Mauricio Esguerra

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PERSONAL INFORMATION

Nationality: Colombian
Marital Status: Single
Languages: Spanish (advanced), English (advanced), French (beginner)
http://www.eden.rutgers.edu/~esguerra

EDUCATION

Ph.D. Candidate - Rutgers, The State University of New Jersey
Chemist - Universidad Nacional de Colombia (March 23, 2000)

High School:
9th Grade – 11th Grade Gimnasio Moderno - Bogotá, Colombia
9th Grade Sevier County High School - Sevierville, TN, USA
Elementary School:
8th Grade Pi Beta Phi Elementary School - Gatlinburg, TN, USA
Montessori (Kindergarden) – 7th Grade Gimnasio Moderno - Bogotá, Colombia

AWARDS

Chemistry 171 Teaching Excellence Award. Department of Chemistry and Chemical Biology, Rutgers, The State University of New Jersey. Academic Year 2003-3004.

MEMBERSHIPS

American Chemical Society member. 2006-Present.

PROFESSIONAL EXPERIENCE

•Academic Monitor for the course, Synthesis of Heterocyclic Compounds, for Pharmaceutical Chemistry Students at Universidad Nacional de Colombia.(1998).
•Academic Monitor for the course, Organic Synthesis, for Chemistry Students at Universidad Nacional de Colombia.(1998)
•Patent Engineer for the law firm Baker & Mackenzie (i.e. patent preparation for filling and submitting to the Colombian Superintendence of Industry and Commerce). (May – August 2000)
•Lab and recitation Teaching Assistant at Universidad de los Andes. (August 2000 – February 2001)
•Guide elaboration for the course "Prelude to the Sciences", Physics module, prepared for the Faculty of Sciences at Universidad de los Andes. (June – July 2001)
•Course instructor for "Prelude to the Sciences", Physics module, Faculty of Sciences at Universidad de los Andes. (June26 – July19 2001)
•Patent advisor for the law firm Alvaro Castellanos y Cia. (September 2001 – July 2002)
•Course instructor for "Prelude to the Sciences", Physics module, Faculty of Sciences at Universidad de los Andes. (Summer 2002, Summer2003)
•Teaching assistant for Introduction to Chemical Experimentation lab at Rutgers, The State University of New Jersey. (Fall 2003, Fall 2004, Fall 2006)
•Teaching assistant for General Chemistry at Rutgers, The State University of New Jersey. (Spring 2004, Spring 2005, Fall 2005)
•Teaching assistant for Principles of Quantitative Biology, Rutgers, The State University of New Jersey. (Fall 2009)

CONFERENCES / SCHOOLS

•Second Latin-American Course on Parallelism and High Performance Computing, Merida, Venezuela (December 3-7 2001).
•A.C.S. Mid-Atlantic Regional Meeting, Piscataway, NJ (May 22-25, 2005).
•Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ. (May 6, 2005).
•Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ. (May 5, 2006).

•NSBP and NSHP Annual Conference, Boston, MA. (2007)
•Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ. (May 4, 2007).
•IMA Workshop: RNA in Biology, Bioengineering and Nanotechnology, Minneapolis, MN. (October 29 - November 2, 2007).
•Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ. (May 6, 2008).
•5th Annual ROC Meeting, Madison, WI. (May 25-26, 2009).
•The 16th Conversation in Biomolecular Dynamics and Structure, Albany, NY. (June 16-20, 2009).
•Molecular Simulation and Structure Prediction using CHARMM and the MMTSB Tool Set, San Diego, CA. (August 4-7, 2009).

POSTERS

•Clustering RNA non-A-type dinucleotide conformations using the base-step parameter space, NSBP & NSHP, Boston, MA. 2007.
•Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ. 2007.
•RNA Dinucleotide Step Parameters, IMA Workshop, Minneapolis, MN. 2007.
•Rutgers-UMDNJ Molecular Biophysics Minisymposium, Piscataway, NJ. 2008.
•Sequence-dependent Deformability of RNA Helical Regions. What We Have Learned So Far, The 16th Conversation in Biomolecular Structure and Dynamics, Albany, NY. 2009.
•Auotmated Detection of GNRA Tetraloop Prevalance Using 3DNA and Python, MARMACS, Wilmington, Delaware. 2010.

PUBLICATIONS

•New information content in RNA base pairing deduced from quantitative analysis of high-resolution structures, *Methods*, **47**, 177-186, (2009), Wilma K. Olson, Mauricio Esguerra, Yurong Xin, Xiang-Jun Lu.
•Sequence-dependent deformability of RNA helical regions. What we have learned so far, *Journal of Biomolecular Structure and Dynamics*, **26**, 832, (2009), Mauricio Esguerra N., Wilma K. Olson.