# JING ZHANG

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## RESEARCH INTERESTS

- Bayesian hierarchical models, Latent class models

- Missing data analysis, Longitudinal data analysis, Survival data analysis, Measurement error

- Meta-analysis, Clinical trials, Diagnostic tests

## WORK EXPERIENCES

**Assistant Professor**                                                          2014-Present

Department of Epidemiology and Biostatistics, School of Public Health, University of Maryland, College Park, MD

**Faculty Associate**                                                            2014-Present

Maryland Population Research Center, University of Maryland, College Park, MD

## EDUCATION

**Ph.D., Biostatistics**                                                         2014

University of Minnesota, Twin Cities

**M.S., Biostatistics**                                                          2011

University of Minnesota, Twin Cities

**B.S., Mathematics**                                                            2009

China Agricultural University, Beijing

## EDITORIAL ACTIVITIES

**Associate Editor**                                                             2015-Present

Journal of Biopharmaceutical Statistics

## PUBLICATIONS

***Peer-reviewed Journal Articles***

- **Zhang, J.**, Cole, S.R., Richardson, D.B., and Chu, H. (2013). "A Bayesian approach to strengthen inference for case-control studies with multiple error-prone exposure assessments". *Statistics in Medicine*, 32 (25): 4426-4437. [**Won 2013 JSM Young Investigator Award**]

- **Zhang, J.**, Carlin, B.P., Neaton, J.D., Soon G.G., Nie L., Kane, R., Virnig B.A., and Chu, H. (2014). "Network meta-analysis of randomized clinical trials: Reporting the proper summaries". *Clinical Trials*, 11 (2): 246-262.

- **Zhang, J.**, Fu, H., and Carlin, B.P. (2015). "Detecting outlying trials in network meta-analysis". **Accepted provisionally** *Statistics in Medicine.*
- Hong, H., Chu, H., **Zhang, J.**, and Carlin, B.P. (2015). "A Bayesian missing data framework for generalized multiple outcome mixed treatment comparisons". **Accepted provisionally** *Research Synthesis Methods.*

### *Book Chapters and Book Reviews*

- **Zhang, J.**, Lin, L. (2014). "Choosing the appropriate statistics". *Network meta-analysis: Evidence synthesis with mixed treatment comparison.*
- **Zhang, J.**, Yuan, Y. (2014). Randomized Phase II Cancer Clinical Trials (author: Jung, S. H.). *Journal of the American Statistical Association*, 109 (508): 1717.

### *Manuscripts Under Review / Revision*

- **Zhang, J.**, Chu, H., Hong, H., Virnig, B.A., and Carlin, B.P. (2015). "Bayesian hierarchical models for network meta-analysis incorporating nonignorable missingness". Revision *Statistical Methods in Medical Research.* [**Won 2014 ENAR Distinguished Student Paper Award & Earlier version won 2013 ICHPS Student Travel Award**]
- **Zhang, J.**, Yuan Y. (2015), "Industry-funded clinical trials: as righteous as evil?". Submitted to *Clinical Research and Regulatory Affairs.*
- Lin, L., **Zhang, J.**, and Chu, H. (2015). "pcnetmeta: An R package for arm-based network meta-analysis". Revision *The R Journal.*

### *Manuscripts in Preparation*

- **Zhang, J.**, Yuan Y., Chu, H., "The effects of excluding trials from network meta-analyses", manuscript.
- **Zhang, J.**, Wang, F., Deng, Q., "Longitudinal outcomes with time-to-event data: a case study from an exercise trial", manuscript.
- **Zhang, J.**, Soon, G.G., Carlin, B.P., and Chu, H., "Network meta-analysis incorporating individual covariates: A case study for antiviral data", in preparation.
- **Zhang, J.**, Soon, G.G., Carlin, B.P., and Chu, H., "Network meta-analysis for longitudinal studies with patient-level data", in preparation.

## HONORS & AWARDS / OTHERS

International Conferences

- Distinguished Student Paper Awards, International Biometric Society/Eastern North American Region Spring Meeting                                              2014
- Fostering Diversity in Biostatistics Workshop Travel Fund, International Biometric Society/Eastern North American Region Spring Meeting                        2014
- Young Investigator Award, Statistics in Epidemiology Section, Joint Statistical Meeting 2013
- Student Travel Award, The 10th International Conference on Health Policy Statistics 2013
- ORISE Fellowship, Food and Drug Administration                                   2013

University of Minnesota

- Jacob E. Bearman Student Achievement Award (One student each year)              2014
- Honorable Mention Recipient of School of Public Health Research Day             2013
- School of Public Health Student Senate Grant                                    2013

- Dean's PhD scholars Awards                                            2012
- Graduate School Block Grant Fellowship                                2010

China Agricultural University

- Champion in "Fengru Cup" Science-and-Technology Competition          2009
- Second place in "Challenge Cup" Enterprise-Proposal Competition      2008
- Academic Scholarship                                            2005 - 2008

Others

- ORISE fellowship, the Food and Drug Administration                    2013

## RESEARCH GRANTS (CURRENT COLLABORATIVE APPLICATIONS)

**Advance** (32% Summer Support)

University of Maryland College Park Seed Grant

**RSR** (38% Summer Support)

Food and Drug Administration

**County Health Ranking Research Grants** (31% Summer Support)

Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute

## TEACHING

**Instructor**                                              Jan 2015 - May 2015
*Department of Epidemiology and Biostatistics*                  *College Park, MD*
*University of Maryland*
EPIB 650 – **Biostatistics I**

**Teaching Assistant**                                      Sep 2009 - Jan 2011
*Division of Biostatistics*                                     *Minneapolis, MN*
*University of Minnesota*
PUBH 6400 – **Biostat Method I**
Instructor: Dr. Ann M Brearley

## STUDENT ADVISING

**PhD dissertation committee**                                    2015 - 2018
Andrew D. Williams

**MPH thesis committee**                                          2014 - 2015
David Michael Phillips

**Academic Advisor**                                              2014 - 2017
Christina Czabaranek

## JOURNAL REFEREE

- Statistics in Medicine

- American Journal of Epidemiology

- BMC Medical Research Methodology

- Journal of Comparative Effectiveness Research

## PROFESSIONAL SERVICE

- Chair for a topic-contributed session on "Survival Methods for Risk Analysis" at 2015 JSM conference

- Chair for session "46. Contributed papers: Applications of Bayesian Methods" at 2014 ENAR spring meeting

## DEPARTMENTAL SERVICE

- Course Scheduling Committee                                                    2015 - now
- EPIB Graduate Studies Committee                                                2014 - now
- Biostatistics Curriculum Committee                                             2014 - now

## PRESENTATIONS

### Invited Talks

- *International Chinese Statistical Association (ICSA) China Statistics Conference*, "Bayesian Network Meta-analysis of Clinical Trials", Shanghai, China.                Jul 2015

- *University of Maryland*, "Bayesian Network Meta-Analysis of Randomized Clinical Trials", College Park, MD.                                                          Apr 2014

- *Food and Drug Administration (FDA)*, "Bayesian Network Meta-Analysis of Randomized Clinical Trials", College Park, MD.                                            Apr 2014

### Refereed Presentations

- *International Biometric Society/Eastern North American Region* (ENAR) *Spring Meeting*, "Bayesian hierarchical models for network meta-analysis incorporating nonignorable missingness", Baltimore, MD.                                                          Mar 2014

- *The 10th International Conference on Health Policy Statistics* (ICHPS), "Bayesian hierarchical models for network meta-analysis incorporating nonignorable missingness", Chicago, IL.                                                                            Oct 2013

- *Joint Statistical Meeting* (JSM), "Bayesian hierarchical models for network meta-analysis incorporating nonignorable missingness", Montreal, Canada.                      Aug 2013

- *International Biometric Society/Eastern North American Region* (ENAR) *Spring Meeting*, "Network meta-analysis of randomized clinical trials: Reporting the proper summaries", Orlando, FL.                                                                       Mar 2013

- *International Biometric Society/Eastern North American Region* (ENAR) *Spring Meeting*, "A Bayesian approach to strengthen inference for case-control studies with multiple error-prone exposure assessments", Washington DC, MD.                                  Apr 2012

### Non-Refereed Presentations

- *Research Day, School of Public Health, University of Minnesota*, "Bayesian hierarchical models for network meta-analysis incorporating nonignorable missingness", Minneapolis, MN.                                                                                Apr 2014

- *Intern Presentation, Food and Drug Administration* (FDA), "Comparative efficacy of antiretroviral drugs: a network meta-analysis", Silver Spring, MD.                      Sep 2013

- *Intern Presentation, Boehringer Ingelheim Pharmaceuticals, Inc.*, "Longitudinal outcomes with time-to-event data: a case study from an exercise trial", Danbury, CT.　　Jul 2013
- *Research Day, School of Public Health, University of Minnesota*, "Network meta-analysis of randomized clinical trials: Reporting the proper summaries", Minneapolis, MN.　Mar 2013

## RESEARCH EXPERIENCE

**Research Assistant**　　　　　　　　　　　　　　　　　　　Jan 2012 - Present
*Division of Biostatistics*　　　　　　　　　　　　　　　　　　*Minneapolis, MN*
*University of Minnesota*
Project: Bayesian hierarchical models for network meta-analysis
Supervisors: Dr. Haitao Chu & Dr. Bradley P. Carlin

**Research Assistant**　　　　　　　　　　　　　　　　　　　Jan 2011 - May 2012
*Division of Biostatistics*　　　　　　　　　　　　　　　　　　*Minneapolis, MN*
*University of Minnesota*
Project: False discovery rate controlling when testing thousands of genes simultaneously under independence/arbitrary dependence
Supervisor: Dr. Cavan Reilly

**Research Assistant**　　　　　　　　　　　　　　　　　　　Sep 2010 - Jan 2011
*Division of Biostatistics*　　　　　　　　　　　　　　　　　　*Minneapolis, MN*
*University of Minnesota*
Project: Variable selection with both stepwise method and penalized methods including LASSO, Adaptive LASSO, SCAD, and TLP
Supervisor: Dr. Wei Pan

**Research Intern**　　　　　　　　　　　　　　　　　　　　Jul 2013 - Sep 2013
*Office of Biostatistics (OB)*　　　　　　　　　　　　　　　　*Silver Spring, MD*
*Center for Drug Evaluation and Research (CDER)*
*Food and Drug Administration (FDA)*
Project: Comparative efficacy of antiretroviral drugs: a network meta-analysis
Supervisor: Dr. Guoxing Greg Soon

**Research Intern**　　　　　　　　　　　　　　　　　　　　May 2013 - Jul 2013
*Biostatistics*　　　　　　　　　　　　　　　　　　　　　　*Danbury, CT*
*Boehringer Ingelheim Pharmaceuticals, Inc.*
Project: Longitudinal outcomes with time-to-event data: a case study from an exercise trial
Supervisor: Dr. Fei Wang

## PROFESSIONAL MEMBERSHIPS

- American Statistical Association　　　　　　　　　　　　　　　2010 - Present
- Eastern North American Region, International Biometric Society　　　　2010 - Present
- International Society for Bayesian Analysis　　　　　　　　　　　2013 - Present
- International Chinese Statistical Association　　　　　　　　　　　2012 - Present

## COMPUTATIONAL SKILLS

- Programming Languages: R, C, and C++
- Software: WinBUGS, SAS and Stata
- Operating Systems: Windows, Macintosh, and Linux