

## Nektarios Tavernarakis - Short Biography & CV

Nektarios Tavernarakis is Professor of Molecular Systems Biology at the *Medical School* of the *University of Crete*, in Heraklion, Greece, and Distinguished Member of the *Foundation for Research and Technology-Hellas (FORTH)*. He is also Research Director at the *Institute of Molecular Biology and Biotechnology (IMBB)* of *FORTH*, where he is heading the Neurogenetics and Ageing laboratory. He is serving as President of the *European Molecular Biology Conference (EMBC)*. He has served as President of the Board of Directors of *FORTH*, President of the *European Institute of Innovation and Technology (EIT)* Governing Board, Vice President of the *Scientific Council* of the *European Research Council (ERC)*, and Director of *IMBB*. He is also the Founder and first Director of the Graduate Program on BioInformatics at the University of Crete. He is a member of the *American Association for the Advancement of Science (AAAS)*, the *European Molecular Biology Organization (EMBO)*, the *German National Academy of Sciences (Leopoldina)*, the *European Academy of Sciences and Arts (EASA)*, *Academia Europaea*, the *European Academy of Sciences (EurASc)* and the *Academy of Athens*. He earned his Ph.D. degree at the University of Crete, and trained as a postdoctoral researcher at Rutgers University in New Jersey, USA. His work focuses on the molecular mechanisms of necrotic cell death and neurodegeneration, the interplay between cellular metabolism and ageing, the mechanisms of sensory transduction and integration by the nervous system, and the development of novel genetic tools for biomedical research. He has received several notable scientific prizes, including two *ERC Advanced Investigator Grants*, and an innovation-supporting *ERC Proof of Concept Grant*. He is the recipient of the *EMBO Young Investigator* award, the *Alexander von Humboldt Foundation*, *Friedrich Wilhelm Bessel* research award, and the *Helmholtz International Fellow Award*. He is also the recipient of the *Scientific Prize for Medicine and Biology*, and the *Excellence in Biomedical Sciences Award*, of the *Bodossaki Foundation*, which are two of the most competitive scientific distinctions for Greeks, in Greece and abroad. In addition, he has received the *BioMedical Research Award* of the *Academy of Athens*, the *Galien Scientific Research Award*, the *Empeirikeion Foundation Academic Excellence Prize*, the *FORTH Research Excellence* award, and the *International Human Frontier in Science Program Organization (HFSP)* long-term *Postdoctoral Fellowship*.

## Selected Publications

- Tavernarakis N. (2019) Ageing: Neural excitation moderates lifespan (Moderation of neural excitation promotes longevity). **Nature**, 574: 338-340.
- Palikaras K., Lionaki E. & Tavernarakis N. (2015) Coordination of mitophagy and mitochondrial biogenesis during ageing in *Caenorhabditis elegans*. **Nature**, 521: 525-528.
- Kourtis N., Nikolettou V. & Tavernarakis N. (2012) Small heat shock proteins protect from heat stroke-associated neurodegeneration. **Nature**, 490: 213-218.
- Artal-Sanz M. & Tavernarakis N. (2009) Prohibitin couples diapause signaling to mitochondrial energy metabolism during ageing in *Caenorhabditis elegans*. **Nature**, 461: 793-797.
- Syntichaki P., Troulinaki K. & Tavernarakis N. (2007) eIF4E function in somatic cells modulates ageing in *Caenorhabditis elegans*. **Nature**, 445: 922-926.
- Syntichaki P., Xu K., Driscoll M. & Tavernarakis N. (2002) Specific aspartyl and calpain proteases are required for neurodegeneration in *C. elegans*. **Nature**, 419: 939-944.

## PERSONAL INFORMATION

**Name:** Nektarios TAVERNARAKIS  
**Position:** Professor / Chair  
**Institution:** University of Crete & Foundation for Research and Technology-Hellas (FORTH)  
**Address:** N. Plastira 100, Heraklion 70013, Crete, Greece  
**Nationality:** Greek  
**Date/Place of birth:** May 2<sup>nd</sup>, 1967, Heraklion, Crete, Greece  
**Marital status:** Married, 2 daughters  
**eMail:** [tavernarakis@imbb.forth.gr](mailto:tavernarakis@imbb.forth.gr)  
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## EDUCATION

**B.Sc.** Aristotle University, Department of Biology, Thessaloniki, Greece, 20/7/1989 (Biology)  
**Ph.D.** University of Crete, Department of Biology, Heraklion, Greece, 18/5/1995 (Molecular Genetics)

## POSITIONS

### Current positions

2010 Professor, Medical School, University of Crete, Heraklion, Greece  
2008 Research Director, IMBB-FORTH, Heraklion, Greece

### Previous positions

2016-2025 Chair of the FORTH Board of Directors, Heraklion, Greece  
2016-2021 Director, BioInformatics Graduate Program, Medical School, University of Crete  
2013-2016 Director, IMBB-FORTH, Heraklion, Greece  
2004-2008 Associate Professor, IMBB-FORTH, Heraklion, Greece  
2001-2004 Assistant Professor, IMBB-FORTH, Heraklion, Greece  
1999-2001 Research Associate, Rutgers University, New Jersey, USA  
1995-1997 Postdoctoral Fellow, Rutgers University, New Jersey, USA  
1991 Visiting Scientist, National Cancer Institute, Maryland, USA

## SELECTED DISTINCTIONS & AWARDS

2026 Datta Lecture and Medal Award, Federation of European Biochemical Societies (FEBS) Congress, Maastricht, Netherlands  
2025 Elected Distinguished Member of the Foundation for Research and Technology-Hellas, Greece  
2024 Elected President of the European Molecular Biology Conference (EMBC)  
2024 Excellence in Biomedical Sciences Award, *Bodossaki Foundation*, Greece  
2023 Elected Member, *European Academy of Sciences* (Member of the Scientific Committee, Medicine and Life Sciences Division)  
2023 Elected Fellow of the *Royal Society of Biology* (RSB), London, UK  
2022 Elected Chair of the *European Institute of Innovation and Technology* (EIT) Governing Board  
2020 Elected Fellow of the *American Association for the Advancement of Science* (AAAS), USA  
2020 Elected Vice President, *Scientific Council of the European Research Council* (ERC)  
2020 Elected Member of the *European Institute of Innovation and Technology* (EIT) Governing Board  
2019 Elected Member, *German National Academy of Sciences (Leopoldina)*, Germany  
2019 Elected Corresponding Member of the *Academy of Athens*, Greece  
2018 Elected Member, *European Academy of Sciences and Arts*  
2017 Helmholtz International Fellow Award, Helmholtz Association, Germany  
2017 Galien Scientific Research Award, Athens, Prix Galien Greece  
2016 *European Research Council* (ERC) Proof of Concept Grant award

2016 Elected Member, *Scientific Council of the European Research Council* (ERC)  
 2016 *European Research Council* (ERC) Advanced Investigator Grant award  
 2014 BioMedical Research Excellence Award, *Academy of Athens*, Greece  
 2014 Elected Member, *Academia Europaea* (Section: Physiology & Medicine)  
 2012 Academic Excellence Prize, *Empeirikeion Foundation*, Greece  
 2012 Science Excellence (*Aristeia*) Award, Ministry of Education, Greece  
 2010 Elected Distinguished Professor, *Medical School*, University of Crete  
 2009 Elected Member, *European Molecular Biology Organization* (EMBO)  
 2009 *European Research Council* (ERC) Advanced Investigator Grant award  
 2007 Research Excellence award, *Foundation for Research and Technology-Hellas*, Greece  
 2007 Friedrich Wilhelm Bessel research award, *Alexander von Humboldt Foundation*, Germany  
 2005 Academic Prize in Medicine and Biology, *Bodossaki Foundation*, Greece  
 2002 *European Molecular Biology Organization* (EMBO) Young Investigator award  
 1996 Postdoctoral fellowship, *International Human Frontier in Science Program Organization* (HFSP)  
 1995 First-class Ph.D. Honours Prize, *University of Crete*, Greece  
 1989 Dean's List and First Rank Graduation Honours, *Aristotle University*, Thessaloniki, Greece

#### SELECTED EXECUTIVE EXPERIENCE

2025 Chair of the European Molecular Biology Conference (EMBC)  
 2022 Chair of the European Institute of Innovation and Technology (EIT) Governing Board  
 2022 National representative of Greece, European Molecular Biology Conference (EMBO/EMBC)  
 2022 National representative of Greece, Member of the European Molecular Biology Laboratory (EMBL) Council  
 2021 Chair of the European Scientific Council (ERC) Standing Committee for Programme Impact Monitoring and Evaluation  
 2020 Vice President, Scientific Council of the European Research Council (ERC)  
 2020 Member of the European Institute of Innovation and Technology (EIT) Governing Board  
 2020 Coordinator of the National Precision Medicine Network for Neurodegenerative Disorders  
 2018 Member of the Advisory Committee of the Hellenic Foundation for Research and Innovation  
 2018 Chair, General Assembly of the Presidents of Greek Research Institutions  
 2018 Coordinator of the Cretan Precision/Personalized Medicine Hub  
 2018 Chair of the National Life Sciences Council of Greece  
 2016 Member of the Scientific Committee of the Hellenic Foundation for Research and Innovation  
 2016 Chair, FORTH Board of Directors  
 2016 Member, Scientific Council of the European Research Council (ERC)  
 2016 Founder and Director of the Graduate Program on BioInformatics, University of Crete  
 2014 Chair, FORTH Ethics Committee  
 2013 Director, IMBB, FORTH  
 2013 Coordinator of the National BioImaging Research Infrastructure of Greece (BioImaging-GR)  
 2011 Member of the National Life Sciences Council of Greece  
 2011 National representative of Greece, European Commission FP7 Health programme  
 2009 Executive committee member, European Neuroscience Institutes Network (ENInet)  
 2008 Member of the Executive Board and Vice-President of FORTH's Researcher Association  
 2007 Elected member of the Scientific Council, IMBB-FORTH  
 2007 National coordinator, European Network of Neuroscience Institutes (ENInet)  
 2005 Assistant Coordinator of the European TransDeath EU consortium  
 2004 Coordinator of the European NemaGENETAG EU consortium

#### CONFERENCES CHAIRED/ORGANIZED

2025 EMBO Workshop: Cell Biology of the Nervous System: Cellular Mechanisms of Communication. Greece  
 2023 EMBO Workshop: Cell Biology of the Nervous System Resilience and Vulnerability. Greece

- 2020 4<sup>th</sup> Genetics, Geriatrics and Neurodegenerative diseases (GeNeDis) Conference. Greece
- 2020 EMBO Workshop: Molecular neurobiology II. Greece
- 2019 EMBO Workshop, Cell Biology of the Neuron: Polarity, Plasticity and Regeneration. Greece
- 2018 EMBO Workshop: Molecular neurobiology I. Greece
- 2017 EMBO Conference: Cell biology of the neuron II. Greece
- 2014 Annual European Cell Death Organization (ECDO) meeting. Greece
- 2013 Gordon Research Conference on the Biology of Aging. Italy
- 2011 EMBO Workshop: Cell biology of the neuron I. Greece
- 2010 European *C. elegans* Neurobiology Meeting. Greece
- 2009 General Meeting of the European Neuroscience Institutes Network (ENInet). Greece
- 2006 European *C. elegans* Meeting. Greece
- 2004 2<sup>nd</sup> International Conference on the Functional Genomics of Ageing. Greece

### SELECTED PUBLICATIONS

Complete publication record at *PubMed*:

<https://pubmed.ncbi.nlm.nih.gov/?term=Tavernarakis+N%5BAuthor%5D&sort=date>

Citation metrics available at the following URLs:

*Web of Science*: <https://www.webofscience.com/wos/author/record/B-9684-2013>

*Scopus*: <https://www.scopus.com/authid/detail.uri?authorId=20035582600>

*Google Scholar*: <https://scholar.google.gr/citations?user=afQKKl8AAAAJ>

(\*: Corresponding author)

1. Charmpilas N., Sotiriou A., Axarlis K., Tavernarakis N.\* and Hoppe T. (2024) Reproductive regulation of the mitochondrial stress response in *Caenorhabditis elegans*. **Cell Reports**, 43: 114336.
2. Hofer S. J., Daskalaki I., Bergmann M., Friscic J., Zimmermann A., Mueller M. I., Abdellatif M., Nicastro R., Masser S., Durand S., Nartey A., Waltenstorfer M., Enzenhofer S., Faimann I., Gschiel V., Bajaj T., Niemeyer C., Gkikas I., Pein L., Cerrato G., Pan H., Liang Y. T., Tadic J., Jerkovic A., Aprahamian F., Robbins C. E., Nirmalathasan N., Habisch H., Annerer E., Dethloff F., Stumpe M., Grundler F., Wilhelmi de Toledo F., Heinz D. E., Koppold D. A., Rajput Khokhar A., Michalsen A., Tripolt N. J., Sourij H., Pieber T., de Cabo R., McCormick M., Magnes C., Kepp O., Dengjel J., Sigrist S. J., Gassen N. C., Sedej S., Madl T., De Virgilio C., Stelzl U., Hoffmann M. H., Eisenberg T., Tavernarakis N.\*, Kroemer G. and Madeo F. (2024) Spermidine is essential for fasting-mediated autophagy and longevity. **Nature Cell Biology**, 26: 1571-1584.
3. Daskalaki I., Markaki M., Gkikas I. and Tavernarakis N.\* (2023) Local coordination of mRNA storage and degradation in the vicinity of mitochondria modulates *Caenorhabditis elegans* somatic ageing. **EMBO Journal**, e112446.
4. Petratou D., Gjicolaj M., Kaulich E., Schafer W. and Tavernarakis N.\* (2023) A proton-inhibited DEG/ENaC ion channel maintains neuronal ionstasis and promotes neuronal survival under stress. **iScience**, 26: 107117.
5. Tavernarakis N.\* (2023) Remote control of autophagy and metabolism in the liver. **Cell Metabolism**, 35: 725-727.
6. Ploumi C., Kyriakakis E. and Tavernarakis N.\* (2023) Coupling of autophagy and the mitochondrial intrinsic apoptosis pathway modulates proteostasis and ageing in *Caenorhabditis elegans*. **Cell Death and Disease**, 14: 110.
7. Palikaras K., Mari M., Ploumi C., Princz A., Filippidis G. and Tavernarakis N.\* (2023) Age-dependent nuclear lipid droplet deposition is a cellular hallmark of aging in *Caenorhabditis elegans*. **Aging Cell**, 22: e13788.
8. Tavernarakis N.\* (2023) Research Briefing: Nuclear autophagy promotes longevity and germline immortality. **Nature Aging**, 3: 11-12.
9. Papandreou M.-E., Konstantinidis G. and Tavernarakis N.\* (2023) Nucleophagy delays ageing and preserves germline immortality. **Nature Aging**, 3: 34-46.
10. Lionaki E., Gkikas I., Daskalaki I., Ioannidi M.-K., Klapa M. I. and Tavernarakis N.\* (2022) Mitochondrial protein import determines lifespan through metabolic reprogramming and de novo

- serine biosynthesis. **Nature Communications**, 13: 651.
11. Tavernarakis N.\* (2020) Inflammatory cytokine braking of mitochondrial metabolism. **Nature Immunology**, 21: 1143-1145.
  12. Zaninello M., Palikaras K., Naon D., Iwata K., Herkenne S., Quintana-Cabrera R., Semenzato M., Grespi F., Ross-Cisneros F. N., Carelli V., Sadun A. A., Tavernarakis N. and Scorrano L. (2020) Inhibition of autophagy curtails visual loss in a model of autosomal dominant optic atrophy. **Nature Communications**, 11, 4029.
  13. Markaki M. and Tavernarakis N.\* (2020) *Caenorhabditis elegans* as a model system for human diseases. **Current Opinion in Biotechnology**, 63:118-125.
  14. Lou G., Palikaras K., Lautrup S., Scheibye-Knudsen M., Tavernarakis N. and Fang E. F. (2020) Mitophagy and neuroprotection. **Trends in Molecular Medicine**, 26: 8-20.
  15. Charmpilas N. and Tavernarakis N.\* (2020) Mitochondrial maturation drives germline stem cell differentiation in *Caenorhabditis elegans*. **Cell Death and Differentiation**, 27: 601-617.
  16. Tavernarakis N.\* (2019) Ageing: Neural excitation moderates lifespan (Moderation of neural excitation promotes longevity). **Nature**, 574: 338-340.
  17. Fang E. F., Hou Y., Palikaras K., Adriaanse B. A., Kerr J. S., Yang B., Lautrup S., Hasan-Olive M., Caponio D., Dan X., Rocktäschel P., Croteau D. L., Akbari M., Greig N. H., Fladby T., Nilsen H., Cader M. Z., Mattson M. P., Tavernarakis N. and Bohr V. A. (2019) Mitophagy inhibits amyloid- $\beta$  and tau pathology and reverses cognitive deficits in models of Alzheimer's disease. **Nature Neuroscience**, PMID: 30742114.
  18. Papandreou M.-E. and Tavernarakis N.\* (2019) Nucleophagy: from homeostasis to disease. **Cell Death and Differentiation**, PMID: 30647432.
  19. Palikaras K., Lionaki E. and Tavernarakis N.\* (2018) Mechanisms of mitophagy in cellular homeostasis, physiology and pathology. **Nature Cell Biology**, 20: 1013-1022.
  20. Rieckher M., Markaki M., Princz A., Schumacher B. and Tavernarakis N.\* (2018) Maintenance of proteostasis by P body-mediated regulation of eIF4E availability during ageing in *Caenorhabditis elegans*. **Cell Reports**, 25: 199-211.
  21. Nikolettou V. and Tavernarakis N.\* (2018) Regulation and roles of autophagy at synapses. **Trends in Cell Biology**, 28: 646-661.
  22. Pietrocola F., Castoldi F., Markaki M., Lachkar S., Chen G., Enot D. P., Durand S., Bossut N., Tong M., Malik S. A., Loos F., Dupont N., Marino G., Abdelkader N., Madeo F., Maiuri M. C., Kroemer R., Codogno P., Sadoshima J., Tavernarakis N.\* and Kroemer G. (2018) Aspirin recapitulates features of caloric restriction. **Cell Reports**, 22: 2395-2407.
  23. Nikolettou V., Sidiropoulou K., Kallergi E., Dalezios Y. and Tavernarakis N.\* (2017) Modulation of autophagy by BDNF underlies synaptic plasticity. **Cell Metabolism**, 26: 230-242.
  24. Kyriakakis E., Charmpilas N. and Tavernarakis N.\* (2017) Differential adiponectin signalling couples ER stress with lipid metabolism to modulate ageing in *C. elegans*. **Scientific Reports**, 7: 5115.
  25. Schiavi A., Maglioni S., Palikaras K., Shaik A., Strapazzon F., Brinkmann V., Torgovnick A., Castelein N., De Henau S., Braeckman B. P., Cecconi F., Tavernarakis N. and Ventura N. (2015) Iron starvation-induced mitophagy mediates lifespan extension upon mitochondrial stress in *C. elegans*. **Current Biology**, 25: 1810-1822.
  26. Palikaras K., Lionaki E. and Tavernarakis N.\* (2015) Balancing mitochondrial biogenesis and mitophagy to maintain energy metabolism homeostasis. **Cell Death and Differentiation**, 22: 1399-1401.
  27. Palikaras K., Lionaki E. and Tavernarakis N.\* (2015) Coordination of mitophagy and mitochondrial biogenesis during ageing in *Caenorhabditis elegans*. **Nature**, 521: 525-528.
  28. Niso-Santano M., Malik S. A., Pietrocola F., Bravo-San Pedro J. M., Marino G., Cianfanelli V., Ben-Younes A., Troncoso R., Markaki M., Sica V., Izzo V., Chaba K., Bauvy C., Dupont N., Kepp O., Rockenfeller P., Wolinski H., Madeo F., Lavandro S., Codogno P., Harper F., Pierron G., Tavernarakis N., Cecconi F., Maiuri M. C., Galluzzi L. and Kroemer G. (2015) Unsaturated fatty acids induce non-canonical autophagy. **EMBO Journal**, 34: 1025-1041.
  29. Nikolettou V., Papandreou M.-E. and Tavernarakis N.\* (2014) Autophagy in the physiology and

- pathology of the central nervous system. **Cell Death and Differentiation**, 22: 398-407.
30. Chondrogianni N., Georgila K., Kourtis N., Tavernarakis N. and Gonos E. S. (2015) 20S proteasome activation promotes life span extension and resistance to proteotoxicity in *Caenorhabditis elegans*. **FASEB Journal**, 29: 611-622.
  31. Nikolettou V., Kyriakakis E. and Tavernarakis N.\* (2014) Cellular and molecular longevity pathways: The old and the new. **Trends in Endocrinology and Metabolism**, 25: 212-223.
  32. Buttner S., Habernig L., Broeskamp F., Ruli D., Vogtle F. N., Vlachos M., Macchi F., Kuttner V., Carmona-Gutierrez D., Eisenberg T., Ring J., Markaki M., Taskin A. A., Benke S., Ruckenstein C., Braun R., Van den Haute C., Bammens T., van der Perren A., Frohlich K.-U., Winderickx J., Kroemer G., Baekelandt V., Tavernarakis N., Kovacs G. G., Dengjel J., Mesinger C., Sigrist S. J. and Madeo F. (2013) Endonuclease G mediates  $\alpha$ -synuclein cytotoxicity during Parkinson's disease. **EMBO Journal**, 32: 3041-3054.
  33. Coburn C., Allman E., Mahanti P., Benedetto A., Cabreiro F., Pincus Z., Matthijssens F., Araiz C., Mandel A., Vlachos M., Edwards S.-A., Fischer G., Davidson A., Pryor R., Stevens A., Slack F., Tavernarakis N., Braeckman B. P., Schroeder F., Nehrke K. and Gems D. (2013) Anthranilate fluorescence marks a calcium-propagated necrotic wave that promotes organismal death in *C. elegans*. **PLoS Biology**, 11: e1001613.
  34. Katidou M., Tavernarakis N.\* and Karagogeos D. (2013) The contactin RIG-6 mediates neuronal and non-neuronal cell migration in *C. elegans*. **Developmental Biology**, 373: 184-195.
  35. Büttner S., Faes L., Reichelt W., Broeskamp F., Habernig L., Benke S., Kourtis N., Ruli D., Carmona-Gutierrez D., Eisenberg T., D'hooge P., Ghillebert R., Franssens V., Harger A., Pieber T. R., Freudenberger P., Kroemer G., Sigrist S. J., Winderickx J., Callewaert G., Tavernarakis N. and Madeo M. (2013) The  $\text{Ca}^{2+}/\text{Mn}^{2+}$  ion-pump PMR1 links elevation of cytosolic  $\text{Ca}^{2+}$  levels to  $\alpha$ -synuclein toxicity in Parkinson's disease models. **Cell Death and Differentiation**, 20: 465-477.
  36. Kourtis N., Nikolettou V. and Tavernarakis N.\* (2012) Small heat shock proteins protect from heat stroke-associated neurodegeneration. **Nature**, 490: 213-218.
  37. Troulinaki K. and Tavernarakis N.\* (2012) Endocytosis and intracellular trafficking contribute to necrotic neurodegeneration in *C. elegans*. **EMBO Journal**, 31: 654-666.
  38. Morselli E., Marino G., Bennetzen M., Eisenberg T., Megalou E., Schroeder S., Cabrera S., Benit P., Rustin P., Criollo A., Shen S., Kepp O., Maiuri C., Horio Y., Lopez-Otin C., Andersen J. S., Tavernarakis N., Madeo F., and Kroemer G. (2011) Spermidine and resveratrol induce autophagy by distinct pathways converging on the acetylproteome. **Journal of Cell Biology**, 192: 615-629.
  39. Kourtis N. and Tavernarakis N.\* (2011) Cellular stress response pathways and ageing: intricate molecular relationships. **EMBO Journal**, 30: 2520-2531.
  40. Madeo F., Tavernarakis N. and Kroemer G. (2010) Can autophagy promote longevity? **Nature Cell Biology**, 12: 842-846.
  41. Artal-Sanz M. and Tavernarakis N.\* (2009) Prohibitin couples diapause signaling to mitochondrial energy metabolism during ageing in *Caenorhabditis elegans*. **Nature**, 461: 793-797.
  42. Eisenberg T., Knauer H., Schauer A., Fussi H., Buttner S., Ruckenstein C., Carmona-Gutierrez D., Ring J., Schroeder S., Antonacci L., Fahrenkrog B., Deszcz L., Hartl R., Magnes C., Sinner F., Schraml E., Criollo A., Megalou E., Weiskopf D., Laun P., Heeren G., Breitenbach M., Grubeck-Loebenstien B., Herker E., Frohlich K.-U., Tavernarakis N., Minois N., Kroemer G. and Madeo F. (2009) Induction of autophagy by spermidine promotes longevity. **Nature Cell Biology**, 11: 1305-1314.
  43. Artal-Sanz M. and Tavernarakis N.\* (2009) Prohibitin and mitochondrial biology. **Trends in Endocrinology and Metabolism**, 20: 394-401.
  44. Kourtis N. and Tavernarakis N.\* (2009) Autophagy and cell death in model organisms. **Cell Death and Differentiation**, 16: 21-30.
  45. Voglis G. and Tavernarakis N.\* (2008) A synaptic DEG/ENAC ion channel mediates learning in *C. elegans* by facilitating dopamine signalling. **EMBO Journal**, 27: 3288-3299.
  46. Galluzzi L., Joza N., Tasdemir E., Maiuri M. C., Hengartner M., Abrams J. M., Tavernarakis N., Penninger J., Madeo F. and Kroemer G. (2008) No death without life: vital functions of apoptotic effectors. **Cell Death and Differentiation**, 15: 1113-1123.

47. Tasdemir E., Maiuri M. C., Galluzzi L., Vitale I., Djavaheri-Mergny M., D'Amelio M., Criollo A., Morselli E., Zhu C., Harper F., Nannan U., Samara C., Pinton P., Vicencio J.-M., Carnuccio R., Moll U. M., Madeo F., Paterlini-Brechot P., Rizzuto R., Szabadkai G., Pierron G., Blomgren K., Tavernarakis N., Codogno P. Cecconi F. and Kroemer G. (2008) Regulation of autophagy by cytoplasmic p53. **Nature Cell Biology**, 10: 676-687.
48. Tavernarakis N.\* (2008) Ageing and the regulation of protein synthesis: A balancing act? **Trends in Cell Biology**, 18: 228-235.
49. Samara C., Syntichaki P. and Tavernarakis N.\* (2008) Autophagy is required for necrotic cell death in *Caenorhabditis elegans*. **Cell Death and Differentiation**, 15: 105-112.
50. Syntichaki P. Troulinaki K. and Tavernarakis N.\* (2007) eIF4E function in somatic cells modulates ageing in *Caenorhabditis elegans*. **Nature**, 445: 922-926.
51. Wong D., Bazopoulou D., Pujol N., Tavernarakis N. and Ewbank J. J. (2007) Genome-wide investigation reveals pathogen-specific and shared signatures in the response of *Caenorhabditis elegans* to infection. **Genome Biology**, 8: R194.
52. Maiuri M. C., Le Toumelin G., Criollo A., Rain J.-C., Gautier F., Juin P., Tasdemir E., Pierron G., Troulinaki K., Tavernarakis N., Hickman J. A., Geneste O. and Kroemer G. (2007) Functional and physical interaction between Bcl-X(L) and a BH3-like domain in Beclin-1. **EMBO Journal**, 26: 2527-2539.
53. Liolios K., Tavernarakis N., Hugenholtz P. and Kyrpides N. C. (2006) The Genomes On Line Database (GOLD) v.2: a monitor of Genome Projects world-wide. **Nucleic Acids Research**, 34: D332-D334.
54. Artal-Sanz M., Samara C., Syntichaki P. and Tavernarakis N.\* (2006) Lysosomal biogenesis and function is critical for necrotic cell death in *Caenorhabditis elegans*. **The Journal of Cell Biology**, 173: 231-239.
55. Voglis G. and Tavernarakis N.\* (2006) The role of synaptic ion channels in synaptic plasticity. **EMBO Reports**, 7: 1104-1110.
56. Syntichaki P., Samara C. and Tavernarakis N.\* (2005) The Vacuolar H<sup>+</sup>-ATPase mediates intracellular acidification required for neurodegeneration in *C. elegans*. **Current Biology**, 15: 1249-1254.
57. Syntichaki P. and Tavernarakis N.\* (2004) Genetic models of mechanotransduction: The nematode *Caenorhabditis elegans*. **Physiological Reviews**, 84: 1097-1153.
58. Syntichaki P. and Tavernarakis N.\* (2003) The biochemistry of neuronal necrosis: Rogue biology? **Nature Reviews Neuroscience**, 4: 672-684.
59. Syntichaki P., Xu K., Driscoll M. and Tavernarakis N.\* (2002) Specific aspartyl and calpain proteases are required for neurodegeneration in *C. elegans*. **Nature**, 419: 939-944.
60. Syntichaki P. and Tavernarakis N.\* (2002) Death by necrosis: Uncontrollable catastrophe or is there order behind the chaos? **EMBO Reports**, 3: 604-609.
61. Boutla A, Kalantidis K, Tavernarakis N., Tsagris M. and Tabler M. (2002) Induction of RNA interference in *Caenorhabditis elegans* by RNAs derived from plants exhibiting post-transcriptional gene silencing. **Nucleic Acids Research** 30: 1688-1694.
62. Xu K., Tavernarakis N. and Driscoll M. (2001) Necrotic cell death in *C. elegans* requires the function of calreticulin and regulators of Ca<sup>2+</sup> release from the endoplasmic reticulum. **Neuron**, 31: 957-971.
63. Tavernarakis N.\*, Everett J., Kyrpides N. and Driscoll M. (2001) Structural and functional features of the intracellular amino-termini of DEG/ENaC ion channels. **Current Biology**, 11: R205-R208.
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#### SELECTED FUNDED PROJECTS

| Year | Source/Type                                                                                             | Project Title                                                                                                                                                                | Role                   |
|------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 2023 | Marie-Sklodowska-Curie European Postdoctoral Fellowships                                                | Unfolding the early Htt aggregates: an interdisciplinary approach for characterizing novel molecular events that impact Heat Shock Response in Huntington Disease (UnfearHD) | Principal Investigator |
| 2023 | Hellenic Foundation for Research and Innovation                                                         | Deciphering the role of glia autophagy in neurophysiology and ageing using in vivo chemo-optogenetics (GliaAge)                                                              | Coordinator            |
| 2023 | Marie-Sklodowska-Curie European Postdoctoral Fellowships                                                | Amyloid- $\beta$ clearance in Alzheimer's disease: Unravelling the role of endocytic pathways of endothelial cells (ClearPath)                                               | Principal Investigator |
| 2022 | Horizon-Europe, Widening Access, Excellence Hubs                                                        | Connected hubs in ageing: Healthy living to protect cerebrovascular function (CHAgeing)                                                                                      | Principal Investigator |
| 2022 | Marie-Sklodowska-Curie Doctoral Networks                                                                | Targeting Circadian Clock Dysfunction in Alzheimer's Disease (TClock4AD)                                                                                                     | Principal Investigator |
| 2021 | ERC Coordination and Support Action                                                                     | Support to the Vice-Presidents of the ERC Scientific Council                                                                                                                 | Vice-President         |
| 2020 | Greek Ministry of Development, Research and Innovation, General Secretariat for Research and Technology | National Precision/Personalized Medicine Network for Neurodegenerative Disorders                                                                                             | Coordinator            |
| 2020 | Hellenic Foundation for Research and Innovation                                                         | Mitochondrial autophagy in neuron quality control and survival during ageing                                                                                                 | Principal Investigator |
| 2020 | Ministry of Development and Investments, General Secretariat for Research and Technology                | Development of novel therapeutic strategies against Parkinson disease                                                                                                        | Partner                |
| 2020 | European Commission, Horizon 2020, FETOPEN                                                              | Dynamic adaptive microscopy for label-free multi-parametric imaging in biology and medicine (DynAMic)                                                                        | Coordinator            |
| 2019 | Greek Ministry of Education, General Secretariat for Research and Technology                            | National Network for Precision Medicine: Unit in Heraklion, Crete                                                                                                            | Coordinator            |

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|------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 2019 | EC Marie Curie, Initial Training Networks                 | Innovative Training Network on lifespan regulation mechanisms in health and disease                                             | Partner                  |
| 2019 | EMBO short term fellowship                                | The role of SUMOylation in the regulation of stress responsive transcription factors in <i>Caenorhabditis elegans</i>           | Principal Investigator   |
| 2018 | General Secretariat for Research and Technology           | Encapsulation of chromophores by self-assembled hydrogels with biomedical applications                                          | Principal Investigator   |
| 2017 | ERC Proof Of Concept Grant                                | A Drug Discovery and Target Identification Screening Platform for Age-Associated Neurodegenerative Disorders                    | Coordinator              |
| 2017 | General Secretariat for Research and Technology           | BioImaging Research Infrastructure for Greece                                                                                   | Coordinator              |
| 2016 | ERC Advanced Investigator Grant                           | MacroAutophagy and Necrotic Neurodegeneration in Ageing                                                                         | Coordinator              |
| 2018 | EC Marie Curie, Individual Fellowships                    | Identification of insulin signalling factors that delay age-related memory impairment                                           | Principal Investigator   |
| 2014 | EC Marie Curie, Intra-European Fellowships                | The role of MAGE proteins in mitochondria: Novel insights for the regulation of neuronal function                               | Principal Investigator   |
| 2013 | EC Marie Curie, Initial Training Networks                 | Chronic DNA damage in Ageing                                                                                                    | Partner                  |
| 2013 | EC Marie Curie, Initial Training Networks                 | MARie CuRie AGEing Network                                                                                                      | Partner                  |
| 2012 | EC Research Potential & Capacities Programme              | Unlocking the innovative capacity of multidisciplinary structural biology-driven research in Crete                              | Partner                  |
| 2012 | General Secretariat for Research and Technology, Aristeia | Necrotic cell death mechanisms and ageing-associated neurodegeneration                                                          | Principal Investigator   |
| 2012 | EC Research Potential & Capacities Programme              | Enhancing Scientific Excellence and Translational Research Potential in Human Diseases                                          | Work Package Coordinator |
| 2011 | EMBO Long Term Fellowship                                 | Investigating the role of the MAGE protein Necdin in neurons using <i>C. elegans</i> and mouse embryonic stem cell-based models | Principal Investigator   |
| 2011 | EC Marie Curie, Intra-European Fellowships                | Microbial contribution to age-related mortality in <i>Caenorhabditis elegans</i>                                                | Principal Investigator   |
| 2009 | ERC Advanced Investigator Grant                           | Molecular Basis of Neuronal Ageing                                                                                              | Coordinator              |
| 2007 | EC Marie Curie, Transfer of Knowledge Fellowships         | Advanced Cell Imaging Approaches in Developmental Biology                                                                       | Partner                  |
| 2007 | EC Coordination and Support actions                       | Network of European Neuroscience Institutes                                                                                     | National coordinator     |
| 2007 | Alexander von Humboldt Foundation                         | Elucidating the contribution of autophagy in necrotic cell death                                                                | Coordinator              |
| 2006 | EC Marie Curie, Transfer of Knowledge Fellowships         | Non-linear microscopy methods and applications                                                                                  | Partner                  |
| 2005 | EC Marie Curie, Early Stage Research Training Fellowships | Functional analysis of miRNAs during early development                                                                          | Partner                  |

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|------|-----------------------------------------------------------|----------------------------------------------------------|--------------------------|
| 2005 | EC Specific Targeted Research Project                     | Programmed cell death across the eukaryotic kingdoms     | Work Package Coordinator |
| 2005 | EC Marie Curie, Intra-European Fellowships                | Mitochondrial pathways in neurodegeneration              | Principal Investigator   |
| 2004 | EC Marie Curie, Early Stage Research Training Fellowships | Early Stage Training in Molecular Imaging Techniques     | Principal Investigator   |
| 2004 | EC Specific Targeted Research Project                     | Development of nematode gene-tagging tools and resources | Coordinator              |
| 2003 | EMBO Young Investigator programme                         | Molecular mechanisms of mechanotransduction              | Principal Investigator   |