

Gary M Wilson

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Education

University of Wisconsin-Madison

Madison, WI

DOCTOR OF PHILOSOPHY (PHD) – CHEMICAL BIOLOGY

In progress

- **Advisor:** Joshua J. Coon, PhD
- NIH Biotechnology Training Grant Fellow

Wake Forest University

Winston-Salem, NC

BACHELOR OF SCIENCE (BSc) – CHEMISTRY & BIOCHEMISTRY

05/2010

- **Advisor:** Ulrich Bierbach, PhD
- Undergraduate Research Fellow

Experience

Genentech

South San Francisco, CA

RESEARCH ASSOCIATE

06/2015–09/2015

- As part of a summer internship, I worked with the Biochemical and Cellular Pharmacology department on novel platforms to screen for protein-peptide interactions. Industrial internships are a cornerstone of UW-Madison's NIH sponsored Biotechnology Training Program and are required within the first four years of funding.

Coon Lab

Madison, WI

GRADUATE RESEARCH ASSISTANT

05/2015–present

- Developed, optimized, and implemented state-of-the-art mass spectrometry-based proteomic experiments to inform upon a range of biological studies.

Warp Drive Bio

Cambridge, MA

CHEMIST I

10/2012–5/2015

- Purified and characterized novel, medicinal natural products from complex, cellular matrices.
- Became versed in chromatographic techniques, instrument repair, and NMR structure elucidation.

Johnson Matthey Pharma Services

Devens, MA

ORGANIC CHEMIST

02/2012–10/2012

- Produced synthetic GMP material; working on scales from milligrams to kilograms.
- Optimized future GMP campaigns at the bench-top.

Cardinal Academics

Los Angeles, CA

TUTOR

01/2011–01/2012

- Provided tutoring for students in math, science, and SAT preparation.

Vertex Pharmaceuticals

Cambridge, MA

SCIENTIFIC ASSOCIATE II

06/2010–10/2010

- Performed analytical and preparative supercritical fluid chromatography to assist in the projects of Chemical Development.
- Trained on cGMP SOPs for the quality production of drug product.

Bierbach Lab

Winston-Salem, NC

UNDERGRADUTE RESEARCH FELLOW

2008-2010

- Synthesized cisplatin derivatives with Pf. Ulrich Bierbach for the structure-activity relationship analysis in the targeted treatment of non-small cell lung cancer.
- Developed new synthetic methodologies to produce amidine derivatives using metal-mediated catalysis.

Wake Forest University

Winston-Salem, NC

UNDERGRADUATE TUTORING SERVICE

01/2008–05/2010

- Provided peer tutoring to fellow Wake Forest and local high school students.

Talks, Publications, & Abstracts

INVITED TALKS

T1

“Improved plasma proteomics enables the investigation into Alzheimer’s Disease progression.” Keystone Symposia: Omics Strategies to Study the Proteome. Breckenridge, CO. Feb 01, 2017.

PEER-REVIEWED PUBLICATIONS

- P5 Natalie M. Niemi, **Wilson GM**, Katherine A. Overmeyer, F.-Nora Vogtle, Danielle C. Lohman, Kathryn L. Schueler, Alan D. Attie, Chris Meisinger, Joshua J. Coon, David J. Pagliarini. (2018) "Pptc7 is an essential phosphatase for promoting mammalian mitochondrial metabolism and biogenesis." *in review at Nature Metabolism*. *biorx*: doi: <https://doi.org/10.1101/426247>
- P4 Nobuyuki Tanimura, **Wilson GM**, Matthew R. Dent, Miao Cao, Judith N. Burstyn, Peiman Hematti, Joshua J. Coon, Emery H. Bresnick. (2018) "GATA/Heme Multi-omics Reveals a Trace Metal-Dependent Cellular Differentiation Mechanism." *Developmental Cell*, 46: 1-14. DOI: 10.1016/j.devcel.2018.07.022.
- P3 **Wilson GM**, Rocky Blanco, Joshua J. Coon, Troy A. Hornberger. (2017) "Identifying Novel Signaling Pathways: An Exercise Scientists Guide to Phosphoproteomics." *Exercise and Sport Science Reviews*., 46(2): 76-85 DOI: 10.1249/JES.0000000000000146.
- P2 Christopher P Lapointe, Jonathan A Stephely, Adam Jochem, Paul D Hutchins, **GM Wilson**, Nicholas W Kwiecien, Joshua J Coon, Marvin P Wickens, and David J Pagliarini. (2018) "Multi-omics Reveals Specific Targets of the RNA-Binding Protein Puf3p and Its Orchestration of Mitochondrial Biogenesis." *Cell Systems*, 6:1-11. DOI: 10.1016/j.cels.2017.11.012
- P1 L.A. Graham, **GM Wilson**, T. K. West, C.S. Day, G.L. Kucera, and U. Bierbach. (2011) "Unusual Reactivity of a Potent Platinum-Acridine Hybrid Antitumor Agent." *ACS Med. Chem. Lett.*, 2:687. DOI: 10.1021/ml200104h

ABSTRACTS

- A3 **Wilson GM**, Nicholas M. Riley, Alexander S. Hebert, Michael S. Westphall, and Joshua J. Coon. "Characterization of intact glyoproteome subpopulations obtained with commonly used enrichment methods." Presented at: American Society of Mass Spectrometry; San Diego, CA; June 2, 2018.
- A2 **Wilson GM**, Evgenia Shishkova, Burcu F. Darst, Alexander S. Hebert, Michael S. Westphall, Sterling C. Johnson, Kirk J. Hogan, Corinne D. Engelman, and Joshua J. Coon. "Improved plasma proteomics enables the investigation into Alzheimer's Disease progression." Presented at: Keystone Symposia: Omics strategies to study the proteome, Breckenridge, CO; Feb 1, 2017.
- A1 **Wilson GM**, Evgenia Shishkova, Alexander S. Hebert, Michael S. Westphall, and Joshua J. Coon. "Rapid proteomic profiling of human blood plasma." Presented at: American Society of Mass Spectrometry; San Antonio, TX; Jun 9, 2016.

Honors & Awards

Markey Foundation Travel Grant	Biomolecular Chemistry – UW-Madison	06/2017–present
Biotechnology Training Grant Predoctoral Fellowship	National Institutes of Health, NIGMS – UW-Madison	01/2016–present
Winner, Bluesky Research Proposal: "Unbounded science: Reimagining the Possible"	Warp Drive Bio	2013
Undergraduate Research Fellowship	Wake Forest University	2008, 2009
Academic Dean's List	Wake Forest University	2006–2010

Service & Outreach

Crazy Legs – Madison, WI

COURSE VOLUNTEER

2016,2017

Warp Drive Bio

SAFETY REPRESENTATIVE

02/2013–05/2015

- Coordinated with outside consultants to advise on the best practices for safe operating conditions and waste containment and removal.

Teaching Experience

UW-Madison

TEACHING ASSISTANT

- Chemistry 344: Organic Chemistry (SU,FA 2015)

Professional Societies & Groups

International Chemical Biology Society	2016–present
Computational Biology, Ecology, & Evolution (ComBEE) – UW-Madison	2016–present
American Society of Mass Spectrometry	2015–present
American Chemical Society	2008–present