the water channel protein Aquaporin-1 (AQP1) in the process of angiogenesis. 2006051375. Role: Principal Investigator

Track record publication

H index 38 (Scopus)

Publication

1. de Bellis M, Cibelli A, Mola MG, Pisani F, Barile B, Mastrodonato M, Banitalebi S, Amiry-Moghaddam M, Abbrescia P, Frigeri A, Svelto M, **Nicchia GP**. Orthogonal arrays of particle assembly are essential for normal aquaporin-4 expression level in the brain. *Glia*. 2021 Feb;69(2):473-488. **IF=7.452**
2. Mola MG, Saracino E, Formaggio F, Amerotti AG, Barile B, Posati T, Cibelli A, Frigeri A, Palazzo C, Zamboni R, Caprini M, **Nicchia GP***, Benfenati V*. Cell Volume Regulation Mechanisms in Differentiated Astrocytes. *Cell Physiol Biochem*. 2021 Nov 5;55(S1):196-212. **IF 5.141**
3. Pisani F, Simone L, Mola MG, De Bellis M, Frigeri A, **Nicchia GP**, Svelto M. Regulation of aquaporin-4 expression in the central nervous system investigated using M23-AQP4 null mouse. *Glia*. 2021 Sep;69(9):2235-2251. **IF=7.452**
4. Sardella E, Mola MG, Gristina R, Piccione M, Veronico V, Bellis M, Cibelli A, Buttiglione M, Armenise V, Favia P, **Nicchia GP**. A Synergistic Effect of Reactive Oxygen and Reactive Nitrogen Species in Plasma Activated Liquid Media Triggers Astrocyte Wound Healing. *Int J Mol Sci*. 2020 May 8;21(9):3343. **IF=4.556**
5. Borrachero-Conejo AI, Adams WR, Saracino E, Mola MG, Wang M, Posati T, Formaggio F, De Bellis M, Frigeri A, Caprini M, Hutchinson MR, Muccini M, Zamboni R, **Nicchia GP**, Mahadevan-Jansen A, Benfenati V. Stimulation of water and calcium dynamics in astrocytes with pulsed infrared light. *FASEB J*. 2020 34(5):6539-6553. **IF=5.191**
6. Simone L, Pisani F, Mola MG, De Bellis M, Merla G, Micale L, Frigeri A, Vescovi AL, Svelto M, **Nicchia GP**. AQP4 Aggregation State Is a Determinant for Glioma Cell Fate. *Cancer Res*. 2019 May 1;79(9):2182-2194. **IF=12.701**
7. Borrachero-Conejo AI, Saracino E, Natali M, Prescimone F, Karges S, Bonetti S, **Nicchia GP**, Formaggio F, Caprini M, Zamboni R, Mercuri F, Toffanin S, Muccini M, Benfenati V. Electrical Stimulation by an Organic Transistor Architecture Induces Calcium Signaling in Nonexcitable Brain Cells. *Adv Healthc Mater*. 2019 Feb;8(3):e1801139. **IF=9.933**
8. Mola MG, Sparaneo A, Gargano CD, Spray DC, Svelto M, Frigeri A, Scemes E, **Nicchia GP**. The speed of swelling kinetics modulates cell volume regulation and calcium signaling in astrocytes: A different point of view on the role of aquaporins. *Glia*. 2016 Jan;64(1):139-54. **IF=7.452**
9. **Nicchia GP**, Pisani F, Simone L, Cibelli A, Mola MG, Dal Monte M, Frigeri A, Bagnoli P, Svelto M. Gliovascular modifications caused by Aquaporin-4 deletion in the mouse retina. *Exp Eye Res*. 2016 May;146:259-268. **IF=3.011**

Bari May 27th, 2023

Grazia Paola NICCHIA

