

MARIA MONASTIRIOTI

CURRICULUM VITAE

PERSONAL DATA

NAME: Maria Monastirioti
PLACE OF BIRTH: Athens, Greece
DATE OF BIRTH: July 25, 1962
CITIZENSHIP: Greek
MARITAL STATUS: Married, 2 children
ADDRESS: Institute of Molecular Biology and Biotechnology (IMBB)
Foundation of Research and Technology
Nikolaou Plastira 100, Vasilika Vouton
700 13 Heraklion Crete, Greece
Tel. 30-2810-391117, 391148 Fax: 30-2810-391104
e-mail: monastir@imbb.forth.gr

EDUCATION

1974-1980 Secondary education in Athens, Greece
1980-1984 **B.Sc in Biology**, University of Patras, Patras, Greece.
1985-1990 **Ph.D. in Molecular Genetics**
Department of Biology, University of Patras and Institute of Molecular Biology and Biotechnology, Research Center of Crete, Foundation of Research and Technology-Hellas, Heraklion, Crete, Greece.
2000-2001 Postgraduate training course in "Open and Distant Learning Education"
Hellenic Open University

FELLOWSHIPS

1981-1984 Undergraduate scholarship from the Greek National fellowship foundation
1990-1991 Postdoctoral fellowship from European Molecular Biology Organization (EMBO)

RESEARCH FUNDING

1996-1998 **PENED** grant from General Secretariat for Research and Technology (**GSRT**)
TITLE: "Molecular genetic analysis of the neural specific gene *Tβh* (Tyramine β-hydroxylase) of *D. Melanogaster*"
2006-2007 **WHO / TDR** (Special Program for Research and Training in Tropical Diseases)-
TITLE: "Development of transgenic Anopheles strains carrying a dominant female sterilizing allele"

2012-2015 **THALIS** Research Programme (Gen. Secret. for Research and Technology- **GSRT**)
TITLE: “Role and Mechanisms of Asymmetric Cell Division in Stem Cell Differentiation (ADiSC-Asymmetric Division in Stem Cells)”

2013-2015 **KRIPIS** Institutional Programme (Gen. Secret. for Research and Technology- **GSRT**)
(Experimental Neurobiology, partner)

RESEARCH AND PROFESSIONAL ACTIVITIES

- 1985-1990 Thesis Research, University of Patras and IMBB-FORTH
- 1990-1991 Postdoctoral research in Dr. J. Hirsh laboratory, Harvard Medical School, Boston, Mass, USA
- 1991-1995 Postdoctoral research in Dr. K. White laboratory, Brandeis University Waltham, Mass, USA.
- 1995-2000 Affiliated Researcher at the Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece
- 2001-2008 Research Staff Scientist B’- Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece
- 2009-present Research Staff Scientist A’- **Neurosciences Division**, Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
- 2002-2003 Part-time Academic Staff in the School of Science and Technology-Hellenic Open University.
- 1996-present Member of the Joint Graduate program “**Molecular Biology & Biomedicine**” **Departments of Biology and Medicine, University of Crete and IMBB.**
- 2005-present Member of the Graduate program in “**Neurosciences**” **Dept of Medicine, University of Crete.**

TEACHING ACTIVITIES

- 1996-2002 Lectures on “Molecular mechanisms in early embryogenesis of Drosophila”
Graduate course “**Molecular mechanisms in development**”.
Graduate program “**Molecular Biology and Biomedicine**” **Dept of Biology, Dept of Medicine, University of Crete and IMBB**
- 2000-2001 Graduate course “**Molecular Genetics of Drosophila behavior**”
Graduate program “**Molecular Biology and Biomedicine**” **Dept of Biology, Dept of Medicine, University of Crete and IMBB**
- 2001-2007 Lectures on “Development and Function of the nervous system”
Graduate program “**Molecular Biology and Biomedicine**” **Dept of Biology, Dept of Medicine, University of Crete and IMBB**

- 2005-present Lectures in the graduate course “Methodology in neurosciences”
Graduate Program in **Neurosciences- Medical School, University of Crete**
- 2008-present Lectures on "Genetics of cognition and behavior, learning and memory"
Graduate course «**Multicellular organization of life »**
Graduate program “**Molecular Biology and Biomedicine**” **Dept of Biology, Dept of Medicine, University of Crete and IMBB**
- 1996-present Supervision of master rotation projects (22), master theses (4), undergraduate (diploma) theses (4), Member of qualifying exams committees.
Scientific responsible of (1) postdoctoral fellow

INVITED TALKS

1. “Biosynthesis, distribution and function of the neurohormone Octopamine in *Drosophila Melanogaster*». Biology department, University of Thessaloniki March 6th, 1998
2. “Octopamine neurotransmission in insect species. The *Drosophila* paradigm”. Bayer AG Monheim, GERMANY April 20th 1999.
3. “Molecular genetics approach to insect neurotransmitters-Potential applications in pest control”. Mediterranean Agronomic Institute of Chania. May 17th 2001.
4. “The biogenic amine Octopamine in insect physiology and behavior. The molecular genetics approach in *Drosophila*”. Theodor-Boveri-Institut fuer Biowissenschaften Lehrstuhl fuer Genetik und Neurobiologie, University of Wuerzburg, GERMANY. March 28th 2003.
5. “Molecular genetic studies of Octopamine system in a model insect organism. The *Drosophila* paradigm”. Institut for Biology, Neurobiology, Frei-Universitat, Berlin GERMANY. June 21st 2006.

SCIENTIFIC MEETINGS

1. **M. Monastirioti**, C. Louis, N. Stamatis and G. Yannopoulos (1989) 11th European *Drosophila* Research Conference, Marseilles FRANCE.
2. M. Ashburner, D.M. Glover, H. Jaeckle, F.C. Kafatos, C. Louis, **M. Monastirioti**, R. Saunders, C. Savakis, R. Schuh, I. Siden-Kiamos, J. Trenear, and K. Wharton. (1989) 11th European *Drosophila* Research Conference, Marseilles FRANCE.
3. **M. Monastirioti** and K. White. (1992) 4th European Symposium on *Drosophila* Neurogenetics, Glasgow U.K.
4. **M. Monastirioti** and K. White. (1993) 34th Annual *Drosophila* Research Conference, San Diego, California USA.
5. M. Meller, **M. Monastirioti** and J. Hirsh. (1993) 34th Annual *Drosophila* Research Conference, San Diego, California USA
6. **M. Monastirioti** and K. White (1993) 13th European *Drosophila* Research Conference, Aghia Pelaghia, Crete, GREECE
7. **M. Monastirioti** and K. White. (1993) Neurobiology of *Drosophila*, Cold Spring Harbor, New York, USA
8. K. White and **M. Monastirioti**. (1993) Society for Neuroscience Meeting, Washington DC USA,

9. **M. Monastirioti**, C.E. Linn and K. White. (1995) Neurobiology of *Drosophila*, Cold Spring Harbor, New York, USA.
10. C.E. Linn, **M. Monastirioti** and K. White. (1995) Society for Neuroscience Meeting, Washington DC USA.
11. **M. Monastirioti** and K. White. (1996) 6th European Symposium on *Drosophila* Neurobiology, Regensburg GERMANY.
12. **M. Monastirioti**. (1998) 20th Panhellenic Meeting of H.S.B.S., Samos, GREECE.
13. **M. Monastirioti**. (2000) 8th European Symposium on *Drosophila* Neurobiology, San Juan (Alicante) SPAIN
14. **M. Monastirioti** (2003) 10th Panhellenic Entomological Meeting, Heraklion, GREECE
15. **M. Monastirioti** (2005) 2nd EMBO Workshop- Molecular and population biology of Mosquitoes
16. **M. Monastirioti**, N. Giagtzoglou, M. Almeida, S. Bray, K. Koumbanakis and C. Delidakis. (2006) 20th Annual meeting of the Hellenic Society of Neuroscience, Heraklion, Crete, GREECE
17. **Monastirioti M.**, Giagtzoglou N., Zacharioudaki E, Deligianaki M., Almeida M., Koumbanakis K., Wech I., Preiss A., Bray S., Bellen H. and C. Delidakis (2008). 16th EMBO Drosophila Workshop, Kolymbari, Crete, GREECE.
18. Georgiou P., Theodosiou M., **Monastirioti M.** and C. Delidakis (2012). 63rd Annual Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB), Heraklion, Crete, GREECE
19. **Monastirioti M.**, Koltsaki I., Georgiou P. and C. Delidakis (2014) 19th EMBO Drosophila Workshop, Kolymbari, Crete, GREECE.
20. Douris V., Leptourgidou F., Lycett G. and **M. Monastirioti** (2014) 7th International Symposium on Molecular Insect Science, Amsterdam, THE NETHERLANDS.
21. Douris V., Leptourgidou F., Lycett G. and **M. Monastirioti** (2014) European Fly Neurobiology, (Neurofly) Hersonissos, Heraklion CRETE, GREECE
22. Koltsaki I., Batsiotos N., Pitsidianaki I, Delidakis C. and **M. Monastirioti** (2016) European Fly Neurobiology, (Neurofly) Platanias, Chania, CRETE, GREECE
23. **Monastirioti M.**, Koltsaki I., Batsiotos N., Pitsidianaki I. and C. Delidakis (2016) 67th Annual Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB), Ioannina, GREECE

CONFERENCE PUBLISHED ABSTRACTS

1. White K. and **M. Monastirioti**. (1993). Cloning of a *Drosophila* gene candidate for Tyramine β -hydroxylase. **Abstr, Soc. Neurosc. 19:** 300.
2. Linn C. E, **M. Monastirioti** and K. White. (1995) Comparison of biogenic amine levels in the nervous system of *Drosophila*: Wild type vs. a mutant for tyramine -hydroxylase. **Abstr, Soc. Neurosc. 21:** 631.

PUBLICATIONS

1. Yannopoulos G., Stamatis N., **Monastiriotti M.**, Hatzopoulos P. and C. Louis. (1987). hobo is responsible for the induction of hybrid dysgenesis by strains of *Drosophila melanogaster* bearing the male recombination factor 23.5MRF. **Cell** **49**: 487-495.
2. Hatzopoulos P., **Monastiriotti M.**, Yannopoulos G. and C. Louis. (1987). The instability of the TE-like mutation *Dp(2;2)GYL* of *Drosophila melanogaster* is intimately associated with the hobo element. **EMBO J.** **6**: 3091-3096.
3. **Monastiriotti M.**, Hatzopoulos P., Stamatis N., Yannopoulos G. and C. Louis. (1988) Cohabitation of KP and full-length P elements in the genome of MR strains inducing P-M -like hybrid dysgenesis in *Drosophila melanogaster*. **MGG** **215**: 94-99.
4. Stamatis N., **Monastiriotti M.**, Yannopoulos G. and C. Louis. (1989). The P-M and the 23.5 MRF (hobo) systems of hybrid dysgenesis in *Drosophila melanogaster* are independent of each-other. **Genetics** **123**: 379-387.
5. Saunders R.D., Glover D.M., Ashburner M., Siden-Kiamos I., Louis C., **Monastiriotti M.**, Savakis C. and F. Kafatos. (1989). PCR amplification of DNA microdissected from a single polytene chromosome band: a comparison with conventional microcloning. **NAR** **17**: 9027-9037.
6. White K., Luo L., Aigaki T. and **M. Monastiriotti**. (1994) *Drosophila Appl* gene and APPL protein: A model system to study the function of the APP protein family. In: C.L. Masters, K. Beyreuther, M. Trillet and Y. Christen (eds) **Amyloid Protein Precursor in Development, Aging and Alzheimer's Disease**. Springer-Verlag Berlin Heidelberg. p: 9-20. **(Book chapter)**
7. **Monastiriotti M.**, Gorczyca M., Eckert M., Rapus J., White K. and V. Budnik. (1995) Octopamine Immunoreactivity in the fruit fly *Drosophila melanogaster* **Journal of Comparative Neurology** **356**: 275-287.
8. **Monastiriotti M.**, Linn C. E and K. White. (1996) Characterization of *Drosophila Tyramine hydroxylase* gene and isolation of mutant flies lacking octopamine. **Journal of Neuroscience** **16**, 3900-3911.
9. **Monastiriotti M.** (1999) Biogenic Amine systems in the fruit fly *Drosophila melanogaster*. **Microscopy Research and Techniques**, **45**, 106-121 **(Invited review)**
10. Gruntenko N. E., Wilson T. G., **Monastiriotti M.** and I. Yu. Rauschenbach. (2000) Stress reactivity and juvenile hormone degradation in *Drosophila melanogaster* stress related mutations. **Insect Biochem. & Mol.Biol.**, **30(8-9)**, 775-783.
11. **Monastiriotti M.** (2003) Distinct octopamine cell population residing in the CNS abdominal ganglion controls ovulation in *Drosophila melanogaster*. **Developmental Biology** **264**, 38-49.
12. Schwaerzel M., **Monastiriotti M.**, Scholz H., Friggi-Grelín F., Birman S. and M. Heisenberg. (2003) Dopamine and octopamine differentiate between aversive and appetitive olfactory memories in *Drosophila*. **Journal of Neuroscience** **23(33)** :10495-10502.
13. Gruntenko N.E., Chentsova N.A., Bogomolova E.V., Karpova E.K., Glazko G.V., Faddeeva N.V., **Monastiriotti M.**, and I.Yu Rauschenbach. (2004) The effect of mutations altering biogenic amine metabolism in *Drosophila* on viability and the response to heat stress. **Arch. Insect Biochem.Physiol.** **5**, 555-67.
14. **Monastiriotti M.**, Giagtzoglou, N., Koumbanakis, K. A., Zacharioudaki, E., Deligiannaki, M., Wech, I., Almeida, M., Preiss, A., Bray, S., and C. Delidakis (2010). *Drosophila* Hey is a target of Notch in asymmetric divisions during embryonic and larval neurogenesis. **Development** **137**, 191-201.

15. Pavlidi, N., **Monastiriotti, M.**, Daborn, P., Livadaras, I., Van Leeuwen, T. and J. Vontas (2012). Transgenic expression of the *Aedes aegypti* CYP9J28 confers pyrethroid resistance in *Drosophila melanogaster*. **Pesticide Biochemistry and Physiology** **104**, 132–135.
16. Homberg, U., Seyfarth, J., Binkle, U., **Monastiriotti, M.** and M. J. Alkema (2013). Identification of Distinct Tyraminerpic and Octopaminergic Neurons Innervating the Central Complex of the Desert Locust, *Schistocerca gregaria*. **Journal of Comparative Neurology** **521**, 2025-2041
17. Delidakis, C., **Monastiriotti, M.** and S.S Magadi (2014). E(spl): Genetic, Developmental, and Evolutionary Aspects of a Group of Invertebrate Hes Proteins with Close Ties to Notch Signaling. In: Reshma Taneja, editor, **Current Topics in Developmental Biology, Vol. 110**, Burlington: Academic Press, pp. 217-262. **(Review)**
18. Flint-Brodsky, N., Bitman-Lotan, E., Boico, B., Shafat, A., **Monastiriotti, M.**, Gessler, M., Delidakis, C., Rincon-Arano, H., and A. Orian (2019). The transcription factor Hey and nuclear lamins specify and maintain cell identity **eLife** **8**: e44745
19. Skafida E, Delidakis C. and **M. Monastiriotti** (2022). Expression of *Hey* marks a subset of enteroendocrine cells in the *Drosophila* embryonic and larval midgut. **Int. J. Dev. Biol.** **66**, 223-233 <https://doi.org/10.1387/ijdb.210203mm>
20. Kefi M., Parasyris K., Balabanidou V., Sarafoglou C., Tsakireli D., Douris V., **Monastiriotti M.**, Mar'echal J-D., Feyereisen R. and J. Vontas (2024). Insights into unique features of *Drosophila* CYP4G enzymes. **Insect Biochemistry and Molecular Biology** **164**,104041 <https://doi.org/10.1016/j.ibmb.2023.104041>
21. **Monastiriotti M.**, Koltsaki I., Pitsidianaki I., Skafida E., Batsiotos N. and C. Delidakis (2024). Notch-Dependent Expression of the *Drosophila* Hey Gene Is Supported by a Pair of Enhancers with Overlapping Activities. **Genes** **15**, 1071 <https://doi.org/10.3390/genes15081071>