

Xiao Dong, M.D., M.S.,

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EDUCATION

Doctor of Philosophy in Biomedical Informatics January 2016 - present
The University of Texas Health Science Center at Houston, Houston, United States

Master of Science in Bioinformatics January 2012 – December 2013
Georgia Institute of Technology, Atlanta, United States

Master of Medicine in Neurology September 2007 – July 2010
Peking University First Hospital, Beijing, China

Bachelor of Medicine in Medicine (Equivalent to MD) September 2002 – July 2007
Peking University, Beijing, China

Honor: Student of Excellence of 2003-2004

AWARDS

Student of Excellence Scholarship Award of Peking University 2003-2004
“CPRIT” Pre-doctoral innovation in Cancer Prevention Research fellowship 2017 - Present
Doris Ross Scholarship Award of UTHealth School of Biomedical Informatics 2017 Fall

RESEARCH EXPERIENCE

Graduate Research Assistant, School of Biomedical Informatics, University of Texas Health Science Center, Houston, Texas, United States Jan 2016-present

Bladder Cancer risk and cardiovascular effects with the use of Pioglitazone among patients with type 2 diabetes using Electronic Health Records

- Literature review
- Study design
- Data Collection
- Protocol drafting
- R package development

Graduate Research Assistant, School of Biomedical Informatics, University of Texas Health Science Center, Houston, Texas, United States Jan 2016-Dec 2016

Search Datasets in Literature: A Case Study of GWAS

- Literature annotation
- Meta-data indexing
- Search engine development
- Performance evaluation
- Paper drafting

Research Volunteer, Department of Biochemistry and Molecular Biology, University of Georgia, Athens, Georgia, United States Jan 2014-Nov 2014

- Formatted data from different sources
- Helped maintaining data libraries
- Participated building linkage between different databases

Research Assistant, School of Biology, Georgia Institute of Technology, Atlanta, Georgia, United States

Aug 2012-Dec 2013

Bioinformatics Analysis of Linker Histone H1 and DNA Methylation

- Learned Chip-seq, Bisulphite-seq, Programming skills with Perl
- Developed the research topic and designed the study
- Developed the approach to extract DNA methylation information from RRBS alignment data
- Analyzed the data using customized pipeline as well as Genplay, Sicer and CEAS software

Research Assistant, Tumor Etiology and Screening Department, Cancer Institute of China Medical University, Shenyang, Liaoning, China

May 2010-Jun 2010

- Learned DNA extraction, PCR, cell culture and other laboratory skills
- Attended interdisciplinary seminars across Epidemiology and Pathology

Student Principal Investigator, Department of Neurology, Peking University First Hospital, Beijing, China

November 2008 – May 2010

Risk factors for ischemic stroke and prognosis of atrial fibrillation patients

- Developed the research topic and designed the study
- Collected original data through medical records and telephone interview
- Analyzed the data using Excel, SPSS, and SAS with assistance
- Reported the study results by oral presentation and thesis

Senior Research Assistant, Department of Neurology, Peking University First Hospital, Beijing, China

January 2009-May 2009

Function of brachial artery endothelial cell among hypertensive patients with intracranial stenosis

- Collected data on the changes of brachial artery diameter at baseline and after administration of nitroglycerin using color Doppler echocardiography

Senior Research Assistant, Department of Neurology, Peking University First Hospital, and Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, China

October 2008-May 2009

Estimation of brain volume and ratio of gray matter and white matter by analyzing brain MRI images by a software

- Collected more than 200 hundred brain MRI images for analysis
- Tested the software and provided feedbacks for revision
- Attended related seminars at the Academy for Advanced Interdisciplinary Studies of Peking University

Student Principal Investigator, Department of Neurology, Peking University First Hospital, Beijing, China

October 2008-January 2009

Development of electronic medical records for the Department of Neurology at Peking University First Hospital

- Designed the format of the electronic medical records
- Collected the contents of the electronic medical records
- Cooperated with an expert in Access to develop the intended electronic medical records in Access
- Tested the electronic medical records and provided feedbacks for revision

PUBLICATIONS

1. Detecting Cancer preventive effects for non-cancer drugs using real world data (in preparation)
2. Chen H, Shi L, Xue M, Wang N, **Dong X**, Cai Y, Chen J, Zhu W, Xu H, Meng Q. Geographic variations in in-hospital

- mortality and use of percutaneous coronary intervention following acute myocardial infarction in China: a nationwide cross-sectional analysis. *Journal of the American Heart Association*. 2018 Apr 11. doi:10.1161/JAHA.117.00813
3. Miao S, **Dong X (co-first author)**, Zhang X, Jing S, Zhang X, Xu T, Wang L, Du X, Xu H, Liu Y. Detecting Pioglitazone Use and Risk of Cardiovascular Events Using Electronic Health Record Data in a Large Cohort of Chinese Patients with Type 2 Diabetes. (*J Diabetes*. 2019 Aug;11(8):684-689. doi: 10.1111/1753-0407.12894. Epub 2019 Feb 5.)
 4. Tu H, Sun L, **Dong X**, Gong Y, Xu Q, Jing J, Bostick R, Wu X, Yuan Y. A serological biopsy using five stomach-specific circulating biomarkers for gastric cancer risk assessment: a multi-phase study. *Am J Gastroenterol*. 2017 Mar 21. doi: 10.1038/ajg.2017.55.
 5. **Dong X**, Zhang Y, and Xu H. Search Datasets in Literature: A Case Study of GWAS. *2017 Joint Summits on Translational Science of AMIA*
 6. Xu J, Zhang Y, Wu Y, Wang J, **Dong X**, and Xu H. Citation Sentiment Analysis in Clinical Trial Papers. *AMIA Annu Symp Proc*. 2015.
 7. Tu H, Sun LP, **Dong X**, Gong YH, Xu Q, Long Q, Flanders WD, Smith RA, Bostick RM, Yuan Y. Temporal Changes in Serum Biomarkers and Risk for Progression of Gastric Precancerous Lesions: a Longitudinal Study. *Int J Cancer*. 2014 Jun 4. *Int J Cancer*. 2015 Jan 15;136(2):425-34. doi: 10.1002/ijc.29005.
 8. Tu H, Sun LP, **Dong X**, Gong YH, Xu Q, Jing JJ, Yuan Y. Serum anti-Helicobacter pylori immunoglobulin G titer correlates with grade of histological gastritis, mucosal bacterial density, and levels of serum biomarkers. *Scand J Gastroenterol*. 2014 Mar;49(3):259-66. doi: 10.3109/00365521.2013.869352.
 9. Cao K, Lailier N, Zhang Y, Kumar A, Uppal K, Liu Z, Lee E, Wu H, Medrzycki M, Pan C, Ho P, Cooper P, **Dong X**, Bock C, Bouhassira E, Fan Y. High-resolution mapping of h1 linker histone variants in embryonic stem cells. *PLoS Genet*. 2013;9(4)

PRESENTATIONS

1. **Dong X**, Wu Y, Xu H. Conducting multi-center clinical observational studies using “common data model” and a case study for the bladder cancer risk of pioglitazone use. Poster Presentation at the 2017 Cancer Prevention and Research Institute of Texas Conference. 2017 Nov 13-14
2. **Dong X**, Zhang Y, and Xu H. Search Datasets in Literature: A Case Study of GWAS. Oral Presentation at *2017 Joint Summits on Translational Science of AMIA*

SKILLS

1. R | Microsoft Word, Excel, PowerPoint, Access | Tableau | Adobe Premiere, After Effects | Clamp (Clinical Natural language Processing) | Perl | Python | SQL Developer
2. Chinese | English | Japanese
3. Linear and logistic regression | Cox proportional hazards models | Longitudinal analyses | Data Visualization
4. Innovative thinking | Strong communication skills | Teamwork

WORK EXPERIENCE

Research Assistant, Dr. Xu’s Lab, School of Biomedical Informatics, University of Texas Health Science Center, Houston, Texas, United States Nov 2014-Oct 2015

- Text processing using NLP in clinical notes
- Meta-data indexing
- Assisted research in the Biocaddie Group

Physician, Neurological emergency room, Peking University First Hospital, Beijing, China May 2009-May 2010

- Saw and treated seven outpatient patients per day on average

Chief Resident, Department of Neurology, Peking University First Hospital, Beijing, China, January 2009-May 2009

- Consulted for physicians in other departments about neurological diseases
- Conducted emergency treatment for severe patients

Resident, Department of Neurology, Peking University First Hospital, Beijing, China, September 2007-January 2009

- Saw and treated seven inpatient patients per day on average

