

BIOGRAPHICAL SKETCH

NAME ZHU, Honghong (Helen)		POSITION TITLE Assistant Professor of Epidemiology	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Zhejiang University	MD	06/1992	Preventive Medicine
Zhejiang University	MHS/MPH	06/1996	Occupational Diseases and Health Science /Toxicology
Clemson University	MSc	08/2002	Molecular Medicine /Environmental Toxicology
National Cancer Institute/NIH	Post-Doc	02/2007	Cancer Epidemiology
Johns Hopkins University School of Public Health	PhD	05/2007	Epidemiology

A. Personal Statement

The goals of my career are to use epidemiologic research methods and the principles of toxicology to solve priority issues in public health, clinical medicine/health care and to train new epidemiologists for public health and other public health workers. I have expertise in epidemiologic research methods, application of epidemiologic research methods in public health and other health sciences, cancer etiology, cancer screening, cancer and other chronic diseases prevention and control in the community, toxicology, food toxicology, food and nutrition, environmental toxicology, reproductive toxicology, environmental exposure assessment, molecular medicine, application of biostatistics in epidemiology, writing, editing and commenting research articles, reviews, and grant proposals in both English and Chinese. Especially, I have a unique expertise in translating basic research into animal/tissue research and into clinical and population research and verse versa and interpret the clinical and population research results using the biologic mechanisms from basic and animal/tissue research.

B. Positions and Honors

Positions and Employment

- 1990-1991 Residence/Intern in Clinical Medicine, Railroad Ministry Hospital in Hangzhou, Zhejiang Province, P.R. China
- 1991-1992 Residence/Intern in Preventive Medicine, Centers for Disease Control and Prevention in Xia-Cheng District, Hangzhou, Zhejiang Province, P.R. China
- 1992-1994 Faculty, Department of Epidemiology, Zhejiang University School of Public Health, Hangzhou, Zhejiang Province, P.R. China
- 1994-1996 Research Associate, Department of Toxicology, Zhejiang University School of Public Health, Hangzhou, Zhejiang Province, P.R. China
- 1996-2000 Assistant Professor and Director of Food Toxicology Program, Department of Food Sciences and Engineering, Zhejiang Gongshang University, Hangzhou, Zhejiang Province, P.R. China

- 2000-2002 Research Assistant, Environmental Toxicology and Molecular Medicine Program, Clemson University, Clemson, South Carolina, USA
- 2002-2003 Research/Teaching Assistant, data search and management, Department of Epidemiology, Johns Hopkins University Bloomberg School of Public Health; data management and data analysis in the Emergency Department, Johns Hopkins School of Medicine, Baltimore, Maryland, USA
- 2003-2007 Visiting Fellow of Cancer Epidemiology, OEEB, Division of Cancer Epidemiology and Genetics, US National Cancer Institute, National Institutes of Health (NIH), Rockville, Maryland, USA
- 2008-2011 Assistant Professor, Division of Epidemiology, Department of Community Health, Saint Louis University School of Public Health, Saint Louis, Missouri, USA
- 2011- Adjunct Faculty, Department of Health Administration, Public Health and Gerontology, School of Public Service Leadership, Capella University, Minneapolis, MN, USA
- 2012- Assistant Professor, Department of Public Health, College of Health and Human Services, Western Kentucky University, Bowling Green, KY, USA

Other Experiences and Professional Memberships

- 1992 License for High Education (Principles of Education and Psychology, Methodology of Education and Psychology, Application of Principles and Methodology of Education) (required by Zhejiang Medical University before becoming a faculty member in this school), Hangzhou University School of Education, Hangzhou, Zhejiang Province, P.R. China
- 1993 Lab training for Principles and Applications of Immunology and Serology in Zhejiang Medical University 1st Hospital, Hangzhou, Zhejiang Province, P.R. China
- 2003 Molecular Epidemiology Course in Division of Cancer Epidemiology and Genetics at the National Cancer Institute/National Institutes of Health, Rockville, Maryland, USA
- 2003 Introduction to R program in application of graphing for data at the National Institutes of Health, Bethesda, Maryland, USA
- 2004 Environmental Health Assessment and Policy Workshop at the 2004 American College of Epidemiology, Boston, MA, USA
- 2004 Introduction to use Genbank at the National Institutes of Health Institute, Bethesda, MD, USA
- 2006 Pharmacoepidemiology Workshop at the 2006 2nd Congress of Epidemiology, Seattle, WA, USA
- 2006 From Exposure to Disease Workshop by the Institute of Medicine of the National Academies, Washington D.C., USA
- 2006 The 2nd Environmental Exposure Assessment and Health Diseases Workshop by the International Environmental Epidemiology Association, Washington D.C., USA
- 2007- Invited Reviewer for many academic journals worldwide
- 2010- Invited independent reviewer for Grant Applications for Department of Health and Human Services HRSA Program Public Health Education and Training Center Program
- 2010- Invited independent reviewer for Grant Applications for Department of Health and Human Services HRSA Program HIV/AIDS Education and Training Center (AETC) Telehealth Training Centers Program
- 2010- Invited independent reviewer for Grant Applications for Department of Health and Human Services HRSA Program Primary Care Training and Enhancement Pre-Doctoral Training in Primary Care Program
- 2010- Member, Global Health Council
- 2005- 2009 Associate Member, Global Health Council
- 2006- Associate Member, American Association for Cancer Research
- 2002- Member, Society for Epidemiologic Research (SER)

Honors

- 1987-1992 Award for “Three-Best Student” and Scholarship, re-evaluated every year by Zhejiang Medical University
- 1992 Award for “Best Practitioner in Hospitals and Centers of Disease Control and Prevention (CDC)” by Zhejiang Medical University
- 1992 “Best Graduate in Zhejiang Province” awarded by Zhejiang Education Committee
- 1992 Best Thesis Award. The thesis title was “A Population-Based Case-Control Study on Risk

- 2000 Factors of Cardiovascular Diseases” awarded by Zhejiang Medical University
International Excellent Research Award for the paper “Study on the Sexual Function of Hui-Chun Wine” in the Second International Symposium for Excellent Studies on Oriental and Occidental Medicine in Germany
- 2000-2002 Full-Time Scholarship from Clemson University
- 2002-2007 Full-Time Tuition Scholarship from the Department of Epidemiology at the Johns Hopkins University Bloomberg School of Public Health
- 2003-2007 Cancer Research Training Award from the US National Institute of the National Institutes of Health/National Cancer Institute, NIH/NCI
- 2004 The US NIH Fellows Awards for Research Excellence
- 2006 Outstanding Graduate Research Award at the US National Institutes of Health (NIH), Bethesda, Maryland, USA
- 2006 Best Poster Award for the title “Secondhand Smoke and Breast Cancer Risk: a Prospective Cohort Study” at the Third Annual Graduate Research Symposium at the US National Institutes of Health (NIH), Bethesda, Maryland, USA <http://dceg.cancer.gov/newsletter/Linkage1106.html>
- 2007 Delta Omega Honor Scientific Poster Competition 2nd Place in Applied Research (Epidemiologic Public Health Research) awarded by the Delta Omega Honorary Society- a national honor Society Alpha Chapter at Johns Hopkins Bloomberg School of Public Health, Baltimore, MD USA. The Poster title was “A Validation Study on Smoking Questionnaire in the Shanghai Women’s Health Study” shown in http://www.jhsph.edu/delta_omega/archives/posters.html#AR2_2007
- 2011- Honored As Invited Advisory Board Member for the People’s Epidemiology Library <http://www.epidemiology.ch/history/betaversion.htm>
- 2011- Honored As Invited Editorial board member of the Journal of Gastroenterology and Hepatology Research (print ISSN 2224-3992, online ISSN 2224-6509) <http://www.ghrnet.org/index.php/joghr>
- 2011- Honored As Invited Editorial board member of the Journal of Biometrics and Biostatistics <http://www.omicsonline.org/EditorialboardJBMBS.php>

C. Selected Peer-Reviewed Publications (Selected from 37 Publications which do not include 18 Peer-Reviewed Published Abstracts/Oral Presentations)

Zhu, H.H. & Huang, X.S. (1996). Potential Effects of Phytoestrogens on Human Health. Foreign Medicine (Public Health Section), 23 (4): 234-237.

Zhu, H.H. & Huang, X.S. (1997). Establishment of a method for identifying apoptosis and its application in studying the effects of GnRH-A on apoptosis in testis germ cells. Carcinogenesis Teratogenesis and Mutagenesis, 9(1), 23-28.

Zhu, H.H., Ni, Z.M., Huang, X.S. (1998). Study on the Sexual Function of Hui-Chun Wine. Journal of Hygiene Toxicology, 12(3): 193-195.

Zhu, H.H., Ni, Z.M., Huang, X.S. (1999). Study on the Sexual Function of Hui-Chun Wine. Standard Works of International, Eastern and Western Excellent Medical Achievements Published by *Engelhardt –Ng Verlag, Bon, Germany*. Page 1047-1048.

Zhu X.Q., Zheng Y.F., **Zhu, H.H.**, et al. (2000). Effects of Endosulfan on Reproductive System of Male Pups after Gestational and Lactational Exposure. Chinese Journal of Pharmacology & Toxicology, 14(5):352-356.

Huang, X.S., Chang, Y., Ni, Z.M., **Zhu, H.H.**, Zheng, Y.F., Zhu, X.Q., Xie, X.S., Li, Z.S., Song, W.J., Wang, Q.K., Ying, X.J., Xu, J.N. (2000). DNA Strand Break Induced by Glycidyl Methacrylate in Human Embryonic Lung Fibroblasts in Vivo. Chinese Journal of Pharmacology and Toxicology, 14(10).

Cai, S.R., Zhang, S.Z., **Zhu, H.H.** & Zheng, S. (2009). Barrier to colorectal cancer screening: a case-control study. World J Gastroenterol, 15, 2531-2536. PMID: 19469005 <http://www.ncbi.nlm.nih.gov/pubmed/19469005>

Zhu, H.H. (2010). Tips for a Healthy Life. epub with video (YouTube) by Catholic Internet Television Network, December.

Zhu, H.H., Hu, C.H. & Strickland, P. (2011). Perspectives of breast cancer etiology: synergistic interaction between smoking and exogenous hormone use. Chin J Cancer, 30(7), 433-441. PMID:21718589 <http://www.ncbi.nlm.nih.gov/pubmed/21718589>

Cai, S.R., Zhang, S.Z., **Zhu, H.H. (Co-2nd author)**, Huang, Y.Q., Li, Q.R., Ma, X.Y., Yao, K.Y. & Zheng, S. (2011). Performance of a colorectal cancer screening protocol in an economically and medically underserved population. Cancer Prev Res, 4(10), 1572-9. PMID:21952582 <http://www.ncbi.nlm.nih.gov/pubmed/21952582>

Zhu, H.H. & Zheng, S. (2011). Sequential Combination of Serum Pyruvate Kinase Isoenzyme M2 and Colonoscopy-A Promising Screening Protocol for Colorectal Cancer Early Diagnosis. J Biosens Bioelectron, S2, 2-9. Accepted in Dec, 2011 and E-pub in Jan, 2012 <http://dx.doi.org/10.4172/2155-6210.S2-002>

Cai, S.R., **Zhu, H.H. (co-corresponding author)**, Li, Q.R., Ma, X.Y., Yao, K.Y., Zhang, S.Z. & Zheng, S. (2012). Gender disparities in diet status and its risk factors in underserved populations. Public Health, 126(4), 324-31. PMID:22365261 <http://www.ncbi.nlm.nih.gov/pubmed/22365261>

Meng, W. (co-first author), **Zhu, H.H. (co-first author)**, Cai, S.R., Dong, Q., Zheng, S. & Zhang, S.Z. (2012). Serum M2-Pyruvate Kinase: a Promising Non-invasive Biomarker for Colorectal Cancer Mass Screening. World J Gastrointest Oncol, 4(6), 145-151. PMCID: PMC3382661 <http://dx.doi.org/10.4251/wjgo.v4.i6.145>

Zhu, H.H., Huang, G., Tate, P. & Larcom, L.L. (2012). Anti-cancer effect of angelica sinensis on women's reproductive cancer. Functional Foods in Health and Disease, 2(6), 242-250. <http://functionalfoodcenter.net/files/53467528.pdf>

Zhang, P.H., Chen, Z.W., Lv, D. Xu, Y.Y., Gu, W.L., Zhang, X.H., Le, Y.L., **Zhu, H.H.** & Zhu, Y.M. (2012). Increased risk of cancer in patients with type 2 diabetes mellitus: a retrospective cohort study in China. BMC Public Health, 12, 567-573. PMCID: PMC3487805 <http://www.biomedcentral.com/1471-2458/12/567> (This article has been highly accessed. **Download statistics on Jan 31, 2013 showed the total accesses to this article since publication was 1,597, based on which it is designated as 'highly accessed' relative to age.**)

Xu, C.X., Bai R.P., Zhang, D.D., Li, Z.L., **Zhu, H.H.**, Lai, M.D., Zhu, Y.M. (2013). Effects of APOA5 21131T.C (rs662799) on Fasting Plasma Lipids and Risk of Metabolic Syndrome: Evidence from a Case-Control Study in China and a Meta-Analysis. PLoS ONE, 8(2): e56216. doi:10.1371/journal.pone.0056216.

Zhu, H.H. (2013). Perspectives of Mass Colorectal Cancer Screening and Early Clinical Diagnosis. Accepted by GHR on Feb 7, 2013.

D. Research Support

Ongoing Research Support

RCAP I Award #: 13-8005 Zhu (PI)

01/01/2013-12/31/2014

A cost-effective colorectal cancer early diagnosis protocol: sequential combination of serum pyruvate kinase isoenzyme M2 (M2-PK) and colonoscopy for colorectal cancer prevention and control in Bowling Green, KY
The goal of the study is to investigate the value of serum M2-PK in colorectal cancer screening among people with health insurance

2006BAI02A08	Zhang (PI)	2007-2012
Exploring the effectiveness of multiple screening methods in a community-based colorectal cancer mass screening program in Hangzhou city, P.R. China		
The goal of the study is to explore the effectiveness of multiple screening methods including serum M2PK, iFOBT, and high-risk-factors questionnaire in colorectal cancer mass screening		
Special Fund to Local Public Health by the China National Fiscal Supplement- National Cancer Early Detection and Treatment Program	Zheng (PI)	2008-2013
Testing the effectiveness of the China National Screening Protocol in Jia-Shan Colorectal Cancer Screening Program		
The goal of the study is to evaluate the effectiveness of the China National Screening Protocol in Jia-Shan Colorectal Cancer Screening Program		
Faculty Development Fund by Saint Louis University	Zhu (PI)	2009-Present
A case-control study of life quality of breast cancer patients		
The goal of the study is to investigate the life quality of breast cancer patients compared with normal people as controls in the community		
<u>Selected Completed Research Support (Selected from 27 Grants)</u>		
Faculty Development Fund by Saint Louis University	Zhu (PI)	2008-2012
A community-based epidemiological study of the association of diet habit change and family history of cancers in a rural population		
The goal of the study was to investigate whether the diet habit has been improved when people have family members diagnosed with cancers in the community		
Special Fund to Local Public Health	Zheng (PI)	2006-2009
A community-based case-control study of barriers to colorectal cancer mass screening in an urban population		
The goal of the study was to investigate why people are not willing to participate in colorectal cancer mass screening program		
NIH Intramural Fund	Zhu (PI)	2003-2007
A community-based prospective cohort study of environmental factors including smoking, secondhand smoke, indoor air pollution and drinking water and breast cancer risk		
The goal of the study was to investigate whether environmental factors are associated with breast cancer risk in the community		
NIH Intramural Fund	Zhu (PI)	2005
Developed a proposal for metabolic P450 and GST genes interacted with smoking on prostate cancer using the NCI Cancer Genetic Markers of Susceptibility (CGEMS) data		
The goal of the study was to investigate whether there are interactions between metabolic P450 and GST genes and smoking on prostate cancer risk		
NIH Intramural Fund	Zhu (PI)	2006-2008
A urinary biomarker study on the distribution of urinary cotinine at the population level and to validate the questionnaire of current exposure to secondhand smoke and active smoking by detecting the cotinine level in the urine samples collected at baseline in the SWHS at the US National Cancer Institute (NCI)/National Institutes of Health (NIH)		
Natural Science Foundation of China	Zhu (PI)	1998-2000
An epidemiological study on the effect of phytoestrogens on human health in the population in Hangzhou		
The goal of the study was to investigate the potential effects of phytoestrogens on human health in the population		