BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Allan Kalueff (Kaluev), PhD	Assistant Professor of Pharmacology
eRA COMMONS USER NAME (credential, e.g., agency login) KALUEFF	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Moscow State University, Russia	BS, MS	1989-1996	Physiology
RUDN State University, Moscow, Russia	PhD	2002	Physiology
Tampere University, Tampere, Finland	Postdoc	2003-2005	Anatomy, Neuroscience
Tampere University, Tampere, Finland	PhD	2005	Anatomy
NIMH/NIH, Bethesda, USA	Postdoc	2005-2008	Neuroscience

A. Positions and honors

2009-present Assistant Professor of Pharmacology, Department of Pharmacology, Tulane University Medical School, New Orleans, LA, USA
2008-present Adjunct Assistant Professor of Physiology, Department of Physiology & Biophysics, Georgetown University Medical School, Washington DC, USA
2005-2008 Research Fellow, National Institute of Mental Health, Bethesda, USA
2003-2005 Researcher, Medical School, Tampere University, Tampere, Finland
1996-2003 Researcher, Centre for Physiology and Biochemical Research, Kiev, Ukraine
1996 Visiting Scientist, Medical School, University of Birmingham, UK
1995 Academic Researcher, Medical School, Bristol University, UK

Honors:

1995 Presidential Scientific Prize for outstanding young scientists
1997, 2001 Young Investigator Awards, International Union of Physiological Societies
2000, 2005 Young Investigator Awards, Worlds Federation of Societies of Biological Psychiatry
2005 Medal for Neurosteroid Research (Finland)
2006 Yaroslav Mudry Medal, National Academy, Kiev, Ukraine
2005-2008 IRTA Postdoctoral Fellowship, NIMH, NIH
2007-2009 NARSAD Young Investigator Award

Professional activities

- Co-Director of Departmental Graduate Seminar Series in Physiology, Department of Physiology and Biophysics, Georgetown University Medical School, USA (2008-present)
- Membership in the editorial boards (Letters in Drug Design and Discovery; 2006-present; Pharmacologyonline; 2005-present; Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2009-present)
- External reviewer for international granting bodies (Welcome Trust, Health Research Board Ireland, Dutch National Research Council)
- Chair, 1-12 International Neuroscience Conferences “Stress and Behavior” (1997-2009)
- Post-hoc reviewer for 20+ international neuroscience journals (including Nature Protocols, Brain Research, Biological Psychiatry, Journal of Psychopharmacology, American Journal of Psychiatry, Neuroscience and Biobehavioral Reviews, Behavioural Brain Research, Psychopharmacology, Neuropsychopharmacology, Progress in NeuroPsychopharmacology and Biological Psychiatry, Life Sciences, Neuroscience Letters)

Membership in professional organizations

- IBANGS (member) – International Behavioral and Neural Genetics Society
- IBNS (member) – International Behavioral Neuroscience Society
- FENS (member) – Federation of European Neuroscience Societies
- WFSBP (member) - World Federation of Societies of Biological Psychiatry, WFSBP Governing Assembly (member, 2007-2011)
- Serotonin Club (member)
- SfN (member) – Society for Neuroscience
- IBRO (member) – International Brain Research Organization; IBRO Alumni member

Supervision of students

PhD students

- 2004-2008: Anna Minasyan, MS (PhD student, Medical School, Tampere University, Tampere, Finland) PhD defended in December 2008

Post-Baccalaureate students

- 2004-2008: Tiina Keisala, MS (PhD student, Medical School, Tampere University, Tampere, Finland)
- 2007-2009: Justin LaPorte, BA (Research student, NIMH, USA)
- 2008-2009: Carisa Bergner, BS (Research student, GUMC, USA)
- 2008-2009: Amanda Smolinsky, BS (Research student, GUMC, USA)
- 2008-2009: Rupert Egan, BS (Research student, GUMC, USA)
- 2008-2009: Peter Hart, BS (Research student, GUMC/TUMC, USA)
- 2009: Peter Canavello, BS (Research student, TUMC, USA)
- 2009: Jonathan Cachat, BA (Research student, TUMC, USA)

Selected invited lectures and talks:

2001

- Opening Lecture, British Chemosignalling Workshop, University of Cardiff, UK
- International Stress and Anxiety Research (STAR) Society, Bratislava, Slovakia

2004

- Keynote address, 8th International “Stress and Behavior” Congress, St. Petersburg, Russia
- Invited lectures, Medical School, University of Tampere, Tampere, Finland

2005

- Symposium presentation, Symposium for Young Investigator Awardees, World Congress of Biological Psychiatry, Vienna, Austria
- Keynote address, 9th International “Stress and Behavior” Congress, St. Petersburg, Russia
- Guest Lecture, Department of Pharmacology, University of Kuopio, Finland
- Symposium presentation, Finnish Endocrine Society Meeting, Helsinki, Finland
- Invited lectures, Medical School, University of Tampere, Tampere, Finland

2006

- Guest Lecture, Department of Neuroscience, University of Maryland, Baltimore, USA
- Symposium Lecture, NIMH Annual Retreat, NIMH, NIH, USA

2007

- Guest Lecture, School of Biomedical Sciences, University of Durham, UK
- Guest Lecture, Medical School, University of Tampere, Tampere, Finland
- Guest Lecture, Department of Psychology, University of Helsinki, Finland
- Keynote address, 10th International “Stress and Behavior” Congress, St. Petersburg, Russia
- Guest Lecture, EU Magister Program in Neuroscience, St. Petersburg State University, Russia

- Guest Lecture, Laboratory of Behavioral Neuroscience, NIMH, NIH, USA
- Lectures and seminars, Department of Physiology, Georgetown University, Washington DC, USA
- Symposium presentation, 3rd International Brain and Behavior Congress, Athens, Greece (symposium chair)
- Guest Lecture, Gladstone Institute for Neurological Disease, San Francisco, USA
- Guest Lecture, Douglas Hospital Medical Research Center, Montreal, Canada

2008

- Guest Lecture, Department of Psychology, University of Memphis, Memphis, Tennessee, USA
- Guest Lecture, Department of Physiology, University of East Carolina, Greenville, USA
- Symposium lecture, CINP Regional Asia-Pacific Meeting, Kuala Lumpur, Malaysia (symposium chair and speaker)
- Guest Lecture, Institute of Brain Sciences, Fudan University, Shanghai, China
- Guest Lecture, School of Biomedical Sciences, Jiao-Tong University, Shanghai, China
- Series of 25 Lectures, 1st International Summer school on behavioral neuroscience and neurogenetics of stress, St. Petersburg, Russia (School Chair and Principal lecturer)
- Plenary lecture, 11th International "Stress and Behavior" Congress, St Petersburg, Russia (Conference Chair, Plenary Lecturer and symposium chair)
- Guest Lecture, Medical School, University of Tampere, Tampere, Finland
- Guest Lecture, Rudolf Magnus Institute of Neuroscience , Medical Centre, University of Utrecht, Utrecht, Netherlands
- Master Class, Neuroscience Master Program, University of Utrecht, Utrecht, Netherlands
- Guest Lecture and seminar, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands
- Symposium lecturer, Measuring Behavior 2008 Conference, Maastricht, Netherlands
- Seminar, Department of Pharmacology, Tulane University Medical School, New Orleans, USA
- Opening Seminar, Departmental Graduate Seminar Series, Department of Physiology and Biophysics, Georgetown University Medical School, Washington DC, USA
- Plenary lecture, Tampere Graduate School Symposium, Tampere, Finland
- Invited talk, Satellite symposium "Clever Systems and Behavior Recognition Technology", SfN (Society for Neuroscience) 2009 Conference, Washington DC, USA

B. Selected peer-reviewed publications (in chronological order; selected from over 80 peer-reviewed publications)

1. **A.V. Kalueff,** D.J. Nutt (1997) Role of GABA in memory and anxiety. Depress Anxiety 4, 100-110.
2. **A.V. Kalueff,** V.A. Maisky, A.I. Pilyavsky, N.E. Makarchuk (2001) Persistent c-fos expression and NADPH-d reactivity in the medulla and the lumbar spinal cord in rat with short-term peripheral anosmia. Neurosci. Lett. 3, 131-134.
3. **A.V. Kalueff,** Y-R. Low, I. Laaksi, P. Tuohimaa (2004) Increased anxiety in mice lacking Vitamin D receptor gene. Neuroreport 15, 1271-1274.
4. **A.V. Kalueff,** Y-R. Low, I. Laaksi, P. Tuohimaa (2004) Impaired motor performance in mice lacking neurosteroid Vitamin D receptors. Brain Res. Bull. 64, 25-29.
5. **A.V. Kalueff,** P. Tuohimaa (2004) Experimental models of anxiety and depression. Acta Neurobiol. Exper. 64, 123-127.
6. **Kalueff AV,** Lehtimaki KA, Ylinen A, Honkaniemi J, Peltola J. (2004) Intranasal administration of human IL-6 increases the severity of chemically induced seizures in rats. Neurosci. Lett. 365, 106-110.
7. **A.V. Kalueff,** Y-R. Low, I. Laaksi, P. Tuohimaa (2004) Increased grooming behavior in mice lacking Vitamin D receptors. Physiol. Behav. 82, 405-409.
8. **A.V. Kalueff,** P. Tuohimaa (2004) Grooming analysis algorithm for neurobehavioural stress research. Brain Res. Protocols 13, 151-158.

9. **A.V. Kalueff,** Tuohimaa (2004) Contrasting grooming phenotypes in C57 and 129S1/SvImJ mice. Brain Res. 1028, 75-82.
10. **A.V. Kalueff**, P. Tuohimaa (2005) The grooming analysis algorithm discriminates between different levels of anxiety in rats: potential utility for neurobehavioural stress research. J. Neurosci. Methods 143, 169-177.
11. **A.V. Kalueff,** Y-R.Low, I.Laaksi, P.Tuohimaa (2005) Abnormal organization of grooming in mice lacking Vitamin D receptor gene. J. Neurogenet. 19, 1-24.
12. **A.V. Kalueff,** P. Tuohimaa (2005) Contrasting grooming phenotypes of three mouse strains markedly different in anxiety levels (NMRI, C57, 129S1). Behav. Brain Res. 160, 1-10.
13. **A.V. Kalueff,** P. Tuohimaa (2005) Mouse grooming is a reliable anxiety marker bidirectionally sensitive to GABAergic drugs. Eur. J. Pharmacol. 508, 147-153.
14. **A.V. Kalueff,** P. Tuohimaa (2005) The Suok ("ropewalking") murine test of anxiety. Brain Res. Protocols 14, 87-99.
15. **A.V. Kalueff,** A. Minasyan, P. Tuohimaa (2005) Anticonvulsant effects of 1,25-dihydroxyvitamin D in chemically induced seizures in mice. Brain Res. Bull. 67, 156-160.
16. **A.V. Kalueff,** A. Minasyan, P. Tuohimaa (2005) Behavioural characterization in rats using the elevated alley Suok test. Behav. Brain Res. 165, 52-57.
17. **A.V. Kalueff,** A. Minasyan, T. Keisala (2006) Increased severity of chemically induced seizures in mice with partially deleted Vitamin D receptor gene. Neurosci. Lett. 394, 69-73.
18. **A.V. Kalueff,** T. Keisala, A. Minasyan, P. Tuohimaa (2006) Behavioural anomalies in mice evoked by "Tokyo" disruption of the Vitamin D receptor gene. Neurosci Res. 54, 254-260.
19. **A.V. Kalueff,** E. Loseva, H. Haapasalo et al. (2006) Thalamic calcification in vitamin D receptor knockout mice. Neuroreport 17, 717-721.
20. **A.V. Kalueff,** A. Minasyan, T. Keisala, P. Tuohimaa (2006) Vitamin D neuroendocrine system as a potential target for CNS drugs. Curr. Drug Targets – CNS Neurol. Disordr. 5, 363-371.
21. **A.V. Kalueff,** P. Gallagher, D.L. Murphy (2006) Are serotonin knockout mice "depressed"? – hypoactivity but no anhedonic depression. Neuroreport, 17, 1347-1351.
22. **A.V. Kalueff,** D.F. Avgustinovich, N.N. Kudryavtseva, D.L. Murphy (2006). BDNF in anxiety and depression. Science 312, 1598-1599.
23. **A.V. Kalueff,** T. Keisala, A. Minasyan, P. Tuohimaa (2007) Influence of paternal phenotypes on F1 behaviors: lessons from several mouse strains. Behav. Brain. Res., 177, 45-50.
24. **A.V. Kalueff** (2007) Mapping convulsants' binding to the GABA-A receptor chloride ionophore: a proposed model for channel binding sites. Neurochem. Int., 50, 61-68.
25. **A.V. Kalueff** (2007). Neurobiology of memory and anxiety: from genes to behavior. Neural Plasticity, 2007, 1-12.
26. **A.V. Kalueff**, R. Ren-Patterson, D.L. Murphy (2007) The developing utility of heterozygous (+/-) mutant mouse models in brain monoamine transporter research. Trends Pharmacol. Sci., 28, 122-127.
27. **A.V. Kalueff**, M. Wheaton, D.L. Murphy (2007). What's wrong with my mouse model? Advances and strategies in animal modeling of anxiety and depression. Behav. Brain Res., 179, 1-18.
28. **A.V. Kalueff**, M. Wheaton, R. Ren-Patterson, D.L. Murphy (2007) BDNF, serotonin transporter and depression: comment on Kaufman et al. Biol. Psychiatry, 61, 1112-1113.
29. **A.V. Kalueff**, M.A. Fox, P. Gallagher, D.L. Murphy (2007) Hypolocomotion, anxiety and serotonin syndrome-like behavior contribute to the complex phenotype of serotonin transporter knockout mice. Genes Brain Behav., 6, 389-400.
30. Minasyan, T. Keisala, Y-R Lou, **A. Kalueff**, P. Tuohimaa (2007) Neophobia, sensory and cognitive functions, and hedonic responses in vitamin D receptor mutant mice. J. Steroid Biochem. Mol. Biol., 104, 269-273.
31. T. Keisala, A. Minasyan, U. Järvelin, J.-H. Wang, T. Hämäläinen, **A. Kalueff**, P. Tuohimaa (2007) Aberrant nest building and prolactin secretion in vitamin D receptor mutant mice. J. Steroid Biochem. Mol. Biol., 104, 269-273.
32. **A.V. Kalueff,** D.L. Murphy (2007) The importance of cognitive phenotypes in animal models of anxiety and depression. Neural Plasticity, 2007, 1-7.

33. **A.V. Kalueff,** T. Keisala, A. Minasyan, P. Tuohimaa (2007). Pharmacological modulation of anxiety-related behaviors in the murine Suok test. Brain Res. Bull., 74, 45-50.
34. A.V. Kalueff, D.J. Nutt (2007). Role of GABA in anxiety and depression. Depress. Anxiety, 24, 495-517.
35. **A.V. Kalueff,** C.L. Jensen, D.L. Murphy (2007). Locomotory patterns, spatiotemporal organization of exploration and spatial memory in serotonin transporter knockout mice. Brain Res, 1169, 87-97.
36. **A.V. Kalueff,** J.W. Aldridge, J.L. LaPorte, D.L. Murphy, P.A. Tuohimaa. Analyzing grooming microstructure in neurobehavioral experiments. Nature Protocols, 2, 2538-2344.
37. **A.V. Kalueff,** K. Ishikawa, A. Griffith (2008). Anxiety and otovestibular disorders: linking behavioral phenotypes in men and mice. Behav. Brain Res., 186, 1-11.
38. **A.V. Kalueff,** A. Minasyan, T. Keisala, J.L. LaPorte, D.L. Murphy, P. Tuohimaa (2008). The regular and light-dark Suok "ropewalking" tests of anxiety and sensorimotor disintegration: utility for behavioral characterization in rodents. Nature Protocols, 3, 129-136.
39. **A.V. Kalueff**, J. LaPorte, D.L. Murphy (2008). Perspectives on genetic animal models of serotonin toxicity. Neurochem. Int., 52, 649-658.
40. J. Zou, A. Minasyan, T. Keisalaa, Y. Zhang, J.-H. Wang, Y.-R. Lou, **A.V. Kalueff**, I. Pyykko, P. Tuohimaa (2008). Progressive hearing loss in mice with a mutated vitamin D receptor gene. Audiol. Neurotol., 13, 219-230.
41. **A.V. Kalueff**, J.L. LaPorte, D.L. Murphy, K.Sufka (2008). Hybridizing behavioral models: a possible solution to some problems in neurophenotyping research? Progress Neuro-Psychopharm. Biol. Psychiatry, 32, 1172-1178.
42. **A.V. Kalueff**, R.F. Ren-Patterson, J.L. LaPorte, D.L. Murphy (2008). Domain interplay concept in animal models of neuropsychiatric disorders: a new strategy for high-throughput phenotyping research. Behav. Brain Res., 188, 243-249.
43. J.L. LaPorte, R.F. Ren-Patterson, D.L. Murphy, **A.V. Kalueff** (2008). Refining psychiatric genetics: from “mouse psychiatry” to understanding complex human disorders. Behav. Pharmacol., 19, 377-384.

Books

1. A.V. Kalueff. Stress, Anxiety and Behavior (1998, 1999) Kiev, Enigma Press, 128 p.
2. A.V. Kalueff. Current Problems in the Study of Stress-related Behavior (1998) Kiev, KSF, 147 p.
3. A.V. Kalueff. Windows into the Brain: Animal Modeling of Behavior (1999) Kiev, KSF, 167 p.
4. N.E. Makarchuk, A.V. Kalueff. Olfaction and Behavior (2000) Kiev, KSU, 198 p.
5. A.V. Kalueff. Grooming Behavior and Stress (2002) Moscow, Avix, 180 p.
6. A.V. Kalueff. Montgomery Memorial Lecture: Animal models of Stress (2002) Moscow, RSBP, 30 p.
7. A.V. Kalueff. Biological Basis of Hedonic Behaviors (2003) Moscow, Avix, 97 p.

Edited books

8. **A.V. Kalueff** (ed), Animal Models in Biological Psychiatry (2006) New York, Nova Science Publishers, 211 p.
9. **A.V. Kalueff** (ed), Behavioral Models in Stress Research (2008) New York, Nova Science Publishers, 234 p.
10. **A.V. Kalueff** (ed), Animal Models in Neuroscience Research (2008) New York, Nova Science Publishers, in press.
11. **A.V. Kalueff,** J.L. LaPorte (eds), Experimental Models in Serotonin Transporter Research (2009) Cambridge University Press, in press.
12. **A.V. Kalueff,** J.L. LaPorte, C,L.Bergner (eds), Neurobiology of Grooming and Related Behaviors (2009) Cambridge University Press, in press.

13. J.E. Warnick, **A.V. Kalueff** (eds), Translational Neuroscience in Animal Research: Advancements, Challenges, and Research Ethics (2009), Nova Science Publishers, in press.
14. **A.V. Kalueff**, A.Smoilinsky (eds), Transgenic and Mutant Mice in Neuroscience Research (2009) Humana Press, in press.

Book chapters:

1. **A.V. Kalueff** (2006) A New Behavioural Paradigm for Anxiety Research in Rodents – the Suok "Ropewalking" Test. In: Trends in Brain Research, Ed. J. Chen, Nova Science, NY, pp. 89-115.
2. **A.V. Kalueff** (2006) Vitamin D as a Neurosteroid Hormone: From Neurobiological Effects to Behavior. In: New Topics in Vitamin D Research, Ed. V. Stoltz, Nova Science, NY, pp. 29-65.
3. **A.V. Kalueff** (2006) Neuroethological Models of Anxiety and Depression. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 1-26.
4. **A.V. Kalueff** and Pentti Tuohimaa (2006) Protocol: Ethological Analysis of Grooming for Stress-Oriented Research in Mice - The Grooming Analysis Algorithm. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 27-42.
5. **A.V. Kalueff** and P. Tuohimaa (2006) Grooming Analysis Algorithm for Neurobehavioural Stress Research in Rats. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 43-57.
6. **A.V. Kalueff** and P. Tuohimaa (2006) Neurosteroid Vitamin D and Anxiety: Insights from Mutant Mice. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 97-117.
7. **A.V. Kalueff** and P. Tuohimaa (2006) Genetic Ablation of Vitamin D Receptor Gene Affects Grooming Activity and Sequencing in Mice. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 119-135.
8. **A.V. Kalueff** (2006) Experimental Models in Epilepsy Research: Intranasal Human Interleukin-6 Increases the Severity of Seizures in Rats. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 153-163.
9. **A.V. Kalueff** and P.Tuohimaa (2006) Mouse Grooming Microstructure is a Reliable Behavioural Index in Anxiety Psychopharmocology: GABA-ergic Drugs. In: Animal Models in Biological Psychiatry, Ed. A.V. Kalueff, Nova Science, NY, pp. 183-196.
10. **A.V. Kalueff**. (2008) Psychobiology of Motivation: old field, new challenges. In: Issues in Psychology of Motivation, Ed. F. Columbus, Nova Science, NY, 41-52.
11. **A.V. Kalueff**, R.F. Ren-Patterson, J.L. LaPorte, D.L. Murphy (2008) Domain-oriented Analysis for Understanding Molecular Interactions and Translating Animal Genetic Models into Neuropsychiatric Disorders: Focus on Serotonin Transporter and BDNF. In: Behavioral Models in Stress Research, Ed. A.V. Kalueff, Nova Science, NY, 159-184.
12. **A.V. Kalueff**, D.L. Murphy (2009) Behavioral phenotyping of mouse grooming and barbering. In: Handbook of Behavioral Genetics of the Mouse. Vol. 1: Genetics of Behavioral Phenotypes, Eds. W.E. Crusio, F. Sluyter, and R.T. Gerlai, Cambridge University Press, UK, in press.
13. J.L. LaPorte, R.F. Ren-Patterson, D.L. Murphy, and **A.V. Kalueff** (2009) Modeling SERT x BDNF interactions in brain disorders: single BDNF gene allele exacerbates brain monoamine deficiencies and increases stress abnormalities in serotonin transporter knockout mice. In: A.V. Kalueff, J.L. LaPorte, C.L.Berger (eds), Experimental Models in Serotonin Transporter Research, Cambridge University Press, UK, in press.
14. C.L. Bergner, A.N. Smolinsky, B.D. Dufour, J.L. LaPorte, P.C. Hart, R.J. Egan, and **A.V. Kalueff** (2009) Phenotyping and Genetics of Rodent Grooming and Barbering: Utility for Experimental Neuroscience Research. In: Neurobiology of Grooming Behavior, Eds A.V. Kalueff, J.L. LaPorte, and C.L. Bergner, Cambridge University Press, UK, in press.
15. B.D. Dufour, P.C. Hart, A.N. Smolinsky, C.L. Bergner, R.J. Egan, and **A.V. Kalueff** (2009) Assessment of Behavioral Perseveration in Experimental Animal Models. In: Translational Neuroscience in Animal Research: Advancements, Challenges, and Research Ethics, Eds J.E. Warnick and A.V. Kalueff, Nova Science, NY, in press.

16. A.N. Smolinksy, C.L. Bergner, J.L. LaPorte, and **A.V. Kalueff** (2009) Analysis of Grooming Behavior and its Utility in Studying Animal Stress, Anxiety, and Depression. In: Mouse Models of Mood and Anxiety Disorders, Ed. T.Gould, Humana Press, NY, in press.
17. P.C. Hart, C.L. Bergner, A.N. Smolinsky, B.D. Dufour, R.J. Egan, **A.V. Kalueff** (2009) Experimental Models of Anxiety for Drug Discovery and Brain Research. In: Mouse Models for Drug Discovery, Eds G. Proetzel and M. Wiles, Humana Press, NY, in press.

Abstracts presented at different national and international neuroscience conferences: 58