Fan Tsz Wing, Cherry

twfan@connect.ust.hk
Room 7104, Academic Building, HKUST, Clear Water Bay, Hong Kong

Education

Ph.D. in Chemical and Biomolecular Engineering 2013-Current

The Hong Kong University of Science and Technology

- Current CGA: 4.2/4.3

B.Eng. (First Class Honors) in Chemical and Bioproduct Engineering 2013

The Hong Kong University of Science and Technology

- GGA: 3.88/4.3
- Top 2 in Department

Research Interests and Focus

- Explore programmability and dynamics of nucleic acid interactions
- Develop nucleic acid based sensing assays for diagnostics of pathological diseases

Honors and Awards

Hong Kong PhD Fellowship Scheme	2013-2017
Dean's list Awards (all semesters) in Bachelor	2010-2013
The Cheng Foundation Scholarship	2012-2013
Hang Seng Bank Community Service Award and Scholarship	2010-2011

Expertise and Skills

Nucleic Acid Circuit Design: Nupack, Matlab (kinetic and thermodynamic calculations), Domain based Sequence Design (DD), Visual DSD

Experimental Techniques: Nucleic acid Annealing and Purification, Gel electrophoresis and Imaging, Spectrofluorometry, AFM, TEM, Confocal Microscope, Flow Cytometry, DLS, Cell Culture, Nanoparticle synthesis

Data Analysis and Drawing Tools: Origin Lab, Image J, Adobe Illustrator, Inkscape
Programming: Matlab, C++

Publications

T.W. Fan and I. Hsing, Destabilization-Motif Modulated Specificity in Target Recycling Circuitry (Manuscript under Review)
F. Xuan, **T.W. Fan** and I. Hsing, Electrochemical Interrogation of Kinetically-Controlled Dendritic DNA/PNA Assembly for Immobilization-Free and Enzyme-Free Nucleic Acids Sensing, ACS Nano, **2015,** 9, 5027-5033.

Conferences

- Fnano 2016, Snowbird, "Cooperating Target Recycling and Cascaded Self-Assembly for Enzyme-Free, Highly Sensitive and Specific Nucleic Acid Detection", 2016
- 1st ASCBC Symposium, Japan, " Exploiting Nucleic Acid Molecular Probes for Highly Specific SNV Detection", 2015- **Best Poster Award**
- MRS Conference Symposium JJ, "Peptide Nucleic Acid Mediated Dendritic Growth of Nucleic Acid Self-Assembly for Amplified Homogeneous Electrochemical Nucleic Acid Assay", 2015 – **Best Poster Award**