

04.2021 – Επίκουρος Καθηγητής – Επικεφαλής Ερευνητικής Μονάδας Νευρογενετικής και Γήρανσης, Εργαστήριο Πειραματικής Φυσιολογίας «Φυσιολογείον», Ιατρική Σχολή, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών (ΕΚΠΑ)

Ερευνητική Δραστηριότητα/Προϋπηρεσία

09.2020 – 03.2021 Μεταδιδακτορικός Ερευνητής στο Department of Cellular and Molecular Medicine, University of Copenhagen, Denmark (Επικεφαλής: Καθ. Vilhelm Bohr)

07.2019 – 09.2020 Συνεργαζόμενος Ερευνητής (Ελληνικό Ίδρυμα Έρευνας και Καινοτομίας) στο Ινστιτούτο Μοριακής Βιολογίας και Βιοτεχνολογίας (IMBB) – Ίδρυμα Τεχνολογίας και Έρευνας (ΙΤΕ), Ηράκλειο, Κρήτη, Ελλάδα
Ερευνητική Ομάδα MiNoAN: Mitophagy in neuronal physiology and neurodegeneration – Ελληνικό Ίδρυμα Έρευνας και Καινοτομίας (ΕΛΙΔΕΚ)

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- Aman Y., Schmauck-Medina T., Hansen M., Morimoto RI., Simon AK., Bjedov I., **Palikaras K.**, Simonsen A., Johansen T., Tavernarakis N., Rubinsztein DC., Patridge L., Kroemer G., Labbadia J. and Fang EF. Autophagy in healthy aging and disease. **Nature Aging**, 2021; doi: [10.1038/s43587-021-00098-4](https://doi.org/10.1038/s43587-021-00098-4)
- Palikaras K.***, Achanta K., Choi S., Akbari M.* and Bohr VA.* Alteration of mitochondrial homeostasis is an early event in a *C. elegans* model of human tauopathy. **Aging (Albany NY)**, 2021 ***corresponding authors**; doi: [10.18632/aging.203683](https://doi.org/10.18632/aging.203683)
- SenGupta T.*, **Palikaras K.***, Esbensen Y.Q., Konstantinidis G., Galindo FJN., Achanta K., Kassahun H., Stavgiannoudaki I., Bohr VA., Akbar M., Gaare J., Tzoulis C., Tavernarakis N. and Nilsen H. Base excision repair causes age-dependent accumulation of single-stranded DNA breaks that contribute to Parkinson disease pathology. **Cell Reports**, 2021 ***equal contribution**; doi: [10.1016/j.celrep.2021.109668](https://doi.org/10.1016/j.celrep.2021.109668)
- Zaninello M.*, **Palikaras K.***, Sotiriou A., Tavernarakis N. and Scorrano L. Sustained intracellular calcium rise mediates neuronal mitophagy in models of autosomal dominant optic atrophy. **Cell Death and Differentiation**, 2021 ***equal contribution**; doi: [10.1038/s41418-021-00847-3](https://doi.org/10.1038/s41418-021-00847-3)
- Palikaras K.***, Mari M., Ploumi C., Princz A., Filippidis G. and Tavernarakis* N. Age-dependent nuclear lipid droplet deposition is a cellular hallmark of aging in *Caenorhabditis elegans*. **Aging Cell**, 2023 ***corresponding authors**; doi: [10.1111/ace1.13788](https://doi.org/10.1111/ace1.13788)
- Tiwari V., Buvarp E., Borbolis F., Puligilla C., Croteau DL., **Palikaras K.*** and Bohr VA.* Loss of DNA glycosylases improves health and cognitive function in a *C. elegans* model of human tauopathy. **Nucleic Acid Research**, 2024 ***corresponding authors**; doi: [10.1093/nar/gkae705](https://doi.org/10.1093/nar/gkae705)
- Roussos A., Kitopoulou K., Borbolis F., Ploumi C., Gianniou DD., Li Z., He H., Taskiri E., Borland H., Kostakis I., Samiotaki M., Trougakos IP., Bohr VA. and Palikaras K.* Urolithin A-modulates inter-organellar communication via calcium-dependent mitophagy to promote healthy ageing. **Autophagy**, 2025 ***corresponding authors**; doi: 10.1080/15548627.2025.2561073
- Tsakiri E., Campos-Marques C., Ferreira IF., Dioli C., Samiotaki M., Vamvaka Iakovou A., Skourti K., Waites C., Sousa N., Silva JM., Rego C., Sotiropoulos I.* **and Palikaras K.*** Tau protein as a regulator of mitochondrial function and dynamics. ***corresponding authors** (accepted *PNAS*).

Research and methods publications:

1. Morselli E., Maiuri M. C., Markaki M., Megalou E., Pasparaki A., **Palikaras K.**, Galluzzi L., Criollo A., Malik S. A., Madeo F., Tavernarakis N. and Kroemer G. Caloric restriction and resveratrol prolong longevity via the sirtuin-1 mediated induction of autophagy. **Cell Death and Disease**, 2010; doi: [10.1038/cddis.2009.8](https://doi.org/10.1038/cddis.2009.8)
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9. **Palikaras K.**, Mari M., Petanidou B., Pasparaki A., Filipidis G. and Tavernarakis N. Ectopic fat deposition contributes to age-associated pathology in *Caenorhabditis elegans*. **Journal of Lipid Research**, 2017; doi: [10.1194/jlr.M069385](https://doi.org/10.1194/jlr.M069385)
10. **Palikaras K.** and Tavernarakis N. In vivo mitophagy monitoring in *Caenorhabditis elegans* to determine mitochondrial homeostasis. **Bio-protocol**, 2017; doi: [10.21769/BioProtoc.2215](https://doi.org/10.21769/BioProtoc.2215)
11. Fang EF., **Palikaras K.**, Sun N., Fivenson EM., Spangler RD., Kerr JS., Cordonnier SA., Hou Y., Dombi E., Kassahun H., Tavernarakis N., Poulton J., Nilsen H., Bohr VA. In vitro and in vivo detection of mitophagy in human cells, *C. elegans* and mice. **Journal of Visualized Experiments**, 2017; doi: [10.3791/56301](https://doi.org/10.3791/56301)
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27. Tiwari V., Buvarp E., Borbolis F., Puligilla C., Croteau DL., Palikaras K.* and Bohr VA.* Loss of DNA glycosylases improves health and cognitive function in a *C. elegans* model of human tauopathy. **Nucleic Acid Research**, 2024 *corresponding authors; doi: [10.1093/nar/gkae705](https://doi.org/10.1093/nar/gkae705)
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29. Mytilinaiou E, Kitopoulou K, Palikaras K. *Caenorhabditis elegans* as a Screening Platform for Anti-aging Compounds. **Methods Mol Biol** (Clifton, N.J.) 2025 *corresponding author; doi: 10.1007/978-1-0716-4426-3_18
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Reviews:

31. Morselli E., Maiuri M. C., Markaki M., Megalou E., Pasparaki A., Palikaras K., Criollo A., Galluzzi L., Malik S. A., Vitale I., Michaud M., Madeo F., Tavernarakis N. and Kroemer G. The life span-prolonging effect of sirtuin-1 is mediated by autophagy. **Autophagy**, 2010; doi: [10.4161/autophagy.6.1.10817](https://doi.org/10.4161/autophagy.6.1.10817)
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45. Palikaras K. and Tavernarakis N. Regulation and roles of mitophagy at synapses. **Mechanisms of Ageing and Development**, 2020; doi: [0.1016/j.mad.2020.111216](https://doi.org/10.1016/j.mad.2020.111216)
46. Doxaki C and Palikaras K.* Neuronal Mitophagy: Friend or Foe? **Frontiers in Developmental and Cell Biology**, 2021 *corresponding author; doi: [10.3389/fcell.2020.611938](https://doi.org/10.3389/fcell.2020.611938)

47. Doxaki C., Papadopoulou E., Maniadaki I., Tsakalis N., **Palikaras K.** and Vorgia P. Intracranial hypertension secondary to Guillain-Barre Syndrome: A Case Report and Literature Review. **Frontiers in Pediatrics**, 2021; doi: [10.3389/fped.2020.608695](https://doi.org/10.3389/fped.2020.608695)
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50. Borbolis F. and **Palikaras K.*** The compartmentalized nature of neuronal mitophagy: molecular insights and implications. **Expert Reviews in Molecular Medicine**, 2022 *corresponding author; doi: [10.1017/erm.2022.31](https://doi.org/10.1017/erm.2022.31)
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53. Chatzinikita E., Maridaki M., **Palikaras K.**, Koutsilieris M., Philippou A. The role of mitophagy in skeletal muscle damage and regeneration. **Cells**, 2023; doi:10.3390/cells12050716
54. Roussos A., Kitopoulou K., Borbolis F., **Palikaras K.*** Caenorhabditis elegans as a Model System to study human neurodegenerative disorders. **Biomolecules**, 2023 *corresponding author; doi: [10.3390/biom13030478](https://doi.org/10.3390/biom13030478)
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64. He H, Ai R, Fang EF, **Palikaras K.** The Rab3 family proteins in age-related neurodegeneration: unraveling molecular pathways and potential therapeutic targets. **NPJ Aging** 2025 *corresponding author; doi: 10.1038/s41514-025-00257-6

Book chapters

1. **Palikaras K.** and Tavernarakis N. (2012) Multiphoton fluorescence light microscopy. In **eLS: Citable reviews in the life sciences** (Jose M. Valpuesta, editor), Wiley-Blackwell, London, UK.
2. **Palikaras K.** and Tavernarakis N. (2013) *Caenorhabditis elegans* (Nematode). In **Brenner's Encyclopedia of Genetics** (2nd edition; Stanley Maloy and Kelly Hughes, editors), Academic Press, San Diego, USA.
3. Mari M., Petanidou B., **Palikaras K.**, Fotakis C., Tavernarakis N., and Filippidis G. (2015) Non-linear imaging techniques visualize the lipid profile of *C. elegans*. In **Advanced Microscopy Techniques IV; and Neurophotonics II** (Emmanuel Beaurepaire, Peter T. C. So, Francesco Pavone, and Elizabeth M. Hillman, editors), SPIE Press, Bellingham, USA.
4. **Palikaras K.** and Tavernarakis N. (2015) Multiphoton fluorescence light microscopy. In **eLS: Citable reviews in the life sciences** (Jose M. Valpuesta, editor), Wiley-Blackwell, London, UK.
5. **Palikaras K.**, Princz A. and Tavernarakis N. (2018) Mitophagy modulators. **Encyclopedia of Biomedical Gerontology** (Suresh Rattan, editor), Elsevier Inc., San Diego, USA

6. **Palikaras K.** and Tavernarakis N. (2020) Mitophagy **Encyclopedia of Molecular Pharmacology** (Stefan Offermanns, Walter Rosenthal, editors), Springer Major Reference Works, Heidelberg, Germany

ΠΡΟΣΚΛΗΣΕΙΣ ΓΙΑ ΟΜΙΛΙΕΣ / ΔΙΑΛΕΞΕΙΣ

- 2026 Title: Mitophagy as a gatekeeper of inter-organellar communication, Neuronal autophagy: from circuit function to therapy, EMBO Workshop Girona, Spain
- 2026 Title: Targeting mitophagy to promote neuronal physiology and tackle neurodegeneration, Mechanisms of Disease and Drug Discovery (MODDD), University of Hertfordshire, UK
- 2025 Title: Physiology of ageing: cellular and molecular mechanisms, 18th Hellenic conference of Nutrition and dietetics, Athens, Greece
- 2025 Title: Mitophagy sustains inter-organellar communication to promote healthspan and lifespan, 75th National Conference of the Hellenic Society of Biochemistry and Molecular Biology, Athens, Greece
- 2025 Title: Mitophagy and calcium signaling coordinate inter-organellar communication to promote lifespan. The NYO3 10th NO-Age/AD meeting and the 3rd Norwegian – UK meeting on ageing and dementia – a focus on autophagy, Oslo, Norway
- 2025 Title: Novel bacteria-derived compounds to tackle neurodegeneration: Lessons from the nematode *Caenorhabditis elegans*, 11th Beneficial Microbes, Amsterdam, Netherlands
- 2025 Title: Mitophagy in age-related neurodegeneration, Mediterranean Neuroscience Society (MNS) Conference, Chania, Crete
- 2025 Title: Unravelling mitochondrial impairment in human tauopathy: lessons from the nematode *C. elegans*, Mediterranean Neuroscience Society (MNS) Conference, Chania, Crete
- 2024 Title: Mitophagy in neuronal physiology, Strengthening the Biomedical Research Community: science bridging boundaries, Madrid, Spain
- 2023: Title: The yin and yang role of mitophagy in neuronal physiology. 30th meeting Hellenic Society for Neuroscience, NCSR Demokritos, Athens, Greece
- 2023: Title: The yin and yang role of mitophagy in neuronal physiology. Joint meeting of the Hellenic Society of Physiology, the Academy of Athens, the American Physiological Society & Physiological Reviews, Academy of Athens, Athens, Greece
- 2023: Title: The yin and yang role of mitophagy in neuronal physiology. The NYO3 5th NO-Age/AD meeting and the 1st Norwegian – UK joint meeting on ageing and dementia, Oslo, Norway
- 2023: Title: Intracellular calcium mediates neuronal mitophagy upon stress. The 10th Annual Aging Research and Drug Discovery (ARDD), Copenhagen, Denmark
- 2022: Title: Mitophagy in neuronal development and protection. The Nordic Centre Biennial Meeting on Global ageing and related healthcare challenges, Oslo, Norway
- 2021: Title: Autophagy – Mitophagy in human health and disease. 3rd Immunology Workshop for clinicians, Heraklion, Crete, Greece
- 2019: Title: Investigating the role of mitophagy in neuronal homeostasis. National Institute of Aging (NIA), Baltimore, USA

ΜΕΛΟΣ ΣΕ ΕΠΙΣΤΗΜΟΝΙΚΟΥΣ ΟΡΓΑΝΙΣΜΟΥΣ

- 2022 – present: Member of Hellenic Initiative Against Alzheimer’s Disease (HIAAD)
- 2022 – present: Member of Hellenic Society for Neuroscience
- 2021 – present: Member of Hellenic Society of Physiology
- 2021 – present: GENiE – Group of *C. elegans* new investigators in Europe – COST Action BM1408
- 2019 – present: Member of Hellenic Society of Biochemistry and Molecular Biology
- 2013 - present: Member of Genetic Society of America (GSA)

ΔΙΟΙΚΗΤΙΚΕΣ-ΣΥΜΒΟΥΛΕΥΤΙΚΕΣ ΥΠΗΡΕΣΙΕΣ & ΚΑΘΗΚΟΝΤΑ ΑΞΙΟΛΟΓΗΤΗ

Ad hoc Reviewer/Referee duties for research journals: Aging, Aging Cell, Autophagy, Antioxidants, Biology Direct, BMC Genomics, Cell Reports, Cells, Current Neuropharmacology, Free Radical Biology and Medicine, Frontiers in Aging, Frontiers in Aging Neuroscience, Frontiers in Developmental & Cell Biology, Frontiers in Neuroscience, Frontiers in Pharmacology, Frontiers in Physiology, Metabolic Brain Disease, Molecular Neurobiology, Molecular Neurodegeneration, Molecules, Nature Aging, Nature Communications, Redox Biology, Scientific Reports

Ad hoc Reviewer/Referee duties for funding bodies: Agence Nationale de la Recherche (French National Research Agency; ANR), Austrian Science Fund (FWF), Special Account for Research Grants – University of Crete, DFG-Deutsche Forschungsgemeinschaft (DFG), Medical Research Council (MRC) UKRI, UK Space Agency, Czech Republic Science Foundation (GAČR), Ministry of Innovation, Science and Technology of Israel, National Science Centre Poland, Swiss

National Science Foundation (SNSF), HORIZON-MSCA Doctoral Networks (DNs) – Expert reviewer, Hellenic Foundation for Research and Innovation (HFRI).

Miscellaneous administrative service:

2020- present: Editor in *The Journals of Gerontology*, *Current Neuropharmacology* and *Molecules*; Review Editor in *Frontiers in Neuroscience*, *Frontiers in Molecular Biosciences*, *Frontiers in Aging*; Special Issue Guest Editor on *Mitophagy in health and disease*, *Frontiers in Cell and Developmental Biology*

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2020 – present Supervision of 9 undergraduate student internships, 11 graduate students (5 Master Student and 6 PhD candidates) and 6 postdoctoral researchers. Daily mentoring and project development. Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology Hellas (FORTH), Department of Cellular and Molecular Medicine, University of Copenhagen and Laboratory of Physiology, School of Medicine, National and Kapodistrian University of Athens

RESEARCH GRANTS

Title	Period	Funding source	Amount (Euro)
Nucleotide Excision Repair and mitochondrial homeostasis in age-related neurodegeneration	01/03/2026 – 31/3/2029	Hellenic Foundation for Research and Innovation	285.000
Deciphering the interplay between mitophagy, epigenetic regulation, and neurodegeneration in ageing	01/03/2026 – 31/03/2028	Marie-Sklodowska-Curie European Postdoctoral Fellowships	181.000
Decoding mitochondrial selective autophagy in synaptic homeostasis during ageing	01/01/2023 – 31/12/2027	ERC Starting Grant	1.500.000
Investigating the role of CHN-1/CHIP in the coordination of mtUPR and mitophagy during aging	01/08/2024 – 31/07/2026	IKYDA 2024 - Programme for the promotion of the exchange and scientific cooperation between Greece and Germany	11.085
Decoding the molecular mechanisms of mitophagy in synaptic homeostasis	01/01/2022 – 31/03/2024	Fondation Santé	50.000
Wet lab screening of drugs computationally identified by Healx to potentially interfere with Autosomal Dominant Optic Atrophy (ADOA)	01/01/2022 – 31/12/2023	Healx (https://healx.io)	200.000 (Coordinator: Prof. Luca Scorrano; Partner: Prof. Konstantinos Palikaras)
Support for new faculty members	01/06/2021 – 01/06/2022	National and Kapodistrian University of Athens	5.000

ΒΡΑΒΕΙΑ ΑΡΙΣΤΕΙΑΣ & ΥΠΟΤΡΟΦΙΕΣ

2025	Research Excellence Award in the National and Kapodistrian University of Athens (NKUA) for the academic year 2023-2024; https://hub.uoa.gr/teleti-aponomis-ton-etision-vraveion-kathigiton-kai-kathigitrion-tou-panepistimiou-athinon/
2024	Early-Stage Faculty Award International Union of Physiological Sciences (IUPS); https://www.iups.org/iups/awards/
2024	Young Academy of Europe Fellow; https://yacadeuro.org/palikaras/
2023	Cells 2023 Young Investigator Award; https://www.mdpi.com/journal/cells/awards/2187
2020	EMBO short-term Fellowship to visit the laboratory of Prof. Thorsten HOPPE Institute for genetics, CECAD Cluster of Excellence, Cologne, Germany
2020	FEBS short-term Fellowship to visit the laboratory of Prof. Thorsten HOPPE Institute for genetics, CECAD Cluster of Excellence, Cologne, Germany
2018	Hellenic Foundation for Research and Innovation (HFRI) Research Grant
2017	Poster prize awarded for outstanding poster presentation in EMBO Conference on Autophagy – From molecular principles to human diseases, Cavcat – Dubrovnik, Croatia
2016	AXA Research Fund Postdoctoral fellowship
2016	Bodossaki Foundation Postdoctoral fellowship

- 2016 **“FOTIS KAFATOS”** award for excellence, Hellenic Society of Bioscience
- 2015 DeLill Nasser Travel Award for Professional Development in Genetics, Genetic Society of America (GSA,USA)
- 2012 Manasaki Doctoral Fellowship, University of Crete, Greece
- 2009-2011 Scholarship from the Institute of Molecular Biology & Biotechnology, Crete, Greece
- 2005-2007 Scholarship from the National Fellowship Foundation of Greece