CURRICULUM VITAE

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Education

09/2008-11/2011 Ph.D. *Cellular biology*
Peking Union Medical College; Tsinghua University
State Key Laboratory of Molecular Oncology
Beijing, 100021, P. R. China

09/2005-06/2008 M.S. *Genetics*
Jiangsu Normal University
College of Life Science, Xuzhou, 221116, China

09/2001-06/2005 B.S. *Biological Science*
Nanyang Normal University
College of Life Science, Nanyang, 473061, China

Research Experience

2011-2012 Postdoctoral Fellow, University of Pittsburgh, Pittsburgh, PA
2012-2016 Postdoctoral Fellow, Laboratory of Human Carcinogenesis, NCI, NIH
2016-2017 Research Fellow, Laboratory of Human Carcinogenesis, NCI, NIH

Societies

American Association for Cancer Research

Awards & Honors

Outstanding research in the field of pancreatic cancer and treatment, current advances in pancreatic cancer research and treatment poster presentation award, National Cancer Institute, 2014
Excellent Doctoral Dissertation, Peking Union Medical College, Tsinghua University, 2013
Second-class scholarships of Peking Union Medical College, Tsinghua University, 2011

Third-class scholarships of Peking Union Medical College, Tsinghua University, 2009

Excellent graduate student of Jiangsu Normal University, 2008

Excellence Award of National English Contest for College Students, Nanyang, 2004

First-class scholarships of Nanyang Normal University, 2002, 2004

Second-class scholarships of Nanyang Normal University, 2001, 2003

Publication

Yang S, He P, Schetter AJ, Gaedcke J, Ghadimi BM, Ried T, Yfantis HG, Lee DH, Gaida MM, Hanna N, Alexander HR, Hussain SP. Integrated transcriptome analyses identify distinct subtypes of pancreatic ductal adenocarcinoma with prognostic significance. ***Cancer Discovery***, Under Review, Feb, 2017

Yang S, He P, Wang J, Schetter A, Tang W, Funamizu N, Yanaga K, Uwagawa T, Satoskar AR, Gaedcke J, Bernhardt M, Ghadimi BM, Gaida MM, Bergmann F, Werner J, Ried T, Hanna N, Alexander HR, Hussain SP., A Novel MIF Signaling Pathway Drives the Malignant Character of Pancreatic Cancer by Targeting NR3C2. ***Cancer Research,*** 76(13):3838-50, 2016,

Wang J, **Yang S**, He P, Schetter AJ, Gaedcke J, Ghadimi BM, Ried T, Yfantis HG, Lee DH, Gaida MM, Hanna N, Alexander HR, Hussain SP. Endothelial Nitric Oxide Synthase Traffic Inducer (NOSTRIN) is a Negative Regulator of Disease Aggressiveness in Pancreatic ***Cancer. Clin Cancer Res***, 22(24):5992-6001, 2016

Wang J, He P, Gaida M, **Yang S**, Schetter AJ, Gaedcke J, Ghadimi BM, Ried T, Yfantis H, Lee D, Weiss JM, Stauffer J, Hanna N, Alexander HR, Hussain SP. Inducible nitric oxide synthase enhances disease aggressiveness in pancreatic cancer. **Oncotarget,** 7(33):52993-53004, 2016

Shouhui Yang, Yi Li, Jidong Gao, Tengfei Zhang, Sheng Li, Hongyan Aiping Luo Chen, Fang ding, Xiang Wang, Zhihua Liu. MicroRNA-34 suppressed breast cancer invasion and metastasis by directly targeting Fra-1, **Oncogene**. 32(36):4294-303, 2013

Shouhui Yang, JinJuan Liu, Yongqiang CHEN, et al. Reversal effect of tween-20 on multidrug resistance in tumor cells in vitro. **Biomedicine & Pharmacotherapy**. 66, 187-194, 2012

Hongyan Chen, Yi Yuan, Chunpeng Zhang, Aiping Luo, Fang Ding, Jianlin Ma, **Shouhui Yang**, Yanyan Tian, Tong Tong, Qimin Zhan, Zhihua Liu. The Involvement of S100A14 in Cell Invasion by Affecting Expression and Function of Matrix etalloproteinase (MMP)-2 via P53-dependent Transcriptional Regulation. **J Biol Chem**, 287(21):17109-19, 2012

YANG Shou-hui , CAO Qi-long , ZHANG Yan-ping , LIU Chao-xiang , FENG You-jian. Chemical Composition and Biological Activity of Volatile Oil from Parakmeria Nitida**. Journal Of Fujian Forestry Science And Technology**, 36(1), 2009,

Chen Fengmei, Li Xiaochu, **Yang Shouhui,** FengYoujian, Jiang Jihong. The antitumor Activities of the leaves of Ilex latifolia Thunb. **China Forestry Science and Technology**. 21(5), 2007

Scholar meetings and presentations

2016 May 12-15 AACR Special Conference on Pancreatic Cancer: Advances in Science and Clinical Care. Poster, Orlando, Florida

2015 September 28-29, 3rd NCI-Pancreatic Cancer Symposium: current advances and future challenges in research and treatment, Poster, Bethesda, Maryland

2015 September 16-18, MIF signaling in pancreatic ductal carcinoma, Poster, National Institute of Health Research Festival, Bethesda, Maryland

2015 April 18-24 AACR Annual Meeting, Macrophage migration inhibitory factor (MIF) and

miR-301b interactively enhance disease aggressiveness by targeting NR3C2 in human pancreatic cancer, Oral Presentation, Philadelphia, Pennsylvania

2014 April 25, 10th Annual CCR and DCEG Staff Scientist and Staff Clinician Retreat. Rockville, Maryland

2014 April 4-9 2014 AACR Annual Meeting, Macrophage migration inhibitory factor (MIF) and miR-301b interactively enhance disease aggressiveness by targeting NR3C2 in human pancreatic cancer, Poster, San Diego, California

2014 March 20-21, Third Symposium on Translational Genomics, Bethesda, Maryland

2013 September 23, Current Progress and Future Challenges in Pancreatic Cancer, Poste, Bethesda, MD

2013 September 19-20, Inflammation, Microbiota, and Cancer", National Institutes of Health, Bethesda, MD

2013 June 12-13, NIDDK-NCI Workshop on Pancreatitis-Diabetes-Pancreatic Cancer, Bethesda, MD

2013 April 6-10, AACR Annual Meeting, Washington convention center, Washington, DC

2013 March 25-26, NCI CCR-FYI Colloquium "Innovation into Action: Today's Discoveries, Tomorrow's Treatments", Frederick, MD

2012 2nd Annual WCRC Scientific Retreat. Proteolytic Regulation of Rad17 by Cdh1/APC in DNA Damage Response and Chemo Sensitization of Breast Cancer Cells. Oral presentation, Farmington, PA

2011 National Symposium of Cancer Epidemiology and Etiology, Oral presentation, Chengde, China.

2011 Sino-American Symposium on Clinical & Translational Medicine, Beijing, China

2011 12nd annual conference of Society for Cell Biology, Poster, Beijing China

2010 6th Chinese Conference on Oncology & 9th Cross-Strait Academic Conference on Oncology Poster, Shanghai, China

2009 Personalized cancer medicine, building on 30 years of China-U.S. Scientific progress, Beijing

2010 6th Chinese Conference on Oncology & 9th Cross-Strait Academic Conference on Oncology Shanghai, China

2009 National Symposium of Cancer Epidemiology and Etiology, Yichang, China

2008 CAMS-MRL joint symposium "Emerging molecular concepts in oncology. Beijing, China

Research interest

1. Molecular subtypes of human pancreatic ductal adenocarcinoma

Pancreatic ductal adenocarcinoma (PDAC) is a lethal disease with a 5-year survival rate of 6%. Pancreatic cancers are biologically highly heterogeneous and have widely variable clinical outcomes and responses to conventional chemotherapy. Identification of molecular subtypes and corresponding molecular driver events is critical for the development of the more precise, individualized strategies for patients with PDAC. Molecular profiling by analzying multi-omics data including genomics, transcriptomics and metabolomics, is an important and widely used strategy for an unbiased, global screening of molecular properties and/or differences in biological samples, which may help in understanding the biological mechanisms that contribute to biological diversity and progression of cancer. Currently we are using this comprehensive and integrative molecular profiling strategy to explore the molecular subtypes in a larger cohort of pancreatic tumors, followed by their validations in multiple independent cohort datasets to examine molecular subgroups, and understand how several molecular events are intertwined as a network leading to the disease's aggressiveness and poor outcome. The delineation of subtypes-specific biology and critical pathways associated with disease outcome may identify subtype-specific candidate targets for therapeutic intervention in pancreatic cancer.

2. Role of Inflammatory Mediators in the Progression of Pancreatic Cancer

Evidence from epidemiological and experimental studies supports inflammation as a key mediator of pancreatic cancer development, progression and therapeutic resistance in pancreatic cancer. Inflammatory mediators are critical components of pancreatic tumor biology, and their paracrine and autocrine function significantly contributes to tumor progression and disease aggressiveness in patients with PDAC. Cytokines, reactive oxygen species, and mediators of the inflammatory pathways have been shown to increase cell cycling, stimulate oncogenic signaling, cause loss of tumor suppressor function, all of which may lead to pancreatic malignancy. However, the precise roles of these mediators in pancreatic cancer are not completely understood. Currently, we are investigating the role of macrophage migration inhibitory factor (MIF) in tumor biology. We have recently shown that an increased expression level of MIF, a proinflammatory cytokine, driven signaling pathway that inhibits a previously undescribed tumor suppressor, nuclear-receptor-subfamily-3, group-C, member-2 (NR3C2), leading to enhanced metastasis and poorer survival. We are currently exploring if MIF and other inflammatory mediators are candidate therapeutic targets in pancreatic cancer.

3. Distinct miRNAs signature in early stage, resected patients with pancreatic ductal adenocarcinoma

miRNAs are endogenous non-coding RNAs elicit their regulatory effects by imperfectly binding to the 3’untranslated regions (UTRs) of target mRNAs, either preventing their translation or causing target degradation. Emerging evidence of the critical role of miRNAs in the regulation of various biological and pathologic process combine with the properties of high stability of miRNAs in tissues and fluids,

points to their clinical utility as diagnostic markers and future therapeutic targets. To date, many molecular-based strategies are utilized to discover relevant clinical biomarkers including miRNAs in pancreatic cancer. Yet, the miRNAs signature and their association with prognosis in early stage resected patients have not been characterized. Currently we are using integrative strategy by combine the miRNA and mRNA transcriptomics datasets to explore the molecular characterization of early stage tumors with extreme prognoses to reveal critical pathways linked to patient outcome