

Xu (Leo) Chang

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EDUCATION:

- Rutgers University, NJ, US
PHD candidate of Chemistry, 2019.12-Now
- Shanghai Normal University, Shanghai, China
MS. Biochemical Engineering, 2018
Advisor: Dr. Huixia Wu
- Shanghai Institute of Technology, Shanghai, China
B. S. Bioengineering, 2015
Advisor: Dr. Xuesong Zheng

RESEARCH EXPERIENCE:

- Research Assistant 2019 Aug. – now
Department of Biomedical Engineering, University of Connecticut
 - CRISPR Cas12-based DNA device for bio-sensing and imaging**
- Research Assistant 2018 Jun. – 19 July
Renji Hospital, Institute of Molecular Medicine, Shanghai Jiao Tong University
Project: Construction of a Multiple-Aptamer-Based DNA Logic Device on Live Cell Membranes via Associative Toehold Activation for Accurate Cancer Cell Identification
(Supervisor: Dr. Da Han)
 - DNA-based intelligent system design, validation and application
 - DNA nanostructure and DNA assembly and characterization
 - DNA-based drug delivery platform engineering
- Graduate Assistant 2015 Aug. – 2018 Jun.
The Key Laboratory of Resource Chemistry of Ministry of Education, Shanghai Normal University
Project 1: Graphene oxide / MnWO₄ nanocomposite for magnetic resonance / photoacoustic dual-modal imaging and tumor photothermo-chemotherapy.
Project 2: Graphene oxide / BaHoF₅ / PEG nanocomposite for dual-modal imaging and heat shock protein inhibitor-sensitized tumor photothermal therapy
(Supervisor: Dr. Huixia Wu)
 - Cancer bioimaging, diagnosis and therapy
 - Inorganic nanomaterial synthesis, characterization and biomedical applications
- Undergraduate Assistant 2014 Aug. – 2015 Jun.

Genetic Engineering Lab, Shanghai Institute of Technology

- Study of competitive cooperation population of E.coli regulated by recombinant plasmid

WORK EXPERIENCE:

- Teaching Assistant 2019 Aug. – now
Course name: LabView Basics for Engineers
Department of Biomedical Engineering, University of Connecticut
 - Mark homework and watching exams
- Research Assistant 2018 Jun. – 19 July
Renji Hospital, Institute of Molecular Medicine, Shanghai Jiao Tong University
Lab website and lab financial affairs
Replenish lab consumable
 - Carry out research work
- Graduate Assistant 2015 Aug. – 2018 Jun
The Key Laboratory of Resource Chemistry of Ministry of Education, Shanghai Normal University
Supervised undergraduate students with dissertations,
Supervised undergraduate students with experiments

PUBLICATIONS:

Xu Chang Mengqing Zhang, Cheng Wang, etc. Graphene oxide / BaHoF₅ / PEG nanocomposite for dual-modal imaging and heat shock protein inhibitor-sensitized tumor photothermal therapy. doi.org/10.1016/j.carbon.2019.10.105 (*IF: 7.46*)

Xu Chang, Chao Zhang, Cheng Lv, etc. Construction of a Multiple-Aptamer-Based DNA Logic Device on Live Cell Membranes via Associative Toehold Activation for Accurate Cancer Cell Identification. *J. Am. Chem. Soc* 2019, 141, 12738-12743 (*IF: 14.36*)

Xu Chang, Yixue Zhang, Puqun Xu, etc. Graphene oxide / MnWO₄ nanocomposite for magnetic resonance / photoacoustic dual-modal imaging and tumor photothermo-chemotherapy. *Carbon* 2018, 138, 397-409 (*IF: 7.46*)

Associative toehold based logic device for ultrahigh sensitivity and specificity live cancer cell recognition and isolation. **In progress**

Patent: Preparation methods of Graphene oxide / MnWO₄ /polyethylene glycol nanocomposite, Publication Number: 106963951A

Patent: Preparation methods of hollow vesicle nanostructures doped with gadolinium, Publication Number: 105903038A

AWARDS AND HONORS:

- **Excellent Student Award*** (Shanghai Normal University) 2016-2017
(*Awarded by the university to the graduates who are excellent on research, top 3/30)
- **The 3rd Class Scholarship***, (Shanghai Institute of Technology) 2013-2014
(*Granted to students in top 30% students of the year)
- **The 3rd Class Scholarship***, (Shanghai Institute of Technology) 2011-2012
(*Granted to students in top 30% students of the year)
- **Academic Progress Prize***, (Shanghai Institute of Technology) 2011-2012
(*Granted to students making significant progress in academic performance)