

CURRICULUM VITAE

Name Domna KARAGOGEOS
Date of Birth October 5, 1956
Place of Birth Thessaloniki, Greece
Office address Depart. of Basic Science
University of Crete Medical School, Heraklion, Crete, Greece
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EDUCATION

1986 Doctor of Philosophy, Cell and Developmental Biology,
Harvard University, Cambridge, USA
1980 Master of Arts, Cell and Developmental Biology,
Harvard University, Cambridge, USA
1978 Bachelor of Science, Biology and Chemistry with Honors,
Simmons College, Boston, USA

POSITIONS HELD-TRAINING

2008- Professor of Molecular Biology-Developmental Neurobiology
2007-8 Visiting Scientist, NIMR-MRC, Mill Hill, UK (Lab. Of Dr V. Pachnis)
1999 Associate Professor of Neuroscience
1993 Assistant Professor of Neuroscience
University of Crete Medical School, Heraklion, Crete
1991- Affiliated Researcher/Group leader, Institute for Molecular Biology
and Biotechnology (IMBB), Heraklion, Crete
1997 Visiting Professor at the Department of Biology,
Ecole Normale Supérieure (Lab. of Dr Marion Wassef)
1995 Visiting Scholar at the Department of Biology,
Boston College (Lab. of Dr Donna Fekete)
1989 -March 93 Instructor of Neuroscience
University of Crete Medical School, Heraklion, Crete
1986 -Nov. 1989 Postdoctoral Research Fellow, Laboratory of Dr Tom Jessell
Howard Hughes Medical Institute,
Center for Neurobiology and Behavior,
Columbia University, College of Physicians and Surgeons

SUPERVISION OF RESEARCH STUDENTS

Supervision of 13 completed and 4 ongoing PhD students, 24 Master's theses and over 60 Master's rotation projects of the "Molecular Biology and Biomedicine", "Neurosciences" and "Cellular and Molecular Etiology, Diagnosis and Treatment of Human Diseases" Graduate Programs
Scientific responsible of 10 Postdoctoral Fellows since 1991

ADVISORY-ADMINISTRATIVE DUTIES

-Director of studies, Graduate Programme in Neuroscience, University of Crete Medical School
-Chair, Department of Basic Science, 2011-13, University of Crete Medical School
-Elected Programme Committee Member, FENS (Federation European Neuroscience Soc.)
Forum Barcelona 2012

- President, Hellenic Soc for Neuroscience, 2008-11
- Secretary, Hellenic Soc for Neuroscience, 2006-8
- Governing Council Member, FENS 2008-11
- Elected Member of ELKE (Administrative Body for the Management of Research Funds of the Univ. of Crete; 2006-7, 2009)

-Participation in Administrative Committees

Graduate Studies

Coordination Committee (executive body) for the Graduate Program in “Neurosciences” (since 1994)

Coordination Committee (executive body) for the Graduate Program in “Cellular and Molecular Etiology, Diagnosis and Treatment of Human Diseases” (since 2003)

Course Committee for the Interdepartmental Program in “Molecular Biology and Biomedicine” (2007)

Admissions Committee for the Interdepartmental Program in “Molecular Biology and Biomedicine” (since 1992)

Coordination Committee (executive body) for the Graduate Program in “Molecular Biology and Biomedicine” (2009-now)

Graduate Studies Committee of the Medical School, Univ. of Crete

Member of the Executive Body of the Medical School, Univ. of Crete

- Refereeing duties

Refereeing for scientific journals: Nature Rev. Neurosci., J. Neurochem., J. Comp. Neurol., J. Neurosci., Brain Res., Development, Neurobiol., Mech. Dev. Gene Expression Patterns, Front. Biosci.

Refereeing for funding agencies: E.U., Wellcome Trust, ANR (France), Portuguese Secr. Res. & Tech., Greek Sec. Res.& Tech., Greek Ministry of Education

RESEARCH FUNDING (only international, selected)

Title: “Molecular architecture and cellular function of the juxtaparanodal complex”

Source: ARSEP in collaboration with Dr C Faivre-Sarrailh

Duration: 2012-14 and 2015-16

Title: The role of the adhesion molecule TAG-1 in glial cell function

Source: European Association for Leukodystrofies (ELA Research Foundation)

Duration: 2007-2010

Title: The functional significance of autoimmune responses to transient axonal glycoprotein-1 in the pathogenesis of cortical lesions

Source: MS-UK Society in collaboration with Dr C. Linington, Univ. of Glasgow,

Duration: 2008-2011

Title: Advanced Cell Imaging Approaches in Developmental Biology (CELLIMAGE)

Source: FP6 Marie Curie, Transfer of Knowledge grant

Karagozeos (coordinator), Averof, Delidakis, Karagozeos, Tavernarakis participants

Duration: 2006-2010

Title: Development of cortical interneurons (INTERDEVO)

Source: FP6, EU, R&D STREP grant, Dr O. Marin, co-ordinator

Duration: 2005-2007

Title: Functional and biochemical studies of the juxtaparanodal protein TAG-1

Source: US Multiple Sclerosis Society

Duration: 2002-2005 (personal award)

D. Karagozeos is a partner in the ERC National Initiative, 2011-2015, 3D Neuroscaffolds, Coordinator: A. Gravanis

D. Karagozeos is a partner in the EU Program REGPOT: InnovCrete: ‘Unlocking the innovative capacity of multidisciplinary structural biology-driven research in Crete’, *Funding:* FP7-REGPOT-2012-2013-1, 2012-2015, Coordinator: M. Kokkinidis

NATIONAL FUNDING

ARISTEIA, MYELINTAG, Project 593 2012-2015
2 PhD Fellowships, 1 Postdoctoral Fellowship

SELECTED PUBLICATIONS (total 65, citations >2,700)

- Dodd, J., Morton, S. B., **Karagogeos, D.**, Yamamoto, M. and Jessell, T. M. (1988) Spatial regulation of axonal glycoprotein 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): 29216-29222.
- Karagogeos, D.**, Pourquie, C., Kyriakopoulou K., Tavian, M., Péault, B. and Pourquie, O. (1997) Expression of the cell adhesion proteins BEN/SC1/DM-GRASP and TAG-1 defines early steps of axonogenesis in the human spinal cord **J. Comp. Neurol.** 379: 415-427.
- 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.
- De Diego, I., Kyriakopoulou, K., Karagogeos, D. and Wassef, M. (2002) Multiple influences on the migration of precerebellar neurons in the caudal medulla **Development** 129: 297-306.
- 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 of juxtaparanodal regions of myelinated fibers **J Cell Biol** 162 (6): 1161-1172 **Equal contribution**
- Denaxa, M., Kyriakopoulou, K., Theodorakis, K., Trichas, G., Vidaki, M., Takeda, Y., Watanabe, K., and **Karagogeos, D.** (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(1):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) Impairment 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., Parikh K., Velhin S., Braun M., Mathey E., et al. (2009) Contactin-2/Tag-1 directed autoimmunity is identified in multiple sclerosis patients and mediates gray matter pathology in animals **PNAS USA** 106(20):8302-7.
- Savvaki, M, Theodorakis, K., Zoupi, L., Stamatakis, A., Tivodar, S., Kyriacou, K., Stylianopoulou, F., and **Karagogeos, D.** (2010) The expression of TAG-1 in glial cells is sufficient for the formation of the juxtaparanodal complex and the phenotypic rescue of Tag-1 homozygous mutants in the CNS **J. Neurosci.**, 30(42):13943-54.
- Vidaki M, Tivodar, S., Doulgeraki K, Tybulewicz, V., Kessarar N, Pachnis, V. and **Karagogeos D.** (2011) Rac1 affects the development of cortical interneurons by regulating their cell cycle exit **Cerebral Cortex**, 2011 Jun 20. [Epub ahead of print]

- Katidou M., Tavernarakis N.* and **Karagozeos D.*** (2013) The contactin RIG-6 mediates neuronal and non-neuronal cell migration in *C. elegans*. **Dev. Biol.** 373(1) :184-95.
- Zoupi, L., Markoulis, K., Kleopas, K. and **Karagozeos, D.** (2013) Alterations of juxtaparanodal domains in two rodent models of CNS demyelination, **Glia** 61(8):1236-49
- Tivodar S., Kalemaki K., Kounoupa Z., Vidaki M., Theodorakis K., Denaxa M., Kessarlis N., DeCurtis I., Pachnis V. and **Karagozeos D.** (2014) Rac-GTPases regulate microtubule stability and axon growth of cortical GABAergic interneurons **Cerebral Cortex** Epub 2014 Mar 13.
- 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, **Karagozeos 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, **Karagozeos D.** (2015) Tag1 deficiency results in olfactory dysfunction through impaired migration of mitral cells **Development.** 142(24):4318-28.
- Konstantoudaki X, Chalkiadaki K, Tivodar S, **Karagozeos D,** Sidiropoulou K. (2016) Impaired synaptic plasticity in the prefrontal cortex of mice with developmentally decreased number of interneurons **Neuroscience** May 13;322:333-45. doi: 10.1016/j.neuroscience.2016.02.048. Epub 2016 Feb 27.