

CURRICULUM VITAE

SERGE SMIRNOV

Western Washington University
Department of Chemistry
Bellingham, WA 98225

Academic Rank: Assistant Professor

Major Fields: Structural biology of Protein and DNA, NMR spectroscopy, Bioinformatics

Education:

M.S. Moscow Institute of Physics & Technology, Moscow, Russia, 1990

Double-Major: 1) Molecular Biophysics; 2) Applied Physics and Mathematics

Ph.D. State University of New York at Stony Brook, NY, 2000

Thesis title “The NMR Determination of Solution Structure of DNA Duplexes Containing Modified Nucleotides: Insights into the Inner Self of DNA”. Advisor: Dr. Carlos de los Santos.

Teaching and Mentoring Experience:

Adjunct Assistant Professor, Massachusetts College of Pharmacy and Health Sciences, Boston, MA, 2007 – 2008. Classes taught: Calculus-based Physics, Foundations of Calculus I

Mentor/supervisor for a participant of the Summer Research Internship at Boston University, Boston, MA, Summer 2007.

Guest lecturer in the “Foundations of Biophysics and Structural Biology” graduate course, Boston University, Boston, MA, 2005

Teacher’s apprentice /co-teacher/, undergraduate “Computational Biochemistry” course of Prof. R. Brüschweiler. I participated in curriculum design, lectured and conducted the lab sessions. Clark University, Worcester, MA, 2004

Tutor in undergraduate Physics, Calculus, Statistical Mechanics, SUNY at Stony Brook, NY, 1997-1998

Teacher assistant for the undergraduate laboratory in Pharmacology, SUNY at Stony Brook, NY, 1996

Funding and Awards obtained:

Multidisciplinary Research Fellowship from the Whitaker Cardiovascular Institute at Boston University School of Medicine, Boston, MA. July 2007-2008.

Research Support Grant from the Pacific Northwest National Lab, Richland, WA, 2006,

Student Stipend, 41st Experimental NMR Conference, Asilomar, CA, 2000.

George Soros Foundation Young Scientists Award, Moscow, Russia, 1994

Professional Experience:

Adjunct Assistant Professor of Physics and Mathematics, 2007 – 2008

Massachusetts College of Pharmacy and Health Sciences, Boston, MA

Research Training Fellow, 2007 - 2008

Whitaker Cardiovascular Institute, Boston University School of Medicine, Boston, MA. Mentor: Dr. C.J. McKnight

Postdoctoral Scientist, 2004 – 2007

Dept. of Physiology & Biophysics, Boston University School of Medicine, Boston, MA, Lab of Dr. C.J. McKnight

Postdoctoral Scientist, 2003 – 2004

Dept. of Chemistry, Clark University, Worcester, MA, Lab of Dr. R.P. Brüschweiler

Software Engineer, 2000 - 2003

Center for Genome Research, Whitehead Institute / M.I.T., Cambridge, MA.

Invited Lectures:

Smirnov S, McKnight CJ. “Domain Interactions in modular Proteins”, Physiology and Biophysics Symposium, Woods Hole, MA, October 2005.

Smirnov S, Zhang F, Brüschweiler R. “Spectral Denoising with Covariance NMR Spectroscopy”, 45th Experimental NMR Conference, Asilomar, CA, April 2004.

Publications:

Smirnov S, Isern NG, Jiang ZG, Hoyt DW, McKnight CJ. “The Isolated Sixth Gelsolin Repeat and Headpiece Domain of Villin Bundle F-Actin in the Presence of Calcium and Are Linked by a 40-Residue Unstructured Sequence”, *Biochemistry*, 46(25), 7488-7496, 2007.

Trbovic N, **Smirnov S**, Zhang F, Bruschiweiler R. “Covariance NMR Spectroscopy by Singular Value Decomposition”, *Journal of Magnetic Resonance*, 171 (2), 277-283, 2004

#Galagan JE, Calvo SE, Borkovich KA, Selker EU, Read ND, Jaffe D, FitzHugh W, Ma LJ, **Smirnov S**, et. al. “The genome sequence of the filamentous fungus *Neurospora crassa*”, *Nature*, 422(6934) 859-68, 2003

#Galagan JE, Nusbaum C, Roy A, Endrizzi MG, Macdonald P, FitzHugh W, Calvo S, Engels R, **Smirnov S**, et. al. “The genome of *M. acetivorans* reveals extensive Metabolic and Physiological Diversity”, *Genome Research*, 12(4), 532-542, 2002

Smirnov S, Kool E, de los Santos C. “Integrity of duplex structures without hydrogen bonding: DNA with pyrene paired at abasic sites”, *Nucleic Acid Research*, 30(24) 5561-5569, 2002.

Smirnov S, Johnson F, Marumoto R, de los Santos C. “Structure of an 11-mer DNA duplex containing the carbocyclic nucleotide analog: 2'-deoxyaristeromycin”, *Journal of Biomolecular Structure & Dynamics*, 17(6):981-91, 2000.

Silberstein AYa, **Smirnov S**. “Conformational analysis of amphotericin B molecule”, *Membrane & Cell Biology*, 10(5):553-63, 1997.

Poltev VI, **Smirnov S**, Issarafutdinova OV, Lavery R. “Conformations of DNA duplexes containing 8-oxoguanine”, *Journal of Biomolecular Structure & Dynamics*, 11(2):293-301, 1993.

These publications were co-authored by exceptionally large teams (over 50 and 70 names respectively).