TEXAS-INSPIRED DRUG DISCOVERY EFFORTS

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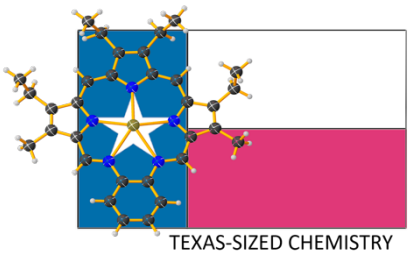
This lecture will present the development of expanded porphyrins as potential drug leads. The presentation will begin with a personal story of a 3x cancer survivor and how with the assistance of great coworkers and collaborators an effort has been made to fight back against this disease by studying the chemistry and anti-cancer biology of gadolinium(III) texaphyrins.

Texaphyrins were the first of the so-called expanded porphyrins--larger analogues of heme pigments--to stabilize a 1:1 complex with a metal cation. Subsequently, and continuing as a focus today, an effort has been made in our laboratories and those of many others to create additional expanded porphyrins. Hundreds are now known. Several from our laboratory have proved useful at stabilizing actinide cation complexes.

Recently, efforts have been made to create so-called immunogenic cell death promoters designed to prevent cancer recurrence based on redox-active gold(I) carbenes. An introduction to this new research direction will serve to close the lecture.

Collaborations with a number of groups, including those of Profs. Dongho Kim, Andrew Gaunt, John Arnold, Stosh Kozimer, Jong Sung Kim, Shunichi Fukuzumi, T.K. Chandrashekar, Dirk Guldi, Changhee Lee, Jan Jeppesen, Steffen Bähring, Zahid Siddik, Rick Finch, Zhengrong Cui, and Tomas Torres, are gratefully acknowledged. Special thanks also go to Jonathan F. Arambula, Gregory Thiabaud, Sajal Sen, Xiaofan Ji, James Brewster, and Daniel Mangel. Early funding came from the US NIH and the CPRIT, with current support provided by OncoTEX, Inc. (disclaimer: JLS is a non-executive board member of OncoTex, Inc.) and the Robert A. Welch Foundation.



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