

Alexander Suvorov, PhD

Division of Environmental Health Science, Department of Public Health
School of Public Health and Health Sciences, University of Massachusetts Amherst
Goessmann 149A, 686 North Pleasant St., Amherst, MA 01003
Office phone: 413-545-7423 E-mail: asuvorov@schoolph.umass.edu

Professional Experience

- 2013-present Assistant Professor in Environmental Health Sciences
Division of Environmental Health Science, Department of Public Health, School of Public Health and Health Sciences, University of Massachusetts, Amherst
- 2010-2013 Senior Postdoctoral Research Associate in Molecular Toxicology
Department of Biology, Boston University, Boston, USA.
Supervisor: Dr. David J. Waxman
- Analysis of reprogramming of histone methylation profile in mice reproductive tissues by *in utero* exposure to xenoestrogen bisphenol A;
 - Genomic screening of molecular pathways altered in mice reproductive tissues by *in utero* exposure to xenoestrogen bisphenol A;
 - Genomic analysis of gene expression profile changes in mouse uterus throughout estrus cycle;
 - Analysis of epigenetic regulation of sex-specific genes in mouse liver by growth hormone;
 - Supervision of graduate students: development of instruction materials, assignment formulation, research methods teaching, consulting, evaluation of progress;
 - Popularization of science in the framework of Biology Inquiry & Outreach with Boston University Graduate Students Program for High School Students;
 - Presentation of research results at local and international meetings, preparation of grant applications, reports and papers for peer review journals.
- 2007-2010 Postdoctoral Fellow in Environmental Toxicology
Département Obstétrique Gynécologie, Université de Sherbrooke, Sherbrooke, Canada
Supervisor: Dr. Larissa Takser
- Genomic screening of molecular pathways affected in liver of rat offspring by low-dose perinatal exposure to 2,2',4,4'-Tetrabromodiphenyl ether (BDE-47);
 - Analysis of neuro-developmental and endocrine effects of perinatal exposure to BDE-47 in rats: anchoring behavioral endpoints in altered molecular pathways;
 - *In vitro* analysis of BDE-47 interaction with thyroid receptor;
 - Developmental toxicity of cyanobacterial toxins (microcystin-LR, cylindrospermopsin, anatoxin A) in rats exposed to recommended guideline doses for drinking water;
 - Historical review of literature data on PCB (polychlorinated biphenyls) and PBDE (polybrominated diphenyl ethers) toxicity to highlight generic shortages in experimental design that slow down data accumulation for risk assessment;
 - Supervision of graduate students: development of instruction materials, assignment formulation, research methods teaching, consulting, evaluation of progress;
 - Popularization of science: preparation of materials for newspapers and magazines;
 - Presentation of research results at local and international meetings, preparation of grant applications, reports and papers for peer review journals.
- 2003-2006 Habilitation
Institute of Animal Ecology and Evolution of the Russian Academy of Sciences, Moscow.
Advisers: Dr. Anatoly A. Schileyko, and Dr. Bella R. Striganova
- Study of macro-phylogenetic trends in evolution of complex adaptations in pulmonate mollusks;
 - Organized and conducted field research, laboratory experiments, managed invertebrate collection;
 - Supervision of graduate students: development of instruction materials, assignment formulation, research methods teaching, consulting, evaluation of progress;
 - Popularization of science: participation in educational documentaries;
 - Presentation of research results at local and international meetings, preparation of reports and papers for peer review journals.

1995-2003 Assistant/Associate Professor
Department of Biology, Ryazan University, Russia

- Teaching graduate and undergraduate courses: Introductory Biology, Molecular Biology, Genetics, Physiology and Anatomy, and Environmental Science;
- Study of morphology, ecology, fauna, taxonomy, evolution and conservation of pulmonate mollusks;
- Development of lecture courses, laboratory assignments, evaluation strategy;
- Supervision of graduate and undergraduate teaching and research projects;
- Research grants acquisition, laboratory management;
- Lead Field Studies Council of the Biology Faculty;
- Member of the Departmental Curriculum Review Committee;
- Member of Scientific Council of the Biology Faculty.

1991-1994 Post-graduate Student
Institute of Animal Ecology and Evolution of the Russian Academy of Sciences, Moscow
Supervisor: Dr. Anatoly A. Schileyko

- Study of morphology, ecology, and evolution of pulmonate mollusks;
- Supervision of undergraduate students.

Education

2010-2013 Senior Postdoctoral Research Associate, Boston University (Boston, USA)
2007-2010 Postdoctoral Fellow, Université de Sherbrooke (Sherbrooke, Canada)
2003-2006 Doctor of Science in Biology, Ecology and Evolution Institute of the Russian Academy of Sciences (Moscow, Russia)
1991-1994 Ph.D. in Biology, Ecology and Evolution Institute of the Russian Academy of Sciences (Moscow, Russia)
1985-1990 Bachelor & M.Sc. in Biology, Moscow State Pedagogical University (Moscow, Russia)

Related Academic Experience

- Prepare risk assessment of 9 occupational reproductive toxins for Institute for Research in Occupational Health and Safety (IRSST), Québec, Canada, 2010-2011.
- Review/edit the book “Identifying Land Snails and Slugs in Canada, Introduced Species and Native Genera”, Canadian Food Inspection Agency, 2010.
- Led interdisciplinary group for the development and application of technology for detoxification of the Ryazan Tannery wastewater (awarded silver Utkin medal for scientific innovation and technology transfer), 2001-2006.
- Member of Selection Committee of the Annual Regional Youth Research Conference, “Human and Environment”, 2002, 2003, 2005.
- Judge in ecology and zoology sections at the annual scientific competition of the Youth Science Fair of the Ryazan region, 1998-2005.
- Organizer and leader of the Ryazan Environmental Workshop, 1996-2002.
- Research Advisor in Youth Center for Environmental Studies, 1992-2001.
- Research Tutor in yearly Summer Youth Ecological Camp, 1994-2000.
- Invited lecturer, Ryazan Institute of Advanced Studies (adult learning courses for working professionals): Environmental Toxicology, 1995-2003, Ecology, 1999-2005, Methodology of field studies, 2003.
- Invited lecturer for distance-learning courses, Moscow State University of Culture and Arts: Introduction to Scientific Method for Humanists, 1995, 1999, 2003.
- Invited lecturer, St.-Petersburg University of Management and Economics: Intro to Environmental Chemistry, 2002, Introduction to Scientific Method for Humanists, 2005.

Journal Review (*ad hoc*)

Ecotoxicology and Environmental Safety
Journal of Applied Toxicology
Journal of Toxicology

Basic and Clinical Pharmacology and Toxicology
Cell Biology and Toxicology
Investigational New Drugs
Neurotoxicology and Teratology
Toxicology

Professional Affiliation

- The Endocrine Society
- Society of Toxicology of Canada
- American Association for the Advancement of Science
- Women's Reproductive Environmental Health Consortium
- Member of expert database of European Food Safety Authority (EFSA)
- Member of editorial board of Science Publishing Group

Publications

- 2013** Suvorov A., Waxman D.J., Early programming of uterine tissue by BPA: evidence from animal experiments. *Environmental Health Perspectives*, in press.
- 2013** Suvorov A., Stanley K.A., Connerney J., Waxman D.J. Gene Expression Regulation in Mouse Uterus in Proestrus and Estrus. *Biology of Reproduction*, 89(1):13.
- 2011** Suvorov A., Takser L. 2011. Delayed Frontal Lobes Transcriptome Response to Perinatal Exposure to BDE-47 in Rats. *Journal of Applied Toxicology*, 31(5):477-483.
- 2010** Suvorov A., Bissonnette C., Takser L., Langlois M.-F. 2010. Does 2,2',4,4'-tetrabromodiphenyl Ether Interact Directly with Thyroid Hormone Receptors? *Journal of Applied Toxicology*, 31(2):179-84.
- 2010** Suvorov A., Takser L. 2010. Global Gene Expression Analysis in the Livers of Rat Offspring Perinatally Exposed to Low Doses of 2,2',4,4'-tetrabromodiphenyl ether. *Environmental Health Perspectives*, 118(1):97-102.
- 2010** Abdelouahab N., Huel G., Suvorov A., Foliguet B., Thiebaugeorges O., Debotte G., Sahuquillo J., Charles M.-A., Takser L. 2010. Monoamine oxidase activity in human placenta in relation to blood manganese, lead, cadmium, and hair mercury at delivery. *Neurotoxicology and Teratology*, 32(2):256-61.
- 2009** Suvorov A., Battista M.-C., Takser L. 2009. Perinatal Exposure to Low-Dose 2,2',4,4'-Tetrabromodiphenyl Ether affects Growth in Rat Offspring: what is the role of IGF-1? *Toxicology*, 260:126-131.
- 2009** Abdelouahab N., Suvorov A., Pasquier J.-Ch., Praud, J.-P., Langlois M.-F., Takser L. 2009. Thyroid disruption by low dose of flame retardant BDE-47 in prenatally exposed lambs. *Neonatology*, 24;96(2):120-124.
- 2008** Suvorov A., Takser L. 2008. Facing the Challenge of Data Transfer from Animal Models to Humans: the Case of Persistent Organohalogenes. *Environ Health*. 7(1):58.
- 2008** Suvorov A., Girard S, Lachapelle S., Abdelouahab N., Sebire G., Takser L. 2008. Low-Dose BDE-47 and Hyperactivity in Rat Offspring. *Neonatology*, 95(3):203-209.
- 2006** Suvorov A.N. 2006. *Pentadentula balandini* gen. et sp. nov. (Pulmonata Enidae) from W Transcaucasia. *Ruthenica*, 16(1-2): 93-96.
- 2003** Suvorov A.N. 2003. A new species and genus of carnivorous slugs (Pulmonata Trigonochlamydidae) from West Transcaucasia. *Ruthenica*, 13(2): 149-152.
- 2003** Suvorov A.N. 2003. The Role of Positive Feedback in Formation of Macroevolutionary Trends by the Example of Adaptation of Terrestrial Pulmonates (Mollusca, Gastropoda) to Moist Litter. *Entomological Review*, Vol 83, Suppl. 2.
- 2003** Suvorov A.N. 2003. Prospects of Development of Synthetic Theory of Macroevolution. *Bulletin of Ryazan State University of Education*, 1(9): 130-140.
- 2002** Suvorov A.N. 2002. A new subgenus and three new species of the genus *Acrotoma* O. Boettger, 1881 (Pulmonata Clausiliidae) from western Transcaucasia. *Ruthenica*, 12(2): 161-166.
- 2002** Suvorov A.N. 2002. Prospects of studies of Morphological Variability of land Pulmonate Snails. *Biology Bulletin of Russian Academy of Sciences*, Vol 29, No 5.

- 2001** Zhiltsov S.S., **Suvorov A.N.** 2001. Micromorphology of the distal portion of sexual apparatus of *Aegopis verticillus* (Gastropoda, Pulmonata, Zonitidae) and phylogenetic relations of the genus *Aegopis*. *Ruthenica*, 11(2): 187-196.
- 2001** Taniushkin A.I., **Suvorov A.N.** 2001. Micromorphology and functions of male sexual ducts in the subfamily Trichiinae (Pulmonata Hygromiidae). *Ruthenica*, 11(1): 15-24.
- 2001** **Suvorov A.N.** 2001. Fauna of terrestrial Pulmonata of the surroundings of Teletskoe Lake (Altay Natural Reserve). Proceedings of the conference “Human Impact on the Nature of Protected Territories”, Ryazan: 249-253.
- 2001** **Suvorov A.N.** 2001. Principle of complementarity and modern theoretical biology. Proceedings of Zoological Society of Ryazan State University of Education. Ryazan, 84-91.
- 2001** **Suvorov A.N.** 2001. Mollusca. In: Red Data Book of Ryazan Region, 185-193. Uzorochie, Ryazan.
- 2000** Zhiltsov S.S., Taniushkin A.I., **Suvorov A.N.** 2000. Terrestrial molluscs of Ryazan region. Institute of Advanced Training, Ryazan.
- 2000** **Suvorov A.N.** 2000. Functional morphology of pneumostomal area in terrestrial Pulmonata (Gastropoda). *Ruthenica*, 10(2): 89-104.
- 1999** Taniushkin A.I., Zhiltsov S.S., **Suvorov A.N.** 1999. A case of occurrence of two darts in upper stylophore in *Xeropicta krynickii* (Pulmonata Hygromiidae). *Ruthenica*, 9(2): 163 – 164.
- 1999** **Suvorov A.N.**, Lanzov V.I. 1999. Fauna and structure of associations of terrestrial molluscs of the Valley of Zolka Juzhnaya River. Proceedings of KBNC Russian Academy of Sciences, 3: 57 - 59.
- 1999** **Suvorov A.N.** 1999. Some mechanisms of adaptation to the wet microhabitats in higher Geophila (Mollusca, Pulmonata). *Journal of general biology*, 60(2): 177 – 188.
- 1999** **Suvorov A.N.** 1999. Functional Interrelations between Aperture Structures and Soft Organs in Lower Geophila. 2. Achatinina. *Russian Journal of Zoology*, 78(5): 528 – 538.
- 1999** **Suvorov A.N.** 1999. Functional Interrelations between Aperture Structures and Soft Organs in Lower Geophila. 1. Pupillina, Oleacinina. *Russian Journal of Zoology*, Vol 3, No 1.
- 1999** **Suvorov A.N.** 1999. The Conflict between Operative and Conservative Subsystems of Organism in the Evolution of Terrestrial Snails (Stylommatophora, Pulmonata). *Russian Journal of Zoology*, Vol 3, No 3, 1999.
- 1999** **Suvorov A.N.** 1999. On the nature of the Visceral Hump in Pulmonates (Gastropoda, Pulmonata). *Russian Journal of Zoology*, Vol 3, No 3.
- 1998** **Suvorov A.N.** 1998. Snails of one sixth of the world’s dry land (the former USSR). *Tentacle*, 8: 5 – 7.
- 1996** **Suvorov A.N.** 1996. On the origin of pallial gonoduct in Pulmonata. *Ruthenica*, 6(1): 79.
- 1995** **Suvorov A.N.** 1995. *Arion lusitanicus* – new agricultural pest. Release Bulletin of Ryazan Center of Scientific-and-Technical information, N147-97, Series P.68.37.29.
- 1993** **Suvorov A.N.** 1993. Functional morphology of aperture in Pupillina suborder (Gastropoda Pulmonata). *Ruthenica*, 3(2): 141-152.
- 1991** **Suvorov A.N.**, Schileyko A.A. 1991. Functional morphology of aperture armature in subfamily Lauriinae (Gastropoda, Orculidae) and questions of taxonomy of the group. *Ruthenica*, 1(1-2): 67-80.
- 1990** **Suvorov A.N.** 1990. Morpho-functional analyzes of closing apparatus of two clausiliidae species (Gastropoda Pulmonata). *Russian Journal of Zoology*, 70(7): 21-32.

Recent Invited Presentations

- 2013** Epigenetic programming of tissues by hormones and hormone-like substances. *Woods Hole Oceanographic Institution, USA*
- 2012** Developmental Toxicity of Endocrine Disruptors: a Genomic and Epigenetic Approach. *Department of Public Health University of Massachusetts, Amherst, USA.*
- 2010** Anchoring Neurodevelopmental Effects of Low Dose Exposure to PBDE in Altered Molecular Pathways. *Biology Department, University of Massachusetts, Amherst, USA.*
- 2009** Low Dose Developmental Toxicity of 2,2',4,4'-Tetrabromodiphenyl Ether: from Health Effects to Underlying Molecular Mechanisms. *Department of Pharmacology & Therapeutics, McGill University, Montreal, Canada.*

- 2009** Global gene expression analysis in liver of rat offspring exposed perinatally to low dose of BDE-47. *3e journée Axe Mère-Enfant, Université de Sherbrooke, Canada*
- 2008** Data transfer from animal models to human studies in developmental toxicology: what is the challenge? Case of persistent organohalogenes. *International Symposium on Neurobehavioral Methods and Effects in Environmental and Occupational Health, San Jose, Costa Rica.*

Recent Conference Presentations

- 2012** 44th Annual Symposium of The Society of Toxicology of Canada, Montreal, Canada (*1 poster*).
- 2012** Women's Reproductive Environmental Health Consortium, NIEHS, USA (*1 oral*).
- 2012** BPA Grantee Research Update and Coordination Meeting, NIEHS, USA (*1 poster*).
- 2011** 43rd Annual Symposium of The Society of Toxicology of Canada, Montreal, Canada (*1 oral*).
- 2011** 12th Annual Workshop on Brominated Flame Retardants, Boston, USA (*1 oral*).
- 2011** 93rd Annual Meeting of Endocrine Society, Boston, USA (*1 poster*).
- 2009** 11th Annual Workshop on Brominated Flame Retardants, Ottawa, Canada (*1 poster*).
- 2009** 3e journée Axe Mère-Enfant, Université de Sherbrooke, Canada (*1 invited*).
- 2008** 40th Annual Symposium of the Society of Toxicology of Canada, Montreal, Canada (*1 poster*).
- 2008** International Symposium on Neurobehavioral Methods and Effects in Environmental and Occupational Health, San Jose, Costa Rica (*1 invited, co-chair of mini-symposium*).
- 2008** 47th meeting of Canadian Society of Zoologists, Halifax, Canada (*1 oral*).
- 2008** 28th Annual Meeting of Society for Maternal-Fetal Medicine, Dallas, TX, USA (*1 poster*).
- 2007** The Sixth Princess Chulabhorn International Science Congress (PC-VI): The Interface of Chemistry and Biology in the "Omics" Era: Environment & Health and Drug Discovery, Bangkok, Thailand (*1 poster*).
- 2007** Congrès Armand-Frappier, Mont Orford, Canada (*1 oral, 2 posters*).
- 2007** XI International Congress of Toxicology, Montreal, Canada (*1 poster*).
- 2007** 46th meeting of Canadian Society of Zoologists, Montreal, Canada (*1 oral*).

Recent Meetings and Courses Attended

- 2010/12** Ecology, Behavior, and Evolution weekly seminar, *Boston University, USA*
- 2010/12** Systems and Integrative Biology weekly seminar, *Boston University, USA*
- 2011/12** Science Shaping our World (SHOW) seminar series, *Boston, USA*
- 2011** 3rd Annual Epigenetics World Congress, *Boston, USA*
- 2010** Applications in bioinformatics (BF527), *Boston University, USA*
- 2010** BPA Grantee Research Update and Coordination Meeting, *NIEHS, USA*
- 2010** 2nd Annual Epigenetics World Congress, *Boston, USA*
- 2009** The International Implications of the US National Research Council's Report on Toxicity Testing in the 21st Century: Challenges and Opportunities in Implementation, *Ottawa, Canada*
- 2009** *Rendez Vous* Protéomique: From Proteomics to Systems Biology, *Genome Quebec and McGill University Innovation Centre, Montreal, Canada*
- 2009** *Rendez-Vous* FlexArray2009 (quality control, visualization, and analysis of gene expression data with help of the FlexArray), *Genome Quebec and McGill University Innovation Centre, Montreal, Canada*
- 2008** Analyse de risques écotoxicologiques (ENV 789), *Université de Sherbrooke, Canada*
- 2007** The Use of "Omics" in Human Health Risk Assessment, *Bangkok, Thailand*
- 2006** Hazardous Substances in Goods: Sources, Properties and EU Legislation, *BASF, Germany*

Recent Research Grants / Funding Received

- 2008-2010** L'Agence française de sécurité sanitaire de l'environnement et du travail (Afsset) *Exposition périnatale aux faibles doses de PBDE: cible surrenalienne et effets physiologiques (Co-PI)*
- 2003-2006** Russian Academy of Sciences *Research fellow: Evolution of Complex Adaptations of Terrestrial Pulmonata (PI)*
- 1998-2001** Russian Foundation for Basic Researches *Analysis of Macrophylogenetic Trends of Higher Pulmonata (PI)*