SHU-HAN, YU

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QUALIFICATION SUMMARY

Ph.D. level biologist with over 9 years of research experience in academic laboratories with a specialization in malignancy

- Significant experience in establishing *in vivo* allograft tumor models and in the study of genetically engineered mouse models
- High proficiency in a broad range of biochemical, molecular and cellular techniques including: ELISA, Western blotting, gene silencing (siRNA, site-directed mutagenesis), transfection, cell culture, flow cytometry, qPCR, immunohistochemisty, *in situ* hybridization, and microscopy (immunofluorescence, confocal)
- Proven ability to manage a broad range of projects on diverse topics in parallel and in the synthesis of the scientific literature to interpret, design, and execute projects

EDUCATION

2003-2007	**Bachelor of Science**, Department of Plant Pathology and Microbiology, College of Bioresources and Agriculture, National Taiwan University (**GPA**: 3.99/4.00**, Ranking**: 1/27, top 2%)
2007-2009	**Master of Science**, Institute of Biochemistry and Molecular Biology, College of Medicine, National Taiwan University
2010-2015	**Doctor of Philosophy**, Pathobiology Graduate Program, School of Medicine, Johns Hopkins University Mentor: Dr. Karen Sfanos, Dr. Angelo De Marzo

TECHNICAL SKILLS

Skills relevant to the position	Establishment of *in vivo* allograft tumor models, animal breeding and genotyping, ELISA, Western blot, RNA extraction and cDNA conversion, qPCR, immunohistochemistry (IHC), chromogenic *in situ* hybridization (CISH), cell culture and cell assays, transfection, siRNA, site-directed mutagenesis, Apoptosis assay (TUNEL), flow cytometry, confocal microscopy, immunofluorescence and fluorescent microscopy

Other techniques	PCR, sanger sequencing, multilocus sequence typing (MLST), plasmid construction, histology, RNA/DNA/protein preparation (prokaryotic and eukaryotic), expression microarray, 2D gel electrophoresis, cell fractionation (membrane, cytoplasm, nucleus), large scale plasmid purification, hypoxia chamber operation, sample preparation for Illumina HiSeq2000 sequencing, molecular microbiology and metagenomics studies

POSITIONS AND EMPLOYMENT

2004-2006	National Science Council Undergraduate Research program: Identification and selection of arsenic resistant bacteria from the groundwater of the blackfoot disease area in the Chia-Nan plain, southwestern Taiwan.
2007-2009	Protein Analysis Lab: Function and subcellular localization change of phosphoproteins induced by *Helicobacter pylori* infection.
2009-2010	Research Assistant: Assisting with LC-MS/MS
2010-2015	Molecular Pathobiology of Prostate Cancer Lab: Studies on the role of Interleukin-6 in prostate cancer development and in the induction of chronic prostatic inflammation by *Propionibacterium acnes*.
2015-present	Post-doctoral Fellow, Department of Pathology, Johns Hopkins University School of Medicine

HONORS AND AWARDS

2013/04 **Poster Award, 2rd place**

- Graduate Student Association 2013 Poster Section, Group A (2nd to 4th years), School of Medicine, Johns Hopkins University

2013/03 **Poster Award, 3rd place**

- 2013 Prostate Research Day, Johns Hopkins University

2012/05 **Excellence in Translational Research, Young Investigator Award**

- 14th Annual Department of Pathology Young Investigators' Day, School of Medicine, Johns Hopkins University

2012/03 **Poster Award, 2nd place**

- Graduate Student Association 2012 Poster Section, Group A (2nd to 4th years), School of Medicine, Johns Hopkins University

2010-2012 **Government Scholarship, Ministry of Education, Taiwan**

- Awarded by the Ministry of Education, ROC

2010/07 **Young Scientist Award**

- 17th East Asia Joint on Biomedical Research conference

2006/10 **Certification of Dean's List Award, National Taiwan University**

- Top 10 students selected from those who received the "Presidential Award"

2004-2007 **Presidential Awards, Department of Plant Pathology and Microbiology, NTU**

- Top 5% of students: Mar 2007, Oct 2006, Mar 2006, Oct 2005, Mar 2005, Oct 2004, Mar 2004

2005-2006 **Undergraduate Research Fellowship, Republic of China National Science Council**

2005/09 **Outstanding Research Fellowship, Yu-Quan Foundation**

PUBLICATIONS

Peer Review Publication

Yu SH, Zheng Q, Esopi D, Macgregor-Das A, Luo J, Antonarakis SE, Drake CG, Vessella R, Morrissey C, De Marzo AM, Sfanos KS. A Paracrine Role for IL-6 in Prostate Cancer Patients: Lack of Production by Primary or Metastatic Tumor Cells. Cancer Immunol Res. 2015. (In revision)

Sfanos KS, Canene-Adams K, Hempel H, **Yu SH**, Simons B, Schaeffer A, Schaeffer E, Nelson G, De Marzo A. Bacterial Prostatitis Enhances 2-amino-1-methyl-6-phenylimidazo[4,5-β]pyridine (PhIP)-Induced Cancer at Multiple Sites. Cancer Prev. Res. 2015 (In revision)

Le A, Stine ZE, Nguyen C, Afzal J, Sun P, Hamaker M, Siegel NM, Gouw A, Kang BK, **Yu SH**, Cochran RL, Sailor KA, Song H, Dang CV. Tumorigenicity of hypoxic respiring cancer cells revealed by a hypoxia-cell cycle dual reporter. PNAS. 2014. 111:12486-12491.

Shinohara DB, Vaghasia AM, **Yu SH**, Mak TN, Brüggemann H, Nelson WG, De Marzo AM, Yegnasubramanian S, Sfanos KS. A mouse model of chronic prostatic inflammation using a human prostate cancer-derived isolate of Propionibacterium acnes. Prostate. 2013. 73: 1007-1015.

Mak TN*, **Yu SH***, De Marzo AM, Brüggemann H, Sfanos KS. Multilocus sequence typing (MLST) analysis of Propionibacterium acnes isolates from radical prostatectomy specimens. Prostate. 2012. 73:770-777. (*co-first author)

Thesis and Dissertation

Function and subcellular localization change of phosphoproteins induced by *Helicobacter pylori* infection. 2009. Master Thesis. Institute of Biochemistry and Molecular Biology, College of Medicine, National Taiwan University.

Studies on the Role of Interleukin-6 in Prostate Cancer Development and in the Induction of Chronic Prostatic Inflammation by *Propionibacterium acnes*. 2015. Doctoral dissertation. Pathobiology Program, School of Medicine, Johns Hopkins University.

PUBLISHED ABSTRACTS

2010, July — Yu SH, Yang LC, Chow LP. Phosphoproteomics approach to analyze subcellular localization change of phosphoproteins induced by *Helicobacter pylori*. 17th East Asia Joint on Biomedical Research conference.

Yu SH, Zheng Q, Luo J, Macgregor-Das A, Antonarakis ES, De Marzo AM, Sfanos K. Interleukin-6 expression is restricted to the prostate stromal compartment and is not expressed by either primary or metastatic prostatic adenocarcinoma cells. Cancer Research, 74(Supp 19): 1648-1648, 2014.

INVITED TALKS

2010, July — Yu SH, Yang LC, Chow LP. Phosphoproteomics approach to analyze subcellular localization change of phosphoproteins induced by *Helicobacter pylori*. 17th East Asia Joint on Biomedical Research conference.

2012, March — Yu SH, Mak TN, Brüggemann H, De Marzo AM, Sfanos KS. Prostate Cancer and Inflammation: A Potential Role for *Propionibacterium acnes*. 5th Annual Multi-Institutional Prostate Cancer Program Meeting, Ft. Lauderdale.

2015, Feb — Yu SH. The role of Interleukin-6 in prostate cancer. Pathobiology Graduate Program Recruit, Student Presentation. School of Medicine, Johns Hopkins University.

LEADERSHIP AND TEACHING EXPERIENCE

2011-2012 — Student Representative of Taiwanese Student Association, Johns Hopkins University

2011-2013 — TA for "*Medical Mandarin classes*": Moderated JHU medical student discussion groups in the course, and graded homework and exams.

2013 Fall — TA for "*Basic Mechanism of Disease, ME300.713*": Scheduled professors for lecture, created exam questions, and moderated and answered questions for JHU graduate student discussion groups in the course.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

2011-present — American Association for Cancer Research

2013-present — Women in Cancer Research, American Association for Cancer Research

REFERENCES

William G. Nelson Director of Sidney Kimmel Comprehensive Cancer Center and Marion I. Knott Professor
The Johns Hopkins University School of Medicine
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