

DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE
SEMINAR SERIES
SPRING 2022

DATE: WEDNESDAY, APRIL 20, 2022

WEBEX:

<https://njit.webex.com/njit/j.php?MTID=ma36b5af243ef3dd95226eac2f4812268>

TIME: 1:00PM-2:20PM

GUEST SPEAKER

Dr. Jon M. Fukuto
Professor of Chemistry and Chair
Department of Chemistry
Sonoma State University
Rohnert Park, CA

TOPIC

The Chemical Biology of Hydropersulfides: Possible Cellular Protective Species and Regulators of S-Nitrosothiols

ABSTRACT

The chemical properties of hydropersulfides and other polysulfur species predict that they could serve as cellular protective agents. Indeed, numerous recent studies are consistent with this hypothesis. Moreover, hydropersulfides have a unique ability to react with S-nitrosothiols, degrading them and ultimately generating nitric oxide. As such, these species may be important in the regulation of S-nitrosothiols. The chemical biology and consequent physiological properties of hydropersulfides, and related species, will be discussed.

BIO

Jon Fukuto obtained his Bachelor's degree from UC San Diego, then his Ph.D. in Organic Chemistry from UC Berkeley. After a post-doctoral position in the Department of Pharmacology at UC Los Angeles, he joined the same Department as an Assistant Professor in 1986. In 2008, he moved to Sonoma State University, where he is currently Professor of Chemistry and Chair of the Chemistry Department. Prof. Fukuto has an impressive track record, having published more than 180 peer-reviewed articles and 3 patents. His current research interests are focused on the chemical biology of small molecule activation including HNO, NO, CO and H₂S.



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