

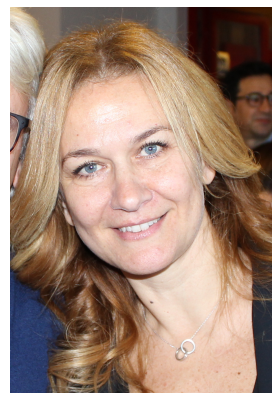
GRAZIA PAOLA NICCHIA

📍 **Università degli Studi di Bari Aldo Moro**
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Data di Nascita **19/04/1972** | Nazionalità Italiana



POSIZIONE ATTUALE

- **Prorettrice Vicaria** dell'Università degli Studi di Bari Aldo Moro, Bari, Italia
- **Professore Ordinario di Fisiologia (SSD BIO/09)**, Dipartimento di Bioscienze, Biotecnologie e Ambiente, Università degli Studi di Bari Aldo Moro, Bari, Italia

FORMAZIONE/POSIZIONE

- 2017 - oggi: Professore Ordinario di Fisiologia (BIO/09), Dipartimento di Bioscienze, Biotecnologie e Ambiente, Università degli Studi di Bari Aldo Moro.
- 2006 - 2023: Visiting Professor (Faculty Position), Dipartimento di Neuroscienze, A. Einstein College of Medicine (AECOM), Yeshiva University, New York, NY (USA).
- 2015 - 2017: Professore Associato di Fisiologia (BIO/09), Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica, Università degli Studi di Bari Aldo Moro.
- 2014: Conseguimento dell'abilitazione nazionale di cui all'art. 16 della legge 240/2010 a Professore di Prima e Seconda fascia, settore scientifico concorsuale 05/D1 – Fisiologia (BIO/09). (Abilitazione Scientifica Nazionale, Bando 2012, DD n. 222/2012).
- 2004 - 2015: Ricercatore (BIO/09), Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica, Università degli Studi di Bari Aldo Moro.
- 2004 - 2006: Visiting Instructor (Faculty Position), Dipartimento di Neuroscienze, A. Einstein College of Medicine (AECOM), Yeshiva University, New York, NY (USA).
- 2003: Research Assistant, Dipartimento di Neuroscienze, A. Einstein College of Medicine (AECOM), Yeshiva University, Bronx, New York, NY (USA).
- 2000 - 2003: Assegnista di Ricerca presso l'allora Dipartimento di Fisiologia Generale ed Ambientale, Università degli Studi di Bari.
- 1997 - 2000: Dottorato di Ricerca in Fisiologia, Università di NAPOLI "Federico II".
- 1996: Tirocinio presso l'allora Dipartimento di Fisiologia Generale ed Ambientale, Università degli Studi di Bari.
- 1995: Laurea quinquennale in Scienze Biologiche, Indirizzo Fisiopatologico. Facoltà di Scienze Matematiche Fisiche e Naturali, Università degli Studi di Bari (110/110 e lode).

INCARICHI ACCADEMICI E ATTIVITÀ GESTIONALI PRESSO L'UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

- Settembre 2022 - oggi: Prorettrice, Università degli Studi di Bari Aldo Moro.
- Settembre 2022 - oggi: Componente del Consiglio di Gestione del Centro Nazionale per lo Sviluppo di Terapia Genica e Farmaci con Tecnologia a RNA.
- 2018 - 2022: Vice-Direttore del Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica.
- 2015 - 2022: Membro dell'OPBA (Organismo Preposto al Benessere degli Animali) dell'Ateneo dell'Università degli Studi di Bari Aldo Moro.
- 2015 - 2022: Co-responsabile del benessere animale e dello stabulario del Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica.
- 2004 - oggi: Componente del Collegio del Dottorato in "Bioscienze e Biotecnologie", Dipartimento di Bioscienze, Biotecnologie e Ambiente.
- 2022: Direttore della Summer school in "Physiology and Biophysics of Water and Ion Channels 2nd Edition" (Acronimo SPYWATCH 2.0). 18-22 Luglio 2022. Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica. Partner: MASMEC S.p.A.
- 2018: Direttore della Summer school in "Physiology and Biophysics of Water and Ion Channels" (Acronimo SPYWATCH). 18-22 Giugno 2018. Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica. Partner: MASMEC S.p.A.
- 2013 - 2018: Componente della Commissione Paritetica del Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica.
- 2015 - 2017: Rappresentante dei Professori Associati nella Giunta del Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica.
- 2015 - 2018: Coordinatore della Commissione Ricerca del Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica.

ATTIVITA' SCIENTIFICA

INCARICHI DI RICERCA PRESSO CENTRI DI RICERCA INTERNAZIONALI

La Prof. Nicchia ha svolto un periodo complessivo di circa **2 anni e 6 mesi** per attività di ricerca presso centri di ricerca esteri e internazionali quali l'A. Einstein College of Medicine (AECOM), Yeshiva University, New York (USA), il SUNY State College of Optometry, New York (USA), e il Cardiovascular Research Institute della University of California San Francisco (UCSF), San Francisco (USA).

PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI

- 2005: Vincitrice "Premio SIF" come migliore giovane ricercatore dell'anno per gli studi in Fisiologia – dalla Società Italiana di Fisiologia
- 2008 - oggi: Membro della "Società Italiana di Fisiologia"
- 2017: Membro dell'European Association for the Study of Diabetes
- Chairman della sessione "Aquaporins in brain edema and in CSF production and drainage" al 1st International Meeting on Brain Aquaporins 9 – 10 Giugno 2008. New insight in brain edema, stroke, spinal cord injury, meningitis, epilepsy, and multiple sclerosis.
- Chairman della sessione "Cancer" al 18th World Congress of Basic and Clinical Pharmacology (WCP2018) – 1-6 Luglio 2018, Kyoto, Japan.
- Chairman della sessione "Fibrous biomaterials" al National Congress of Biomaterials – 11-14 Luglio 2021, Lecce, Italy.

Copertine dedicate:

1. O'NEILL KM, SARACINO E, BARILE B, MENNONA N, MOLA MG, PATHAK S, POSATI T, ZAMBONI R, NICCHIA GP, et al., (2023). Decoding natural astrocyte rhythms: dynamic actin waves result from environmental sensing by primary rodent astrocytes. *ADVANCED BIOLOGY*, under publication.
2. MOLA MG, SARACINO E, FORMAGGIO F, AMEROTTI AG, BARILE B, FRIGERI A, PALAZZO C, POSATI T, ZAMBONI R, CAPRINI M, NICCHIA GP, et al., (2021). Cell volume regulation mechanisms in differentiated astrocytes. *CELLULAR PHYSIOLOGY AND BIOCHEMISTRY*. Vol. 55 pp. 196-212.
3. ROSSI A, PISANI F, NICCHIA GP, et al. (2009). Evidences for a leaky scanning mechanism for the synthesis of the shorter M23 protein isoform of aquaporin-4: implication in orthogonal array formation and neuromyelitis optica antibody interaction. *J BIOL CHEM*. vol. 285 pp. 4562-4569.
4. NICCHIA GP, et al. (2008). Actin cytoskeleton remodeling governs aquaporin-4 localization in astrocytes. *GLIA*, vol. 56 pp. 1755-1766.
5. NICCHIA GP, et al. (2000). Aquaporin-4 containing astrocytes sustain a temperature and mercury-insensitive swelling in vitro. *GLIA*. vol. 31 pp. 29-38.
6. FRIGERI A, NICCHIA GP, et al. (2001). Aquaporin-4 deficiency in skeletal muscle and brain of dystrophic mdx-mice. *FASEB JOURNAL*. vol. 15 pp. 90-98.

ATTIVITÀ DI REVISORE ESTERNO PER RIVISTE SCIENTIFICHE INTERNAZIONALI

La Prof. Nicchia svolge attività di revisore esterno per le seguenti riviste scientifiche internazionali:

1. Acta Physiologica
2. Acta Neuropathologica
3. Muscle and Nerve
4. PLoS One
5. Frontiers in Cellular Neuroscience
6. Neuroscience
7. European Journal of Neuroscience
8. Journal of Neurochemistry
9. Journal of Alzheimer's Disease
10. Journal of Cellular Biochemistry
11. Journal of Clinical and Experimental Pathology
12. Molecular Pharmaceutics
13. Tohoku Journal of Experimental Medicine
14. Scientific Report
15. Life Science Alliance

PRESENTAZIONI ORALI SU INVITO A SEMINARI E CONGRESSI NAZIONALI ED INTERNAZIONALI

1. **Nicchia GP.** "Stochastic Biophysical Interactions within Aquaporin-4 Assemblies". 2023 Air Force Scientific Research (AFOSR) Biophysics Program Review Meeting, College Park, MD (USA). Nov 13-17, 2023.
2. **Nicchia GP.** "Aquaporin biophysics in cell-biomaterial interaction". Meeting on Advanced Materials, Nanomaterials and Biophysics. U.S. – Conference Room: "G. Marconi" – National Research Council of Italy, Piazzale Aldo Moro 7, Rome (Italy). July 27th – 28th, 2023
3. **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 21, 2023.
4. **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.
5. **Nicchia GP.** "Stochastic Biophysical Interactions within Aquaporin-4 Assemblies". 2022 Air Force Scientific Research (AFOSR) Review Meeting, Arlington, VA (USA). Nov 14-18, 2022.
6. **Nicchia GP.** 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
7. **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
8. **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.
9. **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
10. **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
11. **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.
12. **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.
 13. **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.
 14. **Nicchia GP.** "Orthogonal Arrays of Particles alter cytoskeleton and cell invasion dynamics in GBM and glioma cells". 18th World Congress of Basic and Clinical Pharmacology (WCP2018), Kyoto, Japan. July 1-6, 2018.
 15. **Nicchia GP.** "Aquaporin-4 Supramolecular Structures: Insights From a Novel Aquaporin-4 Knock-in Mouse Model". Department of Cell Biology and Anatomy. New York Medical College, Valhalla, New York, NY, USA. Basic Sciences Building (BSB) Room 210. March 28, 2018.
 16. **Nicchia GP.** "Stem Cells: the ethics of a new world". Meeting-Debate organized by Link Campus Bari, University of Bari Aldo Moro, Bari, November 30, 2017.
 17. **Nicchia GP.** "Biotecnologie per lo studio del ruolo fisiologico degli aggregati molecolari di Acquaporina-4: generazione di modelli animali attraverso la tecnica della CRISPR/ Cas9". Seminari del Dipartimento 2017, Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica, Università degli Studi di Bari Aldo Moro, Bari, 21 Marzo 2017.
 18. **Nicchia GP.** "Aquaporin-1 inhibition reduces tumour dissemination and increases survival in a mouse model of melanoma". 67th Congress of the Italian Physiological Society (SIF), Catania, September 21-23, 2016.
 19. **Nicchia GP.** "Quale futuro per la sperimentazione animale?". Incontro-Dibattito "La sperimentazione animale oggi. Dai principi europei ai metodi alternativi alle nuove regole" in collaborazione con la Lega Antivivisezione di Roma e Bari. Dipartimento di Medicina Veterinaria, Università degli Studi di Bari Aldo Moro, Bari, 20 Maggio 2016.
 20. **Nicchia GP.** "Aquaporin-4 supramolecular organization in physiology and pathophysiology (Neuromyelitis Optica)". Dominick P. Purpura, Department of Neuroscience. 901 Kennedy Center. July 3, 2014.
 21. **Nicchia GP.** "Aquaporin-4 supramolecular structures: applications in diagnosis and therapy of Neuromyelitis Optica". Istituto per la Sintesi Organica e la Fotoreattività (ISOF) - CNR Area della Ricerca di Bologna - Via P. Gobetti 101. May 9, 2014.
 22. **Nicchia GP, Stigliano C, Rossi A, Frigeri A, Svelto M.** "Impairment of tumor angiogenesis and growth by in vivo Aquaporin-1 RNA interference", 62nd Annual Meeting of the Italian Physiological Society, Sorrento, September 25-27, 2011.
 23. **Nicchia GP, Rossi A, Pisani F, Svelto M, Frigeri A.** "Regulation of the aquaporin-4 gene expression through leaky scanning mechanism and involvement in neuromyelitis optica", 44th Annual Scientific Meeting of the European Society for Clinical Investigation, Bari, Italy. February 24-27, 2010.
 24. **Nicchia GP, Rossi A, Svelto M, Frigeri A.** "Plasma membrane assembling of the Dystrophin Associated Proteins and Aquaporin-4 during the differentiation of a glial progenitor cell into a mature astrocyte", Neuroscience 2008, Society for Neuroscience, SfN, 38th Annual Meeting, Washington, DC, November 15-19, 2008.
 25. **Nicchia GP, Rossi A, Frigeri A, Svelto M.** "AQP4 in astrocyte migration", 58th Annual Meeting of the Italian Physiological Society, Lecce, September 19-21, 2007.
 26. **Nicchia GP, Mola MG, Rossi A, Svelto M, Frigeri A.** "Relationship between aquaporin-4 and cytoskeleton", Neuroscience 2006, Society for Neuroscience, SfN, 36th Annual Meeting, Atlanta, Georgia, October 14-18, 2006.
 27. **Nicchia GP, Frigeri A, Svelto M.** "Relationship between AQP4 and cytoskeleton", 26th European Winter Conference on Brain Research (EWCBR), Villars sur Ollon, Switzerland, March 4-11, 2006.
 28. **Nicchia GP, Frigeri A, Liuzzi GM, Svelto M.** "Aquaporin-4 inhibition by RNA interference (RNAi) determines morphological changes in cultured astrocytes", 53rd Annual Meeting of the Italian Physiological Society, Ferrara, September 16-19, 2002.
 29. **Nicchia GP, Frigeri A, Nico B, Svelto M.** "Tissue distribution and membrane localization of rat aquaporin-9 water channel: evidence for sex-linked differences in liver", 52nd Annual

- Meeting of the Italian Physiological Society, Ancona, September 25-28, 2001.
30. **Nicchia GP**, Frigeri A, Cantatore C, Desaphy JF, Pierno S, De Luca AM, Conte Camerino D, Svelto M. "Changes in AQP4 expression in rat skeletal muscle during development and after hindlimb suspension", 51st Annual Meeting of the Italian Physiological Society, Catania, September 25-27, 2000.
-

FINANZIAMENTI

COORDINAMENTO di progetti di ricerca internazionali

- **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.
- **2021-2023 USA: AFOSR (Air Force Office of Scientific Research)** Multiscale characterization of collective astrocyte dynamics (ASTROCOLL).
- **2023-2026 USA: AFOSR (Air Force Office of Scientific Research)** Stochastic Biophysics of Molecular Interactions within Aquaporin-4 Assemblies.
- **2019-2023 USA: AFOSR (Air Force Office of Scientific Research)** Stochastic Biophysics of Molecular Interactions within Aquaporin-4 Assemblies 250.000\$. Role: Co-PI
- **2019-2021 USA: NIH (National Institute of Health) R21** AQP4 isoforms and brain edema.
- **2019-2021 USA: AFOSR (Air Force Office of Scientific Research)** Decoding astrocyte natural rhythms: Impact of actin and channel protein dynamics across scales (ASTRODYN).

COORDINAMENTO di progetti di ricerca nazionali

- **2023- 2025 Italian Grant from MUR, PRIN Bando 2022 PNRR**
Title: Nanotechnological interfaces and devices enabling selective control of ion and water channels dynamics – NANODYN. Prot. P2022Z27NS
- **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
- **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.
- **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

ALTRI FINANZIAMENTI

- **2022-2025 PNRR CN3 National Centre for the development of gene therapy and drugs with RNA technology.** Spoke 3: Neurodegeneration.

- **2022-2025 PNRR PE Neuroscience and Neuropharmacology.** Spoke 1: Neurodevelopment, Social cognition and social interaction. Spoke 3: Neuronal homeostasis and brain-environment interaction,
- **2007:** Titolare di un contratto con la ditta Johnson and Jhonson per le misure dell'effetto di un composto chimico sulla migrazione di astrociti in coltura silenziati per l'espressione di Acquaporina-4 mediante la tecnica dell'RNA interference. Ruolo: Responsabile della ricerca.

ATTIVITÀ DIDATTICA

L'attività didattica della Prof. Nicchia si svolge principalmente all'interno dei **Corsi di Laurea in Scienze Biotecnologiche e Scienze Biologiche** dell'Università degli Studi di Bari Aldo Moro. Attualmente docente di **Fisiologia ed Elementi di Biofisica** (dal 2009), di **Neurofisiologia e Biotecnologie in Neuroscienze** (dal 2008) e di **Neurobiologia** (dal 2022). E' stata docente di **Fisiologia della Nutrizione Umana** dal 2004 al 2008 e di **Ingegneria cellulare e bioreattori** dal 2004 al 2007.

Da Maggio 2004 ad oggi ha svolto attività di Didattica per i dottorandi, in qualità di componente del **Collegio dei Docenti del Dottorato di Ricerca** in "Bioscienze e Biotecnologie", Dipartimento di Bioscienze, Biotecnologie e Ambiente di cui fa parte.

La Prof Nicchia è stata Direttore della **Prima Edizione** e della **Seconda Edizione** della **Summer School** in "Physiology and Biophysics of Water and Ion Channels" (Acronimo SPYWATCH) tenutasi dal 18 al 22 Giugno 2018 (la prima edizione) e dal 18 al 22 Luglio 2022 (la seconda edizione) presso il Dipartimento a cui afferisce. Partner: MASMEC S.p.A. Finanziamento Regionale.

ELENCO COMPLETO PUBBLICAZIONI

H-index 40 (Scopus)
Citazioni Totali 4017 (Scopus)

* Corresponding Author
 # Contributed equally to the study

- 1) Cibelli A, Mola MG, Saracino E, Barile B, Abbrescia P, Mogni G, Spray DC, Scemes E, Rossi A, Spennato D, Svelto M, Frigeri A, Benfenati V, **Nicchia GP***. Aquaporin-4 and transient receptor potential vanilloid 4 balance in early postnatal neurodevelopment. *Glia*. 2024 May;72(5):938-959. doi: 10.1002/glia.24512. Epub 2024 Feb 16.
- 2) Massaro G, Barile B, Scarcelli G, Pepe FV, **Nicchia GP#**, D'Angelo M#. Direct 3D imaging through spatial coherence of light. *Laser & Photonics Reviews*. Research Article. 2024. <https://doi.org/10.1002/lpor.202301155>.
- 3) Carder JD, Barile B, Shisler KA, Pisani F, Frigeri A, Hipps KW, **Nicchia GP***, Brozik JA*. Thermodynamics and S-Palmitoylation Dependence of Interactions between Human Aquaporin-4 M1 Tetramers in Model Membranes. *J Phys Chem B*. 2024 Jan 25;128(3):603-621. doi: 10.1021/acs.jpcc.3c04529. Epub 2024 Jan 11.
- 4) Annicchiarico A, Barile B, Buccoliero C, **Nicchia GP**, Brunetti G. Alternative therapeutic strategies in diabetes management. *World J Diabetes*. 2024 Jun 15;15(6):1142-1161. doi: 10.4239/wjd.v15.i6.1142.
- 5) Mentino D, **Nicchia GP**, Frigeri A, Desantis S, Guglielmi MV, Semeraro D, Scillitani G, Mastrodonato M. Altered glycosylation in secreting cells of the gastric glands of aquaporin-4-deficient mice. *Microsc Res Tech*. 2024 Aug;87(8):1836-1848. doi: 10.1002/jemt.24563. Epub 2024 Mar 27.
- 6) Galeone A, Buccoliero C, Barile B, **Nicchia GP**, Onorati F, Luciani GB, Brunetti G. Cellular and Molecular Mechanisms Activated by a Left Ventricular Assist Device. *Int J Mol Sci*. 2024 Jan 24;25(1):288. doi: 10.3390/ijms25010288.
- 7) Barile B, Mola MG, Formaggio F, Saracino E, Cibelli A, Gargano CD, Mogni G, Frigeri A, Caprini M, Benfenati V, **Nicchia GP***. AQP4-independent TRPV4 modulation of plasma membrane water permeability. *Front Cell Neurosci*. 2023 Aug 31;17:1247761. doi: 10.3389/fncel.2023.1247761.
- 8) Brunetti G, Barile B, **Nicchia GP**, Onorati F, Luciani GB, Galeone A. The ST2/IL-33 Pathway in Adult and Paediatric Heart Disease and Transplantation. *Biomedicines*. 2023 Jun 9;11(6):1676. doi: 10.3390/biomedicines11061676.
- 9) Fabbri R, Spennato D, Conte G, Konstantoulaki A, Lazzarini C, Saracino E, **Nicchia GP**, Frigeri A, Zamboni R, Spray DC, Benfenati V. The emerging science of Glioception: Contribution of glia in sensing, transduction, circuit integration of interoception. *Pharmacol Ther*. 2023 May;245:108403. doi: 10.1016/j.pharmthera.2023.108403.
- 10) Faienza MF, Tummolo A, Celli M, Finocchiaro R, Piacente L, Di Serio F, **Nicchia GP**, Brunetti G, D'Eufemia P. Brain-Type Creatine Kinase Release from Cultured Osteoclasts Exposed to Neridronate in Children Affected by Osteogenesis Imperfecta Type 1. *Biomedicines*. 2023 Feb 4;11(2):458. doi: 10.3390/biomedicines11020458.
- 11) O'Neill KM, Saracino E, Barile B, Mennona NJ, Mola MG, Pathak S, Posati T, Zamboni R, **Nicchia GP**, Benfenati V, Losert W. Decoding Natural Astrocyte Rhythms: Dynamic Actin Waves Result from Environmental Sensing by Primary Rodent Astrocytes. *Adv Biol (Weinh)*. 2023 Jun;7(6):e2200269. doi: 10.1002/adbi.202200269.
- 12) Huang, A.; Jin, W.; Fahad, A.S.; Mussman, B.K.; **Nicchia, G.P.**; Madan, B.; de Souza, M.O.; Daniel Griffin, J.; Bennett, J.L.; Frigeri, A.; Berkland, C.J.; DeKosky B.J. Strategies to Screen Anti-AQP4 Antibodies from Yeast Surface Display Libraries. *Antibodies* 2022, 11, doi:10.3390/antib11020039.
- 13) Valente, O.; Messina, R.; Ingravallo, G.; Bellitti, E.; Zimatore, D.S.; de Gennaro, L.; Abbrescia, P.; Pati, R.; Palazzo, C.; **Nicchia, G.P.**; Trojano, M.; Signorelli, F.; Frigeri, A. Alteration of the Translational Readthrough Isoform AQP4ex Induces Redistribution and Downregulation of

- AQP4 in Human Glioblastoma. *Cellular and Molecular Life Sciences* 2022, 79, doi:10.1007/s00018-021-04123-y.
- 14) Pati, R.; Palazzo, C.; Valente, O.; Abbrescia, P.; Messina, R.; Surdo, N.C.; Lefkimmatis, K.; Signorelli, F.; **Nicchia, G.P.**; Frigeri, A. The Readthrough Isoform AQP4ex Is Constitutively Phosphorylated in the Perivascular Astrocyte Endfeet of Human Brain. *Biomolecules* 2022, 12, doi:10.3390/biom12050633.
 - 15) Simone, L.*; Pisani, F.; Binda, E.; Frigeri, A.; Vescovi, A.L.; Svelto, M.; **Nicchia, G.P.***. AQP4-Dependent Glioma Cell Features Affect the Phenotype of Surrounding Cells via Extracellular Vesicles. *Cell Biosci* 2022, 12, doi:10.1186/s13578-022-00888-2.
 - 16) de Bellis, M.; Cibelli, A.; Mola, M.G.; Pisani, F.; Barile, B.; Mastrodonato, M.; Banitalebi, S.; Amiry-Moghaddam, M.; Abbrescia, P.; Frigeri, A.; Svelto, M.; **Nicchia, G.P.***. Orthogonal Arrays of Particle Assembly Are Essential for Normal Aquaporin-4 Expression Level in the Brain. *Glia* 2021, 69, 473–488, doi:10.1002/glia.23909.
 - 17) Pisani, F.; Simone, L.; Mola, M.G.; de Bellis, M.; Frigeri, A.; **Nicchia, G.P.#**; Svelto, M#. Regulation of Aquaporin-4 Expression in the Central Nervous System Investigated Using M23-AQP4 Null Mouse. *Glia* 2021, 69, 2235–2251, doi:10.1002/glia.24032.
 - 18) Mola, M.G.; Saracino, E.; Formaggio, F.; Amerotti, A.G.; Barile, B.; Posati, T.; Cibelli, A.; Frigeri, A.; Palazzo, C.; Zamboni, R.; Caprini, M.; **Nicchia, G.P.**; Benfenati, V. Cell Volume Regulation Mechanisms in Differentiated Astrocytes. *Cellular Physiology and Biochemistry* 2021, 55, 196–212, doi:10.33594/000000469.
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