



Department of Chemistry & Biochemistry

Seminar On

Drug Discovery & Biomedical Sciences



Dr. Binghe Wang

Regents' Professor of Chemistry

Georgia Research Alliance Eminent Scholar

Georgia Cancer Coalition Distinguished Cancer Scholar

Director, Center for Diagnostics and Therapeutics

Department of Chemistry

Georgia State University



Georgia State
University

COLLEGE OF
ARTS & SCIENCES

Research interests: Medicinal Chemistry (Drug design), pharmaceutical chemistry (drug delivery) chemical biology, supramolecular chemistry and chemosensing, and bioorganic chemistry

https://chem-lithium.gsu.edu/Groups/Bing_Wang/default.html

Defying Conventional Wisdom: Developing Carbon Monoxide as a Therapeutic Agent

Nitric oxide, hydrogen sulfide and carbon monoxide are all toxic molecules, and yet they belong to the gasotransmitter family of signaling molecules with importance on par with that of neurotransmitters and hormone molecules. Studies have shown that these endogenously produced molecules have a wide range of physiologic roles and therapeutic potentials. Specific functions of these molecules are of course unique for each of them. While the use of NO-producing molecules as therapeutics has long been established, the exploration of hydrogen sulfide and carbon monoxide as therapeutics is still at its infancy at best. This presentation will discuss issues related to developing carbon monoxide-based therapeutics and possible solutions and CO prodrugs developed in our lab (*Acc. Chem. Res.* **2018**, *51*, 1377).

Key Reference:

(1) *Nature Chem.* **2018**, *10*, 787-794. (2) *Acc. Chem. Res.* **2018**, *51*, 1377-85. (3) *Proc. Natl. Acad. Sci.* **2018**, *115*, E2302-E2310. (4) *Angew. Chem. Int. Ed. Engl.* **2016**, *55*, 15846. (5) *J. Am. Chem. Soc.* **2018**, *140*, 30-33.

DATE:	Friday, September 20, 2019	
TIME:	4:00 – 5:00 pm	<i>Coffee, donuts and gathering at 3:45 pm</i>
LOCATION:	CCSB G.0208	<i>The seminar auditorium below Starbucks</i>
CONTACT:	Yaoqiu Zhu, Ph.D. 5360, yzhu2@utep.edu	