BIOGRAPHICAL SKETCH

KARAGOGEOS, Domna, BSc, MA, Ph.D.

Name: [*Last, First, Middle Initial(s), Degree(s)*] **KARAGOGEOS, Domna, BSc, MA, Ph.D.** Personal Webpage:	**POSITION TITLE:** Professor of Molecular Biology / Developmental Neurobiology

EDUCATION /TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Simmons College, Boston, USA	B.S.	1978	Biology/Chemistry
Harvard University, Cambridge, USA	M.A.	1980	Cell & Devel. Biol.
Harvard University, Cambridge, USA	Ph.D.	1986	Cell & Devel. Biol.
Columbia Univ. Medical School and HHMI, Center for Neurobiol. & Behavior (T.M. Jessell lab, postdoc training)	Postdoct. Associate	1986-90	Neurobiology

A. ACADEMIC AND PROFESSIONAL POSITIONS

POSITIONS HELD

Dates: Title, Professor of ...., School of Medicine, University of Crete

2008-	Professor of Molecular Biology-Developmental Neurobiol., UoC Medical School
2007-8	Visiting Scientist, NIMR-MRC, Mill Hill, UK (Molecular Neurobiol. Dr V. Pachnis)
1999	Associate Professor of Neuroscience, UoC Medical School, Heraklion
1993	Assistant Professor of Neuroscience, UoC Medical School, Heraklion
1991-	Affiliated Researcher/Group leader, Institute for Molecular Biology & Biotechnology (IMBB)-FoRTH, Heraklion, Crete
1997	Visiting Professor at the Department of Biology, Ecole Normale Superieure, Paris (Lab. of Dr Marion Wassef)
1995	Visiting Scholar at the Biology Dpt, Boston College (Lab. of Dr Donna Fekete)
1990 -March 93	Instructor of Neuroscience, Univ. of Crete (UoC) Medical School, Heraklion, Crete

ADVISORY-ADMINISTRATIVE DUTIES

- Director of Graduate Studies, Neuroscience Graduate Program, Univ. of Crete Medical School, 2015-
- Chair, Department of Basic Science, 2011-13, University of Crete Medical School
- Elected Program Committee Member, FENS (Federation European Neuroscience Soc.) Forum Barcelona 2012 and elected Member in the Committee on Higher Education & Training, FENS, 2016-18
- Governing Council Member, FENS 2008-11
- President, Hellenic Society for Neuroscience, 2008-11
- Secretary, Hellenic Society for Neuroscience, 2006-8
- Greek representative (substitute) for the European funding Scheme IDEAS (2011)
- Founding Member of the Greek Section of the European Brain Council (2010)
- Elected Member of ELKE (Administrative Body for the Management of Research Funds of the Univ. of Crete; 2006-7, 2009)

B. RESEARCH INTERESTS

We have contributed to the understanding of the molecular architecture of myelinated fibers by elucidating the juxtaparanodal complex. We established the mechanisms of juxtaparanodal clustering of VGKCs during myelination by molecular, cellular, biochemical and behavioral assays. This work has been extensively cited (>360 citations) and commented upon (comments in Curr Biol. 2003 Dec 16;13(24) :R956-7 and Research Highlights, Nat. Rev. Neurosci. 4, 856–857). We have analyzed perinodal proteins in various animal models of demyelination and MS tissue

C. SELECTED PEER-REVIEWED PUBLICATIONS *(max 10) (in chronological order).*

Dodd, J., Morton, S. B., Karagogeos, D., Yamamoto, M. and Jessell, T. M. (1988) Spatial regulation of axonal glycoprote expression on subsets of embryonic spinal neurons. **Neuron** 1: 105-116.

Furley, A., Morton, S. B., Manalo, D., Karagogeos, D., Dodd, J. and Jessell, T. M. (1990) The axonal glycoprotein TAG-1 is an immunoglobulin superfamily member with neurite outgrowth-promoting activity. **Cell** 61: 157-170.

Karagogeos, D., Morton, S. B., Casano, F., Dodd, J. and Jessell, T. M. (1991) Developmental expression of the axonal glycoprotein TAG-1: differential regulation by central and peripheral neurons *in vitro.* **Development** 112: 51-67.

Tsiotra, P.C., Theodorakis, K., Papamatheakis, J. and Karagogeos, D. (1996) The fibronectin domains are necessary and sufficient for the homophilic binding properties of TAG-1 **J.Biol.Chem.** 271 (46): 29216-22.

Denaxa, M., Chan, C-H., Schachner, M., Parnavelas, J.G. and Karagogeos, D. (2001) The adhesion molecule TAG-1 mediates the migration of cortical interneurons along the corticofugal fiber system **Development** 128: 4635-4644.

Kyriakopoulou, K., DeDiego, I., Wassef, M. and Karagogeos, D. (2002) A combination of chain and neurophilic migration involving the adhesion molecule TAG-1 in the caudal medulla **Development** 129: 287-296.

Traka, M. Dupree, J.L., Popko, B. and Karagogeos, D. (2002) The neuronal adhesion protein TAG-1 is expressed by Schwann cells and oligodendrocytes and is localized to the region of the node of Ranvier in myelinated fibers. **J. Neurosci.** 22(8):3016-3024.

Traka, M. *, Goutebroze, L. *, Denisenko, N., Bessa, M., Nifli, F., Havaki, S., Iwakura, Y., Fukamauchi, F., Watanabe, K., Girault, J.A. and Karagogeos, D. (2003) TAG-1 associates with Caspr-2 and is essential for the molecular organization o juxtaparanodal regions of myelinated fibers **J Cell Biol** 162 (6): 1161-1172 *

Denaxa, M., Kyriakopoulou, K., et al (2005) The adhesion molecule TAG-1 is required for proper migration of the superficial migratory stream in the medulla but not of cortical interneurons **Dev. Biol.** 288:87-99

Ma QH, et al (2008) A TAG1-App signalling pathway through Fe65 negatively modulates neurogenesis. **Nat. Cell Biol.** 10(3):283-94. Erratum in: Nat Cell Biol. 2008, 10(4): 497

Chatzopoulou E, Miguez A, Savvaki M, et al. (2008) Structural requirement of TAG-1 for retinal ganglion cell axons and myelin in the mouse optic nerve. **J Neurosci**. 23; 28 (30): 7624-36.

Savvaki M, Panagiotaropoulos T, et al (2008) Impairement of learning and memory in TAG-1 deficient mice associated with shorter CNS internodes and disrupted juxtaparanodes. **Mol Cell Neurosci.** 39(3):478-90.

Derfuss T., et al. (2009) Contactin-2/Tag-1 directed autoimmunity is identified in multiple sclerosis patients and mediat gray matter pathology in animals **PNAS** USA 106(20):8302-7.

Savvaki, M, Theodorakis, K., Zoupi, L., et al., (2010) The expression of TAG-1 in glial cells is sufficient for the formation the juxtaparanodal complex and the phenotypic rescue of Tag-1 homozygous mutants in the CNS **J. Neurosc** 30(42):13943-54.

Vidaki M, et al (2011) Rac1 affects the development of cortical interneurons by regulating their cell cycle exit **Cerebral Cortex**, 2012 Mar; 22(3):680-92. doi: 10.1093/cercor/bhr145. Epub 2011 Jun 20.

Zoupi, L., Markoulis, K., Kleopas, K. and Karagogeos, D. (2013) Alterations of juxtaparanodal domains in two rodent models of CNS demyelination, **Glia** 61(8):1236-49

Schmidt ER, et al (2014) Subdomain-mediated axon-axon signaling and chemoattraction cooperate afferent innervation of the lateral habenula **Neuron**. 16; 83(2): 372-87.

Kastriti ME, Sargiannidou I, Kleopa KA, Karagogeos D. (2015) Differential modulation of the juxtaparanodal complex in Multiple Sclerosis. **Mol Cell Neurosci**. Jun 10; 67:93-103. doi: 10.1016/j.mcn.2015.06.005. [Epub ahead of print]

Pinatel, D., et al. (2015) Inhibitory axons are targeted in hippocampal cell culture by anti-Capsr2 autoantibodies associated with limbic encephalitis **Front. Cell. Neurosci**. Jul 9; 9:265.

Bastakis GG, Savvaki M, Stamatakis A, Vidaki M, Karagogeos D. (2015) Tag1 deficiency results in olfactory dysfunction through impaired migration of mitral cells **Development**. 142(24): 4318-28.