

GEORGIA G GREGORIOU, Ph.D.
Professor of Physiology, University of Crete

Academic Address

University of Crete, Faculty of Medicine
Department of Basic Sciences
71003, Heraklion, Crete, Greece
Tel +30-2810-394505
Email: gregoriou@uoc.gr

1. Education

- 2001:** Ph.D. in Neuroscience, Faculty of Medicine, University of Crete, Greece.
1997: M.Sc. in Basic Neuroscience, Graduate Program in Neuroscience, Faculty of Medicine, University of Crete, Greece.
1994: B.Sc. in Chemistry, Department of Chemistry, University of Athens, Greece.

2. Academic titles/Positions

- 10/2024-present:** Professor of Physiology, Medical School, University of Crete
2016-σήμερα: Head of Physiology of Cognitive Functions Laboratory
2022-2024: Director of the Interdepartmental Graduate Program in the Brain and Mind Sciences, University of Crete
10/2018-09/2024: Associate Professor of Physiology, Medical School, University of Crete
12/2016-09/2018: Assistant Professor of Physiology (tenured), Medical School, University of Crete
04/2013-11/2016: Assistant Professor of Physiology (tenure-track), Medical School, University of Crete
09/2009-present: Collaborating Researcher, Computational Neuroscience Group, Institute of Applied and Computational Mathematics, Foundation for Research and Technology, Hellas (FO.R.T.H.)
07/2008-03/2013: Lecturer in Physiology, Medical School, University of Crete
10/2006-07/2008: Research Associate, McGovern Institute for Brain Research, Massachusetts Institute of Technology (MIT) Cambridge, MA, U.S.A.
05/2003-09/2006: Research Fellow Laboratory of Neuropsychology, National Institute of Mental Health, National Institutes of Health (NIH).
11/2001-03/2003: Postdoctoral Fellow, Institute of Human Physiology, Faculty of Medicine and Surgery, University of Parma, Italy.

3. Fellowships/Distinctions

- 2024:** Elected member of the FENS Programme Committee for the FENS Forum 2026
2023: Elected member of the International Neuropsychology Symposium

- 2003-2006:** Fogarty Postdoctoral Fellowship, National Institute of Mental Health, NIH
- 2000:** Erasmus short-term fellowship, Host Institute: Institute of Human Physiology, Faculty of Medicine, University of Parma, Italy.
- 1998:** “Hellenic Society for Neuroscience” award for the best poster presentation.
- 1997:** Greek State Scholarship's Foundation (I.K.Y) Graduate Studies Excellence Fellowship.

4. Competitive grants obtained as Principal Investigator/Supervisor

Funding Period	Call/Project Title	Funding Agency	Role
2024-2025	H.F.R.I. Basic Research Financing (Horizontal support for all Sciences) Sub-action II, Funding Projects in Leading-Edge Sectors “Mechanisms of COgnitive Flexibility across primates, rodents and machines” - COFLEX (Project number 14941)	Hellenic Foundation for Research and Innovation (H.F.R.I.)	Principal Investigator/Coordinator
2021-2025	H2020-MSCA-ITN-2020 (Marie Skłodowska-Curie Innovative Training Networks) “Intra- and Inter-Areal Communication in Primate Brain Networks” – In2PrimateBrains (GA 956669)	European Union	Principal Investigator
2020-2023	FLAG-ERA Joint Transnational Call - Human Brain Project-Basic and Applied Research “Layer-specific characterization and modeling of fronto-parietal dynamics in primate cortical networks”- PrimCorNet (T11EPA4-00014, MIS: 5070462)	Evaluation: EU Funding: General Secretariat for Research and Innovation (GSRI)	Principal Investigator
2020-2024	First Call for H.F.R.I. Research Projects to support Faculty members and Researchers and the procurement of high-cost research equipment grant “Micro- and mesoscopic study of neuronal interactions and network dynamics in cognition. The role of distinct prefrontal-temporal circuits in attention and memory.” - COGDYN (Project number 41)	Hellenic Foundation for Research and Innovation (H.F.R.I.)	Principal Investigator/Coordinator
2019-2023	First Call for H.F.R.I. Research Projects to support Postdoctoral Researchers “Decoding cognitive information from populations of neurons towards the development of a brain-machine interface” – XAVIER (Project number: 1199)	Hellenic Foundation for Research and Innovation (H.F.R.I.)	Host PI/Laboratory
2020-2022	Support of researchers with emphasis to young researchers “Decoding visual attention and behavioral parameters from neuronal signals” (MIS: 5048179)	Ministry of Finance and Development	Principal Investigator/Coordinator
2015-2017	Research programs of excellence IKY-Siemens for PhD research “Decoding spatial- and feature- based visual attention from	State Scholarships Foundation (IKY)	Principal Investigator/Coordinator

	neural signals”		
2015-2016 & 2018-2019	Research Grants in Biomedicine “Bridging neural activity and perception: correlations and causality between activity of single neurons, neuronal populations, oscillatory dynamics and attentive behavior”	Bodossaki Foundation	Principal Investigator/ Coordinator
2015-2017	Research Grant in Biomedical Sciences “Neural mechanisms of attention during visual search”	Fondation Sante	Principal Investigator/ Coordinator
2014-2015	ARISTEIA II (EXCELLENCE II) “Neural Mechanisms of Visual Search” - NEMESE (Project number 2988)	General Secretariat for Research and Technology (GSRT)	Principal Investigator/ Coordinator
2012-2015	"Supporting postdoctoral researchers" grant “The role of parietal and prefrontal cortex in visual selection” – SELECTION (project number LS5(1325))	GSRT	Host PI/Laborator y
2010-2014	FP7-PEOPLE-2009-RG (Marie Curie International Reintegration Grant) “Interactions between prefrontal cortex and area V4 in attention”-VISATT (GA 246761)	European Union	Principal Investigator/ Coordinator
2010-2012	Joint Research and Technology Programme between Greece and France. “Neural mechanisms of visual attention: long range interactions in the brain during attention with particular emphasis on the frontoparietal network” (Project number 09FR27)	GSRT	Principal Investigator/ Coordinator
2010-2012	Special Account of Research Funds (ELKE), University of Crete “The role of distinct neuronal cell types in spatial orienting, attention and neural synchrony” (Project number 3004)	Special Account of Research Funds (ELKE), University of Crete	Principal Investigator/ Coordinator

5. Professional Service

5.1 Editorial role for Scientific Journals

2022 - present Associate Editor for Frontiers in Neuroscience

5.2 Manuscript Review for Scientific Journals

Science; Nature Neuroscience; Nature Communications; Science Advances; Proceedings of the National Academy of Sciences (PNAS); Current Biology; PLOS Biology; Progress in Neurobiology; Journal of Neuroscience European Journal of Neuroscience; Frontiers in Human Neuroscience; eNeuro; Journal of Neurophysiology; Cerebral Cortex ; Neural Plasticity; Frontiers in Systems Neuroscience ; Experimental Brain Research; Brain Research

5.3 Grant Review for Funding Agencies

Human Frontiers Science Program (HFSP); EU, ERA-NEURON JTC2020; National Science Foundation (NSF), U.S.A.; EU, FLAG ERA JTC2021; Ministero dell'Università e della Ricerca, Italy, Programma per Giovani Ricercatori - Rita Levi Montalcini Call 2019; Ministero dell'Università e della Ricerca, Italy, PRIN: Progetti Di Ricerca Di Rilevante Interesse Nazionale – Call 2020; General Secretariat for Research and Technology; Agence Nationale de la Recherche (ANR, French National Research Agency), France; Greek State Scholarships Foundation (IKY); Knowledge Foundation, Sweden; Greek Ministry of Education; The Wellcome Trust, UK

6. Selected Publications in peer reviewed scientific journals ([Google Scholar](#))

1. A. Theocharous, **G.G. Gregoriou**, P. Sapountzis, I. Kontoyiannis (2024) Temporally Causal Discovery Tests for Discrete Time Series and Neural Spike Trains, *in press IEEE Trans Signal Process*, aRxiv doi: 10.48550/arXiv.2305.14131
2. P. Sapountzis, S. Paneri, S. Papadopoulos and **G.G. Gregoriou**. (2022) Dynamic and stable population coding of attentional instructions coexist in the prefrontal cortex *Proc Natl Acad Sci U S A*. 119 (40) e2202564119 doi: 10.1073/pnas.2202564119
3. P. Sapountzis, S. Paneri and **G.G. Gregoriou**. (2018) Distinct roles of prefrontal and parietal areas in the encoding of attentional priority. *Proc Natl Acad Sci U S A*. 115(37):E8755-E8764 doi: 10.1073/pnas.1804643115
4. P. Sapountzis and **G.G. Gregoriou** (2018) Neural signatures of attention: insights from decoding population activity patterns. *Front. Biosci., Landmark Edition, Invited Review*, 23:221-246, doi: 10.2741/4588.
5. S. Paneri and **G.G. Gregoriou** (2017) Top-down control of visual attention by the prefrontal cortex. Functional specialization and long-range interactions. *Front. Neurosci, Invited Article, Research topic "Prefrontal cortex and executive functions"*, 11:545, doi: 10.3389/fnins.2017.00545
6. **G.G. Gregoriou**, S. Paneri and P. Sapountzis (2015) Oscillatory synchrony as a mechanism of attentional processing. *Brain Res. Invited Review, Special Issue on Attention and Prediction*. 1626:165-82, doi: 10.1016/j.brainres.2015.02.004
7. **G.G. Gregoriou**, A.F. Rossi, L.G. Ungerleider and R. Desimone (2014) Lesions of prefrontal cortex reduce attentional modulation of neuronal responses and synchrony in V4. *Nature Neurosci*. 17:1003-1011. doi: 10.1038/nn.3742
8. **G.G. Gregoriou**, S.J. Gotts and R. Desimone (2012) Cell-type specific synchronization of neural activity in FEF with V4 during attention. *Neuron* 72(3): 581-594. doi: 10.1016/j.neuron.2011.12.019
9. **G.G. Gregoriou**, S.J. Gotts, H. Zhou and R. Desimone. (2009) High frequency long-range coupling between prefrontal and visual cortex during attention. *Science*, 324:1207-1210. doi: 10.1126/science.1171402
10. A.K. Moschovakis, **G.G. Gregoriou**, G. Ugolini, M. Doldan, W. Graf, W. Guldin, K. Hadjidimitrakis and H.E. Savaki. (2004) Oculomotor areas of the primate frontal lobes: a transneuronal transport of rabies virus and [14C]-2-deoxyglucose functional imaging study. *J. Neurosci.*, 24(25):5226-5240. doi: 10.1523/JNEUROSCI.1223-04.2004

7. Invited talks

1. November 2023, *Hellenic Society for Neuroscience meeting, Athens, Greece*, “Filtering out distractions while focusing attention. Two sides of the same coin”
2. July 2023, *Eye Movements Gordon Research Conference, South Hadley, MA, USA* “Encoding of salience in the parietofrontal network during free-viewing search”
3. June 2023, *International Neuropsychology Symposium, Cagliari, Sardinia, Italy* “Attentional selection in vision. Insights from electrophysiology in non-human primates”
4. June 2022, *Joint Seminar Series in Translational and Clinical Medicine: UoC Medical School – IMBB-FORTH – UCRC* “The role of prefrontal cortex in the control of visual attention. From neurons to brain networks.”
5. May 2022, *Thematic Workshop MSCA-ITN “In2PrimateBrains”, Rome, Italy*, “The role of prefrontal cortex in visual attention”
6. April 2021, *Hellenic Society for Neuroscience Virtual Seminar Series*, “From neurons to cognition. How brain networks shape attentional selection”
7. October 2019, *Annual French Vision Meeting, Marseille, France*, Keynote speaker “The role of executive control areas in attentional selection. Insights from electrophysiology”
8. July 2019, *28th Annual Computational Neuroscience Meeting (CNS 2019), Barcelona, Spain*, Invited Speaker to Symposium *Neural computations underlying working memory limitations*. “Encoding and retention of spatial and non-spatial information in the parietal and prefrontal cortices”.
9. May 2019, *Institut D’Investigacions Biomèdiques August Pi i Sunyer, Barcelona, Spain*, “Neuronal contributions and population dynamics within the parietofrontal network during spatial and feature attention”.
10. July 2018, *Ernst-Strungmann Institute for Neuroscience Retreat, Frankfurt, Germany*, “Prefrontal and parietal contributions in the encoding of attentional priority”
11. June 2018, *5th International Lab Animal Course, Crete (FELASA accredited)*, “The use of non-human primates in biomedical research”
12. October 2017, *Fondation Sante Fellows Symposium, Athens, Greece*, “Prefrontal contributions to the control of attention”
13. June 2017, *4th International Lab Animal Course, Crete (FELASA accredited)*, “The use of non-human primates in biomedical research”
14. October 2013, *ESI-workshop on Inter-areal interactions, Ernst-Strungmann Institute for Neuroscience in Cooperation with Max Planck Society, Frankfurt, Germany*. “Long range interactions between prefrontal cortex and area V4 in attention”
15. Μάιος 2013, *ESF Exploratory Workshop “Noise in decision making: theory meets experiment”, Barcelona, Spain*. “Attention and Interneuronal correlations”

16. November 2011, *Hellenic Society for Neuroscience meeting, Patras, Greece*. “Neural mechanisms of visual attention: Interactions between distant brain areas”.
17. October 2011, *CNRS, UMR 5229, Centre de Neurosciences Cognitives, Bron cedex, France* “Long range interactions between FEF and V4 in attention”.
18. June 2010, *AREADNE Conference 2010. Research in Encoding and Decoding of Neural Ensembles*. “Long range coupling between prefrontal and visual cortex in attention”.
19. February 2010, *Universitat Pompeu Fabra, Barcelona, Catalonia, Spain*. “Neural Synchrony between prefrontal and visual cortex in attention”.
20. July 2008, *University of Crete, Graduate Program “Brain and Mind”*. “How the brain pays attention: Insights from electrophysiology”.
21. June 2008, *McGovern Institute Retreat, Newport, RI*. Modulation of neuronal synchronization within and between areas V4 and FEF by visual attention
22. April 2002, *Center for the Neural Basis of Cognition, Pittsburgh, PA, U.S.A.* “Functional imaging of the monkey parieto-frontal circuits involved in the visual and somatosensory guidance of reaching movements”
23. April 2002, *Laboratory of Neuropsychology, National Institute of Mental Health, NIH, Bethesda, MD, U.S.A.* “Functional imaging of the monkey parieto-frontal circuits involved in the visual and somatosensory guidance of reaching movements”.
24. February 2002, *Dipartimento di Fisiologia Umana e Generale, Universita di Bologna, Bologna, Italy* “¹⁴C-deoxyglucose mapping of the monkey brain during visual and somatosensory guidance of reaching”.