

CURRICULUM VITAE

Theofanis Panagiotaropoulos

Assistant Professor of Cognitive Neuroscience

[Department of Psychology](#)

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Affiliated Investigator

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SUMMARY STATEMENT

My research interests revolve around the neural basis of cognitive processes, with a primary focus on probing the mechanisms of conscious visual perception from neuronal population recordings in higher-order cortical areas of the non-human primate brain, particularly the prefrontal and parietal cortex. I routinely employ state-of-the-art electrophysiological methods (chronically implanted Utah arrays, Neuropixels) and signal processing/machine learning tools, for recordings and analysis of neuronal populations at multiple spatiotemporal scales. My research has revealed the role of the prefrontal cortex in conscious visual perception ([Panagiotaropoulos et al., Neuron 2012](#), [Trends in Cognitive Sciences 2020](#); [Kapoor et al., Nature Communications 2022](#), [Bellet et al. Neuroscience of Consciousness 2022](#), [Panagiotaropoulos Neuron 2024](#)) the interaction of intrinsic cortical states with conscious content representations ([Dwarakanath et al., Neuron 2023](#)), and the neural population mechanisms underlying predictive and abstract processing ([Bellet et al. Cell Reports 2024](#); [Kapoor et al. Communications Biology 2018](#)). I am interested in the nature of consciousness (cognitive vs. non cognitive theories) and to this end, I participate in research consortia testing the predictions of theories of consciousness in humans and animal models ([Cogitate Consortium bioRxiv 2023](#), accepted for publication in Nature). Additionally, I investigate the mechanisms of loss of consciousness during anesthesia in the prefrontal and parietal cortex. I have also explored declarative memory representations by recording from concept cells in the human medial temporal lobe ([Rey, Panagiotaropoulos et al.](#) under review in Cell Reports). In the past I studied the effect of neonatal experiences on the adult spatial learning and memory and response to stress using a combination of behavioral, molecular and neuroendocrinological measures in rodents ([Panagiotaropoulos et al. Neuroendocrinology 2004](#), [Neurobiology of Learning and memory 2009](#)). I've been a guest speaker at meetings organized by the Cognitive Neuroscience Society, Vision Sciences Society and in workshops/seminars organized by the Allen Institute for Brain Science, California Institute of Technology, NIH etc.

ACADEMIC AND RESEARCH EXPERIENCE

12/2024	Assistant Professor of Cognitive Neuroscience National and Kapodistrian University of Athens Department of Psychology
11/2024	Affiliated Investigator Biomedical Research Foundation of the Academy of Athens
11/2017 - 8/2023	Researcher - Project Director Institut national de la santé et de la recherche médicale (INSERM), Gif sur Yvette, France Cognitive Neuroimaging Unit, CEA DSV/I2BM, Université Paris-Saclay, NeuroSpin center.
06/2022 – 05/2023	Honorary Fellow University of Wisconsin College of Letters and Science, Madison, USA Department of Psychology
10/2020 - 10/2023	Task Leader Human Brain Project
11/2017 - 06/2018	Honorary Fellow University of Leicester, United Kingdom Center for Systems Neuroscience, Department of Neuroscience, Psychology and Behavior.

- 02/2015 - 10/2017** **Visiting Researcher**
King's College London, United Kingdom
Department of Basic and Clinical Neuroscience,
Institute of Psychiatry, Psychology and Neuroscience.
- 01/2015 - 10/2017** **Researcher**
University of Leicester, United Kingdom
Center for Systems Neuroscience, Department of Neuroscience, Psychology and Behavior.
- 01/2012 - 11/2017** **Project Leader**
Max Planck Institute for Biological Cybernetics, Tübingen, Germany
Department of Physiology of Cognitive Processes
- 01/2006 - 12/2011** **Postdoctoral Fellow**
Max Planck Institute for Biological Cybernetics, Tübingen, Germany
Department of Physiology of Cognitive Processes

EDUCATION

- 2006** **PhD in Cognitive Science**
National Kapodistrian University of Athens, Athens, Greece
Title: Effect of Frustration of Maternal Contact on Cognitive Functions in the Rat: Psychobiological Mechanisms
- 2002** **MSc in Cognitive Science**
National Kapodistrian University of Athens, Athens, Greece
- 1999** **Bachelor in Psychology**
Panteion University of Athens, Athens, Greece

FORMAL TRAINING

- 2021** **Diploma of Training in Experimental Surgery (Initiation à la Chirurgie Expérimentale)**
Sorbonne Université – Inserm, Paris, France.
- 2020** **Laboratory Animal Science Course on Non-Human Primates (FELASA Function A&B)**
FELASA-EUPRIM-Net. German Primate Center, Göttingen, Germany
- 2020** **Formation à l'expérimentation animale (Conception et réalisation des procédures)**
Université Paris-Est, Paris France
École Nationale Vétérinaire Alfort

SKILLS - EXPERTISE

- Surgical implantation (chronic) of multielectrode arrays in cortical areas of the non-human primate brain.
- In vivo electrophysiological recordings/electrical microstimulation and analysis of neural signals during wakefulness/behavior and under anesthesia (Utah arrays – Neuropixels).
- Electrophysiological recordings of neurons (concept cells) in the human medial temporal lobe.
- Design and implementation of visual perception/cognitive tasks for non-human primates, rodents and humans.
- Eye movement analysis (optokinetic nystagmus, saccadic eye movements).
- Induction and maintenance of anesthesia in non-human primates and rodents (sevoflurane, propofol).
- MATLAB, Python, Signal processing, Machine learning (neural population decoding).
- Radioimmunoassay, High Pressure Liquid Chromatography, Immunohistochemistry.

SELECTED PUBLICATIONS

1. Cogitate Consortium, Ferrante O, Gorska-Klimowska U, Henin S, Hirschhorn R, Khalaf A, Lepauvre A, Liu L, Richter D, Vidal Y, Bonacchi N, Brown T, Sripad P, Armendariz M, Bendtz K, Ghafari T, Hetenyi D, Jeschke J, Kozma C, Mazumder DR, Montenegro S, Seedat A, Sharafeldin A, Yang S, Baillet S, Chalmers DJ, Cichy RM, Fallon F, **Panagiotaropoulos TI**, Blumenfeld H, de Lange FP, Devore S, Jensen O, Kreiman G, Luo H, Boly M, Dehaene S, Koch C, Tononi G, Pitts M, Mudrik L, Melloni L. An adversarial collaboration to critically evaluate theories of consciousness. Nature (accepted for publication).
2. **Panagiotaropoulos TI***. (2024) An integrative view of the role of prefrontal cortex in consciousness. Neuron 112(10):1626-1641. <https://doi.org/10.1016/j.neuron.2024.04.028> [Impact Factor 16.2]
3. Bellet MG, Gay M, Bellet J, Jarraya B, Dehaene S, van Kerkoerle T, **Panagiotaropoulos TI***. (2024). Spontaneously emerging internal models of visual sequences combine abstract and event specific information in the prefrontal cortex. Cell Rep. 43(3):113952. <https://doi.org/10.1101/2021.10.04.463064> [Impact Factor 8.8]
4. Dwarakanath A, Kapoor V, Fedorov L, Safavi S, Werner J, Logothetis NK, **Panagiotaropoulos TI***. (2023) Bistability of prefrontal states gates access to consciousness. Neuron 111(10):1666-1683.e4. <https://doi.org/10.1016/j.neuron.2023.02.027> [Impact Factor 16.2]
5. Kapoor V, Dwarakanath A, Safavi S, Werner J, Besserve M, **Panagiotaropoulos TI***, Logothetis NK. (2022) Decoding internally generated transitions of conscious contents in the prefrontal cortex without subjective reports. Nature Communications 13, 1535. <https://doi.org/10.1038/s41467-022-28897-2> [Impact Factor 16.7]
6. **Panagiotaropoulos TI***, Deco G, Kapoor V, Logothetis NK. (2012) Neuronal discharges and gamma oscillations explicitly reflect visual consciousness in the lateral prefrontal cortex. Neuron 74, 924-935. <https://doi.org/10.1016/j.neuron.2012.04.013> [Impact Factor 16.2]
(* corresponding/lead author)

Google Scholar <https://scholar.google.fr/citations?user=p8mNtlEAAA&hl=en>

COMPLETE LIST OF PUBLICATIONS

Original Research Papers

1. Cogitate Consortium, Ferrante O, Gorska-Klimowska U, Henin S, Hirschhorn R, Khalaf A, Lepauvre A, Liu L, Richter D, Vidal Y, Bonacchi N, Brown T, Sripad P, Armendariz M, Bendtz K, Ghafari T, Hetenyi D, Jeschke J, Kozma C, Mazumder DR, Montenegro S, Seedat A, Sharafeldin A, Yang S, Baillet S, Chalmers DJ, Cichy RM, Fallon F, **Panagiotaropoulos TI**, Blumenfeld H, de Lange FP, Devore S, Jensen O, Kreiman G, Luo H, Boly M, Dehaene S, Koch C, Tononi G, Pitts M, Mudrik L, Melloni L. An adversarial collaboration to critically evaluate theories of consciousness. Nature (accepted for publication).
2. Bellet MG, Gay M, Bellet J, Jarraya B, Dehaene S, van Kerkoerle T, **Panagiotaropoulos TI***. (2024). Spontaneously emerging internal models of visual sequences combine abstract and event specific information in the prefrontal cortex. <https://doi.org/10.1101/2021.10.04.463064> Cell reports [Impact Factor 8.8]
3. Cogitate Consortium, Ferrante O, Gorska-Klimowska U, Henin S, Hirschhorn R, Khalaf A, Lepauvre A, Liu L, Richter D, Vidal Y, Bonacchi N, Brown T, Sripad P, Armendariz M, Bendtz K, Ghafari T, Hetenyi D, Jeschke J, Kozma C, Mazumder DR, Montenegro S, Seedat A, Sharafeldin A, Yang S, Baillet S, Chalmers DJ, Cichy RM, Fallon F, **Panagiotaropoulos TI**, Blumenfeld H, de Lange FP, Devore S, Jensen O, Kreiman G, Luo H, Boly M, Dehaene S, Koch C, Tononi G, Pitts M, Mudrik L, Melloni L. (2023) An adversarial collaboration to critically evaluate theories of consciousness, bioRxiv 2023.06.23.546249; doi: <https://doi.org/10.1101/2023.06.23.546249>
4. Safavi S, **Panagiotaropoulos TI**, Kapoor V, Ramirez-Villegas JF, Logothetis NK, Besserve M. Uncovering the organization of neural circuits with Generalized Phase Locking Analysis. (2023) PLoS Comput Biol. 19(4): e1010983. doi: 10.1371/journal.pcbi.1010983. <https://doi.org/10.1371/journal.pcbi.1010983> [Impact Factor 4.2]
5. Dwarakanath A, Kapoor V, Fedorov L, Safavi S, Werner J, Logothetis NK, **Panagiotaropoulos TI***. (2023) Bistability of prefrontal states gates access to consciousness. Neuron 111(10):1666-1683.e4. doi: 10.1016/j.neuron.2023.02.027. <https://doi.org/10.1016/j.neuron.2023.02.027> [Impact Factor 16.2]
6. Melloni L, Mudrik L, Pitts M, Bendtz K, Ferrante O, Gorska U, Hirschhorn R, Khalaf A, Kozma C, Lepauvre A, Liu L, Mazumder D, Richter D, Zhou H, Blumenfeld H, Boly M, Chalmers DJ, Devore S, Fallon F, de Lange FP, Jensen O, Kreiman G, Luo H, **Panagiotaropoulos TI**, Dehaene S, Koch C, Tononi G. (2023) An adversarial collaboration protocol for testing contrasting predictions of global neuronal workspace and integrated information theory. PLoS

- One. 18(2): e0268577. doi: 10.1371/journal.pone.0268577. <https://doi.org/10.1371/journal.pone.0268577> [Impact Factor 3.7]
7. Kapoor V, Dwarakanath A, Safavi S, Werner J, Besserve M, **Panagiotaropoulos TI***, Logothetis NK. (2022) Decoding internally generated transitions of conscious contents in the prefrontal cortex without subjective reports. *Nat Commun* 13, 1535. <https://doi.org/10.1038/s41467-022-28897-2> [Impact Factor 16.7]
 8. Bellet J, Gay M, Dwarakanath A, Jarraya B, van Kerkoerle T, Dehaene S, **Panagiotaropoulos TI***. (2022) Decoding rapidly presented visual stimuli from prefrontal ensembles without report nor postperceptual processing. *Neurosci Conscious* niac005. <https://doi.org/10.1093/nc/niac005> [Impact Factor 4.2]
 9. Kapoor V, Besserve M, Logothetis NK, **Panagiotaropoulos TI*** (2018) Parallel and functionally segregated processing of task phase and conscious content in the prefrontal cortex. *Commun Biol* 1:215. <https://doi.org/10.1038/s42003-018-0225-1> [Impact Factor 5.9]
 10. Safavi S, Dwarakanath A, Kapoor V, Hatsopoulos NG, Logothetis NK, **Panagiotaropoulos TI***. (2018). Non-monotonic spatial structure of inter-neuronal correlations in prefrontal microcircuits. *Proc Natl Acad Sci U S A*. 115(15): E3539-E3548. <https://doi.org/10.1073/pnas.1802356115> [Impact Factor 11.1]
 11. Hindriks R, Arsiwalla XD, **Panagiotaropoulos TI**, Besserve M, Verschure PF, Logothetis NK, Deco G. (2016) Discrepancies between multi-electrode LFP and CSD phase-patterns: A forward modelling study. *Front Neural Circuits* 10,51. <https://doi.org/10.3389/fncir.2016.00051> [Impact Factor 3.5]
 12. Stamatakis A, Diamantopoulou A, **Panagiotaropoulos T**, Raftogianni A, Stylianopoulou F. (2014) A novel model of early experiences involving neonatal learning of a T-maze using maternal contact as a reward or its denial as an event of mild emotional adversity. *Dev Psychobiol* 56 (8), 1651-1660. <https://doi.org/10.1002/dev.21248> [Impact Factor 2.2]
 13. **Panagiotaropoulos TI***, Kapoor V, Logothetis NK. (2013) Desynchronization and rebound of beta oscillations during conscious and unconscious local neuronal processing in the macaque lateral prefrontal cortex. *Front Psychol* 4, 603. <https://doi.org/10.3389/fpsyg.2013.00603> [Impact Factor 3.8]
 14. Kapoor V, Krampe E, Klug A, Logothetis NK, **Panagiotaropoulos TI***. (2013) Development of tube tetrodes and a multi-tetrode drive for deep structure electrophysiological recordings in the macaque brain. *J Neurosci Methods* 216, 43-48. <https://doi.org/10.1016/j.jneumeth.2013.03.017> [Impact Factor 3.0]
 15. **Panagiotaropoulos TI***, Kapoor V, Logothetis NK, Deco G. (2013). A common neurodynamical mechanism could mediate externally induced and intrinsically generated transitions in visual awareness. *PLoS One* 8, e53833. <https://doi.org/10.1371/journal.pone.0053833> [Impact Factor 3.7]
 16. **Panagiotaropoulos TI***, Deco G, Kapoor V, Logothetis NK. (2012). Neuronal discharges and gamma oscillations explicitly reflect visual consciousness in the lateral prefrontal cortex. *Neuron* 74, 924-935. <https://doi.org/10.1016/j.neuron.2012.04.013> [Impact Factor 16.2]
 17. Theodoni P, **Panagiotaropoulos TI**, Kapoor V, Logothetis NK, Deco G. (2011). Cortical microcircuit dynamics mediating binocular rivalry: the role of adaptation in inhibition. *Front Hum Neurosci* 5, 145. <https://doi.org/10.3389/fnhum.2011.00145> [Impact Factor 2.9]
 18. Diamantopoulou A, Stamatakis A, **Panagiotaropoulos T**, Stylianopoulou F. (2011). Reward or its denial during the neonatal period affects adult spatial memory and hippocampal phosphorylated cAMP response element-binding protein levels of both the neonatal and adult rat. *Neuroscience* 181, 89-99. <https://doi.org/10.1016/j.neuroscience.2011.03.002> [Impact Factor 3.3]
 19. Schmid MC, **Panagiotaropoulos T**, Augath M, Logothetis NK, Smirnakis SM. (2009). Visually driven activation in macaque areas V2 and V3 without input from primary visual cortex. *PLoS One* 4, e5527. <https://doi.org/10.1371/journal.pone.0005527> [Impact Factor 3.7]
 20. **Panagiotaropoulos T**, Diamantopoulou A, Stamatakis A, Dimitropoulou M, and Stylianopoulou F. (2009). Learning of a T-maze by rat pups when contact with the mother is either permitted or denied. *Neurobiol Learn Mem* 91, 2-12. <https://doi.org/10.1016/j.nlm.2008.09.007> [Impact Factor 2.7]
 21. Savvaki M[†], **Panagiotaropoulos T[†]**, Stamatakis A, Sargiannidou I, Karatzioula P, Watanabe K, Stylianopoulou F, Karagogeos D, and Kleopa KA. (2008). Impairment of learning and memory in TAG-1 deficient mice associated with shorter CNS internodes and disrupted juxtaparanodes. *Mol Cell Neurosci* 39, 478-90. <https://doi.org/10.1016/j.mcn.2008.07.025> [Impact Factor 3.5]
 22. Stamatakis A, Pondiki S, Kitraki E, Diamantopoulou A, **Panagiotaropoulos T**, Raftogianni A, Stylianopoulou F. (2008). Effect of neonatal handling on adult rat spatial learning and memory following acute stress. *Stress* 11, 148-59. <https://doi.org/10.1080/10253890701653039> [Impact Factor 2.3]
 23. Manolis E, Fillipou D, Theocharis S, **Panagiotaropoulos T**, Lappas D, Mompheratou E. (2007). Anatomical landmarks: Dimensions of the mastoid air cell system in the Mediterranean population. Our experience from the anatomy of 298 temporal bones. *Anat Sci Int* 82, 139-146. <https://doi.org/10.1111/j.1447-073x.2007.00175.x> [Impact Factor 1.2]
 24. Manolis EN, Kaklamanos IG, Spanakis N, Filippou DK, **Panagiotaropoulos T**, Tsakris A, Siomos K. (2007) Tissue concentration of transforming growth factor beta1 and basic fibroblast growth factor in skin wounds created with a CO2 laser and scalpel: a comparative experimental study, using an animal model of skin resurfacing. *Wound Rep Regen* 15, 252-7. <https://doi.org/10.1111/j.1524-475x.2007.00212.x> [Impact Factor 2.9]
 25. **Panagiotaropoulos T***, Stylianopoulou F. (2006). Συμπεριφορικοί μηχανισμοί και νευροβιολογικό υπόβραθρο της ματαίωσης. *Νόησις*, 2, 105-121 (*in greek*)
 26. Garoflos E[†], **Panagiotaropoulos T[†]**, Pondiki S, Stamatakis A, Philippidis H, Stylianopoulou F. (2005). Cellular mechanisms underlying the effects of an early experience on cognitive abilities and affective states. *Ann Gen Psychiatry* 4, 8. <https://doi.org/10.1186/1744-859x-4-8> [Impact Factor 3.7]

27. **Panagiotaropoulos T**, Papaioannou A, Pondiki S, Prokopiou A, Stylianopoulou F, Gerozissis K. (2004). Effect of neonatal handling and sex on basal and chronic stress-induced corticosterone and leptin secretion. *Neuroendocrinology* 79:109-118. <https://doi.org/10.1159/000076633> [Impact Factor 4.1]
28. **Panagiotaropoulos T**, Pondiki S, Papaioannou A, Stamatakis A, Alikaridis F, Gerozissis K, Stylianopoulou F. (2004). Neonatal handling and gender modulate brain monoamines and plasma corticosterone levels following repeated stressors in adulthood. *Neuroendocrinology* 80, 181-191. <https://doi.org/10.1159/000082516> [Impact Factor 4.1]

Reviews – Opinion papers

29. **Panagiotaropoulos TI***. (2024) An integrative view of the role of prefrontal cortex in consciousness. *Neuron* 112(10):1626-1641. <https://doi.org/10.1016/j.neuron.2024.04.028>. [Impact Factor 16.2]
30. Amunts K., AxeR M., Bitsch L., Bjaalie J., Brovelli A., Caspers S., Costantini I., D'Angelo E., De Bonis G., DeFelipe J., Destexhe A., Dickscheid T., Diesmann M., Eickhoff S. B., Engel A., Fousek J., Furber S., Goebel R., Günterkün O., ...**Panagiotaropoulos T**, Vanduffel W. (2024). The coming decade of digital brain research - A vision for neuroscience at the intersection of technology and computing. *Imaging Neuroscience* 2: 1-35; https://doi.org/10.1162/imag_a_00137).
31. Naccache L, Changeux JP, **Panagiotaropoulos TI**, Dehaene S. (2021) Why Intracranial Electrical Stimulation of the Human Brain Suggests an Essential Role for Prefrontal Cortex in Conscious Processing: A Commentary on Raccach Et Al. OSF Preprints. October 21. <https://doi.org/10.31219/osf.io/zrqp8>
32. **Panagiotaropoulos TI***, Dwarakanath A, Kapoor V. (2020) Prefrontal cortex and consciousness: Beware of the signals. *Trends Cogn Sci* 24:343-344. <https://doi.org/10.1016/j.tics.2020.02.005> [Impact Factor 19.9]
33. **Panagiotaropoulos TI***, Wang L., Dehaene S. (2020) Hierarchical architecture of conscious processing and subjective experience. *Cogn Neuropsychol* 37(3-4):180-183. <https://doi.org/10.1080/02643294.2020.1760811> [Impact Factor 3.4]
34. Safavi S, Kapoor V, Logothetis NK, **Panagiotaropoulos TI*** (2014) Is the frontal lobe involved in conscious perception? *Front Psychol* 5, 1063. <https://doi.org/10.3389/fpsyg.2014.01063> [Impact Factor 3.8]
35. **Panagiotaropoulos TI***, Kapoor V, Logothetis NK. (2014) Subjective visual perception: From local processing to emergent phenomena of brain activity. *Phil Trans R Soc Lond B Biol Sci* 369(1641):20130534. <https://doi.org/10.1098/rstb.2013.0534> [Impact Factor 6.3]
36. Maier A, **Panagiotaropoulos TI**, Tsuchiya N, Keliris GA. (2012) Introduction to research topic - binocular rivalry: a gateway to studying consciousness. *Front Hum Neurosci* 6, 263. <https://doi.org/10.3389/fnhum.2012.00263> [Impact Factor 2.9]
37. Stamatakis A, Diamantopoulou A, **Panagiotaropoulos T**, Raftogianni A, Stylianopoulou F. (2013) Effects of an early experience involving training in a T-maze under either denial or receipt of expected reward through maternal contact. *Front Endocrinol* 4, 178. <https://doi.org/10.3389/fendo.2013.00178> [Impact Factor 5.2]

Book Chapters

1. **Panagiotaropoulos TI***, Logothetis NK. (2013) Multistable visual perception as a gateway to the neural correlates of phenomenal consciousness. The scope and limits of neuroscientific analysis. In *The Handbook of Experimental Phenomenology*, Ed. L. Albertazzi. <https://psycnet.apa.org/doi/10.1002/9781118329016.ch4>

Conference Proceedings

1. Safavi S, **Panagiotaropoulos F**, Kapoor V, Ramirez-Villegas JF, Logothetis NK, Besserve M. Uncovering the organization of neural circuits with generalized phase locking analysis. CoSyNe 2020.
2. Besserve M, Safavi S, Kapoor V, **Panagiotaropoulos F**, Logothetis NK. Generalized phase locking analysis of electrophysiology data. CoSyNe 2019.

Manuscripts under review/in preparation

1. Rey HG, **Panagiotaropoulos TI**, Gutierrez L, Chaure F, Nasimbera F, Cordisco S, Nishida F, Valentin A, Alarcon G, Richardson M, Kochen S, Quian Quiroga R. (under review in Cell). Lack of context modulation in human single neuron hippocampal response.
2. **Panagiotaropoulos TI***. Cortical bistability and consciousness (invited review article in The Neuroscientist).

3. Gibbons M, McBride E, Raghuram H, Kuyat J, Gale S, LaFehr V, Vogler N, Ravandi MK, Tsai M-J, Khalili-Ardali M, Bennet C, Sridhar A, Hardcastle B, Cabasco H, Koch C, Naccache L, Tononi G, Geffen M, Olsen S, **Panagiotaropoulos TI***, Saalman Y. (under review in Nature Neuroscience). Testing Global Neuronal Workspace and Integrated Information theories of consciousness in Non-Human Primates and Mice.
4. Dwarakanath A, Khalili-Ardali M, Gay M, Roustan M, Dehaene S, Jarraya B, **Panagiotaropoulos TI***. Mesoscale cortical signal propagation during wakefulness and anesthesia in the non-human primate brain.
5. Khalili-Ardali M, Roustan M, Dehaene S, Jarraya B, **Panagiotaropoulos TI***. High density laminar recordings during light and deep sevoflurane anesthesia in the frontoparietal cortex of macaque monkeys.
(* corresponding/lead author; † co-first author)

RESEARCH GRANTS - FELLOWSHIPS

- 2022-2026** **A Systematic Exploration of the Multi-Scale Brain Processes Underlying Conscious Perception; Templeton World Charity Foundation**
<https://www.templetonworldcharity.org/projects-database/systematic-explorationmulti-scale-brain-processes-underlying-conscious>.
 (Principal investigator, budget \$702,420).
- 2021-2026** **Testing Global Neuronal Workspace and Integrated Information Theories of Consciousness in Animal Models; Templeton World Charity Foundation**
<https://www.templetonworldcharity.org/projects-database/testing-global-neuronalworkspace-and-integrated-information-theories>.
 (Co-Principal Investigator; budget \$3,499,941).
- 2020-2023** **BRICON (Brain Inspired Consciousness); Human Brain Project**
<https://www.humanbrainproject.eu/en/science-development/focus-areas/consciousness-and-cognition/>
 (Task leader; budget €800,000).
- 2020-2022** **Proof-of-concept grant for developing Neuropixel recordings in the macaque brain; Templeton World Charity Foundation**
<https://www.templetonworldcharity.org/projects-database/pilot-study-testing-global-neuronal-workspace-gnw-and-integrated-information-iit>
 (co-Principal investigator, budget \$230,000).
- 2006 – 2015** **Max Planck Society Research Fellowship**
2006 **German Academic Exchange Service (DAAD) Research Grant:**
 Enhancement of plasticity of primary visual cortex following retinal lesions (Principal Investigator, budget €3,000)
- 2002-2005** **National Kapodistrian University of Athens: PhD Research Fellowship “Iraklitos”**
 The effect of frustration of maternal contact on cognitive functions: Psychobiological mechanisms (budget €30,000)

INVITED TALKS

- 2024 April** **Advancing knowledge through open science adversarial collaboration (symposium)**
 Cognitive Neuroscience Society Meeting, Toronto, Canada
<https://www.cogneurosociety.org/invited-symposia/>
- 2024 January** **The role of prefrontal cortex in consciousness (research seminar)**
 Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore
- 2023 June** **Next Frontiers in Consciousness Research**
 National Institute of Health, Bethesda, USA.
<https://sites.google.com/view/consciousness2023/home>
- 2023 June** **Consciousness, Anesthesia and Evolutionary Biology**
 (Gordon Research Conference); Boston, USA; *Keynote lecture*.
<https://www.grc.org/consciousness-anesthesia-and-evolutionary-biology-conference/2023/>
- 2022 April** **Challenges for the metacognitive foundations of consciousness (symposium)**
 Cognitive Neuroscience Society meeting, San Francisco.
- 2022 April** **From Cortical Microcircuits to Consciousness (symposium)**
 European Institute for Theoretical Neuroscience, Paris.

<https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-training/corticon/>

- 2021 September** **Mediterranean Seminar for Consciousness**
Corsica, France
https://www.mesec.co/event/seminar_2021
- 2021 March** **Multisite recordings and distributed representations in the macaque brain (workshop)**
European Institute for Theoretical Neuroscience.
- 2021 February** **University of Wisconsin-Madison, Department of Psychology**
<https://psych.wisc.edu/research/biology-of-brain-and-behavior/bbb-seminar-series/>
- 2019 October** **Biomedical Research Foundation Academy of Athens**
Athens, Greece.
- 2019 October** **Accelerating Research on Consciousness**
(kick off meeting of Templeton foundation collaborative grant on consciousness),
Chicago, USA.
- 2019 October** **Allen Institute for Brain Science**
Seattle, USA.
- 2019 May** **Prefrontal cortex in visual perception and recognition (symposium)**
Vision Sciences Society Meeting, Florida, USA.
<https://www.visionosciences.org/2019-122-symposia/>
- 2018 November** **Baylor College of Medicine**
Houston, USA.
- 2018 May** **Centre de Neurophysique, Physiologie et Pathologie**
Universite Paris Descartes, Paris, France.
- 2014 June** **Oxford Cortex Symposium**
Oxford University, Oxford, UK.
- 2014 April** **Newcastle University, Institute of Neuroscience**
Newcastle, U.K.
- 2013 November** **California Institute of Technology, Computation Neural Systems Seminar**
Pasadena, U.S.A.
- 2013 January** **University of Sussex, Sussex Neuroscience Seminars**
Sussex, U.K.
<https://www.sussex.ac.uk/broadcast/read/17580>
- 2012 December** **University of Tübingen,**
Tübingen, Germany.
- 2012 October** **Society for Neuroscience Meeting,**
New Orleans, U.S.A.
<https://www.abstractsonline.com/Plan/SSResults.aspx>
- 2012 January** **Universitat Pompeu Fabra, Barcelona, Spain.**
- 2008 September** **Universitat Pompeu Fabra, Barcelona, Spain.**

SCIENTIFIC EVALUATION

I have been an ad hoc reviewer and/or guest editor for the following scientific journals:

Trends in Cognitive Sciences, Neuron, Nature Neuroscience, Nature Mental Health, Current Biology, PLOS Biology, PNAS, eLife, Journal of Neuroscience, Philosophical Transactions of the Royal Society B: Biological Sciences, PLOS Computational Biology, Neuroscience of Consciousness, Annals of Biomedical Engineering, Frontiers in Neural Circuits, Frontiers in Human Neuroscience, Frontiers in Physiology, Frontiers in Psychology.

I have been an evaluator of research proposals for the following research organizations:

Max Planck Minerva Stiftung, German National Academy of Sciences, BBSRC, NWO (Dutch Research Council), ISF (Israel Science Foundation).

TEACHING EXPERIENCE

Teaching experience in graduate and advanced schools

- 2024** **Invited lecture “Neuronal Mechanisms of Consciousness.”**
Cognitive Science Master Programme (CogMaster)
University Paris-Saclay
- 2023** **Invited lecture “Neuronal Mechanisms of Consciousness.”**
National Kapodistrian University of Athens, Athens, Greece
for the Graduate Program in Cognitive Science
- 2022** **Faculty member - “Neuronal Mechanisms of Consciousness”**
Advanced Course on Consciousness,
Neuroscience School of Advanced Studies (NSAS), Venice, Italy
- 2021** **Teaching assistant**
First Annual Summer School on Consciousness and Metacognition,
University College London – Paris Sciences et Lettres University
- 2002-2005** **Lectures on “Neuronal Mechanisms of Learning and Memory”**
National Kapodistrian University of Athens, Athens, Greece
Graduate Program in Cognitive Science

Supervision of PhD theses

- 2021** (thesis defense) **Brain as a Complex System, harnessing systems neuroscience tools & notions for an empirical approach; Shervin Safavi**
PhD Thesis Graduate Training Center for Neuroscience; University of Tübingen, International Max Planck Research School, Germany
- 2019** **The neural correlates of conscious visual perception in the frontal cortex of non-human primates; Abhilash Dwarakanath**
PhD Thesis Graduate Training Center for Neuroscience; University of Tübingen, International Max Planck Research School, Germany
- 2016** **Neurophysiological investigation of the lateral prefrontal cortex during the task of binocular flash suppression; Vishal Kapoor**
PhD Thesis Graduate Training Center for Neuroscience; University of Tübingen, International Max Planck Research School, Germany

Supervision of Master diplomas

- 2020-2021** **Cortical communication in different states of consciousness; Maria Alfaro**
Master (M2) in Computational Neuroscience and Neuroengineering, Université Paris-Saclay, Paris, France
- 2019-2020** **Association between ventrolateral prefrontal cortex activity and pupil size using local-global paradigm in monkeys; Kevin Aubrain**
M2 in Cognitive Science, Université Paris-Saclay
- 2011-2012** **Coupling between spiking activity and spatiotemporal LFP patterns in the inferior convexity of the macaque prefrontal cortex; Shervin Safavi**
Graduate School in Neural Information Processing, University of Tübingen, Germany.

2010-2011

An information-theoretic analysis of local field potentials and spiking activity in the inferior convexity of the macaque prefrontal cortex during anesthesia; Britni Crocker
Graduate School of Neural & Behavioral Sciences, University of Tübingen, Germany.

Mentoring

2020-2021

Human Brain Project, High Potential Mentoring Program

SCIENTIFIC ASSOCIATIONS – COLLABORATIONS

Scientific Associations

I am a member of the Association for the Scientific Study of Consciousness (ASSC), European (FENS) and Hellenic Society for Neuroscience (HSN), Biosimia-GDR network for primate research.

Collaborations

I am one of the four principal investigators of the research program Accelerating Research on Consciousness - testing theories of consciousness in animal models funded by the Templeton World Charity foundation. Partners: Prof. C. Koch (Allen Institute), Prof. Lionel Naccache (Sorbonne University), Prof. Giulio Tononi (UW-Madison), Prof. Yuri Saalman (UW-Madison), Prof. Shawn Olsen (Allen Institute), Prof. Maria Geffen (University of Pennsylvania).

I collaborate with [Dr. Liping Wang](#) (Institute of Neuroscience, Chinese Academy of Sciences, Shanghai, China) for two photon calcium imaging investigations of conscious content representations in the frontoparietal cortex of the macaque monkey.

I was the coordinator of the [BRICON](#) (Brain Inspired Consciousness) project funded by the Human Brain Project (HBP). I am a collaborator for [COGITATE](#) (a consortium of adversarial theories for examining theories of consciousness in humans using the framework of adversarial collaboration).

ORGANIZATION OF SYMPOSIA IN CONFERENCES

2025

Scientific Program Committee member in the Association for the Scientific Study of Consciousness conference (Crete 2025)

2023

I organized the symposium Empirical and philosophical challenges for current theories of consciousness at the 6th Panhellenic Conference on Cognitive Science

2012

I co-organized with K. Takahashi (University of Chicago, USA), T.Zanos (McGill University, Canada), M. Besserve (Max Planck Institute for Biological Cybernetics, Germany) and chaired a Nanosymposium on electrophysiological signal transduction in cortex at the Society for Neuroscience conference, New Orleans, USA 2012.

AWARDS

2009

FENS travel award (for participation in 2009 SfN meeting).

2003

1st International Congress on Brain and Behavior: "Aristotle" award for the best submitted paper.

- 2003** The Vivian Smith Advanced Studies Institute of the International Neuropsychological Society. Travel Award for participation in the Summer Institute: Memory and the Amnesias. Xylokastro, Greece.
- 2002** Greek State Scholarships Foundations, PhD Fellowship in Neuroscience following nationwide competition (declined).
- 2002** ESF-EURESCO Travel grant for participation in the European Research Conference on Neural Mechanisms of Learning and Memory, Evian, France.
- 2002** EUROSTERONE Travel grant for participation in the Summer School: Neurobiology of Stress in Health and Disease, Elba, Italy.
- 2001** 1st Congress of the Hellenic Association of Psychophysiology Thessaloniki, Greece: "Vergina" award for the best submitted paper.