

Grace R. Williams, Ph.D



Director of Clinical Toxicology
Associate Director of Clinical Chemistry
Department of Pathology
Virginia Commonwealth University
Office: (804) 628-3684
Fax: (804) 828-6156
Email: grace.r.williams@vcuhealth.org

Licenses & Certifications

Board Certifications

American Board of Clinical Chemistry (ABCC) certified Diplomat of the American Board of Clinical Chemistry (DABCC). 10/2021

Education

Postgraduate Medical Training

Post-doctoral Clinical Chemistry fellowship accredited by The Commission on Accreditation in Clinical Chemistry (ComACC).

Dartmouth-Hitchcock Medical Center, Lebanon, NH. 2017-2019

Graduate Education

Doctorate of Philosophy, Department of Pharmacology and Experimental Therapeutics. Medical University of South Carolina, Charleston, SC. 2012-2017

Undergraduate Education

Bachelor of Arts, Department of Chemistry. University of North Carolina at Asheville. Asheville, NC. 2006-2010

Advising and Mentoring

2020 – Medical Student Rosellen Provost was awarded a competitive summer research fellowship through the VCU College of Medicine. Due to the COVID-19 pandemic, the project pivoted to writing a case-study manuscript for publication.

2021- Medical Technologist masters student Modesola Akala performed her graduate research project with Dr. Williams. She successfully defended her thesis in January of 2021.

Virginia Commonwealth University and Medical Center Appointments

Present

Assistant Professor of Pathology, Collateral, Virginia Commonwealth University
August 2019 (in-progress)

VCU Service

VCU faculty senate alternate, 2020

Professional Organizations

American Association for Clinical Chemistry (AACC), May 2017 - Present
Society of Forensic Toxicologists (SOFT), September 2019

Professional Service (current)

Teaching – Didactic and Clinical

Clinical Mass Spectrometry Systems lectures (CLLS 612), CLS master students, **November 2020 to present**

Chemistry rotation lectures, pathology residents 04/2020 (in-progress)

Toxicology rotation lectures- pathology residents 09/2019 (in-progress)

Pathology Resident Didactic Conferences (3), **January 2020 to present**

Summer Fellow Advisor, 3rd year medical student awarded competitive summer fellowship to work in toxicology lab, **May to July 2020**

Lecturer, Therapeutic Drug Monitoring, Medical Laboratory Scientist didactic course, **May 2019**

Editorial Advisory Boards

Contributor on editorial committee for a new version of CLSI EP:23 (Laboratory Quality Control Based on Risk Management), **October 2020 to June 2021**

Recent Invited Presentations

National

Panel member in the Medical University of South Carolina graduate school career day, discussing clinical chemistry with masters and doctoral students. **November 2020**

Pharmacogenomics: General Principles and Relevance to Opioid Addiction, Special Seminar, University of Utah, ARUP laboratories, Clinical Chemistry Section **October 2018**

Phosphoproteomic comparison of osteoblasts stimulated with forteo or biased PTH1R ligand as determined via SILAC, Pathology Grand Rounds, Dartmouth Hitchcock, Medical Center **January 2017**

Phosphoproteomic comparison of osteoblasts stimulated with forteo or biased PTH1R ligand as determined via SILAC, Special Seminar, John's Hopkins Medical Center **November 2016**

Posters or Other Unsolicited Presentations

National

Williams GR, Wolf CE, Dooley PN, Wills BK, Bachmann LM; Strontium Interference in Clinical Calcium Assays; Annual Meeting of the American Association for Clinical Chemistry; Virtual Conference; **2020**

Williams GR, Tsongalis GJ, Barney RE, Cook LJ, Geno KA, Nerenz RD; Clinical Utility of Pharmacogenomics; Annual Meeting of the American Association for Clinical Chemistry; Virtual Conference; **2020**

Williams GR, Menlyadiev MR, Bachmann LM, Tolan NV, Vitamin C Interference in Clinical Chemistry Assays; Annual Meeting of the American Association for Clinical Chemistry; Virtual Conference; **November 2020**

Williams GR, Downs JW, Wolf CE, Cumpston K, Wills B; Hypercalcemia and Pseudohypercalcemia from Strontium Supplementation, North American Congress of Clinical Toxicology, Virtual Conference, **August 2020**

Williams, G. R., Gregory J. Tsongalis, Lionel D. Lewis, Robert D. Nerenz. April 2019, MALDI-MS-based Validation of a 107 SNP Pharmacogenomic Panel, Oral Presentation, The Association for Mass Spectrometry: Applications to the Clinical Laboratory annual meeting. Palm Springs CA. **April 2019**

Williams, G. R., Cervinski, M., Assessment of Panhematin interference in commonly ordered chemistry tests. American Association for Clinical Chemistry Annual Meeting. Chicago, IL, **August 2018**

Williams, G. R., Pharmacogenomics and Opioid Addiction: Can SNP's predict susceptibility? Brown Bag Oral Presentation. American Association for Clinical Chemistry Annual Meeting. Chicago, IL. **August 2018**

Williams, G.R., Bethard, J.R., Berkaw, M.N., Luttrell, L.M., Ball, L.E. Phosphoproteomic comparison of osteoblasts stimulated with forteo or biased PTH1R ligand as determined via SILAC. Human Proteome Organization. Boston, MA, **May 2016**

Williams, G.R., Bethard, J.R., Berkaw, M.N., Luttrell, L.M., Ball, L.E. Phosphorylation Dynamics of PTH Receptor Signaling In Osteoblasts with Biased and Unbiased Agonists. American Society for Mass Spectrometry. St. Louis, MO, **May 2015**

Williams, G.R., Bethard, J.R., Berkaw, M.N., Luttrell, L.M., Ball, L.E. Phosphorylation Dynamics of PTH Receptor Signaling In Osteoblasts. American Society for Mass Spectrometry. Baltimore, MD, **2014**

Williams, G.R., Bethard, J.R., Berkaw, M.N., Luttrell, L.M., Ball, L.E.

Phosphorylation Dynamics Of Type 1 Parathyroid Hormone Receptor (PTH1R) Signaling In Osteoblasts As Explored By SILAC Mass Spectrometry. Great Lakes GPCR Retreat. Cleveland, OH, **August 2013**

Williams, G.R., Berkaw, M.N., Luttrell, L.M., Ball, L.E. SILAC-Based Quantitative Analysis of Phosphorylation Dynamics in Osteoblasts Simulated with Parathyroid Hormone (PTH 1-34). American Society for Bone and Mineral Research. Baltimore, MD, **June 2013**

Williams, G.R., Schilling, M., Berkaw, M.N., Luttrell, L.M., Ball L.E. Phosphorylation Dynamics in Osteoblasts Simulated with Parathyroid Hormone (PTH). ASBMB Symposium: Posttranslational Modifications: Detection and Physiological Evaluation. Tahoe, CA, **September 2012**

Recent Publications

Peer Reviewed Publications

1. Provost RG, Downs JW, Wolf CE, and **Williams GR**; The high cost of low quality: Recurring hypoglycemia in a 63-yo man. *Clinical Chemistry journal*; currently in review
2. Downs JW, Wolf CE, **Williams GR**, Cumpston KL, Kershner E, and Wills BK, Negligible Nux Vomica: Homeopathic Nux Vomica Remedies Don't Contain any Strychnine? *Clinical Toxicology journal*; currently in review
3. **Williams, G.R.**, Nerenz, R., Not your ordinary rash: A Clinical Case study on Variegate Porphyria. *Clin Chem.* Jun **2019**, 65 (6) 733-737; DOI: 10.1373/clinchem.2018.291344
4. **Williams, G.R.**, Cervinski, M.A., Nerenz, R., Assessment of Biotin Interference with Qualitative Point-of-Care hCG Test Devices. *Clin Biochem.* **2018**. 53:168-170. doi: 10.1016/j.clinbiochem.2018.01.018
5. **Williams, G.R.**, Bethard, J.R., Berkaw, M.N., Nagel, A.K., Luttrell, L.M., Ball, L.E. **2016** Exploring G protein-coupled receptor signalling networks using SILAC-based phosphoproteomics. *Methods.* Jan 1;92:36-50. doi: 10.1016/j.ymeth.2015.06.022.