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#### **Academic Posts Held**

<b>Date</b>	
<b>2009-2016</b>	Professor at Tbilisi State University (Doctor of Biological Sciences), Faculty of Exact and Natural Sciences, Head of direction of Human and Animal Physiology.
<b>1006-1009</b>	Associate Professor at Tbilisi State University
<b>1996-2006</b>	Assistant Professor, Docent, at Tbilisi State University
<b>1991-1996</b>	Assistant Professor at Tbilisi State University
<b>1984-1991</b>	Teacher at Tbilisi State University, direction of Human and Animal Physiology
<b>1985</b>	University Diploma in Biology (Human and Animal physiology), Iv. Javakhishili Tbilisi State University
<b>1991, 2004</b>	I and II Defending Doctoral Thesis in Human and Animal physiology and Neuroscience, Iv. Beritashvili Institute of Physiology

#### **Teaching Courses:**

- Human and Animal Physiology
- Neuropharmacology, bases of Psychopharmacology
- Structural and functional organization of the brain
- Electrophysiology
- Introduction to Physiology
- Physiology (Nervous system)

#### **Non-academic experience**

2000, 2001, 2002-2003, 2005 Scientific activity at the Department of Physiology of the Heinrich-Heine University of Duesseldorf (Germany).

2004, Scientific activity at the University in Hamburg (Germany).

1987-1990 – Scientific activity at the Brain research institute (Moscow, Russia).

#### **Certifications or professional registrations – Certificates:**

1. ISTC International seminar on IPR in Georgia : «Intellectual Property»;
2. Advanced training courses Academia Staff Management;
3. Certificate of Attendance EC TEMPUS-funded staff development and Training (University of the West England).
4. Teacher of Year 2015 (Tbilisi State University).

#### **Current membership in professional organizations**

Member of Georgian Physiology Society (from 1999); Member of the International Brain Research Organisation (IBRO) (from 1996); Regular member of Neuroscience Society (SFN, from 2006).

**Honors and awards** - IBRO personal grants, 2000; 2001; “The characteristics of AMPA receptors”.

#### **Main Research Areas:**

Neurobiology; Neuropharmacology; Learning and memory; Synaptic plasticity; Brain disorders.

#### **Participation in grant projects:**

1. GNSF grant (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", 2014-2017 years, (manager and scientific leader).
2. GNSF grant (№ GNSF 1-6/89) Georgian grapes flavonoids: biochemical specificity and physiological effects, 2010-2013 years (manager and scientific leader).

3. TEMPUS/INTAS, 159340-TEMPUSES-JPCR - MAPB – Master’s Degree Programs in Applied Bioscience. 2010-2013, participant. Head of QA .
4. ISTC grant (G - 1318). “Influence of orexinergic system on epileptic activity of the brain”, 2006-2010 years (manager and scientific leader).
- 5.GNSF grant (N225); “The role of allosteric modulation of metabotropic glutamate receptors (mGluR) in treatment of schizophrenia”, 2008-2010 years (manager and scientific leader).
6. TEMPUS Joint European Project (JEP 272182006) “Developing new applied biosciences and biotechnology curricula at Tbilisi State University”, 2007-2010 years (participant).
7. International researcher program SENCER (participation in 2004-2006 years).
8. ISTC grant (G-780) ‘‘Nootropic drugs and epilepsy’’. 2002-2005 years (responsibility for *in vitro* experiments).
9. Deutsche Forschungsgemeinschaft SFB ’regulation of synaptic plasticity by integrins’’- participation in 2004 EC 5th framework program QLG3-CT-2002-00826 - participation in 2002-2005 years
10. Deutsche Forschungsgemeinschaft SFB 575, C3 - participation in 2001-2005 years
11. IBRO personal grants, 2000; 2001; “The characteristics of AMPA receptors”. Foundation "Open sosity – Georgia“grant (HESP/07/09): Neurobiological disciplines and new methods for teaching. In 1999-2000 years (manager of the grant).
12. Deutsche Forschungsgemeinschaft SFB 194, B13- participation in 1996-2002 years
13. Deutsche Forschungsgemeinschaft HA 1525/5-1-3 - participation in 1997-2001 years
14. GSTC grant: ‘‘Cerebral mechanisms of memory’’. Participation in 1998-2000 years
15. Deutsche Forschungsgemeinschaft HA 1525/1-3,4- participation in 1996-1999 years
16. Human Frontiers Science Program (1992-1997)- participation in 1996-1997 years

### **Most important publications:**

1. Doreulee, N., Qurasbediani, M., Chikovani, M., Bukia, R., Chkhartishvili, B., at al. Influence of flavonoids from Georgian Endemic Grape Species Saperavi on learning/memory characteristics and the number of BrdU – positive cells of the Gyrus Dentatus in the Kainic Acid -Induced Rat Model of Epilepsy”, Journal of Neurological Disorders, 2016, 4, 6, 52.
2. Doreulee, N., Chkhartishvili, B., at al. “Early postnatal feeding of rats with Flavonoids from Georgian Endemic Grape Species Saperavi reduce frequency and duration of epileptic activity in the CA1 field of hippocampus”, Journal of Neurological Disorders, 2016, 4,6,40.
3. Doreulee, N. Kurasbediani, M., Beroashvili, Z., Chkhartishvili, B., at al. The influence of “Saperavi” extract on kainic acid-induced brain dysfunction. III international Symposium “Neuroplasticity: Nervous substrate for health and disease. New approaches for research. pp: 13 Printed by “Globus” Ltd., 2014
3. Doreulee, N., Qurasbediani,M., Alania, M., Chkhartishvili, B., at al., “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, 137.
4. Doreulee, N. Alania, M. Kuchukashvili, Z. Chkhartishvili, B., et al. “Influence of flavonoids from Georgian endemic grape species Saperavi on hippocampal-related plasticity. Neurscoence 2012.
- 5.Selbach, O., Bohla, C., Barbara, A., Doreulee, N., Eriksson, K.S., Sergeeva, O.A., Haas, H.L. Orexins/hypocretins control bistability of hippocampal long-term synaptic plasticity through co-activation of multiple kinases. Acta Physiol (Oxf). 2010; 198(3):277-85.
- 6.Doreulee N., Alania M., Vashalomidze G., Skhirtladze E., Kapanadze C. Orexinergic system and pathophysiology of epilepsy. Georgian Med News. 2010; 188:74-79.
7. 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): 65-70,
8. Doreulee, N., Alania, M., Mitaishvili, E., Chikovani, M., Chkhartishvili, B. The role of the mGluR allosteric modulation in the NMDA-hypofunction model of schizophrenia. Georgian Medical News, 2009; 177: 59-65.
9. Chepkova, A.N. Fleischer, W. Kazmierczak, T, Doreulee, N., Haas H. L. and O.A. Sergeeva. Developmental alterations of DHPG-induced long-term depression of corticostriatal synaptic transmission: switch from NMDA receptor-dependent towards CB1 receptor-dependent plasticity. *Pflugers Arch.*, 2009; 459(1):131-41.
10. Sergeeva, O.A., Doreulee, N., Chepkova, A.N., Kazmierczak, T., and Haas, H.L. “Long-term depression of cortico-striatal synaptic transmission by DHPG depends on endocannabinoid release and nitric oxide synthesis”. Eur. J. Neurosci., 2007; 26(7):1889-94. Cited by 31.

- 11.Chepkova, A., Doreulee, N., Kazmierczak, T., Haas, H., Sergeeva, O. "Long-term depression of corticostriatal synaptic transmission triggered by DHPG depends on cannabinoid release and nitric oxide synthesis. Journal of Thrombosis and Haemostasis; 2007; 5, Supp 1 : P13-L2-13
- 12.Doreulee, N., Lepsveridze, E., Alania, M., Chkhartishvili, B. Arterenol inhibits bicuculline-induced multiple discharges in the hippocampus via activation of  $\alpha$ - adrenoreceptors. Georgian J. Neurosci., 2005;1(4):33-40.
13. Doreulee, N., Lepsveridze,E., Alania,M., Chkhartishvili,B. Inhibition of epileptiform effect of bicuculline by levetiracetam and piracetam in mouse hippocampal slices: the role of adrenergic system. Georg J. Neurosci, 2005; 1(4):25-32
14. Sergeeva, O.A., Schulz, D., Doreulee, N., Ponomarenko, A.A., Selbach, O., Borsch, E., Kircheis, G., Huston, J.P., Haussinger, D., and Haas, H.L. "Deficits in cortico-striatal synaptic plasticity and behavioral habituation in rats with portacaval anastomosis". Neurosci., 2005; 134:1091-1098.
15. Selbach, O., Doreulee, N., Bohla, C., Eriksson, K.S., Sergeeva, O.A., Poelchen, W., Brown, R.E., and Haas, H.L. Orexins/s cause sharp wave- and related synaptic plasticity in the hippocampus via glutamatergic, gabaergic, noradrenergic, and cholinergic signaling. Neurosci., 2004; 127(2): 519-28.
16. Lepsveridze, E., Doreulee, N. Norepinephrine depresses isolated NMDA responses in CA-1 of hippocampus via activation of  $\beta$ -adrenoreceptors. Georgian J. Neurosci., 2004;
17. Doreulee, N., Sergeeva, O.A., Yanovsky, Y., Chepkova, A.N., Selbach, O., Godecke,A., Schrader, J., Haas,H.L. Cortico-striatal synaptic plasticity in eNOS deficient mice. Brain Res., 2003; 964:159-163.
18. Chepkova, A.N., Kapai, N.A., Doreuli, N.V., Karapysh, A.A., Gudasheva, T.A., Skrebitskii,V.G. Effect of Pyroglutamylasparagine Amide on Plastic Characteristics of Synaptic Transmission in the Hippocampus. Bull Exp Biol Med., 2003; 136(1): 59-61.
19. Sergeeva, O.A., Chepkova, A.N., Doreulee, N., Eriksson, K.S., Poelchen, W., Monnighoff, I., Heller-Stilb, B., Warskulat, U., Haussinger, D., Haas, H.L. Taurine-induced long-lasting enhancement of synaptic transmission in mice: role of transporters. J Physiol., 2003; 1;550 (Pt3): 911-919.
20. Chepkova, A.N., Doreulee, N., Yanovsky, Y., Mukhopadhyay, D., Haas, H.L and Sergeeva, O.A. Long-lasting enhancement of corticostriatal neurotransmission by Taurine. Eur. J. of Neurosci., 2002; 16: 1523-1530.
- 21.Doreulee, N., Yanovsky, Y, Flagmeyer, I., Stevens, D.R., Haas, H.L., Brown, R.E. Histamine H3 receptors depress synaptic transmission in the corticostriatal pathway. Neuropharmacol., 2001;40: 106-113
22. Brown, R., Doreulee, N., Yanovsky,Y. and Haas, H.L. Histamine H-3 receptor-mediated regulation of glutamatergic synaptic transmission in the hippocampus and striatum. In book: Histamine Research in the New Millennium". Editors: Watanabe, T., Timmerman, H., Yanai, K. 2001; pp: 447-448.
23. Doreulee, N., Brown, R.E., Yanovsky,Y., Godecke, A., Schrader, J., Haas, H.L. Defective hippocampal mossy fibre long-term potentiation in endothelial nitric oxide synthase knockout mice. J. Synapse, 2001; 41(3): 191-194.
24. Chepkova, AN,Doreulee, NV., Kozhemyakin, MB. Modulation of hippocampal synaptic plasticity by mnemotropic neuropeptides. EUROPEAN JOURNAL OF NEUROSCIENCE, 2000, 12; 461-461.
25. Doreulee, N., Yanovsky, Y., Brown, RE., Godecke, A., Schrader, J., Haas, HL. Defect in hippocampal mossy fibre long-term potentiation in endothelial nitric oxide synthase (eNOS)-Knockout mice. EUROPEAN JOURNAL OF NEUROSCIENCE, 2000, 12, 31.
26. Chepkova, A.N., Doreulee, N.V., Kozhemiakin, M.B., Skrebitskii, V.G. Thyroliberin inhibits development of post-tetanic potentiation in synaptic systems of rat hippocampus. Biull-Eksp-Biol-Med., 1999 128(12):690-693.
27. Doreulee, N., Yanovsky, Y., Haas, H.L. Suppression of long-term potentiation in hippocampal slices by copper. J. Hippocampus, 1997; 7(6): 666-669.
28. Chepkova, A.N., Doreulee, N.V., Trofimov, S.S., Gudasheva, T.A., Ostrovskaia, R.U., Skrebitskii, V.G. Nootropic compound L-pyroglutamyl- D-alanine-amide restores hippocampal long-term potentiation impaired by exposure to ethanol in rats. Neurosci-Lett., 1995; 188 (3): 163-166.
29. Chepkova, AN., Doreuli, NV., Ostrovskaia, RU., Gudasheva, TA., Skrebitski<sup>ī</sup>, VG. Preservation of plastic properties of synaptic transmission in long-lasting hippocampal slices under the effects of a peptide analog of piracetam, L-pGlu-D-Ala-NH2. Biull Eksp Biol Med. 1990 Dec;110(12):602-4.
30. Chepkova, AN., Doreuli, NV., Skrebitskii<sup>ī</sup>, VG. Effects of polymethylene derivatives of 4-aminopyridine on functional properties of hippocampal neurons. Biull Eksp Biol Med. 1989 Oct;108(10):449-52.

Co-author of various oral and poster presentations at international conferences.

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