

## CURRICULUM VITAE

**NAME:** EUGENE N. MURATOV

**DATE OF BIRTH:** February, 17, 1979

**PLACE OF BIRTH:** Odessa, Ukraine

**GENDER:** Male

**MARITAL STATUS:** Married

**PROFESSION:** Cheminformatician

**ADDRESS:** Laboratory for Molecular Modeling, Division of Chemical Biology and Medicinal Chemistry, Eshelman School of Pharmacy, University of North Carolina, Chapel Hill, NC 27599, USA

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### EDUCATIONAL BACKGROUND – *PhD in Organic Chemistry*

**1995-1999** Bachelor Degree (**BS**) in Chemical Technology of Pharmaceutical Substances, Department of Chemical-Engineering, Odessa National Polytechnic University, Odessa, Ukraine;

**1999-2000** Master Degree (**MS magna cum laude**) in Chemical Technology of Organic Substances, Department of Chemical-Engineering, Odessa National Polytechnic University, Odessa, Ukraine;

**2000 - 2004** **PhD in Organic Chemistry**, Department of Molecular Structure, A.V.Bogatsky Physical-Chemical Institute of Ukrainian National Academy of Sciences, Odessa, Ukraine.

### PROFESSIONAL EXPERIENCES:

**2012 – present. Research Assistant Professor, Laboratory for Molecular Modeling, Division of Chemical Biology and Medicinal Chemistry, Eshelman School of Pharmacy, University of North Carolina, Chapel Hill, NC, USA.**

**2010 – 2014** Senior Researcher, Laboratory of Theoretical Chemistry, Department of Molecular Structure, A.V.Bogatsky Physico-Chemical Institute National Academy of Sciences of Ukraine, Odessa, Ukraine.

**2009 - 2010** Visiting Researcher, Laboratory of Chemoinformatics, University of Strasbourg, Strasbourg, France.

**2008 – 2012** Postdoctoral Research Associate, Laboratory on Molecular Modeling, Department of Medicinal Chemistry and Natural Products, School of Pharmacy, University of North Carolina, Chapel Hill, NC, USA.

**2008 – 2008** Visiting Researcher, S. Angeloff Institute of Microbiology Bulgarian Academy of Sciences, Sofia, Bulgaria.

**2008 – 2008** Postdoctoral Research Associate, Interdisciplinary Nanotoxicity Center, Department of Chemistry, Jackson State University, Jackson, MS, USA.

**2006 – 2008** Postdoctoral Research Associate, Computational Center for Molecular Structure and Interactions, Department of Chemistry, Jackson State University, Jackson, MS, USA.

**2003 – 2010** Researcher (Postdoctoral since 2004), Laboratory of Theoretical Chemistry, Department of Molecular Structure, A.V.Bogatsky Physico-Chemical Institute National Academy of Sciences of Ukraine, Odessa, Ukraine.

**1995 - 2000** Laboratory technician, Synthon Ltd, Odessa, Ukraine.

### PROFESSIONAL DEGREE

2004. PhD in Organic Chemistry. Thesis “Quantitative Evaluation of Structural Factors Influence on the Properties of Nitrogen-, Oxygen- and Sulfur-containing Macroheterocycles”.

### PUBLICATIONS

- Books edited: **1** (Will be published in 2014)

- Book chapters: **4**

- Research papers in refereed journals: **67**

- Presentations at scientific meetings: **148**

**BOOK EDITED:**

Applications of Computational Techniques in Pharmacy and Medicine, Springer, edited by L.Gorb, V.Kuz'min, and E.Muratov. Estimated Availability 05/2014; Springer.

**SELECTED RECENT PUBLICATIONS (Papers and Book Chapters):**

1. A.G. Artemenko, **E.N. Muratov**, V.E. Kuz'min, N.A. Kovdienko, A.I. Hromov, V.A. Makarov, O.B. Riabova, P. Wutzler, M. Schmidtke. *Identification of individual structural fragments of N,N'-(bis-5-nitropyrimidyl)dispirotriperazine derivatives for cytotoxicity and antiherpetic activity allows the prediction of new highly active compounds* // J. Antimicrob. Chemother. **2007**; V. 60 (1), P: 68-77.
2. V. Kuz'min, A. Artemenko, **E. Muratov**, I. Volineckaya, V.A. Makarov, O.B. Riabova, P. Wutzler, M. Schmidtke. *QSAR studies of [(biphenyloxy)propyl]isoxazole derivatives – human rhinovirus 2 replication inhibitors* // J. Med. Chem. **2007**; V. 50, P: 4205-4213.
3. V. Kuz'min, A. Artemenko, **E. Muratov\***. *Hierarchical QSAR Technology on the Base of Simplex Representation of Molecular Structure.* // J. Comp-Aid Mol Des. **2008**; V. 22 P.403-421
4. V.E. Kuz'min, **E.N. Muratov**, A.G. Artemenko, L.G. Gorb, M. Qasim, J. Leszczynski. *The effects of characteristics of substituents on toxicity of the nitroaromatics: HiT QSAR study* // J. Comp-Aid Mol Des **2008**, - Vol. 22, P. 747-759
5. V.E. Kuz'min, **E.N. Muratov**, A.G. Artemenko, L.G. Gorb, M. Qasim, and J. Leszczynski. *The effect of nitroaromatics composition on their toxicity in vivo. 1D QSAR research* // Chemosphere, **2008**, Vol. 72, P. 1373-1380
6. Kuz'min V.E., Artemenko A.G, **Muratov E.N.**, Ognichenko L.N., Hromov A.I., Liahovskij A.V., Polishchuk P.G. *The Hierarchic Informational Technology for QSAR Investigations: Molecular Design of Antiviral Compounds.* From: National Institute of Allergy and Infectious Diseases, NIH Volume 1, Frontiers in Research. **2008**. Ed: V. St. Georgiev, Humana Press Inc., Totowa, NJ, P.163-178.
7. A.G. Artemenko, **E.N. Muratov**, D.V. Atamanyuk, V. E. Kuz'min, A.I. Khromov, R.V. Kutsyk, R.B. Lesyk. *QSAR Analysis of Antimicrobial Activity of 4-thiazolidone Derivatives.* // QSAR Comb. Sci. – **2009** - Vol. 28, P. 194-205
8. V.E. Kuz'min, **E.N. Muratov\***, A.G. Artemenko, E.V. Varlamova, L. Gorb, J. Wang, J. Leszczynski. *Consensus QSAR Modeling of Phosphor-Containing Chiral AChE Inhibitors* // QSAR Comb. Sci. **2009**, - Vol. 28, P. 664-677
9. A.G. Artemenko, **E.N. Muratov**, V.E. Kuz'min, M. Kulinskiy, I. Borisuk, N. Ya. Golovenko. *HiT QSAR study of antivirals' bioavailability* // Antiviral Research. - **2009**. - Vol. 82. - P. A56.
10. P.G. Polishchuk, **E.N. Muratov\***, A.G. Artemenko, O.G. Kolumbin, N.N. Muratov, V.E. Kuz'min. *Application of Random Forest Approach to QSAR Prediction of Aquatic Toxicity* // J. Chem. Inf. Model.- **2009**.- Vol. 49. - P. 2481-2488.
11. Y.A. Kholod, **E.N. Muratov**, L.G. Gorb, F.C. Hill, A.G. Artemenko, V.E. Kuz'min, M. Qasim, J. Leszczynski. *Application of Quantum Chemical Approximations to Environmental Problems: Prediction of Water Solubility for Nitro Compounds* // Environ. Sci. Technol.-**2009**.- Vol. 43 - P. 9208-9215
12. N.A. Kovdienko, P.G. Polishchuk, **E.N. Muratov**, A.G. Artemenko, V.E. Kuz'min, L. Gorb, F. Hill, J. Leszczynski. *Application of Random Forest and Multiple Linear Regression Techniques to QSPR Prediction of an Aqueous Solubility for Military Compounds* // Mol. Informatics - **2010**. – Vol. 29. - P. 394-406
13. D. Fourches, **E. Muratov**, A. Tropsha. *Trust, But Verify: On the Importance of Chemical Structure Curation in Cheminformatics and QSAR Modeling Research* // J. Chem. Inf. Model.- **2010**. – Vol. 50. - P. 1189-1204. (Perspective, cited by 88 other papers).
14. **E. N. Muratov\***, A. G. Artemenko, E. V. Varlamova, P. G. Polishchuk, V. P. Lozitsky, A. S. Fedchuk, R. N. Lozitska, T. L. Gridina, L. S. Koroleva, V. N. Sil'nikov, A. S. Galabov, V. A. Makarov, O. B. Riabova, P. Wutzler, M. Schmidtke, V. E. Kuz'min. *Per aspera ad astra: application of Simplex QSAR approach in antiviral research* // Future Med. Chem.- **2010**. – Vol. 2. - P. 1205-1226.
15. **E.N. Muratov\***, E.V. Varlamova, A.G. Artemenko, T. Khristova, V.E. Kuz'min, V.A. Makarov, O.B. Riabova, P. Wutzler, M. Schmidtke. *QSAR analysis of [(biphenyloxy)propyl]isoxazoles – agents against coxsackievirus B3* // Future Med. Chem.- **2011**. – Vol. 3. - P. 31-43.
16. A.G. Artemenko, **E.N. Muratov**, V.E. Kuz'min, N.N. Muratov, E.V. Varlamova, A.V. Kuz'mina, L.G. Gorb, A. Golius, F.C. Hill, J. Leszczynski, A. Tropsha. *QSAR analysis of nitroaromatics' toxicity in Tetrahymena pyriformis: structural factors and possible modes of action* // SAR QSAR Env. Res. - **2011**. – Vol. 22. – P. 575-601
17. Y. Low, T. Uehara, Y. Minowa, H. Yamada, Y. Ohno, T. Urushidani, A. Sedykh, **E. Muratov**, V. Kuz'min, D. Fourches, H. Zhu, I. Rusyn, A. Tropsha. *Predicting drug-induced hepatotoxicity using QSAR and toxicogenomics approaches* // Chem. Res. Toxicol. – **2011**, – Vol. 24.- P. 1251-1262.

18. **E. Muratov\***, E. Varlamova, A. Artemenko, P. Polishchuk, V. Kuz'min. *Existing and Developing Approaches for QSAR Analysis of Mixtures* // Mol. Informatics – **2012**, – Vol. 31.- P. 202-221
19. I. Oprisiu, E. Varlamova, **E. Muratov**, A. Artemenko, G. Marcou, P. Polishchuk, V. Kuz'min, A. Varnek. *QSPR Approach to Predict Nonadditive Properties of Mixtures. Application to Bubble Point Temperatures of Binary Mixtures of Liquids* // Mol. Informatics - **2012**. – Vol. 31. - P. 491-502.
20. T.M. Martin, P. Harten, D.M. Young, **E.N. Muratov**, A. Golbraikh, H. Zhu, A. Tropsha. *Does Rational Selection of Training and Test Sets Improve the Outcome of QSAR Modeling?* // J. Chem. Inf. Model. - **2012**. – Vol. 52. - P. 2570-2578.
21. Ognichenko L.N., Kuz'min V.E., Gorb L., **Muratov E.N.**, Artemenko A.G., Kovdienko N.A., Polishchuk P.G., Hill F.C., Leszczynski J. *New Advances In QSPR/QSAR Analysis of Nitrocompounds: Solubility, Lipophilicity and Toxicity*. In Practical aspects of computational chemistry II, Eds. J. Leszczynski, M. Shukla, Springer, London, **2012**, P. 279-334. 541p.
22. Gorb L., Hill F.C., Holod Y., **Muratov E.N.**, Kuz'min V.E., Leszczynski J. *Progress in prediction of environmentally important physicochemical properties of energetic materials: applications of quantum-chemical calculations*. In Practical aspects of computational chemistry II, Eds. J. Leszczynski, M. Shukla, Springer, London, **2012**, P. 335-360.
23. D. Fourches, **E. Muratov**, F. Ding, N. Dokholyan, A. Tropsha. *Predicting Binding Affinity of CSAR Ligands Using Both StructureBased and Ligand-Based Approaches* // J. Chem. Inf. Model.- **2013**. – Vol. 53. - P. 1915-1922.
24. **E. Muratov\***, E. Varlamova, A. Artemenko, P. Polishchuk, L. Nikolaeva-Glomb, A. Galabov, V. Kuz'min. *QSAR analysis of poliovirus inhibition by dual combinations of antivirals* // Struct. Chem.- **2013**. – Vol. 53. - P. 1665-1679
25. P. Polishchuk, V. Kuz'min, A. Artemenko, **E. Muratov**. *Universal Approach for Structural Interpretation of QSAR/QSPR Models* // Mol. Informatics - **2013**. – Vol. 32. - P. 843-853.
26. A. Golbraikh, **E.N. Muratov**, D. Fourches, A. Tropsha. *Dataset Modelability by QSAR*. // J. Chem. Inf. Model. - **2013**. – DOI: 10.1021/ci400572x
27. Cherkasov, A.; **Muratov, E. N.**; Fourches, D.; Varnek, A.; Baskin, I. I.; Cronin, M.; Dearden, J. C.; Gramatica, P.; Martin, Y. C.; Todeschini, R.; Consonni, V.; Kuz'min, V. E.; Cramer, R. D.; Benigni, R.; Yang, C.; Rathman, J. F.; Terfloth, L.; Gasteiger, J.; Richard, A. M.; Tropsha, A. *QSAR Modeling: Where Have You Been? Where Are You Going To?* // J. Med. Chem. - **2013**. – DOI: 10.1021/jm4004285. ([Perspective](#))

#### SELECTED RECENT PAPERS/POSTERS PRESENTED AT CONFERENCES:

1. *QSAR analysis and virtual screening of nitroaromatic toxicity in vivo* (Oral) 7<sup>th</sup> Southern School on Computational Chemistry and Material Science, Jackson, USA, 2007.
2. *QSAR Studies on [(Biphenyloxy)propyl]isoxazole Derivatives with Anti-rhinovirus 2 Activity*. (Oral) 20<sup>th</sup> International Conference on Antiviral Research, Palm Springs, California, USA. 2007.
3. *QSAR Analysis of Anti-coxsackievirus B3 Nancy Activity of 2-amino-3-nitropyrazole[1,5-a]pyrimidines by Means of Simplex Approach*. (Poster) 20 International Conference on Antiviral Research, Palm Springs, California, USA. 2007.
4. *Molecular Design of Active Antitherpetic Compounds Using Hierarchic QSAR Technology* (Poster) 20 International Conference on Antiviral Research, Palm Springs, California, USA. 2007.
5. *Benzimidazole with Broad Spectrum of Antiviral Action* (Poster) 20 International Conference on Antiviral Research, Palm Springs, California, USA. 2007.
6. *New QSAR Approach to Describe Nitroaromatics Toxicity* (Poster) International Science Forum on Computational Toxicology, Triangle Park, USA, 2007.
7. *Hierarchical QSAR Technology on the Base of Simplex Representation of Molecular Structure* (Oral) Phil Magee Memorial Symposium: QSAR Reborn on the 234th ACS National Meeting, Boston, USA, 2007.
8. *2D QSAR analysis of nitroaromatic toxicity of the Tetrahymena pyriformis*. (Poster) Fourth International Symposium on Computational Methods in Toxicology and Pharmacology Integrating internet Resources (CMTPI-2007), 2007 Moscow, Russia
9. *In Vivo and Aquatic Toxicity of Nitroaromatics, A QSAR Study*. (Oral) 4th International Symposium on Recent Advances in Environmental Health Research, Jackson, USA, 2007
10. *New QSAR Equations for Predictions of an Aqueous Solubility for Military Compounds: Preliminary Results*. (Poster) 16th Conference on Current Trends in Computational Chemistry, Jackson, USA, 2007
11. *HiT QSAR – efficient tool for QSAR analysis and drug design*. (Oral) Austin Symposium on Molecular Structure, Austin, USA, 2008
12. *Domain applicability: How far are ideal and reality?* (Oral) Model Applicability Domains: When Can I Use my Model? Symposium on the 235th ACS National Meeting, New Orleans, USA, 2008.

13. *HiT QSAR Modeling of Chemical Toxicants Tested against Tetrahymena Pyriformis*. (Poster) Strasbourg Summer School on Chemoinformatics: CheminfoS3, Obernai, France, 2008.
14. *The Hierarchical QSAR Technology for Virtual Screening and Drug Design*. (Plenary lecture) Modeling and design of Molecular Materials, Piechowice, Poland, 2008.
15. *QSAR Analysis of Influence of Artificial Ribonucleases Structure on their Anti-Influenza Activity*. (Poster) 21 International Conference on Antiviral Research, Montreal, Canada, 2008.
16. *HiT QSAR Modeling of Chemical Toxicants Tested against Tetrahymena Pyriformis*. (Poster) Strasbourg Summer School on Chemoinformatics: CheminfoS3, Obernai, France, 2008.
17. *The Hierarchical QSAR Technology for Virtual Screening and Drug Design*. (Oral) Modeling and design of Molecular Materials, Piechowice, Poland, 2008.
18. *QSTR analysis of enantiomers and racemic mixtures of chiral AChE inhibitors* (Oral) New trends in chemical toxicology. 11<sup>th</sup> SAC Seminar, Moscow, Russia, 2008.
19. *Computer-aided design of [(biphenyloxy)propyl]isoxazoles – agents against coxsackievirus B3* (Oral) Drug Discovery Symposium on the 237th ACS National Meeting, Salt Lake City, USA, 2009
20. *Antiviral activity of tetrahydro-2(1H)-pyrimidinones and related compounds: classification SAR study* (Poster) 22 International Conference on Antiviral Research, Miami, USA, 2009.
21. *Trust, but Verify: Principles of Dataset Curation for Cheminformatics Research* (Oral) 3rd international symposium "Methods and Applications of Computational Chemistry", Odessa, Ukraine, 2009, P.46.
22. *Properties of Compounds Mixtures – Challenge for QSAR/QSPR Analysis* (Plenary lecture) 3rd international symposium "Methods and Applications of Computational Chemistry", Odessa, Ukraine, 2009, P.25.
23. *Double 2D QSAR approach for analysis of antipoliiovirus activity of mixtures* (Oral) 239-th ACS National Meeting, San Francisco, USA, 2010.
24. *QSAR Analysis of Poliovirus Inhibition by Dual Combinations of Antivirals*. (Poster) 23 International Conference on Antiviral Research, San Francisco, USA, 2010.
25. *Combi-QSAR Modeling of Ames Mutagenicity* (Poster) 2<sup>nd</sup> Strasbourg Summer School on Chemoinformatics, Obernai, France, 2010
26. *Collaborative QSAR Analysis of Ames Mutagenicity* (Oral) 241-th ACS National Meeting, Anaheim, USA, 2011
27. *Targeting natural products for drug discovery by mining biomedical information resources* (Oral) 9-th International Conference on Chemical Structures, Noordwijkerhout, Netherlands, 2011
28. *QSARome of GPCRs* (Oral) 243-th ACS National Meeting, San Diego, USA, 2012.
29. *Consensus prediction of skin permeability and sensitization using cheminformatics approaches* (Oral) // 245-th ACS National Meeting, New Orleans, USA, 2013.
30. *Obscurum per obscurius: computer-aided design of novel antivirals using Simplex approach* (Poster) // 26-th International Conference on Antiviral Research, San Francisco, USA, 2013
31. *Use of Simplex approach facilitates the design novel antiviral agents* (Poster) // 5-th Congress of European Microbiologists, Leipzig, Germany, 2013
32. *Predictive QSAR Models of Skin Sensitization and Skin Permeability and their Application to Identifying Potentially Hazardous Chemicals* (Plenary lecture) // 5-th international symposium "Methods and Applications of Computational Chemistry", Har'kov, Ukraine, 2013

## RESEARCH SKILLS BY KEYWORDS

Cheminformatics, Molecular Modeling, Data Mining, QSAR/QSPR, Computational Chemistry, Computational Toxicology, Virtual Screening

## CURRENT RESEARCH INTERESTS:

The main areas of my research combine methodology development and practical applications of computational tools. Theoretical areas include the development of descriptors for (nano)materials and compound mixtures, new workflows for biomolecular data curation and analysis, novel approaches for QSAR model validation. There are several ongoing applied projects including antiviral and antimicrobial research, identification of compounds with desired polypharmacological profiles, modeling of all skin-related toxicity endpoints (sensitization, penetration, irritation, and corrosion), modeling of ADMET properties, and computer-aided molecular design of compounds with the desired characteristics (antiviral activity, selectivity to certain receptors, etc.).

## COMPUTATIONAL SKILLS

**Cheminformatics Software:** HiT QSAR, ChemOffice, Accelrys, ChemAxon, ISIS, ISIDA, HyperChem, Dragon, ACDLabs, Sybyl, LigandScout, SEA, Knime.

## SOFTWARE DEVELOPMENT

**HiT QSAR Software** including the following modules:

- 1. LSM (Lattice and Simplex Modeling):** generation Simplex (SiRMS) and Lattice **1D-4D** molecular descriptors.
- 2. MDA (Methods of Data Analysis):** statistical processing of molecular descriptors and development of QSAR models based on MLR and PLS modeling techniques.
- 3. Various Cheminformatics Utilities**, e.g., **Clique** (searching of the (sub-)structure within the dataset/database, **TKNEW** (detection of structural duplicates in/between the dataset/database)

## RESEARCH FUNDING [Participated as an investigator]

### *Grants currently funded*

- 1. NIH National Institute of General Medical Sciences (NIGMS)** - ChemBench: the Integrated Web Portal to Accelerate Cheminformatics and Chemical Genomics Research. 9/01/2012 - 8/31/2016; \$567,492.00 (PI: Tropsha)
- 2. National Cancer Institute (NCI)** - Regulation of androgen receptor by HER-2 and Ack1 tyrosine kinases - ARRA. 2/01/2008 - 12/31/2013; \$1,743,557.00 (PI: Whang)
- 3. US Environmental Protection Agency (EPA)** - Development, Validation, and Delivery of Externally Predictive QSAR Models of Hepatotoxicity. 5/1/2011 - 4/30/2014; \$750,000 (PI: Tropsha)
- 4. Office of Naval Research (ONR)** - Materials Informatics: Expansion of the Aflowlib Database of Electronic Properties of Materials and the Development of Novel Materials Fingerprints for Efficient Database Mining and QSPR Modeling. 10/01/12-09/30/15; \$375,000.00 (PI: Tropsha)
- 5. National Science Foundation (NSF)** - ABI Innovation: Synergistic application of cheminformatics and computational geometry approaches for predicting protein-protein interactions. 8/1/2012 - 7/31/2015; \$289,892.00 (PI: Tropsha)

### *Previous grants*

- 1. NIH National Institute of General Medical Sciences (NIGMS)** - Predictive QSAR Modeling. 7/01/2003 - 6/30/2008; \$1,125,627.00 (PI: Tropsha)
- 2. NIH National Institute of General Medical Sciences (NIGMS)** - Protein Structure/Function Specific Packing Motifs. 8/01/2006 - 7/31/2011; \$1,065,694.00 (PI: Tropsha)
- 3. NIH National Institute of General Medical Sciences (NIGMS)** - Predictive QSAR Modeling - ARRA. 9/30/2009 - 8/31/2011; \$730,789.00 (PI: Tropsha)
- 4. NIH National Institute of General Medical Sciences (NIGMS)** - Prediction of Flavonoid Glucuronidation by Selected Human UGTs. 8/01/2010 - 7/31/2013; \$177,974.00 (PI: Tropsha/Hu)

### *Grants currently pending*

- 2. National Institute of Health (NIH)** - Integrating cheminformatics and molecular simulations for virtual drug screening. 4/01/13-3/31/17; \$706,745.00 (PI: Dokholyan)
- 3. Eli Lilly** - Computer-Assisted Methods to Detect, Analyze, and Account for Experimental Variability in Development and Application of QSAR Models. 10/01/13 - 9/30/15; \$219,269.00 (PI: Tropsha)
- 4. National Science Foundation (NSF)** - Materials Informatics: Mining, Visualizing, and Designing Materials with the Desired Properties. 1/01/14 - 12/31/16; \$424,200.00 (PI: Tropsha)

## COLLABORATORS

B. Roth, A. Kashuba, A. Kabanov (UNC-CH), M. Schmidtke (FSU, Germany), S. Curtarolo (Duke, USA), L. Gorb (JSU, USA), V. Makarov (RCA, Russia), V. Zarubaev (IRI, Russia), A. Galabov (IM, Bulgaria), V. Kuz'min, N. Golovenko (PCI, Ukraine), N. Kleinstreuer (ILS), J. Strickland (NIEHS), M. Hu (UH), B. Zuercher (GSK), V. Gombar (E.Lilly), A. Cherkasov (UBC, Canada),

## GRADUATE AND POSTDOCTORAL ADVISORS

Boris V. Kunshenko, Odessa National Polytechnic University, Odessa, Ukraine – BS and MS advisor  
Victor E. Kuz'min, A.V. Bogatsky Physico-Chemical Institute National Academy of Sciences of Ukraine, Odessa, Ukraine – Ph.D. advisor

Victor E. Kuz'min (A.V. Bogatsky Physico-Chemical Institute National Academy of Sciences of Ukraine), Jerzy Leszczynski (Jackson State University), and Alexander Tropsha (University of North Carolina) – postdoctoral sponsors.

#### **STUDENTS AND POSTDOCTORAL ADVISEES**

Graduate: E. Varlamova (PCI NASU, Ukraine), K. Korepina, I. Volineckaya (ONU, Ukraine).

#### **MENTORING**

Students: J. Wignall, S. Faraq, A. Hobbs, M. La, N. Rice, S. Tolson (UNC-CH), V. Alves (UG, Brazil).

Graduate: G. Zhao, T. Wu, A. Fant (UNC-CH), N. Kovdienko (JSU), E. Mokshyna (PCI NASU, Ukraine), O. Tinkov (TSU, Pridnestrov'e).

#### **TEACHING EXPERIENCE**

**1997-2006** Professional Badminton Coach. Badminton Club "Silver Shuttlecock", Odessa, Ukraine

**2002-2006** Teaching Assistant of Prof. V.E. Kuz'min (I.I. Mechnikov Odessa National University, Odessa, Ukraine) for the course "Molecular Morfometrics"

**2002-2006** Teaching Assistant of Prof. V.E. Kuz'min (I.I. Mechnikov Odessa National University, Odessa, Ukraine) for the course "Drug Design"

**2002-2006** Teaching Assistant of Prof. V.O. Omarov (Odessa National Economic University, Odessa, Ukraine) for the course "Physical-Chemical Methods of Analysis"

**2013** Several lectures in the course "Molecular Modeling" [MEDCHEM 804].

#### **INVITED LECTURES AND SEMINARS**

**2008** – Olemiss University, Oxford, USA

**2008** – S. Angeloff Institute of Microbiology BAS, Varna, Bulgaria

**2012** – National Cancer Institute, Fort Detrick, USA

#### **LANGUAGES**

Fluent in Russian (native language), English, Ukrainian

#### **HONORS AND AWARDS**

**2002** – Winner of Young Scientist Competition on 2-nd International Conference on Supramolecular Chemistry

**2002** – Winner of A.V.Bogatsky Grand Prize on Competition of Young Scientists-Chemists of South Region of Ukraine.

**2002** – Winner of "Scientific Partnership" International Fund Award for young investigator.

**2005** – Winner of A.V.Bogatsky Grand Prize on Competition of Young Scientists-Chemists of South Region of Ukraine.

**2006** – Winner of President of Ukraine Grant for Young Scientists.

**2006** – Winner of National Academy of Sciences of Ukraine Stipendium for Young Scientists.

**2006** - Premium of President of Ukraine for young scientists for the series of scientific articles entitled "Hierarchic system for molecular design of biologically active substances".

**2014** – IBM UNC Junior Faculty Development Award for the project "Computer-Aided Molecular Design of Novel Compounds with Desired Selective G-Protein Coupling Receptors (GPCRs) Profiles.

#### **AD-HOC PEER REVIEWER**

Bioinorganic Chemistry and Applications

Bioorganic and Medicinal Chemistry

Chemosphere

Ecotoxicology and Environmental Safety

Journal of Chemical Information and Modeling

Journal of Hazardous Materials

Journal of Structural Chemistry

SAR and QSAR in Environmental Research

## PROFESSIONAL MEMBERSHIP

2005-2011, 2013 ISAR (International Society for Antiviral Research) member.

2007-2013 ACS (American Chemical Society) member.

## Additional Contact Information

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*Research Gate:* [https://www.researchgate.net/profile/Eugene\\_Muratov/](https://www.researchgate.net/profile/Eugene_Muratov/) [RG Score = 27.19]

## References

**Professor Alexander Tropsha**, PhD, Associate Dean for Research, K.H. Lee Distinguished Professor, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, NC, USA.

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**Professor Viktor Kuz'min**, PhD, Dr.Sci., Professor, Vice-Director of A.V. Bogatsky Physical-Chemical Institute NAS of Ukraine, Head of the Department of Cheminformatics and Molecular Structure, A.V. Bogatsky Physical-Chemical Institute NAS of Ukraine, Odessa, Ukraine. *Email:* julyer@ukr.net

**Professor Bryan Roth**, MD, PhD, Department of Pharmacology, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, NC, USA. *Email:* bryan\_roth@med.unc.edu

**Professor Jerzy Leszczynski**, PhD, President's Distinguished Fellow, Director of Interdisciplinary Center for Nanotoxicity, Department of Chemistry and Biochemistry, Jackson State University, MS, USA. *Email:* jerzy@icnanotox.org

**Professor Michaela Schmidtke**, PhD, Institute of Virology and Antiviral Therapy, Jena University Hospital, Jena, Germany. *Email:* Michaela.Schmidtke@med.uni-jena.de