

CURRICULUM VITAE

DJANENKHODJA KALIKULOV

Work Address Virginia Tech Carilion Research Institute
2 Riverside Circle
Roanoke, VA 24016
Postal Code: 0801
Phone: 540-526-2054
hodja52@vtc.vt.edu

Institution and Location	Degree	year	Field
Tashkent State University School of Physics, Uzbekistan, USSR	B.Sc.	1974	Physics
Institute of Physics and Technology, Academy of Sciences of Uzbekistan, Tashkent, Uzbekistan, USSR	M.Sc	1974	Nuclear Physics and space rays
Institute of Biochemistry, Academy of Sciences of Uzbekistan, Tashkent, Uzbekistan, USSR	Ph.D.	1985	Biophysics
Institute of Physiology and Biophysics Academy of Science of Uzbekistan, Tashkent, Uzbekistan	D.Sc.	1995	Biophysics

Professional Experience

2010-present Research Assistant Professor, Virginia Tech Carilion
Research Institute, Roanoke, Virginia

2005-2010 Postdoctoral Associate, Department of Neuroscience,
Baylor College of Medicine, Houston, Texas

2001-2005 Postdoctoral Fellow, Department of Neurobiology, The
University of Alabama at Birmingham.

2000-2001 Invited Scientist, Department of Pharmacology and
Neuroscience, University of Dundee, Scotland, UK,
Department of Biomedical Sciences, University of Aberdeen,
Scotland, UK.

- 1992-2000 Head of Laboratory of Electrophysiology, the Institute of Physiology and Biophysics, Academy of Sciences of Uzbekistan, Tashkent.
- 1985-1992 Senior Science Researcher, Institute of Physiology & Biophysics, Academy of Sciences of Uzbekistan, Tashkent.
- 1979-1985 Research Scientist, Institute of Biochemistry, Academy of Sciences of Uzbekistan, Tashkent.
- 1974-1979 Research Scientist, Institute of Physics and Technology, Academy of Sciences of Uzbekistan, Tashkent.

AWARDS / HONORS

1. Royal Society (London) Travel Grant, Edinburgh University Medical School, Department of Physiology, Edinburgh, Scotland, UK, 1999.
2. Royal Society (London) fellowship, Department of Pharmacology and Neuroscience, University of Dundee, Dundee, Scotland, UK
Department of Biomedical Sciences, University of Aberdeen, Scotland, UK, 2000- 2001

Professional Memberships

1. Member of the Society for Neuroscience.
2. Member of the American Physiology Society (2007-2009).

SELECTED ARTICLES IN PEER-REVIEWED JOURNALS:

1. P. Zhu, W. Huang , D. **Kalikulov**, J. Yoo, A. Placzek, L. Stoica, H. Zhou, J. Bell, M. Friedlander, K. Krnjević, J. Noebels, Costa-Mattioli. Suppression of PKR promotes network excitability and enhanced cognition by interferon-g-mediated disinhibition. **Cell** 147,1384-1396, December 9, 2011.
2. Ismailov I., **Kalikulov D.**, Inoue T., Friedlander J.M. The kinetic profile of intracellular calcium predicts long-term potentiation and long-term depression.LTP and LTD. *J Neurosci.* 2004 Nov 3;24(44):9847-61.
3. **Kalikulov**, Ayar A., Nuritova F., Frenguelli B.G., McClelland Martin D.J., Davidson I., Scott R.H. Venom from Anemesia species of spider modulates high voltage-activated Ca²⁺ currents from rat cultured sensory neurones and excitatory postsynaptic currents from rat hippocampal slices. *Cell Calcium Sep*;30(3);212-21;2001
4. **Kalikulov D.**, Nasirov K., Akhmedov K.D., Usmanov P.B. Isolation and characterization of neurotoxins from Anemesia sp. Spider venom. *Chemistry of Natural Compounds.* Volume 31, Number 3, Date May 1995, Pages 389-391
5. Nasirov K., Akhmedov K.D., **Kalikulov D.**, Usmanov P.B. Isolation of the blockator of Ca²⁺-channels from Agelena labirintica spider venom. *Chemistry of Natural Compounds.* Volume 31, Number 3, Date May 1995, Pages 386-388.

6. Atakuziev B.U., Nasirov K., **Kalikulov D.**, Usmanov P.B. The glutamate receptor blockators of the *Argiope lobata* and *Araneus tartaricus* spider venoms. *Chemistry of Natural Compounds*. Volume 26, Number 4, Date July 1990, Pages 450-454.
7. Tashmukhamedov, BA, Usmanov, PB, Kazakov, I., **Kalikulov, D.**, Yukelson, LY. and Atakuziev, BU (1983) in: *Toxins as Tools in Neurochemistry*, 1983, eds. F. Hucho and Yu. Ovchimmikov, pp.312-323, Walter de Gruyter, Berlin-New York.
8. Usmanov PB, Kazakov I, **Kalikulov D**, Atakuziev BU, Yukelson LYa, Tashmukhamedov BA. The channel-forming component of the Theridiidae spider venom neurotoxins. *Gen Physiol Biophys*. 1985 Apr;4(2):185-93.
9. Usmanov PB, **Kalikulov D**, Shadyeva NG, Nenilin AB, Tashmukhamedov BA. Postsynaptic blocking of glutamatergic and cholinergic synapses as a common property of Araneidae spider venoms. *Toxicon*. 1985;23(3):528-31.

Presentation in Scientific Conferences

1. **D. Kalikulov**, M.J. Friedlander. Role of internal IP₃ receptors and ryanodine receptors in synaptic plasticity induction in visual cortex. 2011 American Society for Neuroscience Annual Meeting. Program number.348.02. Washington, DC, USA.
2. P. Zhu, W. Huang, **D. Kalikulov**, J. Yoo, A. Placzek, L. Stoica, H. Zhou, J. Bell, M. Friedlander, K. Krnjević, J. Noebels, Costa-Mattioli. Suppression of PKR promotes network excitability and enhanced cognition by interferon-γ-mediated disinhibition. 2011 American Society for Neuroscience Annual Meeting. Program number.126.03. Washington, DC, USA
3. I.I. Ismailov, **D. Kalikulov**, M.J. Friedlander. Intracellular Ca²⁺ profiles and the roles of individual Ca²⁺ sources in induction of LTD in visual cortex. 2010 American Society for Neuroscience Annual Meeting. Program number.43141.10. San-Diego, CA, USA
4. **D. Kalikulov**, I.I. Ismailov, M.J. Friedlander. Calcium sources that contribute to synaptic plasticity in visual cortex. 2008 American Society for Neuroscience Annual Meeting. Program number.434.15. Washington, DC, USA
5. **D. Kalikulov**, I.I. Ismailov, M.J. Friedlander. Sources of calcium that contribute to differential LTP and LTD induction in response to an identical pairing protocol in the visual cortex. 2007 American Society for Neuroscience Annual Meeting. Program number. 362.10. San-Diego, CA, USA
6. I.I. Ismailov, **D. Kalikulov**, M.J. Friedlander. Calcium signals during LTD induction in layer 2/3 neurons in visual cortex. 2006 American Society for Neuroscience Annual Meeting. Program number 732.10. Atlanta, GA, USA
7. I.I. Ismailov, **D. Kalikulov**, F.W. Hester, M.J. Friedlander. Kinetics of postsynaptic calcium transients during induction of synaptic potentiation and depression in neonatal visual cortical neurons. 2003 American Society for Neuroscience Annual Meeting. Program number 56.18. New Orleans, LA, USA
8. **D. Kalikulov**; I. Ismailov; F.W. Hester; M.J. Friedlander. Intracellular calcium imaging in neonatal visual cortical neurons during pairing induced synaptic potentiation. 2002 American Society for Neuroscience Annual Meeting. Program Number: 443.1. Orlando, FL, USA

9. I.Ismailov; **D.Kalikulov**; R.P.Montague; M.J.Friedlander Effect of stimulation pattern on synaptic depression and intracellular calcium in visual cortex. 2002 American Society for Neuroscience Annual Meeting. Program Number: 647.13. Orlando, FA, USA