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**BIOGRAPHICAL SKETCH****Vasiliki Kyrargyri, PhD**

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<b>NAME</b> <b>Vasiliki Kyrargyri, Ph.D.</b>	<b>POSITION TITLE</b> Researcher C Grade (Assistant Researcher)
<b>E-mail:</b> <a href="mailto:v.kyrargyri@pasteur.gr">v.kyrargyri@pasteur.gr</a> <b>Personal Site:</b> <a href="https://github.com/vkyrargyri">vkyrargyri.github.io</a>	Department of Immunology Hellenic Pasteur Institute, Athens, Greece

**Pasteur Site:** <https://www.pasteur.gr/en/vasiliki-kyrargyri-group>  
**Linked in:** <https://www.linkedin.com/in/vasiliki-kyrargyri-797b7258/>  
**ORCID number:** 0000-0001-7193-6971

<b>INSTITUTION AND LOCATION</b>	<b>DEGREE</b>	<b>YEAR</b>	<b>FIELD OF STUDY</b>
National and Kapodistrian University of Athens, Greece	<b>BSc</b>	2008	Biology
Medical School, National and Kapodistrian University of Athens, Greece	<b>PhD</b>	2015	Neuroimmunology
University Pablo de Olavide (UPO), Seville, Spain, Department of Neurosciences	<b>Part of PhD</b>	2013-2014	Neurosciences
University College London (UCL), Department of Neuroscience, Physiology & Pharmacology, London, United Kingdom	<b>Post-doctoral training</b>	2015-2018	Neurosciences

**A. Personal Statement**

I study the functions of the CNS in normal and pathological conditions, mainly in the context of neuroimmunology and neurological diseases. Using experimental models, transgenic animals, confocal and two-photon microscopy, molecular and immunological techniques, bioinformatics and behavioral tests, I study cell-specific functions of the CNS, with particular emphasis in microglia, to identify molecular mechanisms and specialized molecular targets with clinical relevance and/or therapeutic potential against neurodegenerative, such as multiple sclerosis, and other neurological disorders. In March 2023 I started my career as independent researcher at the Hellenic Pasteur Institute. My plan is to continue studying microglia in the context of disease, with infectious diseases and neurodevelopmental psychiatric disorders being my most important targets for future investigation.

**B. Positions and Honors****Positions and Scientific Appointments**

2023 – Present	Researcher C Grade, Hellenic Pasteur Institute, Athens, Greece
2021 – 2023	Postdoctoral Research Associate, Hellenic Pasteur Institute, Athens, Greece.
2018 – 2021	H.F.R.I Postdoctoral Fellow, Hellenic Pasteur Institute, Athens, Greece.
2015 – 2018	Postdoctoral Research Associate, University College London, United Kingdom.
2014 – 2015	Postdoctoral Research Associate, Hellenic Pasteur Institute, Athens, Greece.
2013 – 2014	Visiting Scientist, University Pablo de Olavide (UPO), Seville, Spain.
2010	Visiting Scientist, University College London, United Kingdom.
2009	Visiting Scientist, Egas Moniz research centre, Lisbon, Portugal.
2008 - 2009	Graduate Internship, Hellenic Pasteur Institute.

**Honors**

2022	Awarded (first rank) with a postdoctoral scholarship and a research fund (5.000 euro annual) by Nostos Foundation to perform independent research at the Hellenic Pasteur Institute.
2018 – 2021	Awarded with a research fund (180.000 euro) by the Hellenic Foundation for Research and Innovation (H.F.R.I.) to run a 3-year postdoctoral research project (Act 1156) as principal investigator.
2014	Travel award to attend the 12 <sup>th</sup> International Society for Neuroimmunology Congress in Mainz, Germany.

- 2014 Travel award to attend the Brain Conference 'Controlling Neurons, Circuits and Behaviour' in Denmark.
- 2013 – 2014 One-year scholarship for a research visit at the Department of Neurosciences (Head Prof. Jose Maria Delgado), Pablo de Olavide University, Spain, awarded by Theodorou Theochari Kotsika Foundation.
- 2008 – 2011 Three-year scholarship for PhD in Laboratory of Molecular Genetics at Hellenic Pasteur Institute, awarded by the Hellenic Pasteur Institute.
- 2011 European Union scholarship (COST-STSM-BM0603-NEURINFNET) for a 3-month research visit at the department of Neuroscience, Physiology and Pharmacology (Head Prof. David Attwell), University College London, United Kingdom.
- 2009 European Union scholarship (COST-STSM-B30-04392-NEREPLAS) for a 3-month research visit at the department of Medicine (Head Prof. Ana Maria Sebastiao), Egas Moniz research center, Lisbon, Portugal.

## C. Contributions to Science

### Peer-Reviewed Publications since 2018

#### 2024

Avloniti M., Evangelidou M., Gomini M., Loupis T., Emmanouil M., Mitropoulou A., Tselios T., Lassmann H., Gruart A., Delgado JM., Probert L. & **Kyrargyri V.** IKK $\beta$  deletion from CNS macrophages increases neuronal excitability and accelerates the onset of EAE, while from peripheral macrophages reduces disease severity, *Journal of Neuroinflammation* (2024). DOI: [10.1186/s12974-024-03023-9](https://doi.org/10.1186/s12974-024-03023-9)

#### 2021

Roufagalas I, Avloniti M, Fortosi A, Xingi E, Thomaidou D, Probert L, **Kyrargyri V.** Novel cell-based analysis reveals region-dependent changes in microglial dynamics in grey matter in a cuprizone model of demyelination. *Neurobiol Dis.* 2021 Sep;157:105449. DOI: 10.1016/j.nbd.2021.105449.

#### 2020

**Kyrargyri V,** Madry C, Rifat A, Arancibia-Carcamo IL, Jones SP, Chan VTT, Xu Y, Robaye B, Attwell D. P2Y<sub>13</sub> receptors regulate microglial morphology, surveillance, and resting levels of interleukin 1 $\beta$  release. *Glia*, 68(2):328-344 <https://doi.org/10.1002/glia.23719>

#### 2019

**Kyrargyri V,** Attwell D, Jolivet RB, Madry C. Analysis of Signaling Mechanisms Regulating Microglial Process Movement. *Methods Mol Biol*, 2034:191-205. [https://doi.org/10.1007/978-1-4939-9658-2\\_14](https://doi.org/10.1007/978-1-4939-9658-2_14)

Nortley R, Korte N, Izquierdo P, Hirunpattarasilp C, Mishra A, Jaunmuktane Z, **Kyrargyri V,** Pfeiffer T, Khennouf L, Madry C, Gong H, Richard-Loendt A, Huang W, Saito T, Saido TC, Brandner S, Sethi H, Attwell D. Amyloid  $\beta$  oligomers constrict human capillaries in Alzheimer's disease via signalling to pericytes. *Science*, 19;365(6450). <https://doi.org/10.1126/science.aav9518>

#### 2018

Papazian I., **Kyrargyri V.**, Evangelidou M., Probert L. Mesenchymal stem cell protection of neurons against glutamate excitotoxicity involves reduction of NMDA-triggered calcium responses and surface GluR1, and is partly mediated by TNF. *Int J Mol Sci.*, 25;19(3). <https://doi.org/10.3390/ijms19030651>

Madry C, Arancibia-Carcamo IL\*, **Kyrargyri V\***, Chan VTT, Hamilton NB, Attwell D. Effects of the ecto ATPase apyrase on microglial ramification and surveillance reflect cell depolarization, not ATP depletion. *PNAS*, 13:115(7)E1608-E1617. <https://doi.org/10.1073/pnas.1715354115>

\* Equal contribution as 1<sup>st</sup> author

Madry C\*, **Kyrargyri V\***, Arancibia-Carcamo IL, Jolivet R, Kohsaka S, Bryan RM, Attwell D. Microglial Ramification, Surveillance, and interleukin-1 $\beta$  release are regulated by the two pore domain K<sup>+</sup> channel THIK-1. *Neuron*. Jan17;97(2):299-312. <https://doi.org/10.1016/j.neuron.2017.12.002>

\* Equal contribution as 2<sup>nd</sup> author

### Invited Presentations

- 2023 Talk on microglial dynamics in multiple sclerosis animal models. Hellenic Academy of Neuroimmunology. Thessaloniki. December 2023.
- 2023 Talk on CNS microglia in neuroinflammatory and demyelinating diseases. Hellenic Society for Neurosciences. Athens. November 2023.
- 2023 Lecture on microglia in health and disease. International Master of Neurosciences. National & Kapodistrian University of Athens. October 2023.
- 2021 Talk on imaging applications in neurodegenerative disease. Preclinical Models Imaging Workshop (PMIW). October 2021.

### D. Research Support

- **Hellenic Pasteur Institute (2022-2023)**: Scholarship and research fund for postdoctoral research at the laboratory of Molecular Genetics, a project entitled 'protective roles of microglia and their dynamics in neuroinflammation'.
- **Hellenic Foundation for Research & Innovation (H.F.R.I.) (2018-2021): (2022-2023)**: research fund (180.000 euro) to run a postdoctoral research project, entitled 'microglia-driven pathology and altered surveillance in demyelination', as independent principal investigator.
- **Theodorou-Theochari Kotsika Foundation (2013-2014)**: Support for a research visit at a European University of choice (Spain) to conduct part of my PhD.