

SEMINAR  
Thurs 26, Oct 2017 | 11am | DBS Conference Room 1

Hosted by A/P Ge Ruowen

# Exploratory Research on Human Hibernation



**By Lei Fu**

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We have discovered a family of compounds that reversibly change the activities of cytochrome c oxidase in mitochondria, causing periods of hypothermia. These are small molecules that have low levels of toxicity. We have also developed a simple strategy to increase the activity and bioavailability of this new class of drugs. Our protocol begins with the synthesis of drug candidates followed by “in vitro” studies of living cells and progresses to “in vivo” animal studies. Understanding the mechanism of this effect should allow us to develop a number of even more active chemicals directed specifically on particular disease states. In addition, I will also introduce some the School of Pharmacy, Shanghai Jiao Tong University.

**Bio:** *Dr. Fu received his B.S. and M.S. in Chemistry from Fudan University and Ph.D. in Chemistry from Stanford University. He completed his postdoctoral training at Stanford. He has over 50 peer-reviewed publications and 12 US and Chinese Patents, mainly in drug discovery.*

*His work has been published in Science, Chemical Reviews, Angewandte Chemie International Edition, Journal of the American Chemical Society, and the Journal of Organic Chemistry. Dr. Fu has over 10 years of experience in the pharmaceutical industry. Among others, he is experienced in new drug design, chemical synthesis, and lead optimization.*