Magda Alania CV

Associate Professor
Human and Animal Physiology
e-mail: magda.alania@tsu.ge
Phone (Office): +995 32 2232961
Phone (mobile): +995 577 973918

Education:

- **1998, Candidate of Biological Sciences (Human and Animal Physiology), PhD equivalent, N.K. Koltzov Institute for Developmental Biology, Russ. Ac. Sci. Moscow, Russia.**
- **1993, University Diploma in Biology (Human and Animal Physiology), 5 Year study, Master Degree equivalent, Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia**

Work experience:

- **2011 till now, Associate Professor, Division of Human and Animal Physiology, Department of Biology, Faculty of Exact and Natural Sciences, Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia;**
- **2012 till now, Head of the Quality Assurance Service of Faculty of Exact and Natural Sciences, Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia;**
- **2007, University of Minnesota, St. Paul Campus, USA. 6 months visit, The U.S. Civilian Research & Development Foundation (CRDF) and GRDF. 2006 - Georgian Travel Fellowship TFP-05/06. "The role of biogenic amines in modulation and coordination of feeding pattern generating neural network with locomotion in Medicinal leech";**
- **2004, 2002, 2001, NK Koltzov Institute for Developmental Biology. Russ Acad Sci, Moscow, Russia; International Brain Research Organization (IBRO) Grant program "The Short term research fellowship within the Central and Eastern Europe region" ; IBRO Grant program "Against Brain Drain";**
- **2001, University of York, UK. 2 months visit, Research Grant from Welcome Trust for travel fellow;**
- **2000, University of York, UK. 3 months visit. Research Grant from Royal Society for Ex-agreement visit;**
- **1999, Balaton Limnological Research Institute, Hungarian Academy of Sciences, Tihany, Hungary Department of Experimental Zoology, 3 months visit, Researcher;**
- **1994, University of Washington, USA. 2 months visit, Research fellowship.**

Research interest and techniques:

- **Invertebrate neurobiology; Epilepsy; Neuroplasticity; Neuromodulation; Effects of Flavonoids on memory and epilepsy.**
- **Microelectrode recording, axon tracing techniques, histochemistry, immunocytochemistry. In vivo and in vitro model of epilepsy in rats.**

Participant of recent and running scientific-research and educational projects:

- **2014-2017 Shota Rustaveli National Science Foundation grant project FR/617/7-270/13 Influence of flavonoids from Georgian endemic grape species "Saperavi" on brain dysfunction induced by kainic acid-status epilepticus in rats", participant;**
- **2014-2017, 544125-TEMPUS-1-2013-1-AM-TEMPUS-SMGR Promoting Internationalization of HEIs in Eastern Neighborhood Countries through Cultural and Structural Adaptations. Participant;**
- **2010-2013, Shota Rustaveli National Science Foundation grant project # 1-6/89 "Flavonoids from Georgian grapes: biochemical specificity and physiological effects", participant;**
- **2006-2010, ISTC grant (G - 1318). "Influence of orexinergic system on epileptic activity of the brain";**

Teaching courses:

Bachelor level:

- **Human and Animal Physiology,**
- **Introduction to Normal Physiology (in English),**
- **Physiology of Visceral Systems,**
- **Physiology of Nervous System (in English),**
- **Physiology of Cardiovascular System,**
- **Physiology of Digestive System,**
- **Physiology of Urogenital System,**
- **General biology (San Diego State University - Georgia)**

Master level:

- **Model Invertebrates: Neuronal and Neuromediator Basis of Behavior.**

Selected Publications and presentations:

1. **Alania M. Comparative analysis of serotonergic modulatory projections associated with feeding in representatives of molluscs and annelids. 9th FENS forum of Neuroscience, Milan, Italy, July 5-9, 2014.**
2. **Doreulee N., Kurasbediani M., Alania M., Chkhartishvili B., Chiqovani M., Mitaishvili E., Kapanadze Ts. Oral administration of flavonoids from Georgian endemic grape species Saperavi ameliorates memory deficit associated with kainic acid-induced status epilepticus in laboratory white rats. Neuroscience 2013, the 43rd annual meeting of the Society for Neuroscience. N-865. San Diego, CA. USA.**
3. **Doreulee, N., Alania, M., Vashalomidze, G., Skhirtladze, E., Kapanadze, Ts. Orexinergic system and pathophysiology of epilepsy. Georgian Medical News, 11(188): 74-79. 2010**
4. **Chistopolsky I., Alania M., Sakharov D. Volume transmission events associated with activity of interneurons that control feeding CPG in snail. Neuroscience 2010, the 40th annual meeting of the Society for Neuroscience. 287.18. San Diego, CA. USA.**
5. **Doreulee, N., Alania, M., Chikovani, M., Chkhartishvili, B., Skhirtladze, C. Orexin-A induces long-term depression of NMDA responses in CA-1 field of hippocampal slices". Journal of Georgian Medical News, 2009; 4(169):65-71**
6. **Alania M., D.D. Vorontsov, D.A. Sakharov. Higher-order control of feeding network in Lymnaea. Acta Biologica Hungarica 59 (Suppl.), pp. 23–28. 2008**
7. **Mesce K.A., Alania M., Klukas K.A., Puhl J.G. The cephalic stomatogastric nervous system of the medicinal leech: its anatomy, intrinsic neurons and association with aminergic neurons. Soc. Neurosci. Abstr. 38: 574.8. November 15 - 19, Neuroscience 2008, Washington, DC. USA. 2008**
8. **Alania M., Dyakonova V., Sakharov D.A. Hyperpolarization by glucose of feeding related neurons in snail. Acta Biologica Hungarica. 55 (1-4): 195-200. 2004**
9. **Alania M., Sakharov D.A., Elliott C.J.H. Multilevel inhibition of feeding by a peptidergic pleural interneuron in the mollusc Lymnaea stagnalis. Journal of Comparative Physiology, 190: 379-390. 2004**
10. **Alania M., Sakharov D.A., Elliott C.J.H. 2001. Mechanisms of inhibition of feeding by a pleural interneuron in the mollusc Lymnaea stagnalis. Joint meeting of British Pharmacological Society and The Physiological Society. University of Bristol, September 5-7, UK.**
11. **Alania M., Sakharov D.A. 2000. Morphology and physiology of pleural-to-buccal neurons coordinating defensive retraction with feeding arrest in the pond snail Lymnaea stagnalis. Acta Biologica Hungarica. 51 (2-4). Pp. 197-203.**
12. **Alania M.A., Panchin Y.V., Sakharov D.A. 1999. Pleural-buccal interneurons in the pteropod mollusc Clione limacina. J Comp Physiol. Issue 3, 185: 267-275.**
13. **Alania M.A., Sakharov D.A. 1999. Neuroethology of Lymnaea stagnalis: feeding arrest associated with defensive withdrawal. Presented at the 9th ISIN Symposium "Neurobiology of Invertebrates", July 1-5, Tihany, Hungary.**
14. **Alania M., Sakharov D.A. 1998. The cellular basis of movement coordination is conservative in gastropods differing in feeding strategies. Zh. Obshch. Biol. 59: 400-408 (in Russian)**
15. **Alania M., Sakharov D.A. 1996. FMRF-amidergic pleuro-buccal projecting neurons common to diverse pulmonate molluscs. Soc. Neurosci. Abstr. 22: 554.2.**
16. **Alania M. 1995. Pleuro-buccal projections in pulmonate molluscs. Acta Biologica Hungarica. 46 (2-4), pp. 267-270.**