CURRICULUM VITAE

Shun Liang

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OBJECTIVE

A technician position in biomedicine or other related fields that require dedication, responsibility and productivity.

EDUCATION

Bachelor Degree — Anhui University of Chinese Medicine, China — 1980-1985

TECHNICAL EXPERTISE

- More than 10 years of extensive experience in research laboratory management.
- Molecular biology research: Sub-cloning, plasmid DNA preparation; enzyme digestion, DNA purification, transformation; RNA isolation from cell, tissue and patient samples; RT-PCR and real-time PCR.
- Protein preparation: Purify protein from mammalian cells and bacterial, SDS-PAGE, Western blotting, protein refolding and purification.
- Cell culture: Transient transfection and stable transfection.
- Animal work: 10 years experience in maintaining transgenic mouse colonies, genotyping, mouse tissue collecting and processing.
- Other biological assays such as ELISA, immunostaining, vWF multimer assay.
- Instruments and Methodologies: Microscope, Ultra Centrifuge; Spectrophotometers; NanoDrop sepctrophotometer; Microplate spectrophotometer; ODYSSEY CLx Imaging System; pH Meter.
- Microsoft Word, Excel and PowerPoint.

WORKING EXPERIENCE

Lab Technician — March, 2016-Present

Dr. Premal Shah, The Human Genetics Institute of New Jersey, Rutgers University

- Lab management**:** In charge of procurement of lab reagent, equipment and lab suppliers; Maintaining laboratory equipment and stock solution; Contacting vendors for service of laboratory equipment**;** Biohazard material shipping/disposal; Making sure all laboratory members follow university's research safety rules**;** Keeping laboratory well organized.
- Technical support for research related but no limited to: Evolution of codon usage bias and protein translation; Epistasis in protein evolution; Evolution of mutation rates

Sr. Research Technician — September, 2012-January, 2015

Dr. Long X. Zheng, Pathology Department, The Children Hospital of Philadelphia

- Lab management**:** In charge of procurement of lab reagent, equipment and lab suppliers; Maintaining laboratory equipment and stock solution; Contacting vendors for service of laboratory equipment**;** Biohazard material shipping/disposal; Making sure all laboratory members follow CHOP's research safety rules**;** Keeping laboratory well organized.
- Technical support for research related but no limited to: Structure-function analysis of proteinases

ADAMTS7; Cofactor-dependent regulation of ADAMTS7 functions; Autophagy in regulation of von Willebrand factor (VWF) secretion and function.

Research Specialist 2007-September, 2012

Dr. Lin Zhang, CRRWH, School of Medicine, University of Pennsylvania, Philadelphia

- Lab management**:** In charge of procurement of lab reagent, mouse, equipment and lab suppliers**;** Orientation for new members about lab safety and equipment operation, etc. Biohazard material shipping/disposal; Maintaining miRNA library inventory and database.
- Technical support for research related but no limited to: OncoGenome and EpiGenome in ovarian and breast cancers; MicroRNAs/long non-coding RNAs in cancer; MicroRNA-based therapeutic and diagnostic strategies in cancer; MicroRNAs in cancer stem cells and embryonic stem cells.

Research Specialist October, 2003- 2006

Dr. George Coukos Lab, CRRWH, School of Medicine, University of Pennsylvania, Philadelphia

- miRNA library establishment, amplification and maintaining e.g. Perform PCR, DNA purification, restrict enzyme digestion, ligation, transformation, Miniprep, DNA sequence, use web based bioinformatics tools such as BLAST to identify DNA, freeze inventory, establish miRNA Excel database.
- Help post-doctors with their projects e.g. DNA & RNA isolation, PCR, real-time PCR, Western Blotting, tissue embedding, cutting slice, IHC staining
- Transgenic mouse maintaining. e.g. breed mouse, tag mouse, genotyping, tissue collection etc.

Research Specialist September, 2000-September, 2003

Dr. Phil Rea Lab, Department of Biology, University of Pennsylvania, Philadelphia

- Isolating intact vacuoles from yeast and *Arabidopsis* plants.
- Extracting proteins from purified intact vacuoles and separating those proteins by two-dimension gel(2D-gel) electrophoresis.
- Extraction phytochelatin synthases (PC) from yeast and *Arabidopsis thaliana*.
- Detecting PC and its polymer numbers by using HPLC instrument.
- Determining the subcellular localization of AtPCS1 in Arabidopsis plants by western blotting and fluorescence microscopic analysis of *AtPCS1*-GFP fused proteins.
- Plasmid DNA mini-, midi- and maxi- preparations; preparation of *Arabidopsis thaliana* genomic DNA and total RNA.
- Northern, Southern and Western analysis.
- PCR & RT-PCR analysis; gel electrophoresis; restriction analysis.

PUBLICATIONS

1. **Liang S,** Yang N, Pan Y, Deng S, Lin XJ, Yang XJ, Katsaros D, Roby KF, Hamilton TC, Connolly DC, Coukos G, Zhang L: *Expression of activated PIK3CA in ovarian surface epithelium results in hyperplasia but not tumor formation. PLoS One* (2009), 4(1).
2. Li N, Zhong X, Lin X, Guo J, Zou L, Tanyi JL, Shao Z, **Liang S**, Wang LP, Hwang WT, Katsaros D, Montone K, Zhao X, Zhang L**:** *lin-28 homologue A (LIN28A) promotes cell cycle progression via the regulation of cyclin-dependent kinase 2 (CDK2),cyclin D1 (CCND1), and cell division cycle 25 homolog A (CDC25A) expression in cancer.* J Biol Chem. 2012.
3. Li N, Kaur S, Greshock J, Lassus H, Zhong X, Wang L, Leminen A, Shao Z, Hu X, **Liang S**, Katsaros D, Huang Q, Bützow R, Weber BL, Coukos G, Zhang L**:** *A combined array-based comparative genomic hybridization (aCGH) and functional library screening approach identifies mir-30d as an oncomir in cancer.* Cancer Res. Nov 4. [Epub ahead of print], 2011.
4. Zhong X, Li N, **Liang S**, Huang Q, Coukos G, Zhang L: *Identification of microRNAs regulating reprogramming factor LIN28 in embryonic stem cells and cancer cells.* J Biol Chem. 2010.
5. Yang X, Lin X, Zhong X, Kaur S, Li N, **Liang S**, Lassus H; Wang L, Katsaros D, et al**:** *Double-Negative Feedback Loop between Reprogramming Factor LIN28 and microRNA let-7 Regulates Aldehyde Dehydrogenase 1-Positive Cancer Stem Cells.* Cancer Research. 2010.
6. Deng S, Yang XJ, Lassus H, **Liang S**, Kaur S, Ye Q, Li CS, Wang LP, Roby KF, Orsulic S, et al: *Distinct expression levels*

and patterns of stem cell marker, aldehyde dehydrogenase isoform 1 (ALDH1) in human epithelial cancers. PLoS One. 2010.
7. Yang N, Kaur S, Volinia S, Greshock J, Lassus H, Hasegawa K, **Liang S**, Leminen A, Deng, S, Smith, Lori; et al: *MicroRNA microarray Identifies Let-7i as a Novel Biomarker and Therapeutic Target in Human Epithelial Ovarian Cancer*. Cancer Research .2008.
8. Giannakakis A, Sandaltzopoulos R, Greshock J, **Liang S**, Huang J, Hasegawa K, Li C, et al: *MiR-210 links hypoxia with cell cycle regulation and is deleted in human epithelial ovarian cancer.* Cancer Biology & Therapy. 2008.
9. Zhang L, Volinia S, Bonome T, Calin GA, Greshock J, Yang N, Liu CG, Giannakakis A, Alexiou P, Hasegawa K, Johnstone CN, Megraw MS, Adams S, Lassus H, Huang J, Kaur S, **Liang S**, Sethupathy P. et al: *Genomic and epigenetic alterations deregulate microRNA expression in human epithelial ovarian cancer*. PNAS. 2008.
10. Yang N, Huang J, Greshock J, **Liang S**, Barchetti A, Hasegawa K, Kim S, Giannakakis A, Li C, O'Brien-Jenkins A et al: *Transcriptional regulation of PIK3CA oncogene by NF-κB in ovarian cancer microenvironment.* PLoS One. 2008
11. Zhang L, Huang J, Yang N, Greshock J, **Liang S,** Hasegawa K, Giannakakis A, Poulos N, O'Brien-Jenkins A, Katsaros D, et al: *Integrative Genomic Analysis of Phosphatidylinositol 3′-Kinase Family Identifies PIK3R3 as a Potential Therapeutic Target in Epithelial Ovarian Cancer.* Clinical Cancer Research. 2007.
12. Zhang L, Huang J, Yang N, Greshock J, Megraw MS, Giannakakis A, **Liang S**, Naylor TL, Barchetti A, et al: *MicroRNAs exhibit high frequency genomic alterations in human cancer.* PNAS. 2006.
13. Zhang L, Huang J, Yang N, **Liang S**, Barchetti A, Giannakakis A, Cadungog MG, O'Brien-Jenkins A, Massobrio M, et al: *Integrative Genomic Analysis of Protein Kinase C (PKC) Family Identifies PKCι as a Biomarker and Potential Oncogene in Ovarian Carcinoma.* Cancer Research. 2006.
14. Zhang L, Yang N, Huang J, Buckanovich RJ, **Liang S,** Barchetti A, Vezzani C, O'Brien-Jenkins A, Wang J, et al: *Transcriptional coactivator Drosophila Eyes Absent Homologue 2 is up-regulated in epithelial ovarian cancer and promotes tumor growth.* Cancer Research. 2005.
15. Zhang L, Yang N, **Liang S**, Barchetti A, Vezzani C, Huang J, O'Brien-Jenkins A, Rubin SC, Coukos G: RNA interference: *A potential strategy for isoform-specific phosphatidylinositol 3-kinase targeted therapy in ovarian cancer.* Cancer Biology & Therapy. 2004.

REFERENCES

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