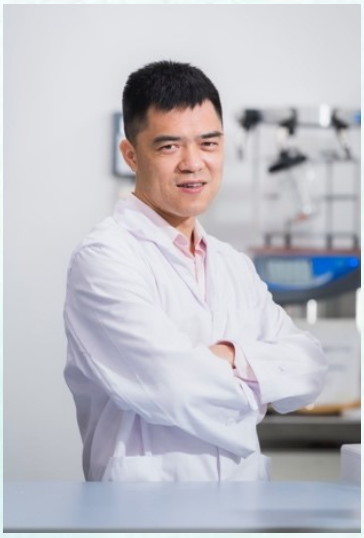
The University of Hong Kong

Department of Pharmacology and Pharmacy

Presents

# Seminar series — Drug Delivery and Translational Medicine

# Microneedle-based skin patch for transdermal drug delivery and biosensing



by


**Dr. Chenjie XU**

Associate Professor
Department of Biomedical Engineering,
City University of Hong Kong,
Kowloon Tong, Hong Kong SAR, China


**Date**: 16 December 2022 (Friday)
**Time**: 3:00 p.m.– 4:00 p.m.
**Venue**: Seminar Room 1, G/F, Laboratory Block, LKS Faculty of Medicine, 21 Sassoon Road, Pokfulam


**Abstract:**
Microneedles (MNs) are an emerging platform for transdermal applications including drug delivery, insulin delivery, vaccination, biosensing, disease diagnosis, and cosmeceutical industry. Their advantages lie at their easy-to-use, pain-free, minimally invasive, and self-administrable features. This overcomes the skin barrier to enhance transdermal delivery of drugs and biomolecules with different physicochemical properties in vitro, ex vivo and in vivo. In this talk, Dr. Xu will share microneedle technologies developed in his lab for meeting a wide range of medical needs, including keloid treatment and prevention, obesity treatment, dental and eye disease treatment, and immune therapies. He will also present his envision in utilizing MN platform for the in-situ monitoring of physiological signals


Speaker Biography

Dr. XU Chenjie got his PhD, Master, and BS from Brown University (2009), HKUST (2004), Nanjing University (2002) respectively. He had conducted research at Stanford University (2005), Brigham and Women's Hospital (2009-2012), and Nanyang Technological University (2012-2019). Currently he is an associate professor of biomedical engineering at City University of Hong Kong.

Dr. XU is dedicated to the development of transdermal drug delivery formulations and devices (especially nucleic acid-based nanoparticles and microneedle-based skin patch). He is well known for the development of skin patch for keloid treatment, anti-obese skin patch, skin patch for skin interstitial fluid extraction etc. He has published more than 140 peer-reviewed articles (citation is 11k with H index of 45), edited two books, holding 10 international patents, and found two spin-offs. His research is supported by a wide range of public and private foundations including Singapore Minister of Education, Singapore A*Star, Continental Corp (German), Bill & Melinda Gates Foundation, Hong Kong University Grants Committee, National Natural Science Foundation of China, etc.

HKU Med LKS Faculty of Medicine
Department of Pharmacology & Pharmacy
香港大學藥理及藥劑學系


For enquiries, please contact Ms Esther H.W. NG at +852 39179123 or esther09@hku.hk