

### **Catherine Dermon, PhD**

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### Education

### Year

BS in Biology, University of Patras
PhD in Physiology, Medical School, University of Patras
Postdoctoral Fellow, Fulbright Scholar Program, Dept Health Sciences, Boston University, USA

1990-92 Postdoctoral Fellow, Fogarty Fellowship, National Institutes of Mental Health (NIMH), USA

# **Research Interests**

Basic research associated to brain plasticity mechanisms and neurochemical mapping of vertebrate brain (teleost, avian, mammalian), in developing (events during avian cerebellum foliation) and adult brain (steroid induced sexual plasticity, stress plasticity in zebrafish limbic system). The role of neurotransmitters, transcription factors, cell proliferation, neurogenesis, and neuron/glial differentiation is questioned. Behavioral studies are coupled to quantitative immunohistochemical, western blotting and image analysis methodologies to determine endophenotypes of coping with stress (resilience, vulnerability). In addition, research interests include investigation of the possible neuroprotective mechanisms of natural polyphenols, using a pharmacological rat rotenone model of Parkinson's disease.

# Funding

2010-2013 HERAKLEITOS, "Epigenetic mechanisms of sexual plasticity of zebrafish brain" Greek GSRT 2011-2015 COPEWELL, FP7, EU.

2017-2020 PhD Scholarships, ELIDEK (P. Perdikaris), IKY (M Tsarouchi)

2018-2021 CUReANT" Greek GSRT, T1EΔK-04290

# **Recent Publications or Selected Publications (5)**

1. Ampatzis, K, Makantasi, P, <u>Dermon CR</u> (2012) Cell proliferation in adult zebrafish forebrain is sexually dimorphic. Neurosci. 226:367-81.

2. Makantasi, P, <u>Dermon CR (2014)</u> Estradiol treatment decreases cell proliferation in the neurogenic zones of adult female zebrafish (Danio rerio) brain. Neurosci. 277:306-320.

3 Ampatzis, K, <u>Dermon</u> CR (2016) Sexual dimorphisms in swimming behavior, cerebral metabolic activity and adrenoceptors in adult zebrafish (Danio rerio). Behav Brain Res. 312:385-93.

4. Fokos S, Pavlidis M, Yiotis T, Tsalafouta A, Papandroulakis N, <u>Dermon CR</u> (2017) Early life low intensity stress experience modifies acute stress effects on juvenile brain cell proliferation of European sea bass (D. Labrax). Behav Brain Res. 317:109-12

5. Vindas MA, Fokos S, Pavlidis M, Höglund E, Dionysopoulou S, Ebbesson LOE, Papandroulakis N, <u>Dermon CR</u> (2018) Early life stress long-term changes in limbic areas of a teleost fish: role of catecholamine systems in stress coping. Sci Rep. 8:5638.