

TOD P. HOLLER, Ph.D.
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Education

B.S. Chemistry	Harvey Mudd College, Claremont, CA
Ph. D. Chemistry	University of Washington, Seattle, WA
Postdoctoral Fellow	Massachusetts Institute of Technology, Cambridge, MA

Communications Competencies

Principal, TPH Communications, LLC, a company formed to enable my freelance work as a scientific writer.

Peer Reviewed Manuscripts

Co-authored more than 30 peer-reviewed manuscripts, including a book chapter and two reviews, in 19-year Pharma career. Since Sep 2010, have written or edited several manuscripts that have been published in peer-reviewed journals. Personally shepherded four of them through the review process, including the drafting the responses to reviewer's comments. My bibliography details the papers authored/edited.

Currently serve on the Editorial Board of the peer-reviewed journal *Assay and Drug Development Technologies*.

Grants Applications

Have authored or co-authored seven grant applications for members of the University of Michigan College of Pharmacy. These applications were primarily for the National Institutes of Health, and included R01, R21 and R03's. Also wrote a portion of a P20 application and an application to the Food and Drug Administration.

Oral Presentations (slide decks)

Prepared innumerable oral presentations for scientific and management groups while in Pharma. Significant presentations include a discussion of Pfizer's Neglected Diseases Research efforts at the World Health Organization in Geneva, Switzerland, and a description of Pfizer's malaria research program needs to the Global Malaria Forum in New York, NY. I currently lecture in the course Translational Pharmacology 621. Slide decks for others include two for the Chairman of the Medicinal Chemistry Department to use at external scientific meetings.

Poster Presentations

Have prepared numerous posters for scientific meetings, usually in collaboration with the scientists performing the work. Most recent posters include two for the 2011 Midwest Enzyme Chemistry Conference.

Conference Planning / Execution

Served as Program Chair for the 27th Midwest Enzyme Chemistry Conference, October 1, 2007 in Chicago. Authored and published web site for the event; raised money from industry and professional organizations; chose the Session Chairs, the speakers and the poster presentations from submitted abstracts; served as "Master of Ceremonies."

Memberships

Editorial Board, Assay and Drug Development Technologies	since 2012
American Medical Writers Association Earned Essential Skills Certificate, June 2011	since 2010
American Society for Biochemistry and Molecular Biology	since 1991
American Chemical Society	since 1977

Employment History

Department of Medicinal Chemistry, University of Michigan September, 2010 – Present

Visiting Associate Research Scientist. Have written up or edited all of the data available at the time I joined the laboratory of the Department Chair, Ronald W. Woodard. Have written all of the scientific manuscripts and grant applications from the Woodard research group, supervised the efforts of students in the laboratory, and served as a writing resource for other members of the College of Pharmacy.

Pfizer PharmaTherapeutics, Sandwich, United Kingdom August 2007 – April 2010

Went to England as a Project Leader in antiviral research and an Enzymology Team Lead for the site. After approximately a year, assumed a leadership role in neglected diseases research. This role evolved into leadership of the malaria research program. Was laid off as part of a site-wide reduction in staff. Pfizer ended discovery research at this site in 2011.

Pfizer Global Research & Development, Ann Arbor, MI July 2001 – August 2007

Associate Research Fellow. Member Antibacterial Discovery Team (2002 – 2003), helping to manage the early portfolio in the Antibacterials therapeutic area. Led interdisciplinary New Target Team that selected targets for entry into high throughput screening and prioritized targets for external collaboration. Led scientific team looking for new inhibitors of bacterial transcription and translation. Also led Pfizer's Global Enzymology Network, an informal, discipline-based team.

Parke-Davis / Warner-Lambert, Ann Arbor, MI, USA, July 1991 - June 2001

Research Scientist, Department of Biochemistry. Promoted three times while working on enzymes and proteins of Human Immunodeficiency Virus (HIV) in search for novel antivirals, and proteins of Gram-negative bacteria in search for novel antibacterials. Work contributed to two First in Human trials and numerous targeted screens using internal resources, external academic collaborations, and collaborative research agreements with biotechnology companies.

Department of Medicinal Chemistry, University of Michigan 2000-2007

Adjunct Associate Professor. Taught four lectures covering assay development, screening and compound triage as part of MedChem 534, Introduction to Drug Discovery.

Military Experience

Captain, U.S. Army Chemical Corps, Fort Lewis, WA 1980-1984
The Chemical Corps is responsible for nuclear, biological and chemical defensive measures within the US Army.

Recent Peer-reviewed Publications Co-authored (out of 33 total)

13. Dermeyer, M.; Wise, S. C.; Braden, T.; Holler, T. P. Simultaneous Screening of Multiple Bacterial tRNA Synthetases using an Escherichia coli S30 Lysate based assay. *Assay and Drug Dev. Technol.* **2007**, *5*, 515-522.
14. Holler, T. P.; Evdokimov, A. G; Narasimhan, L. Structural Biology Approaches to Antibacterial Drug Discovery. *Expert Opinion on Drug Discovery.* **2007**, *2*, 1085-1101. **(REVIEW)**
15. Evdokimov, A. G; Mekel, M.; Hutchings, K.; Narasimhan, L.; Holler, T.; McGrath, T.; et al.. Rational protein engineering in action: the first crystal structure of a phenylalanine tRNA synthetase from Staphylococcus haemolyticus. *J. Structural Biol.* **2008**, *162*, 152-169.
16. Holler, T. P.; Parkinson, T.; Pryde, D. C. Targeting the non-structural proteins of hepatitis C virus: beyond hepatitis C virus polymerase and protease. *Expert Opinion on Drug Discovery* **2009**, *4*, 293-314. **(REVIEW)**
17. Oduor, R. O.; Ojo, K. K.; Williams, G. P.; Bertelli, F.; Mills, J.; Maes, L; Pryde, D. C.; Parkinson, T.; Van Voorhis, W. C.; Holler, T. P. *Trypanosoma brucei* Glycogen Synthase Kinase-3, A Target for Anti-Trypanosomal Drug Development: A Public-Private Partnership to Identify Novel Leads. *PLoS Negl. Trop. Dis.* **2011**, *5*(4): e1017. doi:10.1371/journal.pntd.0001017.
18. Mosberg, J. A.; Yep, A.; Meredith, T. C.; Smith, S.; Wang, P.-F.; Holler, T. P.; Mobley, H. L. T.; Woodard, R. W. A unique arabinose 5-phosphate isomerase found within a genomic island associated with the uropathogenicity of Escherichia coli CFT073. *J. Bacteriol.* **2011**, *193*, 2981-2988.
19. Yi, L.; Velasquez, M. S.; Holler, T. P.; Woodard, R. W. A simple assay for 3-deoxy- D-manno-octulosonate cytidyltransferase (KdsB) and its use as a pathway screen. *Anal. Biochem.* **2011**, *416* (2), 152-158.

Peer-reviewed Publications written/edited for others

1. Yep, A., Sorenson, R. J., Wilson, M. R., Showalter, H. H. D., Larsen, S. D., Paul R. Keller, P. R., Woodard, R. W. Eneidiol mimics as inhibitors of the D-arabinose 5-phosphate isomerase (KdsD) from *Francisella tularensis*. *Bioorg. Med. Chem. Lett.* **2011** *21*, 2679-2682.
2. Zhou, L., Wu, J., Janakiraman, V., Shumilin, I. A., Bauerle, R., Kretsinger, R. H., Woodard, R. W. *Bioorg. Chem.* **2011** *40*, 79-86.
3. Schmidt, H., Mesters, J. H., Wu, J., Woodard, R. W., Hilgenfeld, R., Mamat, U. Evidence for a Two-Metal-Ion Mechanism in the Cytidyltransferase KdsB, an Enzyme Involved in Lipopolysaccharide Biosynthesis. *PLoS ONE* **2011** *6*(8): e23231. doi:10.1371/journal.pone.0023231

Recent Grant Applications co-authored

1. "Targeting Endotoxin Synthesis in Gram-negative Pathogens by Fragment Screening", an R01 submitted February, **2011** to the National Institutes of Health.
2. "Arabinose 5-phosphate homeostasis in bacterial physiology and virulence", an R01 renewal submitted March, **2011** to the National Institutes of Health.
3. "Antibacterial discovery through a Kdo biosynthesis pathway screen", an R03 submitted May, **2011** to the National Institutes of Health.
4. "Inhibition of Bacterial Tyrosine Kinases as a Strategy to Combat Resistance", a hybrid R21/R33 submitted in June, **2011** to the National Institutes of Health
5. "A Statewide Pediatric Safety Collaboration to Standardize Compounded Oral Liquids", a U01 submitted July, **2011** to the Food and Drug Administration.
6. Effective Antibacterials through Dual-targeting of Endotoxin Biosynthesis", submitted September, **2011** to the Great Lakes Regional Center of Excellence.