Dongfeng Wu

Curriculum Vitae

Department of Bioinformatics and Biostatistics
School of Public Health and Information Sciences
University of Louisville
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Citizenship: USA.

Education:

B.S. 1990, Probability and Statistics, Peking University, P.R. China.
M.S. 1993, Probability and Statistics, Peking University, P.R. China.
M.S. 1999, Computer Science, University of California, Santa Barbara.
Ph.D. 1999, Statistics, University of California, Santa Barbara.

Positions Held

- **09/2007**-present **Associate Professor**, Dept. of Bioinformatics and Biostatistics, School of Public Health and Information Sciences, University of Louisville. Tenured July 2014.
- **03/2008**-present **Member**, Prevention and Control program, James Graham Brown Cancer Center, University of Louisville.
- **08/2001-08/2007** **Assistant Professor** of Statistics, Dept. of Mathematics and Statistics, Mississippi State University (tenured and promoted to Associate Professor in May 2007).
- **01/2007-08/2007** **Fellow**, Institute for Digital Biology, Mississippi State University.
- **08/2006-04/2008** **Member**, Center for Computational Sciences, Mississippi State University.
- **01/2000-08/2001** **Research Associate**, Dept. of Biostatistics, University of Texas, M.D. Anderson Cancer Center. Houston, TX.
- **06/1999-09/1999** **Statistical Consultant**, Dept. of Statistics and Applied Probability, University of California, Santa Barbara.
- **06/1998-09/1998** **Intern** in Computer Science, Connected Systems Co., Santa Barbara, CA.
- **06/1997-09/1997** **Research Assistant**, Dept. of Political Science, University of California, Santa Barbara.
- **09/1995-12/1999** **Teaching Assistant**, Dept. of Statistics and Applied Probability, University of California, Santa Barbara.

Administrative Appointments

Director, Master's program
07/2009 – 07/2012

Dept. of Bioinformatics and Biostatistics
University of Louisville

Research Interests:

Cancer screening probability modeling, wavelet regression, Bayesian inference, smoothing spline, statistical decision theory, time series analysis.

Professional/Services

- **Administrative Services:**
  At University of Louisville:
  - Master's Program Director, Biostatistics-Decision Sciences, 07/2009-07/2012.
  - SPHIS Faculty Forum Committee, 07/2009-06/2013.
  - SPHIS Academic Affair Committee, 07/2009-03/2012.
  - SPHIS Curriculum Committee, 07/2009-07/2012.

  At Mississippi State University:
  - University Academic Review Board, 2002-03;
  - University Grievance Panel, 2005-2007;
  - Departmental Statistics Committee, 2001-2007.
  - Departmental Computing and Technology Committee, 2001-2007.
  - Departmental Assessment Committee, 2005-2007.
  - Departmental Evaluation of Teaching Assistants Committee, 2005-2007.

- **Member:**
  - American Statistical Association (ASA)
  - International Biometric Society-East North American Region (ENAR)
  - International Chinese Statistical Association (ICSA)

- **Editorial Services**
  - Editor-in-Chief, *Open Access Medical Statistics*, 03/2011-present.
  - Executive Editor, *Journal of Biometrics and Biostatistics*, 07/2010-present.
  - Editorial board member, *Journal of Cancer Science & Therapy*, 08/2010-present.
  - Editorial board member, *Journal of Modern Applied Statistical Methods*, 2002-2010.
  - Editorial board member, *Annals of Biometrics and Biostatistics*, June, 2013-present.
  - Editorial board member, *Journal of Medical Statistics and Informatics*, July 2013-present.

- **Reviewer/Judges**

  - Patient-Centered Outcome Research Institute (PCORI), merit review panel, Improving Methods for Conducting PCOR (Pure Analytics) of Spring 2015 funding cycle. Meeting date Aug. 6-7, 2015 in Washington DC.
  - Patient-Centered Outcome Research Institute (PCORI), merit review panel, Improving Methods for Conducting PCOR (Pure Analytics) of Fall 2014 funding cycle. Meeting date Feb. 5-6, 2015 in Washington DC.
  - National Institute of Health (NIH), Special Emphasis Panel, ZRG1 PSE-R (80), AREA: Population Sciences and Epidemiology. Meeting date: 11/13/2014.

- National Institute of Health (NIH), Special Emphasis Panel, ZRG1 PSE-Q (80), AREA: Population Sciences and Epidemiology. Meeting date: 07/10/2014.
- National Institute of Health (NIH), Special Emphasis Panel, ZRG1 PSE-D(90)A, Population Studies and Epidemiology AREA Review. Meeting date: 3/13/2013.
- National Institute of Health (NIH/PCORI), panel member (onsite) for ZRG1 BDCN-M (70) R, PCORI Pilot Project merit review, meeting date: 2/21/2012 in Washington DC.
- Medical Research Foundation, UK. Williams Barker Bequest: Cancer Research. Reviewer of grant application. 01/2012. Mail review member.
- National Institute of Health (NIH), Special Emphasis Panel, mail review member for study sections: ZRG1 PSE-C (58) R and ZRG1 PSE-J (58) R, Challenge grants proposals review, 05/2009.
- Judge for Research!Louisville, 2008, 2009, 2011, 2012.
- Educational Testing Service (ETS) AP reader of Statistics, 06/05/2009-06/11/2009.
- Chaired sessions at the Joint Statistical Meeting (JSM) 2006, 2010;
- Chaired a session at the International Conference and Exhibition on Biometrics and Biostatistics (Biometrics-2012), 03/2012.

- **Journal Referee**
  - *Journal of American Statistical Association (JASA)*
  - *The Annals of Applied Statistics;*
  - *Computational Statistics and Data Analysis;*
  - *Statistics in Medicine*;
  - *Statistical Methodology;*
  - *Journal of Biometrics and Biostatistics;*
  - *American Journal of Epidemiology;*
  - *BioMed Central (BMC) Cancer;*
  - *Information Sciences;*
  - *Quality of Life Research;*
  - *Cancer;*
  - *Diagnostics;*
  - *Journal of Epidemiology and Global Health*
  - *Breast Cancer: Targets and Therapy*
  - *Statistics and Its Interface*
  - *World Journal of Clinical Oncology*
- **Book Reviewer**
  - *Printice Hall;*
  - *W.H. Freeman and Company.*

Publications:

1. Book Chapter.

[2] **Wu D,** Perez A. (2012). Chapter 24: Modeling and inference in screening: exemplification with the faecal occult blood test, p.473-490. *Colorectal Cancer-From Prevention to Patient Care*, Editor: Ettarh, R. (eds.) InTech Publisher. ISBN: 978-953-51-0028-7. February 2012.

[1] **Wu, D.** and Rosner GL**.** (2010). Chapter 10: Probability modeling and statistical inference in periodic cancer screening, p.203-218. *Frontiers in Computational and Systems Biology*, Editors: J. Feng et al (eds.) Computational Biology 15. Springer, London, 2010. ISBN: 978-1-84996-195-0. June 2010.

2. Editorial Articles:

[5] **Wu D**. (2016). Clinical impact: when to schedule for the upcoming screening exam? *Journal of Biometrics and Biostatistics.*7:2. Doi: 10.4172/2155-6180.1000291.

[4] **Wu D**. (2015). Christmas time – some thoughts on research and funding. *Journal of Biometrics and Biostatistics.* 6:268. Doi: 10.4172/2155-6180.1000268.

[3] **Wu D.** (2013). To plant a tree or to grow some vegetables-some thought in research. *Annals of Biometrics and Biostatistics* 1(2):1005.

[2] **Wu, D.** (2012). Over diagnosis in screening: does it make sense? *Journal of Biometrics and Biostatistics*, 3:e110. doi:10.4172/2155-6180.1000e110.

[1] **Wu, D.**(2011). Meeting the needs of medical research with statistical methods. *Open Access Medical Statistics.* 2011:1 1-1. doi: 10.2147/OAMS.S20259.

3. Research Papers in Refereed Journals.

[38] Kim S, Jang H, **Wu D**, Abrams J. (2015) A Bayesian Nonlinear Mixed-effects Disease Progression Model. *Journal of Biometrics and Biostatistics*. 6:271. doi:10.4172/2155-6180.1000271.

[37] Liu R, Levitt B, Riley T, **Wu D**. (2015). *Bayesian Estimation of the Three Key Parameters in CT for the National Lung Screening Trial Data. Journal of Biometrics and Biostatistics. 6:* 263. doi:10.4172/2155-6180.1000263

[36] Latif RK, Bautista AF, Duan X, Neamtu A, **Wu D**, Wadhwa A, Carter MB, Akca O. (2016). Teaching basic fiberoptic intubation skills in simulator: initial learning and skill decay. *Journal of Anesthesia*.

[35] Kendrick SK, Rai SN and **Wu D** (2015). Simulation study for the sensitivity and mean sojourn time specific lead time in cancer screening when human lifetime is a competing risk. *Journal of Biometrics and Biostatistics. 6:247.* DOI:10.4172/2155-6180.1000247

[34] Liu R, **Wu D**, Zhang X, and Kim S.(2016). Compound Identification Using Penalized Linear Regression on Metabolomics. *Journal of Modern Applied Statistical Methods.* Vol. 15: Iss. 1, Article 20. Available at: http://digitalcommons.wayne.edu/jmasm/vol15/iss1/20

[33] Cambon AC, Baumgartner KB, Brock GN, Cooper NGF, **Wu D**, and Rai SN.(2015). Classification of Clinical Outcomes Using High-throughput Informatics: Part 2 – Parametric Method Reviews. *Model Assisted Statistics and Applications*. 10(2):89-107. June 2015.

[32] Cambon AC, Baumgartner KB, Brock GN, Cooper NGF, **Wu D**, and Rai SN.(2015). Classification of Clinical Outcomes Using High-throughput Informatics: Part 1 – Nonparametric Method Reviews. *Model Assisted Statistics and Applications.* 10(1): 3-23, Jan. 2015.

[31] Kim S, Gaweda AE, **Wu D**, Li L, Rai, SN, Brier, ME. (2015). Simplified warfarin dose-response pharmacodynamic models. *Biomedical Engineering*: *Applications, Basis and*

Communications. 2015 Feb; 27(1). pii: 1550001 PubMed PMID: 25750489; PubMed

[30] Chen Y, Erwin D and **Wu D** (2014). Over-diagnosis in lung cancer screening using the MSKC-LCSP data. *Journal of Biometrics and Biostatistics.* 5:201. DOI: 10.4172/2155-6180.1000201.

[29] **Wu D,** Kafadar K, and Rosner GL (2014). Inference of long term effects and over-diagnosis in periodic cancer screening. *Statistica Sinica*. 2014; 24: 815-831. doi:10.5705/ss.2012.067.

[28] Ling J, King KM, Speck BJ, Kim S, and **Wu D**. (2014). Preliminary assessment of a school-based healthy lifestyle intervention among rural children. *Journal of School Health.* 2014; 84:247-255.

[27] Jang, H, Kim S, and **Wu D** (2013). Bayesian lead time calculation for the Johns Hopkins lung project data. *Journal of Epidemiology and Global Health*. Vol. 3, 157-173. DOI:10.1016/j.jegh.2013.05.001.

[26] Kim S, and **Wu D** (2016). Estimation of sensitivity depending on sojourn time and time spent in preclinical state. *Statistical Methods in Medical Research.* 2016, Vol. 25(2), 728-740. DOI: 10.1177/0962280212465499.

[25] Kim S, Erwin D, and **Wu D**. (2012). Efficacy of dual lung cancer screening by chest x-ray and sputum cytology using Johns Hopkins lung project data. *Journal of Biometrics and Biostatistics.* 3:139. doi:10.4172/2155-6180.1000139

[24] **Wu D,** Kafadar, K, Rosner GL, Broemeling LD. (2012). The lead time distribution when lifetime is subject to competing risks in cancer screening. *The International Journal of Biostatistics.* Volume 8: Issue 1, Article 6, ISSN: 1557-4679, DOI: 10.1515/1557-4679.1363, April 2012.

[23] Luo D, Cambon AC, **Wu D**.(2012). Evaluating long term effect of FOBT in colon cancer screening. *Cancer Epidemiology*. 36 (2012), e54-e60. DOI: 10.1016/j.canep.2011.09.011.

[22] Duan X, **Wu D**, Bautista AF, Akca O, Carter MB, Latif RK. (2011). Assessment of reaching to proficiency in procedural skills: fiberoptic airway simulator training in novices. *Open Access Medical Statistics. 2011: 1, 45-50.* DOI:10.2147/OAMS.S24625.

[21] **Wu D,** Erwin D, and Kim S. (2011). Projection of long-term outcomes using x-rays and pooled cytology in lung cancer screening. *Open Access Medical Statistics. 2011: 1 13-19.* DOI:10.2147/OAMS. S22987.

[20] **Wu D**, and Perez A. (2011). A limited review of over-diagnosis methods and long term effects in breast cancer screening. *Oncology Reviews* (2011) 5:143-147. DOI: 10.1007/s12156-011-0077-0.

[19] Li, C., Kong, M., **Wu, D.** (2011). The statistical effects on measuring myocyte with different image zoom rates. *Open Access Medical Statistics.* 2011:1 3-12. DOI: 10.2147/OAMS.S20303.

[18] Shows J. **Wu D**.(2011) Inferences for the lead time in breast cancer screening trials under a stable disease model. *Cancers.* 2011, *3*(2), 2131-2140; DOI:10.3390/cancers3022131.

[17] **Wu, D**., Erwin, D. and Rosner GL(2011). Sojourn time and lead time projection in lung cancer screening. *Lung Cancer*. 72 (2011) 322-326. DOI: 10.1016/j.lungcan.2010.10.010.

[16] Chen, Y, Brock, GN and **Wu, D** (2010). Estimating key parameters in periodic breast cancer screening - application to the Canadian National Breast Screening Study data. *Cancer Epidemiology*. 34, 429-433. DOI:10.1016/j.canep.2010.04.001.

[15] **Wu, D**., Erwin, D. and Rosner, G.L. (2009). A projection of benefits due to fecal occult blood test for colorectal cancer. *Cancer Epidemiology.* 33, 212-215. DOI: 10.1016/j.canep.2009.08.001.

[14] Wu, T., and **Wu, D**.(2009). The structuralized statistical decision functions and their applications. *Journal of Shandong Normal University (Natural Science).* June 2009. Vol. 24, No.2, 1-6. (in Chinese, with English abstract).

[13] **Wu, D**., Erwin, D. and Rosner, G. L.(2009) Estimating key parameters in FOBT screening for colorectal cancer. *Cancer Causes and Control* (2009) 20: 41-46. DOI: 10.1007/s10552-008-9215-9.

[12] Shi, SQ. and **Wu, D**.(2009). Modeling moisture absorption process of wood-based composites under over-saturated moisture conditions using two-part equations. *Wood Science and Technology*. Volume 43, Issue 1 (2009), 143-150. DOI: 10.1007/s00226-008-0201-x.

[11] **Wu, D**., Carino R.L., and Wu, X.(2008). When sensitivity is a function of age and time spent in the preclinical state in periodic cancer screening. *Journal of Modern Applied Statistical Methods*. Vol. 7, No. 1, 297-303.

[10] **Wu, D.**, Rosner, G. L., and Broemeling, L. D.(2007). Bayesian inference for the lead time in periodic cancer screening. *Biometrics*. Vol. 63, No. 3, 873–880.

[9] Zhang, Y. and **Wu, D.**(2006). Methodologies to predict service lives of pavement marking materials. *Journal of the Transportation Research Forum*. Vol. 45, 5-18.

[8] Wu, J., **Wu, D.**, Jenkins, J. N., and McCarty, J.C.(2006). A recursive approach to detect multivariable conditional variance components and conditional random effects. *Computational Statistics and Data Analysis*. 50, 285-300.

[7] Wu, J., Jenkins, J. N., McCarty, J. C. and **Wu, D.**(2006). Variance component estimation using the ADAA model when genotypes vary across environments. *Crop Science*. Vol.46, 174-179.

[6] **Wu, D.**, Rosner, G. L., and Broemeling, L. D.(2005). MLE and Bayesian inference of age-dependent sensitivity and transition probability in periodic screening. *Biometrics*. Vol.61, No.4, 1056-1063.

[5] **Wu**, **D.**, Wu, X., Banicescu, I. and Carino, R. (2005). Simulation procedure in periodic cancer screening trials. *Journal of Modern Applied Statistical Methods.* Vol.4, No.2, 522-527.

[4] Broemeling, L.D and **Wu, D.**(2005). On the power functions of Bayesian tests with application to the design of clinical trials: the fixed-sample case. *Journal of Modern Applied Statistical Methods.* Vol. 4, No. 1, 163-171.

[3] **Wu, D.**(2004). A visually adaptive Bayesian model in wavelet regression. *Journal of Modern Applied Statistical Methods.* Vol. 3, No. 1, 200-212.

[2] **Wu, D.**(2002). NORM thresholding method in wavelet regression. *Journal of Statistical Computation and Simulation*. 2002. 72 (3), 233-245.

[1] Shen, Y., **Wu, D.,** and Zelen, M.(2001). Testing the independence of two diagnostic tests. *Biometrics*. Vol. 57, 1009-1017.

4. Research Papers in Peer-Reviewed Conference Proceedings.

[1] Zhang, Y. and **Wu, D**. (2005). Development of methodologies to predict service lives of pavement marking materials. Preprint of the 84nd Annual Meeting CD, the Transportation Review Board, Washington, D.C.

[2] Zhang, Y. and **Wu, D**. (2003). Comparative analysis of retroreflectivity of pavement marking materials. Preprint of the 82nd Annual Meeting CD, the Transportation Review Board, Washington, D.C.

5. Research Papers in Non-Refereed Conference Proceedings.

[1] **Wu, D**. (2014). Long term effects of periodic cancer screening for aged people with a screening history. *2014 Proceedings of the American Statistical Association,* International Chinese Statistical Association Section. Alexandria, VA: American Statistical Association. 793-804.

[2] **Wu, D.**, and Rosner, G. L. (2010). A projection of true-early-detection, no-early-detection, over-diagnosis and not-so-necessary probabilities in tumor screening. *2010 Proceedings of the American Statistical Association, Biopharmaceutical Section*. 1144-1157. Alexandria, VA: American Statistical Association.

[3] **Wu, D.**, Rosner, G. L., and Broemeling, L. D. (2006). Inference for the lead time in cancer screening. *2006 Proceedings of the American Statistical Association,* Biometrics Section [CD-ROM], Alexandria, VA: American Statistical Association: 427-433.

[4] **Wu, D**. (2000). A visually adaptive Bayesian model in wavelet regression. *American Statistical Association, 2000 JSM Proceedings of the American Statistical Association,* Bayesian Statistical Science Section. Alexandria, VA: American Statistial Association: 108-113.

[5] **Wu, D**. (2000). NORM thresholding method in wavelet regression. *Proceedings of the 32nd Symposium on the Interface, Computing Science and Statistics.* Vol 32, 104-123. New Orleans, Louisiana (2000).

6. Technical Reports

[1] Zhang, Y. and **Wu, D**. (2003). Development of trustworthy intermodal traffic measurement. A final research report submitted to the National Center for Intermodal Transportation (NCIT).

[2] **Wu, D.,** Rosner, G. L. and Broemeling, L. D. (2001). Bayesian inference of age-dependent sensitivity, sojourn time and transition rate in screening. *Technical Report UTMDABTR-015-01, June 2001. Dept. of Biostatistics, Univ. Texas, M. D. Anderson Cancer Center.*

[3] Broemeling, L. D. and **Wu, D.** (2001) Power functions for Bayesian tests with application to the design of clinical trials: the fixed-sample case. *Technical Report UTMDABTR-016-01, July 2001. Dept. of Biostatistics, Univ. Texas, M. D. Anderson Cancer Center.*

7. Research Papers Submitted or Close to Submission

[1] **Wu D**, Kafadar K, and Rai SN. (2015). Inference of long term screening outcomes for individuals with screening histories. Submitted to *Annals of Applied Statistics*.

[2] Li X, Brock GN, Rouchka EC, Cooper NGF, **Wu D**, O'Toole TE, Gill RS, Eteleeb AM, Liz O'Brien L, Rai SN (2016). Improved Detection of Differentially Expressed Genes in RNA-seq Data through 2-step Normalization: Global Scaling per Sample and per Gene Normalization across Samples. Submitted to BMC Bioinformatics. Revision.

[3] **Wu D**, Liu R, Levitt B, Riley T, Baumgartner KB (2016). Evaluating Long term outcomes via computed tomography in lung cancer screening. Will submit to *Lung Cancer*.

8. Abstract in Refereed Journals

[1] Kim S, Gaweda AE, Wu D, Li L and Brier M. (2013). Simplified pharmacodynamic models for warfarin. *Clinical Pharmacology and Therapeutics* 93, S52-S86; doi:10.1038/clpt.2012.256.

Completed Research Grants:

R03CA115012 (Wu, D.) 4/1/2005-9/30/2007 4.8 Calendar
NIH/NCI*:* Small Grants Program for Behavioral Research in Cancer Control $135,872.00
Project Title: Statistical inference for lead time in cancer screening.
Description: The specific aims are to derive the exact probability distribution for the lead time in a periodic screening program and to derive its strict probability distribution; and to apply the proposed method to aid in developing the optimal design of periodic screening, in particular, choosing screening time intervals.
Role: Principal Investigator.

The National Center for Intermodal Transportation (Zhang, Y.) 1.0 Calendar
12/1/2002-12/1/2003 $89, 974.00
Project Title: Development of Trustworthy Intermodal Traffic Measurement.
Description: The specific aim is to develop and test the intermodal traffic measurement, and apply it to traffic data from highway and railroad.
Role: Co-Investigator.

Pending Research Grants:

NIH R15 (Wu,D).
Project Title: Statistical Inference of Long-Term Outcomes in Lung Cancer Screening.
Description: The specific aims are: to estimate the three key parameters in chest X-ray and spiral CT screening; to evaluate over-diagnosis and long term outcomes for people with (old age group) and without (younger age group) a screening history; to provide a strategy to dynamically schedule future screening exams for people with any screening history; and to develop a user- friendly software.
Role: PI.
Submitted 2/20/2016. It's a 3-years project.

Not Funded External Research Proposals:

1. National Cooperative Highway Research Program. (Buchanan, S.) 1.2 Calendar
   Project 5-18.
   Project Title: Color Effectiveness of Yellow Pavement Marking Materials.

Role: Research Statistician.
Requested amount: $399,998. Submitted on June 19th, 2002.

2. NSF Proposal: 0321730 (Peng, Z.) 1.2 Calendar
   Project Title: ISGA-PGR Proteome Analysis of Chromatin Associated Proteins in Arabidopsis and Rice (Oryza sativa)-Identities, Expression Levels, Localization and Functions.
   Role: Co-Investigator.
   Requested amount: $2,415,079. Submitted on Feb 7, 2003.
3. NSF proposal: 0540272. (Thompson, D.S.) 1.2 Calendar
   Project Title: DDDAS-TMRP: ICEMAN - An Ice-Management System for Uninhabited Aerial Vehicles (UAVs).
   Role: Co-Investigator.
   Request amount: $1.526M, for the period Oct. 1, 2005-Sept. 30, 2008. 3 years.
4. NSF proposal: 0536274. (Du, J.) 1.2 Calendar
   Project Title: Bridging the gap between the mathematical classrooms and engineering applications: a case study for a probability and random processes course.
   Role: Co-Investigator.
   Request amount: $150K, for the period Jan.1, 2006- Jan.1, 2009. 3 years.
5. NIH/NCI: 1R21CA129794-01 (Wu, D.) 3.6 Calendar
   Project Title: When to schedule the next screening exam for an asymptomatic woman, given her screening history?
   Description: The primary objective of this proposal is to develop a new probability model to make a single-event decision in cancer screening. Namely, when to schedule the next screening exam for an asymptomatic individual with a history of screenings. Hence provide information for individuals to make informed and satisfying choices regarding their health.
   Role: Principal Investigator.
   Requested amount: $173,569 for the period 7/1/2007-6/30/2009.
6. NIH/NCI: 1R01CA136850-01 (Wu, D.) 3.6 Calendar
   Project Title: Probability Modeling and Statistical Inference in Periodic Cancer Screening
   Description: The long-term goal of this proposal is to develop new probability models and statistical methods to efficiently design cancer screening trials for individuals with different risk factors. The short-term goals are to develop statistical methods and software that can be used to better schedule cancer screening exams for individuals, to evaluate the long-term benefit due to screening, and to explore the relationships between sensitivity, sojourn time in the preclinical state, and age at diagnosis.
   Role: Principal Investigator.
   Requested amount**:** $429,548.00 for the period 12/01/2008 – 11/30/2012.
7. NIH/NCI: 1R01CA136850-01A1 (Wu, D.) 3.6 Calendar
   Project Title: Probability Modeling and Statistical Inference in Periodic Cancer Screening
   Description: This is a re-submission of NIH grant. The long-term goal of this proposal is to develop new probability models and statistical methods to efficiently design cancer screening trials for individuals with different risk factors. The short-term goals are to develop statistical methods and software that can be used to better schedule cancer screening exams for individuals, to evaluate the long-term benefit due to screening, and to explore the relationships between sensitivity, sojourn time in the preclinical state, and age at diagnosis.

Role: Principal Investigator.
Requested amount**:** $428,244.00 for the period 07/01/2009 – 06/30/2013

8. NIH/NCI: 1RC1CA145672-01 (Wu, D.) 3.6 Calendar
   Project Title: Evaluating Long-Term Benefits Due to Periodic Cancer Screening
   Description: The primary objective of this proposal is to develop a method to evaluate and compare the long-term benefits due to periodic cancer screening under different screening frequencies, such as what is the proportion of over-diagnosis and what is the proportion of true-benefit and no-benefit among periodic screening participants, and hence provide more efficient designs for periodic cancer screening trials.
   Role: Principal Investigator.
   Requested amount: $220,160 for the period 10/1/2009-9/30/2011.
9. NIH: 1R01 HL098752-01 (Linder, M.) 1.2 Calendar
   Project Title: Application of an innovative pharmacogenetic modeling technique to pediatric warfarin therapy.
   Description: To develop a warfarin dose adjustment method for pediatric patients, particularly with regard to the influence of inherited genetic polymorphism.
   Priority score: 56. Role: Co-Investigator
   Requested amount: $1,354,840 for 4 years.

10. KY Cycle 9: Investigator-Initiated Grant. (Wu, D.) 2.4 Calendar
    Project Title: Probability Modeling and Statistical Inference in Periodic Cancer Screening
    Description: To provide clear definitions of over-diagnosis, true-benefit, no-benefit, and unnecessary in a periodic cancer screening program; and to derive the corresponding probability for each case, by allowing human life time to be a competing risk. To apply the proposed method to lung cancer screenings; to compare the long-term benefits and to aid in developing the optimal design of periodic screening; in particular, choosing screening time intervals for groups of people with different risks. User-friendly software will be developed and made available to the research community. Role: Principal Investigator.
    Requested amount: $55,550 for 2 years.
11. NIH/NCI: 1R01CA153120-01. (Wu, D.) 3.6 Calendar
    Project Title: Evaluating long-term benefits due to periodic cancer screening
    Description: To propose a probability model to evaluate the long-term benefit of screening, especially to make inference on the percentage of true-benefit, no-benefit, over-diagnosis, and unnecessary by allowing for competing causes of death over the course of a person's lifetime. Apply the proposed method to screening for three kinds of cancer: breast cancer (via the HIP and CNBS study), colorectal cancer (Minnesota study) and lung cancer (Mayo lung project). Priority score: 56. Role: Principal Investigator.
    Requested amount: $288,948 for the period 07/01/2010-6/30/2012.
12. NIH proposal: 1R01CA** (Li, X.) 1.2 Calendar
    Project Title: Hypoxia in Micrometastates.
    Description: Hypoxia, low oxygen tension status, is a common feature of many solid primary cancers; cancer cells growing in low oxygen environment generally are not sensitive to chemotherapy and radiotherapy. The proposed research will study hypoxia in metastases growing in mice. The information from the proposed studies will serve as a guideline in the design of new anti-cancer drugs to eliminate cancer metastases when they

are still very small in size which response well to chemotherapy, and to improve the outcome of cancer treatment. Role: Co-Investigator.
Requested amount: $1,862,500 for the period 02/01/2011-01/31/2016.

13. NIH: 1R18GM** (Latif, R.) 1.2 Calendar
Project Title: Simulator training to reduce central venous catheter related blood infections
Description: The specific aim of this study is to eliminate morbidity and mortality attributed to Central Venous Catheter related Blood Stream Infections (CVC-BSIs) through enhanced compliance with Center for Disease Control (CDC) guidelines. This could be achieved by individual and team training with simulators. A novice can be trained to a level equal to that of an expert physician by practicing CVC insertions using CDC guideline with simulators. Any personal skill decay over time can be detected and retrained to previous expert level by simulator.
Role: Co-Investigator.
Requested amount: $1,047,311.

14. NIH: R01 (Wang, E.) 0.6 Calendar
Project Title: MicroRNAs, IGF-1 Signaling, and Neuronal Survival in Long-Lived Mouse Brain.
Role: Co-Investigator.
Requested: $2,200,515 for 5 years.

15. NIH/NCI: 1R15CA167509-01. (Wu, D.) 3.0 Calendar
Project Title: Projection of outcomes in lung and colorectal cancer screening.
Description: The specific aims are to develop a systematic approach to evaluate long-term outcomes of cancer screening. Participants in a screening program can be classified into four mutually exclusive groups: symptom-free-life, true-early- detection, no-early-detection, and over-diagnosis. All initially superficially healthy people will eventually fall into one of these four outcomes. Probability of each outcome is developed and will be evaluated using existing screening data and cancer registry data from lung and colorectal screening. Priority score: 36.
Role: Principal Investigator.
Requested: $404,972 for 3 years.

16. NIH/NHLBI: R01. (Folz, R.) $2,209,946 1.2 Calendar
Project Title: Microfabricated chemoselective chip breath analysis for the early detection of lung disease in cystic Fibrosis.
Description: The proposed research is to investigate possible biomarkers for early detection of cystic fibrosis (CF) in children using exhaled breath analysis. Specifically, the PI, Dr. Folz, will collect measurement on volatile organic compounds (VOCs) in children 5-6 years old with and without CF, and these VOC profiles will be analyzed by comparing differences using spectrometry in the two study groups to identify biomarkers.
Role: Co-Investigator
Submitted January 11, 2012, four years.

17. NIH/NCI: R03CA173081(Wu, D.) $150,000 2.4 Calendar
Project Title: The impact of digital mammography on long-term outcomes in the diagnosis of breast cancer at a comprehensive cancer center.

Description: The specific aims are to estimate the key parameters for different ethnic cohorts using digital mammogram data, and to estimate/predict the proportion/percentages of each of the four outcomes: true-early-detection, no-early-detection, over-diagnosis, and symptom-free-life in each cohorts under different screening frequencies.
Role: Principal Investigator.
Submitted 2/17/2012, two years.

18. NIH: R21 (Gaweda, A.) $220,091 0.6 Calendar
Project Title: Reticulocyte based RBC production and lifespan estimation for personalized anemia management.
Description: The proposed research is to develop and perform a preliminary validation of a method for red blood cell (RBC) lifespan and RBC production rate estimation using longitudinal reticulocyte measurements. Specifically, the PI, Dr. Gaweda and his team will collect measurements of RBC in patients with end stage renal disease (ESRD).
Role: Co-Investigator.
Submitted 6/8/2012, two years.

19. R24 (Ramirez, J.)
NIH: Agency for Healthcare Research and Quality (AHRQ)
Project Title: Intravenous Cefazolin plus Intra-wound Powder versus Intravenous Cefazolin Alone for the Prevention of Surgical Site Infections in Spine Trauma Surgery.
Description: The specific aims are to assess the futility of adding vancomycin powder to intravenous vancomycin in reducing incidence of surgical site infection (SSI); and to assess the feasibility for a prospective multi-center randomized clinical trial to define the role of local intra-wound application of vancomycin powder as prophylaxis for SSI in patients undergoing spinal surgeries due to traumatic spine injury.
Role: Co-Investigator.
Submitted 12/19/2013, 4-years project.

20. NIH R15 (Wu,D).
Project Title: Over-diagnosis for people with and without a screening history in lung cancer.
Description: The specific aims are: to estimate the three key parameters in chest X-ray and spiral CT screening; to evaluate over-diagnosis and long term outcomes for people with (old age group) and without (younger age group) a screening history, and to develop a user-friendly software.
Role: PI.
Submitted 10/20/2014. 3-years project.

21. NIH R21 (Li, X.)
Project Title: Visualization of Hypoxia in Brain Metastases of Lung Cancer.
Description: The specific aims are: to characterize hypoxia status in different size of brain metastases with histological visualization; and to observe longitudinal changes in hypoxia related to angiogenesis during the early stage progression of brain metastases with non–invasive imaging techniques.
Role: Co-Investigator
Submitted 2/27/2014, 2-years project.

22. NIH R21 (Li, X.)
    Project Title: Tumor Hypoxia and Hypoxia-targeted Therapy of Micrometastases.
    Description: Specific Aims are: to characterize that severe hypoxia is a common feature of micrometastases involving a variety of anatomic sites generated by light producing human colorectal cancer HT-29-luc-D6 cells in nude mice and to use immune-histochemical visualization of endogenous and endogenous hypoxia markers to achieve this goal; to observe therapy effect hypoxia-targeted cytotoxin, TH302, on micrometastases in rodents. In summary, knowledge obtained from the study will be important for better understanding metastatic cancer biology from hypoxia point of view.
    Role: Co-Investigator
    Submitted 6/25/2014. 2-year project.
23. NIH R15 (Wu,D).
    Project Title: Statistical Inference of Long-Term Outcomes in Lung Cancer Screening.
    Description: The specific aims are: to estimate the three key parameters in chest X-ray and spiral CT screening; to evaluate over-diagnosis and long term outcomes for people with (old age group) and without (younger age group) a screening history, and to develop a user-friendly software.
    Role: PI.
    Submitted 6/20/2015. It's a 3-years project.

Honors and Awards:

- 2011-2012 Faculty Favorite: An Outstanding Professor Nominated by Students. University of Louisville, Delphi Center for Teaching and Learning. September 2012.
- U.S. Provisional Patent: System and Method for Determining a Lead Time Probability Distribution for Use in Chronic Disease Screening Programs. Filed through MSU Office of Intellectual Property and Technology Licensing. 2005.
- Academic Excellence Fund, College of Arts and Sciences, Mississippi State University. 2002, 2004, 2005, 2007.
- Seven Gold medals in Women's Swimming at the MSU 2nd International Campus Games. Oct. 2005.(25-yd. and 50-yd. free style, 25-yd. back stroke, 25-yd. and 50-yd. breast stroke, 25-yd. butterfly stroke, 100-yd. individual medley)
- Five Gold medals and one Silver in Women's Swimming at the MSU 1st International Campus Games. Oct. 2004. (25-yd. and 50-yd. free style, , 25-yd. breast stroke, 25-yd. butterfly stroke, 100-yd. individual medley, 25-yd. back stroke)
- University of California Regents Fellowship, UCSB, 1995-96, 1997-98. Twice.
- Wald Memorial Prize. (For best performance in PhD Qualifying Examinations), Dept. of Statistics and Applied Probability, UCSB, 1996.
- GuangHua Fellowship for Outstanding Students, Peking University, Beijing, P. R. China, 1990.
- Sports Fellowships (inter-collegiate swimming), Peking University, Beijing, P.R. China, 1986-1990.

Conference Presentations (as presenting author)

- Joint Statistical Meeting (JSM-2015), August 2015. Seattle, WA. Long term effects and over diagnosis of CT scan in lung cancer. Contributed talk.
- Joint Statistical Meeting (JSM-2014), August 2014. Boston, MA. Inference of future screening outcomes for old people with a screening history. Contributed talk.
- Invited speaker, co-moderator, and session chair, International Conference and Exhibition on Biometrics and Biostatistics (Biometrics-2013). June 10-12, 2013. Chicago, IL. Inference of long term effects and over-diagnosis in periodic cancer screening.
- Invited speaker and session chair, International Conference and Exhibition on Biometrics and Biostatistics (Biometrics-2012). March 5-7, 2012. Omaha, NE. Projection of long-term outcomes using x-rays and pooled cytology in lung cancer screening.
- International Chinese Statistical Association-Applied Statistics Symposium, June 26-28, 2011. New York City, NY. Evaluating long term outcomes of FOBT in Colorectal Cancer Screening.
- Joint Statistical Meeting, August 2010. Vancouver, Canada. A projection of true-early-detection, no-early-detection, over-diagnosis and not-so-necessary probabilities in tumor screening. Topic-contributed talk.
- Invited speaker at The International Workshop on Probability Theory, Statistics and Their Application to Biology. June 26-28, 2009, Beijing, P. R. China. Over-diagnosis and True-Benefit in Periodic Cancer Screening.
- International Biometric Society Eastern North American Region (ENAR) Spring Meeting, March, 2009. San Antonio, TX. Bayesian Inference for Over-Diagnosis and True-Benefit in Periodic Cancer Screening.
- Joint Statistical Meeting, August 2008. Denver, CO. Estimating Benefits Due to FOBT in Colorectal Cancer Screening.
- International Biometric Society Eastern North American Region (ENAR) Spring Meeting, March, 2008. Arlington, VA. Estimating Benefits Due to Fecal Occult Blood Test for Colorectal Cancer.
- International Biometric Society Eastern North American Region (ENAR) Spring Meeting, March, 2007. Atlanta, GA. When Sensitivity Depends on Age and Time Spent in the Preclinical State in Periodic Cancer Screening.
- National Cancer Institute (NCI) Small Grants Program for Behavioral Research in Cancer Control Grantee Meeting. January 2007. Group Presentation title: Cancer Screening (Joint with 5 PIs from other funded projects: Judy Wang of Georgetown Univ., William Klein of Univ. of Pittsburgh, Hae-Ra Han of John Hopkins Univ., William Pirl from Massachusetts General Hospital, and Julie C. Weitlauf from Stanford Univ). With a poster section: Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- Joint Statistical Meeting, August 2006. Seattle, WA. Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- International Biometric Society Eastern North American Region (ENAR) Spring Meeting, March, 2006. Tampa, FL. Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- International Biometric Society Eastern North American Region (ENAR) Spring Meeting, March, 2005. Austin, TX. Modeling the Relationship of Sojourn Time and Sensitivity in Periodic Screening.
- Joint Statistical Meeting, August 2004, Toronto, Canada. Statistical Inference for the Lead Time in Periodic Cancer Screening.

- International Biometric Society Eastern North American Region (ENAR) Spring Meeting, March, 2001, Charlotte, NC. Bayesian Inference of Age-Specific Sensitivity, Sojourn Time and Transition Rate in Screening.
- Joint Statistical Meeting, August 2000, Indianapolis, IN. A Visually Adaptive Bayesian Model in Wavelet Regression.
- Interface, April, 2000, New Orleans, LA. NORM Thresholding Method in Wavelet Regression.

Invited Colloquia and Research Seminar Talks

- Department of Bioinformatics and Biostatistics Seminar, University of Louisville. November 6, 2015. Title: Inference of Long Term Outcomes and Over-diagnosis in Periodic Cancer Screening
- Invited speaker at ASA KY Chapter meeting, January 10, 2013 at Lexington, KY. Title: Inference of long-term effects and over-diagnosis in periodic cancer screening.
- Biostatistics-Decision Science Seminar, Department of Bioinformatics and Biostatistics, University of Louisville. September 21, 2012. Title: The lead time distribution when lifetime is subject to competing risks in cancer screening.
- Research seminar series, Department of Mathematical Sciences, Indiana University Purdue University at Indianapolis (IUPUI). March 31, 2010. Title: A Projection of Over-Diagnosis, True-Benefit, No-Benefit, and Unnecessary in Periodic Cancer Screening.
- Biostatistics-Decision Science Seminar, University of Louisville. January 29, 2010. Title: A Projection of Over-Diagnosis, True-Benefit, No-Benefit, and Unnecessary in Periodic Cancer Screening.
- Research colloquia, College of Mathematics and Statistics, Shandong University at Weihai, P. R. China. 7/8/2009. Title: Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- Research colloquia, College of Mathematics Science, Shandong Normal University, P.R.China 7/3/2009. Title: Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- Research colloquia, Dept of Statistics, Purdue University, 10/9/2008. Title: Estimate long-term benefit in periodic cancer screening.
- Departmental Research Seminar, University of Louisville. April 2008. Title: Estimating Benefits Due to Fecal Occult Blood Test for Colorectal Cancer.
- Research incubation talk, School of Public Health and Information Sciences, University of Louisville. December 2007. Title: A Few Research Projects in Periodic Cancer Screening.
- Dept. of Bioinformatics and Biostatistics, University of Louisville. Louisville, KY. May, 2007. Title: Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- Dept. of Statistics, Kansas State University. Manhattan, KS. February, 2007. Title: Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- Dept. of Biostatistics, St. Jude Children's Research Hospital. Memphis, TN. Jan 2007. Title: Bayesian Inference of the Lead Time in Periodic Cancer Screening.
- Dept. of Mathematics, University of Mississippi, Oxford. MS. November 2006. Title: Estimate benefits for women in periodic breast cancer screening.
- Dept. of Math and Statistics, Mississippi State University. April 2006. Title: Bayesian Inference of the Lead Time in Periodic Cancer Screening.

- Institute of Mathematical Statistics, Peking University. P.R. China. June 2005. Title: MLE and Bayesian Inference of Age-Dependent Sensitivity and Transition Probability in Periodic Screening.
- School of Mathematics & System Science, Shandong University, May 2005, Jinan, P. R. China. Title: MLE and Bayesian Inference of Age-Dependent Sensitivity and Transition Probability in Periodic Screening.
- Dept. of Biostatistics, Univ. of Texas, M.D. Anderson Cancer Center, May, 2001. Title: Bayesian inference of age-dependent sensitivity, sojourn time and transition rate in cancer screening.
- Dept. of Math and Statistics, Mississippi State University, March 2001. Title: Testing the Independence of Two Periodic Diagnostic Tests.
- Dept. of Biostatistics and Applied Math., Univ. of Texas, M.D. Anderson Cancer Center, December, 2000. Title: Hypothesis Testing of Age-Specific Sensitivity and Age-Specific Mean Sojourn Time in Cancer Screening Test.
- Dept. of Biostatistics and Applied Math., Univ. of Texas, M.D. Anderson Cancer Center, July 2000. Title: Estimation and Inference of the Conditional Dependency on Cancer Screening Modalities.
- Dept. of Biostatistics, Univ. of Texas, M.D. Anderson Cancer Center, October, 1999. Title: NORM Thresholding Method in Wavelet Regression.
- Dept. of Statistics, Univ. of California, Riverside, October, 1999**.** Title**:** NORM Thresholding Method in Wavelet Regression.

Poster Presentation

- UT-KBRIN Bioinformatics Summit 2016. April 2015, Cadiz, KY. Poster: long term effects and over diagnosis via CT in lung cancer.
- Research!Louisville 2015. October 29, 2015. Title: long term effects and over diagnosis of CT scan in lung cancer.
- UT-KBRIN Bioinformatics Summit 2015. March 20-22, 2015, Buchanan, TN. Long term screening outcomes for aged people with a screening history.
- Brown Cancer Center Annual Retreat 2012. Oct. 26, 2012. Louisville, KY. The lead time distribution when lifetime is subject to competing risks in cancer screening.
- Brown Cancer Center Annual Retreat 2011. Oct. 28, 2011, Louisville, KY. Projection of Long-term Outcomes Using X-rays and Pooled Cytology in Lung Cancer Screening.
- Brown Cancer Center Annual Retreat 2011. Oct. 28, 2011, Louisville, KY. Efficacy of Dual Lung Cancer Screening by Chest X-ray and Sputum Cytology using Johns Hopkins Lung Project Data
- Research!Louisville 2011. October 13, 2011, Louisville, KY. Projection of Long-term Outcomes Using X-rays and Pooled Cytology in Lung Cancer Screening.
- Research!Louisville 2011. October 13, 2011, Louisville, KY. Efficacy of Dual Lung Cancer Screening by Chest X-ray and Sputum Cytology using Johns Hopkins Lung Project Data.
- Brown Cancer Center Annual Retreat 2010. October 2010, Louisville, KY. True early detection and over diagnosis in colorectal cancer screening.

- Brown Cancer Center Annual Retreat 2009. October 2009, Louisville, KY. A projection of over-diagnosis, true-benefit, no-benefit and unnecessary in periodic cancer screening.
- Research!Louisville 2009. October 2009, Louisville, KY. Bayesian inference of over-diagnosis and true-benefit in periodic cancer screening.
- Research!Louisville 2008. October 2008, Louisville, KY. Estimate long-term benefits in periodic cancer screening.
- Brown Cancer Center Annual Retreat 2008. October 2008, Louisville, KY. Estimate long-term benefit in periodic cancer screening.
- The 60th International Convention of Forest Products Society. Newport Beach, CA. June 25 – 28, 2006. Modeling moisture absorption process of wood-based composites under over-saturated moisture conditions using two-part equations.
- Intellectual Property Forum and Technical Expo. Jackson, MS, December 2004. Poster and Computer software demo, title: Estimate Benefits for Periodic Breast Cancer Screening.
- Poster section in ENAR 2005. Austin, TX. March 2005. Title: Variance component estimation using the ADAA model when genetic designs are partial and complete.

Teaching

1. ***Classroom Teaching***

Numbers in brackets indicate number of students responding to Instructor/Course Evaluation Questionnaire and mean score. These evaluations rank from 1-5, with 5 being the highest score.

At **Mississippi State University (2001-2007):**

Year	Semester	Courses Taught	
2001-2002	Fall	Intro Math Stat I, MA/ST 4543/6543	(11: 4.64)
	Fall	Stat Methods, ST8114	(22: 3.77)
	Spring	Intro Math Stat II, MA/ST 4573/6573	(7: 4.86)
	Spring	Applied Probability, ST 8533	(8: 4.75)
2002-2003	Fall	Intro Math Stat I, MA/ST 4543/6543	(13: 3.31)
	Fall	Stat Methods, ST8114	(32: 3.87)
	Spring	Intro Math Stat II, MA/ST 4573/6573	(10: 4.0)
	Spring	Applied Probability, ST 8533	(10: 4.0)
2003-2004	Fall	Prob. Random Process, MA 4533/6533	(17:3.47)
	Fall	Stat Methods, ST8114	(24: 4.08)
	Spring	Applied Probability, ST 8533	(10: 4.56)
	Spring	Intro Probability, ST/MA 4523/6523	(7: 4.29)
2004-2005	Fall	Statistical Computation, ST 8353	(6: 4.83)
	Fall	Intro Probability, ST/MA 4523/6523	(11: 4.45)
	Spring	Prob. Random Process, MA 4533/6533	(16: 3.81)
	Spring	Applied Probability, ST 8533	(7: 5.00)
2005-2006	Fall	Prob. Random Process, MA 4533/6533	(33: 3.36)
	Fall	Intro Probability, ST/MA 4523/6523	(10: 4.30)
	Spring	Prob. Random Process, MA 4533/6533	(21: 4.19)
2006-2007	Fall	Prob. Random Process, MA 4533/6533	N.A.*
	Fall	Intro to Statistical Inference MA/ST3123	N.A.*
	Spring	Prob. Random Process, MA 4533/6533	(24: 3.94)

*NA: Due to MSU students' evaluation form reformation, the evaluations were not available for Fall 2006.

At **University of Louisville (2007---Present):**

Year	Semester	Courses Taught	
2007-2008	Fall	Probability, PHST 661	(5: 4.84)
	Spring	Bayesian Inference, PHST 691	(6: 4.97)
2008-2009	Fall	Probability, PHST 661	(6: 5.00)
	Spring	Mathematical Statistics, PHST 662	(4: 4.68)
		Bayesian Inference, PHST 691	(6: 4.68)
2009-2010	Fall	Probability, PHST 661	(5: 4.84)
	Spring	Mathematical Statistics, PHST 662	(6: 4.80)
2010-2011	Fall	Probability, PHST 661	(3: 5.00)
	Spring	Mathematical Statistics, PHST662	(1: 4.00)
		Nonparametric Statistics, PHST 780	(5: 4.80)
2011-2012	Fall	Probability, PHST 661	(7: 5.00)
	Spring	Bayesian Inference, PHST 691	(3: 5.00)
2012-2013	Fall	Probability, PHST 661	(5:)
	Spring	Bayesian Inference, PHST 691	(1:)
		Mathematical Statistics, PHST662	(6:)
	Summer	Special Topics, PHST 671	(8:)
		Prob. modeling and stat. inference in cancer screening	
2013-2014	Fall	Survival Analysis, PHST 683	(4:)
	Spring	Mathematical Statistics, PHST662	(4:)
	Summer	Special Topics, PHST671	(5:)
		Prob. modeling and stat. inference in cancer screening	
2014-2015	Fall	Survival Analysis, PHST 683	(10:)
		Biostatistical Method I, PHST680	(16:)
	Spring	Advanced Clinical Trials, PHST 724	(3:)
		Mathematical Statistics, PHST662	(5:)
2015-2016	Fall	Survival Analysis, PHST 683	(4:)
		Biostatistical Method I, PHST680	(15:)
	Spring	Mathematical Statistics, PHST 662	(4:)
	Summer	Special Topics, PHST671	(5:)
		Prob. modeling and stat. inference in cancer screening	
2016-2017:	Fall	Multivariate Statistical Analysis, PHST 682	
		Survival Analysis, PHST 683	
	Spring	Bayesian Inference, PHST 691	
		Advanced Clinical Trials, PHST 724	

2. ***Currently I have one PhD student: Ms. Ruiqi Liu.***

3. ***Major Professor for M.S. Students in Statistics/Biostatistics, CREST program and MPH with a concentration in Biostatistics.***

At University of Louisville: (2007- present)

- Yinlu Chen. MS Biostat. Project: Breast Cancer Screening Model – Application to the Canadian Study. August 2009.
- Rona Jeannie Roberts (CREST program). Project: Effect of long acting naltrexone on adherence to recommendation for treatment. April, 2010.
- Chengxin Li. MS Biostat. Project: The statistical effects on measuring myocyte with different image zoom rates. August, 2010.
- Xinyuan Duan. MS Biostat. Project: Evaluate experiences necessary to achieve proficiency in advanced fiberoptic intubation skills-can we accelerate the learning curve with simulator training? December 2010.
- Muhammad Babar (CREST program). Project: Effect of remote telemedicine intensive care unit monitoring program on clinical outcomes. December 2011.
- Dianhong Luo. MS Biostat. Project: The trend and disparities in the diagnosis of breast cancer by mobile mammography at a comprehensive cancer center. August 2012.
- Vikranth Shetty. MS Biostat. Project: Analysis of microRNA microarray (MM chip) data for aging mice models. August 2012 (joint advisor with Dr. Shesh N. Rai).
- Jiying Ling. MS Biostat. Project: Preliminary assessment of a school-based healthy lifestyle program among rural children. May 2013.
- Sarah K. Kendrick. MS Biostat. Project: Simulation study for the lead time in cancer screening when human lifetime is a competing risk. May 2013.
- Alexander Lee. MPH. Project: May 2015.
- Erin Schumer. MPH. Project: May 2015.
- Charles Kimbrough. MPH. Project: May 2015.
- Stephen P. Furmanek. MPH. Project: May 2015.

At Mississippi State University: (2001-2007)

- Xuhong Liu: December 2002. Project title: Periodic Screening for Breast Cancer.
- Jixiang Wu: May 2003. Project title: Complex Trait Analyses by Mixed Linear Model Approach: Methodology and Application. Currently an assistant professor of Plant Science, South Dakota State University.
- Wen-hsiung (Richard) Chou: May 2003. Project title: Discrete Choice Modeling: Multinomial Logit Model.
- Dongyu Ying: May 2004. Project title: Statistical Inference for the Breast Cancer Control Data.
- Justin Shows: July 2004. Project title: Lead Time Estimation in Cancer Screening. Currently an assistant professor at Dept. of Mathematics and Statistics, Mississippi State University.
- Xiaoying Tan: December 2006. Project title: Applications in Periodic Cancer Screening Model -- MLE, MCMC Simulations and Bootstrap Sampling.
- Changshun Li: August 2007. Project title: A Review of Colorectal Cancer Screening with Fecal Occult Blood Test.

4. ***Minor Professor for MS Students***

YoungHa Ki	Business Administration, MSU	2004
Abdud Dahian	Biomedical Engineering, MSU	2005
Nga-Yi (Diana) Chan	Computer Science, MSU	2006

5. ***Member of M.S. Committee*** *Year degree granted*

Yuan Xiang	Stat. MSU	2001
Robin Luo	Stat. MSU	2002
Chunjie Dai	Stat. MSU	2002
Huiqin Yang	Stat. MSU	2002
Gensheng Shi	Stat. MSU	2002
Hui-Ping Chan	Stat. MSU	2002
Li Dong	Stat. MSU	2003
Liyan Xu	Stat. MSU	2003
Yi-Chen Chen	Stat. MSU	2003
Hongying Fan	Stat. MSU	2003
Kyoung Kim	Stat. MSU	2004
Zhenyu Liu	Stat. MSU	2005
Qi Yao	Stat. MSU	2006
Yijun Sun	Stat. MSU	2006
Shu-Wei Fang	Stat. MSU	2007
Wenjuan Song	Stat. MSU	2007
Xiaoyan Chu	Stat. MSU	2007
Chikelue I. Oragwu	CREST,UofL	2012
Mostafa O. El-Refai	CREST,UofL	2012
Ruiqi Liu	Biostatistics, UofL	2013
Archana Rai	Biostatistics, UofL	2013
Kristopher Gardner	Biostatistics, UofL	2014
Derek Childers	Biostatistics, UofL	2015

6. ***Member of Ph.D. Committee***

Jixiang Wu	Agronomy, MSU	2003
Raie-Kuan Chang	Education, MSU	2003
Rong Zhou	Computer Science, MSU	2005
Qinyu Liao	Business, MSU	2005
Lin Zhang	Business, MSU	2006
Xiaoqin Wu	Mathematics, MSU	2006
Johnnie Sue Cooper	Nursing, U. Mississippi Medical Center.	2008
Mourad Atlas	Bioinformatics and Biostatistics, UofL	2009
Vasyl Pihur	Bioinformatics and Biostatistics, UofL	2009
Jieru Xie	Bioinformatics and Biostatistics, UofL	2009
Christopher N. Barnes	Bioinformatics and Biostatistics, UofL	2010
Guanying Ru	Electrical and Computer Engineering,UofL	2014
Alex Cambon	Bioinformatics and Biostatistics, UofL	2014
Yubing Wan	Bioinformatics and Biostatistics, UofL	2014
Dake Yang	Bioinformatics and Biostatistics, UofL	2015
Xiaohong Li	Bioinformatics and Biostatistics, UofL	2015 (expected)
Jasmit Shah	Bioinformatics and Biostatistics, UofL	2015 (expected)

Computing Skills:

- Operating Systems: Unix/Linux, Windows.
- Programming Languages: C/C++, S-PLUS, SAS, FORTRAN, Java, etc.
- Others: Tex/LaTex, html, MinGW, X/Emacs, etc.