

Qiong Pan

Bioengineering
University of California Berkeley
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EDUCATION

2012-present Ph.D candidate, Bioengineering, University of California Berkeley

Advisor: Amy E. Herr, Microfluidic single-cell Western blotting for circulating tumor cell protein assays

Advisor: Luke P. Lee, Microfluidics for cellular and tissue engineering and diagnostic devices in blood borne disease detection.

2006 – 2012 Doctor of Philosophy, Analytical chemistry, Peking University

Advisor: Meiping Zhao, Thesis: Development of Microfluidic based Methods for Protein and Cellular Analysis.

2002 – 2006 Bachelor of Science, Chemistry, Peking University

Advisor: Yuanzong Li, Analytical Chemistry: In Vivo Mimicking of the Folding of Green Fluorescent Protein

Advisor: Chunhui Huang, Inorganic Chemistry: Synthesis and Characterization of a Novel Electroluminescent Material- Eu Complex

PROFESSIONAL ACTIVITIES

2012-present, Ph.D candidate, Bioengineering, University of California Berkeley

Detection of single-cell heterogeneous miRNA regulations in cancer.

Disease-specific human tissues on chip for drug development.

Plasmonic nanoantennae-mediated single miRNA detection for cancer diagnosis.

Microfluidic pathogen DNA purification from whole blood.

11/2009-11/2011, Visiting student, Bioengineering, University of California, Berkeley

Microfluidic single embryonic stem cell culture and dynamic analysis with fibroblast co-culture to study tissue repair process.

09/2006-06/2012, Graduate Student, Analytical Chemistry, Peking University

Use recombinant fusion protein GFP-IGF-I for competitive immunoassay of IGF-I.

Microfluidic electrophoresis protein enrichment for sensitive detection of GFP.

Microfluidic electrophoresis for trace amount of protein detection in complicated matrix.

06/2009-08/2009 Research assistant Marine Laboratory, Scotland

Development of a homologous recombination method to generate somatic knock out salmonid fish cell lines

11/2003-7/2005 Undergraduate Researcher, Inorganic Chemistry, Peking University

Synthesis and Characterization of a Novel Electroluminescent Material- Europium Complex

AWARDS

- 2012, Best Doctorial Dissertation Award of College of Chemistry, Peking University
- 2006, 2007 and 2008, Excellent Student, Peking University
- 2007, Second place of “Challenge Cup” Youth Science and Technology Competition, Peking University
- 2002, First price of National Chemistry Olympia Competition, China

PUBLICATIONS AND PROCEEDINGS

- Qiong Pan, Xianjin Xiao, Soongweon Hong, Meiping Zhao and Luke P. Lee, Detection of Single-cell Heterogenous MicroRNA Regulations in Cancer, Plenary Presentation, 12th International Micro-Total Analysis System Symposium 2014, San Antonio, TX.
- Soongweon Hong*, Qiong Pan* and Luke P. Lee, Single-Cell Level Co-culture Platform for Dynamic Imaging of Cellular Interactions, *Integrative Biology*, 2012, 4, 374-380. (* equal contribution)

- Qiong Pan, Soongweon Hong, Xiaocui Zhu, Meiping Zhao, Luke P. Lee, On-line electrophoretic sample clean-up for sensitive and reproducible μ CE immunoassay, *Lab on a Chip*, 2012, 12, 932-938.
- Qiong Pan, Meiping Zhao, Shaorong Liu, Combination of On-Chip Field Amplification and Bovine Serum Albumin Sweeping for Ultra-Sensitive Detection of Green Fluorescent Protein, *Analytical Chemistry*, 2009,81, 5333- 5341.
- Qiong Pan, Meiping Zhao, Development of Analytical Methods for Insulin-like Growth Factor-I, *Chinese Journal of Chromatography*, 2008, 26, 424-430.
- Ruina Shi, Qiong Pan, Yuan Guan, Zhendong Hua, Yong Huang, Meiping Zhao, Yuanzong Li, Imidazole as a Catalyst for in Vitro Refolding of Enhanced Green Fluorescent Protein, *Archives of Biochemistry and Biophysics* 2007, 459, 122–128.