Singapore

HAN-P-31

Bengang Xing

Professor, Nanyang Technological University
Email: bengang@ntu.edu.sg

Website	http://personal.ntu.edu.sg/bengang/xresearch.htm
Social Media Channel	https://x.com/xing_group_ntu
Research Field(s)	Chemical Biology, Molecular Probe & Imaging, Bio-labeling, Nano-Theranostics

Academic Career

B.S., 1994, Xinjiang Normal University; Ph.D., 2000, Nanjin University (advisor: Prof. TANG Wenxia); Postdoctoral Training, 2000-2003, The Hong Kong University of Science and Technology (advisor: Prof. XU Bing); 2003-2004 Crump Institute of Molecular Imaging, UCLA (advisor: Prof. RAO Jianghong), 2004-2006 (Molecular Imaging Program at Stanford, Stanford University (advisor: Prof. RAO Jianghong); Assistant Professor, 2006-2011, Associate Professor (Tenured), 2011-2019, Professor, 2019-present, Nanyang Technological University, Singapore

Selected Publications

1. “A Nitroreductase-activatable Metabolic Reporter for Covalent Labeling of Pathological Hypoxia in Tumorigenesis,” Z. Wang*, J. Lau, Z. Ren, Z. Gong, X. Liu, B. G. Xing*, Angew. Chem. Intl. Ed, 2024, 64, e202411636.

2. “Enzymes in Synergy: Bacteria Specific Molecular Probe for Locoregional Imaging of Urinary Tract Infection in vivo”, Y. H., et al., B. G. Xing*, Angew. Chem. Intl. Ed, 2024, 64, e202406843.

3. “Hypoxia Deactivates Epigenetic Feedbacks via Enzyme-derived Clicking Proteolysis Targeting Chimeras”; D. C. Thang, et al., B. G. Xing* Sci. Adv. 2022, 8 (50), abq2216.

4. “Cyanine-Dyad Molecular Probe for Simultaneous Profiling of Multiple Radical Species Evolution in Bacterial Infection". Z. Wang, et al., B. G. Xing*, Angew. Chem. Intl. Ed, 2021, 60, 16900.

5. “Multispectral Optoaccoustic Imaging of Dynamic Redox Correlation and Pathophysiological Progression Utilizing Upconversion Nanoprobes.” X. Z. Ai, et al., B. G. Xing*. Nature Commun, 2019, 10, 1087.

6. “Remote Regulation of Membrane Channel Activity by Site-specific Localization of lanthanide-doped Upconversion Nanocrystals.” X. Ai, et al,. B. G. Xing*. Angew. Chem. Intl. Ed, 2017, 56, 3031.

7. "In vivo Covalent Cross-linking of Photon-converted Rare-earth Nanostructures for Tumor Localization and Theranostics". X. Z. Ai, et al., B. Xing, Nature Commun. 2016, 7, 10432.

8. “Real-Time Visualization of Cell-Surface Proteolytic Enzyme Functions Using a Small-Molecule FRET Probe” J. Mu, et al., B. G. Xing, Angew Chem. Intl. Ed., 2014, 53, 14357-14362.

Why My Lab?

Our research group has been fully conducting the interdisciplinary research at the interfaces of

chemical biology, molecular probe and imaging, biolabeling, and Nano-theranostics in CCEB, NTU. Our group also fosters a collaborative and academically stimulating environment with a focus on nurturing team members' scientific growth.