Vimary Vázquez Dorbatt

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Summary of Qualifications

- Trained in a diverse range of synthetic techniques including controlled radical polymerizations (ATRP and RAFT), and polymer-protein conjugates
- Proficient in standard characterization methods for analysis of small molecules, and polymers.
    - NMR, GPC, SPR, IR, UV-VIS, Gel Electrophoresis, TGA, DSC
- Proficient in purification techniques
    - HPLC, flash chromatography, ion exchange column chromatography
- Trained in GPC, HPLC and IR routine maintenance
- Computer literacy: Microsoft Office (Word, Excel, Power Point, Outlook), Endnote, Adobe Acrobat and Photoshop, Chemdraw, EZ Start (chromatography software), Topsin (NMR software), ACD labs (NMR predictor software), Biacore evaluation software (SPR data analysis)
- Able to independently design and troubleshoot experiments
- Experience working both in academic and industry-based research labs
- Experience working as a teaching assistant for general and organic chemistry classes and laboratories
- Experience working as a professor for organic an general chemistry classes and laboratories
- Ability to work in teams or as an individual
- Fluent in both English and Spanish

Education

Ph.D., Chemistry **June 2009**
University of California, Los Angeles
Department of Chemistry and Biochemistry
California NanoSystems Institute
Thesis: "Synthesis of Polysaccharide Mimetics for Bioactive Surface Coating and Artificial Glycosylation of Proteins"
Advisor: Prof. Heather D. Maynard, Ph.D.

M.S., Chemistry **September 2005**
University of California, Los Angeles
Department of Chemistry and Biochemistry
California NanoSystems Institute
Thesis: "Synthesis of End-Functionalized Glycopolymers by Atom Transfer Radical Polymerization"
Advisor: Prof. Heather D. Maynard, Ph.D.

B.S., Chemistry **June 2001**
Universidad de Puerto Rico, Cayey
Department of Chemistry
Advisor: Prof. Blanca Borges, Ph.D. and Prof. Edwin Vázquez, Ph.D.

Certificado en Construcción de Ambientes Virtuales de Aprendizaje **December 2018**
Universidad de Puerto Rico, Río Piedras
Centro Para la Excelencia Académica

Experience

Full-time Faculty **2014-present**

Universidad Puerto Rico Humacao
Department of Chemistry

- Professor, Organic Chemistry I and II class, TADDEI and laboratory
- Professor, General Chemistry I laboratory
- Writing and grading exams and laboratory reports
- Medical College Admission Test (MCAT) and Pharmacy College Admission Test (PCAT) Organic Chemistry preparation course.
- Chemistry workshop and orientation for first year students during orientation week, Proyecto Proud

Academic Counselor **2018-present**

Universidad Puerto Rico Humacao
Department of Chemistry

- Enrollment
- Progress evaluation of students
- Evaluation of graduation candidates
- Evaluation of reclassifications, re-admissions, transfers, special permits, and other requests
- Provided academic and career advising.
- Coordinator for several activities such as open house, Noche de Logros and orientation week

Part-time Faculty **2013-2021**

Universidad Interamericana- Recinto Metro
Department of Science and Technology

- Professor, General Chemistry I -laboratory and II class and laboratory
- Professor, Organic Chemistry I and II class and laboratory
- Writing and grading exams and laboratory reports
- Writing Assessment reports for both class and lab courses

Instructor **2017-2018**

Universidad del Turabo

- Professional development workshops instructor for intermediate and high school teachers, under the federal proposal of Mathematics and Science Partnership, Proyecto Alianza de Ciencias y Matemáticas de la Universidad del Turabo (AMCT).

Organic Chemistry Graduate Student **2002-2009**

University of California, Los Angeles
Advisor: Prof. Heather D. Maynard, Ph.D.

- Synthesis of glycomonomers for atom transfer radical polymerization (ATRP)
- Synthesis of biotinylated and pyridyl disulfide functionalized ATRP initiators.
- Synthesis of protected aminooxy and maleimide functionalized chain transfer agents for reversible addition-fragmentation chain transfer (RAFT) polymerizations

- Design of controlled radical polymerization techniques (ATRP and RAFT) to synthesize protein reactive polymers, including glycopolymers, poly(sodium-4-styrene sulfonate), poly(2-hydroxyethyl methacrylate, poly(N-isopropylacrylamide) and poly(3-sulfopropyl methacrylate)
- First year graduate student mentor
- Teaching Assistant for general and organic chemistry classes and laboratories
- Routinely prepare presentations on research progress and current literature
- Safety lab officer

Associate Technician **August 2001-**
GlaxoSmithkline, Medicinal Chemistry Department **August 2002**
King of Prussia, PA
- Synthesis and characterization of active compounds as potential cardiovascular diseases drugs.

Undergraduate Summer Research Assistant **June 2000-**
Central Institute for the Deaf **August 2000**
Washington University, School of Medicine
Saint Louis, MO
Advisor: Prof. Dwayne Simmons, Ph.D.
- Expression of a Novel Gene During the Development of the Inner Ear, MATH 1
- Basic training in RT-PCR and gel electrophoresis

Undergraduate Summer Research Assistant **June 1999-**
University of Pennsylvania, Philadelphia, PA **August 1999**
Department of Chemistry
Advisor: Nobel Laureate Prof. Alan MacDiarmid, Ph.D.
- Synthesis and characterization of Phenyl-Phenyl end capped Tetraaniline
- Thermal analysis of the tetramer with TGA and DSC.

Awards

- Ruth L. Kirschstein National Institute of Health Predoctoral Fellowship recipient **2006-2009**
- Graduate Student Travel Award recipient **2007-2008**
- US Department of Education Graduate Assistance in Areas of National Need (GAAN) Fellowship recipient **2002-2003**
- Dean's List, University of Puerto Rico **1998-2001**

Publications

Peer-Reviewed

Vázquez-Dorbatt, **V.**; Lee, J.; Lin, E.W.; Maynard, H. D. "Synthesis of Glycopolymers by Controlled Radical Polymerization Techniques and Applications," *ChemBioChem*, **2012**, 13 (17), 2478–2487 .

Vázquez-Dorbatt, V.; Tolstyka, Z. P.; Maynard, H.D. "Synthesis of Aminooxy End-functionalized pNIPAAm by RAFT Polymerization for Protein and Polysaccharide Conjugation" *Macromolecules,* **2009**, 42 (20), 7650–7656.

Vázquez-Dorbatt, V.; Tolstyka, Z. P.; Chang, C. W.; Maynard, H.D. "Synthesis of Pyridyl Disulfide End-functionalized Glycopolymer for Conjugation to Biomolecules and Patterning on Gold Surfaces" *Biomacromolecules*, **2009**, 10 (8), 2207-22012.

Christman, K.; **Vázquez-Dorbatt, V.**; Schopf, E.; Kolodziej, C.; Li, R.; Broyer, R.; Chen, Y.; Maynard, H.D. "Nanoscale Patterns of Growth Factors Immobilized via a Heparin Mimicking Polymer," *J. Am. Chem. Soc.* **2008**, 130, 16585-16591.

Maynard, H. D.; Heredia, K. L.; Li, R. C.; Parra, D. P.**; Vazquez-Dorbatt, V.**, "Thermoresponsive Biohybrid Materials Synthesized by ATRP," *J. Mater. Chem.,* **2007**, 17, 4015-4017. (Invited for special theme issue on Biomaterials)

Vázquez Dorbatt, V.; Maynard, H. D., "Biotinylated Glycopolymers Synthesized by Atom Transfer Radical Polymerization," *Biomacromolecules*, **2006**, 7, 2297-2302.

ACS Meetings Preprints

Vázquez-Dorbatt, **V.**; Maynard, Heather D. "Synthesis of Thiol-reactive Glycopolymers by ATRP," *Polymer Preprints*, **2008,** 49(2), 610.

Maynard, H.D.; **Vázquez-Dorbatt, V.;** Christman, K. "Synthesis of End-functionalized Glycopolymers by CRP for Surface Patterning," *Polymer Preprints*, **2008,** 49(2), 318.

Vázquez-Dorbatt, **V.**; Maynard, Heather D. "Synthesis of Aminooxy End-Functionalized Polymers by RAFT Polymerization for Bioconjugate Formation," *PMSE Preprints*, **2007**, 97, 724.

Vázquez Dorbatt, V.; Maynard, H. D. "Biotinylated Glycopolymers by Atom Transfer Radical Polymerization," *PMSE Preprints*, **2006**, 94 362.

Presentations

Synthesis of polysaccharide mimetics and artificial glycosylation of proteins, **V. Vázquez Dorbatt**, University of Puerto Rico, Cayey, Invited Speaker for the RISE Seminar Series, Cayey, PR, September 18, 2008.

Synthesis of Thiol-reactive glycopolymers by ATRP, **V. Vázquez Dorbatt,** and H. Maynard, UCLA event, American Chemical Society Meeting, Philadelphia, PA, poster presentation, August 17-21, 2008.

Synthesis of Thiol-reactive glycopolymers by ATRP, **V. Vázquez Dorbatt,** and H. Maynard, POLY Division, American Chemical Society Meeting, Philadelphia, PA, August 17-21, 2008.

Synthesis of polysaccharide mimetics for bioactive surface coatings and artificial glycosylation of proteins, **V.**

Vázquez Dorbatt, Organic Chemistry Graduate Student Symposium, University of California Los Angles, Los Angeles, CA , June 7th, 2008.

Synthesis of Aminooxy End-Functionalized Polymers by RAFT Polymerization for Bioconjugate Formation, **V. Vazquez Dorbatt**, and H. Maynard, Seaborg Symposium, University of California Los Angeles, Los Angeles, CA, poster presentation, November 3, 2007.

Synthesis of Aminooxy End-Functionalized Polymers by RAFT Polymerization for Bioconjugate Formation, **V. Vazquez Dorbatt**, and H. Maynard, PMSE Division, Sci-Mix event and UCLA event, American Chemical Society Meeting, Boston, Ma, poster presentation, August 19-24, 2007.

Biotinylated Glycopolymers by Atom Transfer Radical Polymerization, **V. Vázquez Dorbatt**, and H. Maynard, UCLA Biotechnology Symposium, University of California Los Angeles, Los Angeles, CA, poster presentation, June 16, 2006.

Biotinylated Glycopolymers by Atom Transfer Radical Polymerization, **V. Vazquez Dorbatt**, and H. Maynard, American Chemical Society Meeting, Atlanta, GA, poster presentation, March 26-30, 2006.

Impact of Polymer Research on Cancer Research, , **V. Vázquez Dorbatt,** University of Puerto Rico, Cayey, Invited Speaker for the RISE Seminar Series, Cayey, PR, September 30, 2004.

Smart Polymers: Synthesis and Applications, **V. Vázquez Dorbatt**, University of California Los Angeles Organic Student Seminar, Los Angeles, CA, March 8, 2004.

Pseudoscientific Beliefs in the University Community at Cayey, **V. Vázquez Dorbatt,** University of Puerto Rico, Cayey, Undergraduate Thesis Defense, Cayey, PR, May 2001.

Professional Memberships

American Chemical Society	**2003-2010**
ACS, Division of Polymer Chemistry	**2003-2010**
Organization for Cultural Diversity in Chemistry (OCDC)	**2004-2009**

References are available on request