DALIANGELIS R. NUNEZ MILLAND

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EDUCATION:

University of South Carolina, Columbia, SC
M.S. in Environmental Analytical Chemistry, August 2010
Thesis: Single-cell measurements of transition metals using Synchrotron X-ray Fluorescence

University of Puerto Rico, San Juan, PR
B.S. in Chemistry, May 2005
Area of concentration: Environmental chemistry

TEACHING EXPERIENCE:

Coastal Carolina University

Senior Lecturer (August 2018 – Present)

- Courses taught: Introductory Chemistry lecture and laboratory

Lecturer (August 2011 – August 2018)

- Courses taught: General Chemistry Laboratory I and II and Introductory Chemistry lecture and laboratory

Teaching Associate (August 2010 – June 2011)

- Courses taught: General Chemistry Laboratory I and Introductory Chemistry Laboratory (August 2010 – April 2011) which surveys the qualitative chemical reactions and qualitative methods of analysis.

University of South Carolina
Graduate instructor assistant

- **General Chemistry Laboratory** (August 2006 – December 2006, January 2009 – May 2010)
- **Freshman Honors Chemistry Laboratory** (January 2007 – May 2007)

Each course surveys the principles of chemical measurement, calculations, formula and equation writing, chemical reactions, thermo-chemistry, atomic and molecular structure. Additional responsibilities include managing discussion sections (lecturing, reviewing, quiz preparation, grading) and supervising laboratory sections (preparing solutions and laboratory solution handling.)

UNIVERSITY SERVICE:

Guest lecturer for Chem 150
Professional Textbook reviewer
Grant proposal with Public Health
Supervisor of 5 graduate students
Chemistry demonstrations and experiments in schools
Faculty calling program
FACEtime with faculty program
Judge for the UGR competition and the SCAS
Curriculum development for Chem 101 and 101L
Part of the Core Goal 3 Assessment Exam revision
Established Chem 101 as a core course
Committees: Chair of the recruitment committee, search committee for lecturer position, lecturer search committee

RESEARCH EXPERIENCE:

University of South Carolina
Dr. Benjamin S. Twining, August 2006 – May 2010
Spatial distribution and quantification of metals in single algal cells using synchrotron x-ray fluorescence
Dr. John L. Ferry, October 2008 – May 2010
Combinatorial measurements on the behavior of metallic nanoparticles in coastal environments
Dr. G. Thomas Chandler, May – August 2009
Effects of single-walled nanotubes on copepods

University of Puerto Rico
Prof. Osvaldo Rosario, August 2003 – May 2005
Development of mass spectrometric based analytical methods for detecting and quantifying endocrine disrupting chemicals

WORK EXPERIENCE:

Coastal Carolina University
Senior Lecturer, August 2018 – Present

- Instructor for Introductory Chemistry lecture and labs
- Coordinator for Introductory Chemistry lecture and labs

Lecturer, August 2011 – August 2018

- Instructor for Introductory Chemistry lecture and labs, instructor for General Chemistry 1 and 2 labs
- Coordinator for Introductory Chemistry lecture and labs

Teaching Associate, August 2010 – July 2011

- Instructor for Introductory Chemistry and General Chemistry Labs

University of South Carolina

Graduate research assistant, August 2006 – May 2010

- Sample collection (marine and freshwater cruises) and analysis (X-ray fluorescence microscopy, scanning electron microscopy, transmission electron microscopy, inverted light microscopy, cell culturing and working on a Class-100 clean room)
- Analysis of samples in the laboratory with automation/robotics, ultraviolet visible spectroscopy, emission spectroscopy, flow injection chemiluminescence system, experimental design).
- Collection of benthic organisms, sorting by type, dissolved oxygen meter, refractometer, pH meter, nanoparticles spiking procedures

Wyeth Pharmaceuticals

Quality assurance/quality control scientist, June 2005 – July 2006

- Instrumental analysis of feedstock powders and finished medications (humidity analysis, infrared spectroscopy, total organic carbon analyses, pH determination and qualitative analysis of mixtures for contaminants).

United States Department of Agriculture

Student intern, Summer 2003 and summer 2004

- Analytical method development for trace pesticides in water and fruit samples (partitioning onto solid phase extraction materials, gas chromatography with flame ionization detection, electron capture detection, mass spectrometric detection, and liquid chromatography with ultraviolet-visible absorbance and mass spectrometric detection).

University of Puerto Rico

Undergraduate research assistant, August 2003 – May 2005

- Analytical method development for endocrine disrupting chemicals in seawater (gas chromatography with mass spectrometric detection and solid phase microextraction).

PUBLICATIONS AND PRESENTATIONS:

Nuñez-Milland, D. R.; Baines, S. B.; Vogt, S.; Twining, B. S. Quantification of phosphorus in single cells using synchrotron x-ray fluorescence. *J. Synchrotron Rad.* 2010, *17(4),* 560-566.

Fredrick, N.; Berges, J.A.; Twining, B.S.; Nuñez-Milland, D.; Hellweger, F.L.; Exploring Mechanisms of Intracellular P Heterogeneity in Cultured Phytoplankton Using Agent Based Modeling, *Appl. Environ. Microbiol*., 79(14), 2013

Bucci, V.; Nunez-Milland, D.; Twining, B.S.; Hellweger, F. L. Microscale patchiness leads to large and important intraspecific internal nutrient heterogeneity in phytoplankton. *Aquat. Ecol.* 2012, 46(1), 101-118.

Twining, B. S.; Nuñez-Milland, D.; Vogt, S.; Johnson, R. S.; Sedwick, P. N. Variations in *Synechococcus* cell quotas of phosphorus, sulfur, manganese, iron, nickel, and zinc within mesoscale eddies in the Sargasso Sea. *Limnol. Oceanogr.* 2010, *55(2),* 492-506.

Analysis of phytoplankton elemental composition with x-ray fluorescence Poster presented in the Synchrotron Environmental Science meeting in San Francisco, CA 2008

Methodology for the Analysis of EDCs in Seawater Samples using SPME and GC-MS. Poster presented in the PRISM Junior Technical meeting in San Juan, PR 2003 and 2004

COMMUNITY SERVICE:

Operation Christmas Child
Fostering Hope, New Direction's Women shelter, Branches of Love

MEMBERSHIPS:

American Chemical Society

AWARDS:

South East Alliance for Graduate Education and the Professoriate Fellowship, University of South Carolina August 2009 – August 2010
The Joseph W. Bouknight Teaching Awards October 2009
Certificate of 10 years of service as a SC employee 2022
Awards by students as "Most patient professor" and "Most creative professor" 2022