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CURRICULUM VITAE

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Education:

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|-------|---------------------|-------------------------------------|------|
| Ph.D. | Biostatistics | University of Washington | 1994 |
| | | Advisor: Norman Breslow | |
| M.S. | Statistics | University of Iowa | 1991 |
| B.S. | Applied Mathematics | Tsinghua University, Beijing, China | 1989 |

Experience:

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| 2008- | Co-ordinating Director, Program in Quantitative Genomics Harvard School of Public Health |
| 2005- | Professor Department of Biostatistics, Harvard University |
| 2002-2005 | Professor Department of Biostatistics, University of Michigan |
| 1999-2002 | Associate Professor Department of Biostatistics, University of Michigan |
| 1994-1999 | Assistant Professor Department of Biostatistics, University of Michigan |
| 1999-2005 | Member University of Michigan Comprehensive Cancer Center |
| 1999-2005 | Faculty Associate Center for Research on Ethnicity, Culture, and Health, University of Michigan |
| 1995-2005 | Faculty Associate Institute of Social Research, University of Michigan |
| 1993-1994 | Research Assistant Department of Biostatistics, University of Washington |
| 1991-1993 | Research Assistant Cardiovascular Research Unit, University of Washington |
| 1989-1991 | Teaching Assistant Department of Statistics, University of Iowa |
| 1987-1989 | Research Assistant Department of Applied Mathematics, Tsinghua University |

Awards and Honors:

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| 2009 | Mentoring Award | Harvard School of Public Health |
| 2008 | Janet L. Norwood Award for Outstanding Achievement of a Woman in Statistics | University of Alabama at Birmingham |
| 2008 | Nominee for the Everett Mendelsohn Excellence in Mentoring Award | Harvard University |
| 2008 | Best <i>Biometrics</i> Paper Award | <i>Biometrics</i> and International Biometrics Society |
| 2007 | Elected Fellow | Institute of Mathematical Statistics |
| 2007 | MERIT Award | National Cancer Institute |
| 2006 | Elected Member | International Statistical Institute |
| 2006 | COPSS Presidents' Award (for the outstanding statistician) | The Committee of Presidents of Statistical Societies (COPSS) |
| 2005 | A.M. (Honorary Degree) | Harvard University |
| 2002 | Mortimer Spiegelman Award (For the Outstanding Biostatistician) | American Public Health Association |
| 2002 | Noether Young Researcher Scholar Award | American Statistical Association |
| 2002 | Faculty Career Development Award | University of Michigan |
| 2000 | Elected Fellow | American Statistical Association |
| 1998 | Excellence in Teaching Award | School of Public Health University of Michigan |
| 1997 | First Award | National Cancer Institute |
| 1995 | Career Development Award for Women Faculty | University of Michigan |
| 1992 | Donovan J. Thompson Award | University of Washington |

Kenote/Distinguished/Named Lectures

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| 2011 | Yakovlev Lecture | University of Rochester, NY |
| 2011 | Keynote Speaker | Toxicogenomics Integrated with Environmental Sciences, Chapel Hill, NC |
| 2011 | Keynote Speaker | New Zealand Statistical Association Annual Conference, Auckland, NZ |
| 2009 | Myrto Lefkopoulou Distinguished Lecture | Harvard School of Public Health |
| 2009 | Distinguished Lecture | IMS Pacific-Rim Conference, Seoul, South Korea |
| 2009 | Donna J. Brogan Lecture Award | Emory University |
| 2007 | Taikang Lecture | 3rd International Chinese Mathematical Congress |
| 2007 | Myra Samels Lecture | Purdue University |
| 2005 | NSF ADVANCE Distinguished Lecture | Kansas State University |
| 2005 | Special Invited Lecture | Institute of Mathematical Statistics |
| 2004 | Keynote Speaker | IMS New Researcher Conference |

Professional Activities:

Editorship

Founding co-editor, *Statistics in Biosciences* (2009-)
Associate Editor, *Biometrika* (2008-2011)
Guest Editor, Special Issue in Honor of Norman E Breslow, *Life Time Data Analysis*, 2007
Associate Editor, *Statistica Sinica* (2006-)
Coordinating Editor, *Biometrics* (1/2003-12/2005)
Associate Editor, *Biometrics* (1997-2002)
Associate Editor, *Journal of the American Statistical Association*
 Applications and Case Studies (1999-2002)
Associate Editor, *Biostatistics* (2000-2002)
Editor, *Selected Topics in Biostatistics*,
 Encyclopedia of Life Support Systems, United Nations (2001)
Guest co-Editor, Special Issue on “Emerging Issues in Longitudinal Data”
 Statistica Sinica (2004)

National and International Committee Appointments

Chair, Committee of the Presidents of Statistical Societies, 2010-2012
Member, Board of Directors, National Institute of Statistical Sciences, 2010-2012
Member, Advisory Committee, National Children Study, 2011-2015
Council member, International Biometric Society, 2009-2014
Member, Joint Committee on Women in Mathematics, Institute of Mathematical Statistics
 and American Mathematical Society, 2008-2010
Editorial Representative, Executive Committee, International Biometric Society, 2004-2007
Member, Board of Directors, International Chinese Statistical Association, 2004-2006
Member, Advisory Committee, ENAR Young Researcher Workshop, 2006
Chair, Spiegelman Award Selection Committee, APHA, 2005
Member, Spiegelman Award Selection Committee, APHA, 2003-4
Advisory Board, Junior Researcher Workshop, ENAR, 2004
Member, Education Advisory Committee, ENAR, 2004
Member, Student Paper Awards Committee, ENAR, 2002-2005
Member, Nomination Committee, ENAR, 2001-2003
Member, Planning Committee, ENAR Junior Researcher Workshop, 2002
Member, Advisory Committee, Program in Environmental Statistics, Harvard SPH, 2001
Chair, Planning Committee, 2001 ENAR Junior Researcher Workshop, Charlotte
Member, ENAR Regional Advisory Board, 2000-2003
Member, ENAR Review Committee for the New NIH Grant Review Process, 1999

Scientific Advisory Committee Appointments

Member, External Advisory Committee, Quality Framework for Translational Medicine, Duke University, 2011-
Member, NIEHS Center, University of Michigan, 2011-
Member, NIEHS Center, Columbia University, 2009-
Member, Advisory Committee, Program in Environmental Statistics, Harvard SPH, 2001

National and International Conference Appointments

Program Committees:

- Chair, Program in Quantitative Genomics Annual Conference, 2011
- Member, Program Committee, International Biometric Conference, 2012
- Member, International Chinese Statistical Association, Applied Statistics Symposium, 2012
- Member, Program Committee, IMP-Pacific Rim Conference
- Member, Platform Presentation Selection Committee, Statistical Genetics and Genetic Epidemiology, Annual American Society of Human Genetics Meeting, Philadelphia, 2008
- Chair, Conference on Design and Analysis Issues in Genomic Studies in Population Sciences, Harvard University, Boston, 2007
- Chair, Conference on Emerging Statistical Methods in Observational Studies and Epidemiology, Seattle, 2006
- Member, Program Committee, 2006 IBC, Toronto
- Co-Program Chair, Emerging Issues in Longitudinal Data, AMS/IMS Joint Summer Research Conference in the Mathematical Sciences, 2002, South Hadley, MA.
- Program Chair, 2000 ENAR Meetings, Chicago

Invited Session Organizers and Chairs:

- Chair, Invited Session, 2011 JSM, Miami
- Chair, Invited Session, 2008 ENAR, Washington DC
- Roundtable Luncheon Leader on NIH Grant Applications, 2006 ENAR, Tampa
- Organizer and Chair, Invited Session on NIH Grant Review and Funding in Biostatistical Methods and Training, 2005, JSM
- Organizer and Chair, *Biometrics* Editor-Invited session, 2005, JSM
- Organizer and Chair, *Biometrics* Editor-Invited Session, 2005, ENAR
- Roundtable Luncheon Leader, Publishing, 2004 ENAR, Pittsburgh
- Organizer and Chair, Invited Session, 2004 JSM, Toronto
- Organizer and Chair, Special Panel on Exploring Roads to Successful Publishing, IBC, Cairns, 2004
- Organizer and Chair, Forum on NIH Statistical Grant Review and Funding Opportunities, ENAR, 2003, Tampa
- Organizer and Chair, Invited Session, 2003 JSM, San Francisco
- Roundtable Luncheon Leader, 2003, ENAR, Tampa
- Chair, IMS Medallion Lecture, 2003, ENAR/IMS, Tampa
- Chair and Organizer, Invited Session, 2003, ENAR, Tampa
- Chair, Invited Session, 2001 JSM, Atlanta
- Organizer, Invited Session, 2001 ICSA, Chicago
- Chair, Invited Session, 1999 ENAR Meetings, Atlanta
- Organizer, Invited Session, 1999 Joint Statistical Meetings, Baltimore

Data Safety and Monitoring Boards (DSMBs)

- Chair, DSMB of the Study of A Partnership To Control Asthma in Schools, NHLBI, 2003-2007
- Member, DSMB of the Apnea Positive Pressure Long-term Efficacy Study, NHLBI, 2003-2008.

Referee

The Annals of Statistics, Biometrika, Biometrics, Journal of the American Statistical

Association, Journal of Computational Statistics and Data Analysis, Journal of the Royal Statistical Society, Journal of Statistical Inference and Planning, The American Statistician, The Canadian Journal of Statistics, Sankhya, Sociological Methodology, Statistica Sinica, Statistics in Medicine, Nature Review, Plos Genetics, American Journal of Human Genetics, Journal of Clinical Oncology, Bioinformatics, BMC Bioinformatics.

Book Review

Springler

• **Grant Review**

- NIH BDMA Study Section, 2012
- NCI PO1 Grant Review Panel, 2011
- NCI U19 Grant Review Panel, 2010
- NCI Special Emphasis Panel, 2003-
- Canadian NRC Special Review Panel, 2009-
- NCI R13 review panel, 2008-
- NIH BMRD Study Section (Biostatistical Methods and Research Designs, previously SNEM-5), 2000-2006; permanent member, 2002-2006
- NSF Probability and Statistics Program
 - Panelist, Review Panel, 2007, 2012
 - Mail reviewer (1996-2006)
 - Panelist, Screening Panel, 2003
- Natural Sciences and Engineering Research Council of Canada (1999-present)

Memberships

American Statistical Association, International Chinese Statistical Association, International Biometric Society, Institute of Mathematical Statistics, American Human Genetic Society

Research Interests

- Analysis of high-dimensional "omics" data
- Statistical genetics and genomics
- Statistical methods for correlated (longitudinal/clustered, hierarchical and spatial) data
- Nonparametric (kernel and spline) and semiparametric regression methods
- Genetic Epidemiology
- Genes and Environment and Environmental Genomics
- "Omics" in Population Science
- Proteomics
- Measurement errors
- Random effects models and estimating equations
- Missing data
- Multiple outcomes
- Case-control and cohort studies
- Familial and spatial survival data

- Causal inference
- Group randomized trials
- Subject-matter applications: epidemiology, cancer, lung diseases, environmental health, woman health, cardiovascular disease, and sleep.

Publications which have received peer review:

1. Siscovick, D. S., Raghunathan, T. E., Psaty, B. M., Koepsell, T. D., Wicklund, K. G., **Lin, X.**, Cobb, L., Rautaharju, P. M., Copass, M. K., Wagner, E. H. (1994). Diuretic therapy for hypertension and primary cardiac arrest, *The New England Journal of Medicine*, 321, 1852-1857.
2. Breslow, N. E. and **Lin, X.** (1995). Bias correction in generalized linear mixed models with a single component of dispersion, *Biometrika*, 82, 81-91.
3. **Lin, X.** and Breslow, N. E. (1996). Bias correction in generalized linear mixed models with multiple components of dispersion, *Journal of American Statistical Association*, 91, 1007-1016.
4. **Lin, X.** and Breslow, N. E. (1996). Analysis of correlated binomial data in logistic-normal models. *Journal of Statistical Computation and Simulation*, 55,133-146.
5. **Lin X.** (1997). Variance components testing in generalized linear models with random effects. *Biometrika*, 84, 309-326.
6. **Lin, X.**, Raz, J., and Harlow, S. (1997). Linear mixed models with heterogeneous within-cluster variances. *Biometrics*, 53, 910-923.
7. **Lin X.** and Little R. J. A. (1997). Discussion of “Analysis of nonrandomly censored ordered categorical longitudinal data from analgesic trials,” by Sheiner L, Beal S. and Dunne A. *Journal of the American Statistical Association*, 92, 1245-1247.
8. Carroll R. J., **Lin X.** and Wang, N. (1997). Generalized Linear Mixed Measurement Error Models. *In Modeling Longitudinal and Spatially Correlated Data*, T. Gregoire, editor. Springer Verlag, New York.
9. Malow, B. A., Kushwaha, R., **Lin, X.**, Morton, K. L., Aldrich, M. S. (1997). Relationship of interictal epileptiform discharges to sleep depth in temporal lobe epilepsy. *EEG Clinical Neurophysiology*, 102, 20-26.
10. Wolfinger R. D., and **Lin X.** (1997). Two Taylor-series approximations methods for nonlinear mixed models. *Journal of Computational Statistics and Data Analysis*, 25, 465-490.
11. McElroy, P. D., Beier, J. C., Anyango, F. K., Oloo, A. J., **Lin, X.**, Beadle, C., Hoffman, S. L. (1997): Dose and time-dependent relationships between infective *Anopheles* inoculation and outcomes of *Plasmodium Falciparum* parasitemia among children in western Kenya. *American Journal of Epidemiology*, 145, 945-56.
12. Malow, B. A., Bowes, R. J., **Lin, X.** (1997). Predictors of Sleepiness in Epilepsy Patients (abstract). *Sleep Research*, 26, 568.

13. Sartor, C. I., Strawderman, M. H., **Lin, X.**, Kish, K. E., McLaughlin, P. W. Sandler, H. M. (1997). Rate of PSA rise predicts metastatic versus local recurrence after definitive radiotherapy. *International Journal of Radiation Oncology, Biology, Physics*, 38, 941-947.
14. Harlow, S. D., Campbell, B., **Lin, X.** and Raz, J. (1997). Ethnic difference in the length of the menstrual cycle during the post menarcheal period. *American Journal of Epidemiology*, 146, 572-580.
15. Malow, B. A., Bowes, R. J., **Lin, X.** (1997). Predictors of Sleepiness in Epilepsy Patients. *Sleep*, 20, 1105-1110.
16. Fung, K., **Lin, X.** and Krewski, D. (1998). The use of generalized linear mixed models in analyzing transgenic mouse mutation data. *Environmental and Molecular Mutagenesis*, 31, 48-54.
17. Wang N., **Lin X.**, Gutierrez R., and Carroll R. J. (1998). Bias analysis and SIMEX inference in generalized linear mixed measurement error models. *Journal of the American Statistical Association*, 93, 249-261.
18. Zhang D., **Lin X.**, Raz J., and Sowers M. (1998). Semiparametric stochastic mixed models for longitudinal data. *Journal of the American Statistical Association*, 93, 710-719.
19. Resnick, H. E., Valsania, P., Halter, J. B., **Lin, X.** (1998). Differential effects of obesity on diabetes risk among U.S. blacks and whites. *Diabetes Care*, 21, 1828-1835.
20. Malow, D., **Lin, X.**, Kushwaha, R. and Aldrich, M. S. (1998). Interictal spiking increases with sleep depth in temporal lobe epilepsy. *Epilepsia*, 39, 1309-1316.
21. **Lin, X.** and Zhang, D. (1999). Inference in generalized additive mixed model using smoothing splines. *Journal of the Royal Statistical Society, Series B*, 61, 381-400.
22. **Lin, X.** and Carroll, R. J. (1999). SIMEX variance component tests in generalized linear mixed measurement error models. *Biometrics*, 55, 613-619.
23. Wang, N. **Lin, X.**, and Gutierrez, R. (1999). A bias correction regression calibration approach in generalized linear mixed measurement error model. *Communication in Statistics, Series A, Theory and Methods*, 28, 217-232.
24. Sammel M., **Lin X.** and Ryan L. (1999). Multivariate linear mixed models for multiple outcomes. *Statistics in Medicine*, 18, 2479-2492.
25. Alexander JA, Banaszak-Holl J, Griffith JR, Lee SD, **Lin X**, Mick, SS. (1999). Do market-level hospital and physician resources affect small area variation in hospital use? *Medical Care Research and Review*, 56, 94-117.
26. McElroy, P. D., Nahlen, B. L., Hawley, W. A., Bloland, P. B., Kulie, F., Oloo, A. J., Harlow, S. D., **Lin, X.**, Lal, A. A. (1999). Rationale and approach to analyzing repeated hemoglobin measures obtained between birth and 4 years of age during a longitudinal study of malaria in western Kenya. *American Journal of Tropical Medicine and Hygiene*, 61, 932-940.

27. D'Aunno T., Folz-Murphy N. and **Lin, X.** (1999). Change in methadone treatment practices: Results from a national panel study, 1988-1995. *The American Journal of Drug and Alcohol Abuse*, 25, 681-699.
28. Zhang, D., **Lin, X.** and Sowers, M. (2000). Periodic semiparametric regression for longitudinal hormone data from multiple menstrual cycles. *Biometrics*, 56, 31-39.
29. **Lin, X.** and Carroll, R. J. (2000). Nonparametric function estimation for clustered data when the predictor is measured without/with error. *Journal of the American Statistical Association*, 95,520-534.
30. **Lin, X.**, Ryan, L, Sammel, M., Zhang, D., Padungtod, C., Xu, X. (2000). A scaled linear mixed model for multiple continuous outcomes. *Biometrics*, 56, 593-601.
31. Harlow, S. D., **Lin, X.**, and Ho, M. (2000). Analysis of menstrual diary data across the reproductive life span: application of the bipartite model approach and the importance of within-woman variance. *Journal of Clinical Epidemiology*, 53, 722-733.
32. Fisher, M. A., Eklund, S. A., James, S. A., **Lin, X.** (2001). Adverse events associated with hepatitis B vaccine in U.S. children<6 years old, 1993 and 1994. *Annals of Epidemiology*, 150, 13-21.
33. Resnick, H., Valsania, P., Halter, J. and **Lin, X.** (2000). Relationship of weight gain and weight loss on subsequent diabetes risk in obese adults. *Journal of Epidemiology and Community Health*, 54, 596-602.
34. Harlow, S. D., Schuman, P. S., Cohen, M., Ohmit, S. E., Cu-Uvin, S., **Lin, X.**, Anastos, K., Burns, D., Greenblatt, R., Minkoff, Ho., Muderspach, L., Rompalo, A., Warren, D., Young, M. A., Klein, R. S. (2000). The effect of HIV infection on menstrual dysfunction. *Journal of Acquired Immune Deficiency Syndrome and Human Retrovirology*, 24, 68-75.
35. Harlow, S. D., Ho, M. J., and **Lin, X.** (2000). Population difference in menstrual bleeding patterns during the menopausal transition. *Maturitas*, tentatively accepted.
36. Roy, J. and **Lin, X.** (2000) Latent variable models for longitudinal data with multiple continuous outcomes. *Biometrics*, 56,1047-1054.
37. Li, Y. and **Lin, X.** (2000). Covariate measurement errors in frailty models for clustered survival data. *Biometrika*, 87, 849-866.
38. Chervin, R. D., Zallek, S., **Lin, X.**, Hall, J. M., Sharma, N. and Hedger, K. M. (2000). Timing Patterns of Cluster Headaches and Association with Symptoms of Obstructive Sleep Apnea. *Sleep Research Online*, 3, 107-112.
39. **Lin, X.** and Carroll, R. J. (2001). Discussion of "Semiparametric and nonparametric analysis of longitudinal data," by D. Y. Lin and Z. Ying. *Journal of the American Statistical Association*, 96, 114-115.
40. Chervin, R. D., Nath, S. T., **Lin, X.**, Hall, J. M., Sharma, N., Hedger, K. (2000). Sleep disordered breathing in patients with cluster headache. *Neurology*, 54, 2302-2306.

41. **Lin, X.** and Carroll, R. J. (2001). Semiparametric regression for clustered data using generalized estimating equations, *Journal of the American Statistical Association*, 96, 1045-1056.
42. **Lin, X.** and Carroll, R. J. (2001). Semiparametric regression for clustered data. *Biometrika*, 88, 1179-1865.
43. Rogers, A. E., Aldrich, M. S., and **Lin, X.** (2001). A comparison of three different sleep schedules for reducing daytime sleepiness in narcolepsy. *Sleep*, 24, 385-91.
44. Roy, J. and **Lin, X.** (2002) Analysis of multivariate longitudinal outcomes with non-ignorable dropouts and missing covariates: changes in methadone treatment practices. *Journal of the American Statistical Association*, 97, 40-52.
45. **Lin, X.** and Zhang, D. (2001). Discussion of "Semiparametric nonlinear mixed effects models and their applications" by C. Ke and Y. Wang. *Journal of the American Statistical Association*, 96, 1288-1291.
46. Welsh, A. H., **Lin, X.** and Carroll, R. J. (2002). Marginal longitudinal nonparametric regression: Locality and efficiency of spline and kernel methods. *Journal of the American Statistical Association*, 97, 482-493.
47. Bristol, K., Natarajan A., **Lin, X.**, Malow, B. (2002). The effect of long-term video-EEG monitoring on mood in epilepsy patients. *Epilepsy and Behavior*, 2, 433-440.
48. Bainbridge, K. E., Sowers M. F., Crutchfield M., Harlow S. D., Lash R. W., **Lin X.**, and Jannausch M. (2002). A six-year natural history of bone loss among pre-, peri- and early postmenopausal women. *American Journal of Epidemiology*, 156, 410-417.
49. Natarajan A., Marzec, M. L., **Lin, X.**, Minecan, D., Malow, B. (2002). Interictal epileptiform discharges do not change prior to seizures during sleep. *Epilepsia*, 43, 46-51.
50. Epstein, M. **Lin, X.** and M. Boehnke (2002). Ascertainment-adjusted parameter estimates revisited. *American Journal of Human Genetics*, 70, 886-895.
51. Li, Y. and **Lin, X.** (2003). Functional inference in frailty measurement error models using the SIMEX approach. *Journal of the American Statistical Association*, 98, 191-203.
52. Zhang, D. and **Lin, X.** (2003). Hypothesis testing in semiparametric additive mixed models. *Biostatistics*, 4, 57-74.
53. Li, Y. and **Lin, X.** (2003). Testing the correlation for clustered categorical and censored discrete failure time data when covariates are measured without/with errors. *Biometrics*, 59, 25-35.
54. Janevic, M. R., Janz, N. K., Dodge, J. A., **Lin, X.**, Pan, W., Sinco, B. R., Clark, N. M. (2003). The role of choice in health education intervention trials: A review and case study. *Social Science and Medicine*, 57, 1581-1594.
55. Roy, J., **Lin, X.**, and Ryan, L. (2003). Scaled Marginal Models For Multiple Continuous Outcomes. *Biostatistics*, 4, 371-384.

56. Janevic, M. R., Janz, N. K., Dodge, J. A., Wang, Y., **Lin, X.**, Clark, N. M. (2004) Longitudinal effects of social support on the health and functioning of older women with heart disease. *The International Journal of Aging and Human Development*, 59, 153-175.
57. Wheeler, J. R. C., Janz, N. K., Dodge, J. A., **Lin, X.**, Pan, W., Clark, N. (2003). Can disease self-management programs reduce health care costs? The case of older women and heart disease. *Medical Care*, 41, 706-715.
58. Epstein, M. **Lin, X.** and M. Boehnke (2003). A tobit variance-component method for linkage analysis of truncated trait data. *American Journal of Human Genetics*, 72, 611-620.
59. **Lin, X.** (2005). Biostatistical Methods and Research Designs. *Encyclopedia of Life Support Systems*, in press. Developed under the auspices of the UNESCO, Eolss Publishers, Oxford, UK.
60. Harlow, S. D., Chohen, M., Ohmit, S. E., Cu-Uvin, S., **Lin, X.**, Greenblatt, R., Gurtman A., Khalsa A., Minkoff H., Young, M. A., Klein, R. S. (2003). Substance use and psychotherapeutic medications: A likely contributor to menstrual disorders in HIV-seropositive women. *American Journal of Obstetrics and Gynecology*, 881-886.
61. Janz, N. K., Dodge, J. A., Janevic, M. R., **Lin, X.**, Donaldson, A. E., Clark, N. M. (2004) Understanding and reducing stress and psychological distress in older women with heart disease. *The Journal of Women and Aging*, 16, 19-38.
62. Linton O. B., Mammen E., **Lin X.**, Carroll, R. J. (2004). Accounting for correlation in marginal longitudinal nonparametric regression. *Proceedings of the Second Seattle Symposium in Biostatistics: Analysis of Correlated Data*, D. Lin and P. Heagerty (Editors), 23-34.
63. Bainbridge, K. E., Sowers, M. **Lin, X.**, Harlow, S. (2004) Risk factors for low bone mineral density and the six-year rate of bone loss among pre- and postmenopausal women. *Osteoporos International*, 15, 439-446.
64. Lisabeth, L., Harlow, H., Gillespie, B., **Lin X.**, Sowers, M. F. (2004). Staging Reproductive Aging: A Comparison of Proposed Bleeding Criteria for the Menopausal Transition. *Menopause*, 11, 186-197.
65. Li, L, **Lin X.**, Brown, M. B., Gupta S., Lee, K. H. (2004) A population pharmacokinetic model with time-dependent covariates measured with error. *Biometrics*, 60, 451-460.
66. **Lin, X.**, Wang, N., Welsh, A. and Carroll, R. J. (2004) Equivalent Kernels of Smoothing Splines in Nonparametric Regression for Clustered Data. *Biometrika*, 91, 177-193.
67. Weatherwax, K., **Lin, X.**, Marzec, M. M., Malow, B. A. (2003). Obstructive sleep apnea in epilepsy patients: The sleep apnea scale of the sleep disorders questionnaire (SA-SDQ) is a useful screening instrument for obstructive sleep apnea in a disease-specific population. *Sleep Medicine*, 4, 517-521.
68. Carroll, R. J., Hall, P., Apanasovich, T. V., and **Lin, X.** (2004) Histospline method in nonparametric regression models with application to longitudinal/clustered data. *Statistical Sinica*, 14, 649-674.

69. Hogan, J. W., **Lin, X.**, Herman, B. (2005) Mixtures of Varying Coefficient Models for Longitudinal Data with Discrete or Continuous Non-ignorable Dropout. *Biometrics*, 60, 854-864.
70. Lisabeth, L., Harlow, H., **Lin X.**, Gillespie, B., Sowers, M. F. (2004). Sampling strategies for prospective studies of menstrual function. *American Journal of Epidemiology*, 159, 795-802.
71. Nan, B., **Lin, X.**, Lisabeth, L. D., Harlow, S. (2005). A varying-coefficient Cox model for the effect of age at a marker event on age at menopause. *Biometrics*, 61, 576-583.
72. Cabana, M. D., Slish, K. K., Lewis, T. C., Brown, R., Nan, B., **Lin, X.**, Clark, N. (2004) Parental management of asthma triggers within a child's environment. *The Journal of Allergy and Clinical Immunology*, 114, 352-357.
73. Wang, N., Carroll, R. J. and **Lin, X.** (2005). Efficient semiparametric marginal estimation for longitudinal/clustering data. *Journal of the American Statistical Association*, 100, 147-157.
74. Bellamy, S. L., Li, Y. **Lin, X.**, and Ryan, L. M. (2005) Note on the PQL bias in estimating cluster-level covariate effects in group-randomized trials. *Statistica Sinica*, 15, 1015-1032.
75. Cabana, M. D., Slish, K. K., Nan, B., **Lin, X.**, Clark, N. (2005) Asking the correct question to assess asthma symptoms. *Clinical Pediatrics*, 44(4):319-325.
76. Roy, J. and **Lin, X.** (2005). Missing Covariates in Longitudinal Data With Informative Dropouts: Bias Analysis and Inference. *Biometrics*, 61, 837-846.
77. Cassidy, A. E., Bielak, L. F., Zhou, Y., Sheedy, P. F., Turner, S. T., Breen. J. F., Araoz, P. A., **Lin, X.**, Peyser, P. (2005) Progression of Subclinical Coronary Atherosclerosis Does Obesity Make a Difference? *Circulation*, 111, 1877-1882.
78. Lewis, T. C., Robins, T. G., Dvornich J. T., Yip, F. Y., Mentz, G. B., **Lin, X.**, Parker, E. A., Keeler, G. J., Israel. B. A., Gonzalez, L., Hill, Y. (2005) Current levels of air pollution on Detroit are associated with changes in lung function among asthmatic children. *Environmental Health Perspectives*, 113, 1068-1075.
79. Pan, W., **Lin, X.** and Zeng, D. (2006). Structural inference in transition measurement error models for longitudinal data. *Biometrics*, 62, 402-12.
80. Li, Y. and **Lin, X.** (2006) Semiparametric normal transformation models for spatially correlated survival data. *Journal of the American Statistical Association*. 101, 591-603.
81. Nan, B., **Lin, X.**, Lisabeth, L. D., and Harlow, S. D. (2006) Piece-wise constant cross-ratio estimates for association of age at a marker event and age at menopause. *Journal of the American Statistical Association*. 101, 65-77.
82. **Lin, X.** and Carroll, R. J. (2006) Semiparametric estimation in general repeated measures problems. *Journal of the Royal Statistical Society, Series B*, 68, 69-88.

83. Parker, E. A., Lewis, T. C., Israel B. A., Robins, T. G., Mentz G., **Lin, X.**, Brakefield-Caldwell, W., Edgren, K. K., Salinas, M., Keeler, J., Dvonch T., Yip F. (2008) Evaluation of Community Action Against Asthma: A Community Health Worker Intervention to Improve Children's Asthma-Related Health by Reducing Household Environmental Triggers for Asthma. *Health Education and Behavior*, 35, 376-395.
84. Cabana, M. D., Slish, K. K., Evans, D., Mellins, R., Brown, R. W., **Lin, X.**, Kaciroti, N., and Clark, N. M. (2006) Impact of physician asthma care education on patient outcomes. *Pediatrics*, 117(6):2149-57.
85. Su, L., Zhou, W., Asomaning, K., **Lin, X.**, Wain, J., Lynch, T., Liu, G., Christiani, D. (2006). Genotypes and haplotypes of matrix metalloproteinases and the risk of lung cancer. *Carcinogenesis*, 27(5):1024-9.
86. Grewal, J., Sowers, M. R., Randolph, J. F., Harlow, S. D., **Lin, X.** (2006) Low Bone Mineral Density in the Early Menopausal Transition: Role For Ovulatory Function. *Journal of Clinical Endocrinology and Metabolism*, 91, 3780-5.
87. Diez Roux, A.V., Auchincloss, A. H., Astor, B., Barr, G. Cushman, M., Dvonch, T., Jacobs, D. R., Kaufman J., **Lin, X.**, Samson, P. (2006). Recent exposure to particulate matter and C-reactive protein concentration in the multiethnic study of atherosclerosis. *American Journal of Epidemiology*, in press.
88. Zhang, D. **Lin, X.** and Sowers, M. F. (2007) Assessing the effects of reproductive hormone profiles on bone mineral density using functional two-stage mixed models. *Biometrics* 63, 351-362.
89. Liu, D., **Lin, X.**, Ghosh, D. (2007) Semiparametric regression for multi-dimensional genomic pathway data: Least square kernel machines and linear mixed models. *Biometrics*, 63, 1079-1088. **This paper won the 2007 Best Biometrics Paper Award.**
90. Schipper, M., Taylor, J. and **Lin, X.** (2007) Bayesian generalized monotonic functional mixed models for the effects of radiation dose histograms on normal tissue complications. *Statistics in Medicine*, 26, 4643-4656.
91. **Lin, X.** (2007) Estimation using penalized quaslikelihood and quasi-pseudo-likelihood in Poisson mixed models. *Life Time Data Analysis*, 13, 533-544.
92. Cassidy-Bushrow, A. E., Bielak, L. F., Sheedy, P. F., Turner, S. T., Kullo, I. J., **Lin, X.**, Peyser, P. (2007) Coronary artery calcification progression is heritable. *Circulation*, 116, 23-31.
93. Schipper, M., Taylor, J. and **Lin, X.** (2008) Generalized monotonic functional mixed models with application to modeling normal tissue complications. *Journal of the Royal Statistical Society, Series C*, 57,149-163.
94. Harezlak, J., Wang, M., Christiani, D, and **Lin, X.** (2007). Quantitative quality-assessment techniques for comparing fractionation and depletion methods in SELDI-TOF mass spectrometry experiments. *Bioinformatics*, 23, 2441-2448.
95. Clark, N., Gong, M., Wang, S., **Lin, X.**, Bria, W., and Johnson, T. (2007) A randomized trial of a self-regulation intervention for women with asthma. *Chest*, 132, 88-97.

96. Ji, H., Ramsey, M. R., Hayes, D. N. Fan, C., McNamara, K., Kozlowski, P., Torriced, C., Wu, M. C., Shimamura, T., Perera, S., Liang, M.C., Cai, D., Maumov, G., Bao, L., Contreras, C., Li, D., Chen, L., Krishnamurthy, J., Koivunen, J., Chirieac, L. R., Padera, R., Bronson, R. T., Lindeman, N., Christiani, D. C., **Lin, X.**, Shapiro, G. I., Janne, P. A., Johnson, B., Meyerson, M., Kwiatkowski, D., Castrillon, D. H., Bardeesy, N., Sharpless, N., and Wong, K. (2007). LKB1 modulates lung cancer differentiation and metastasis. *Nature*, 448, 807-10.
97. Zhang, D. and **Lin, X.** (2008) Variance Component Testing in Generalized Linear Mixed Models For Longitudinal/Clustered Data and Other Related Topics. *Model Uncertainty in Latent Variable and Random Effects Models*. Springer: David Dunson, Editor, in press.
98. Ye, W., **Lin, X.** and Taylor, J. (2008) Semiparametric modeling of longitudinal measurements and time-to-event data—A two-stage regression calibration approach. *Biometrics*, 64, 1238-1246.
99. Long, Q., Little, R. J., **Lin, X.** (2008) Causal inference in hybrid intervention trials involving treatment choice. *Journal of the American Statistical Association*. 103, 474-484.
100. Yu, Z. and **Lin, X.** (2008) Nonparametric regression using local kernel estimating equations for correlated failure time data. *Biometrika*, 95, 123-137.
101. **Lin, X.** and Carroll, R. J. (2008) Nonparametric and semiparametric regression: Introduction and Overview. *Advanced Longitudinal Data Analysis*, Chapman and Hall, M. Davidian, Fitzmaurice, G., Molenbergh, G., Verbeke, G., editor, 191-198.
102. **Lin, X.** and Carroll, R. J. (2008) Nonparametric and semiparametric regression for Longitudinal Data. *Advanced Longitudinal Data Analysis*, Chapman and Hall, M. Davidian, Fitzmaurice, G., Molenbergh, G., Verbeke, G., editor, 199-222
103. Zeng, D., Lin, D., and **Lin, X.** (2008) Semiparametric linear transformation models with random effects for clustered time data. *Statistica Sinica*, 18, 355-377.
104. Heist, R., Zhai, R., Liu, G., Zhou, W., **Lin, X.**, Su, L., Asomaning, K., Lynch, T., Wain, J., Christinai, D. (2008). VEGF Polymorphism and Survival in Early Stage Non-Small Cell Lung Cancer. *Journal of Clinical Oncology*, 26, 856-862.
105. Harezlak, J., Wu, M. C., Wang, M., Schwartzman, A., Christiani, D. C., and **Lin, X.** (2008) Biomarker discovery for arsenic exposure using functional data analysis and feature learning of mass spectrometry proteomic data. *Journal of Proteome Research*, 7, 217-224.
106. Kwee, L, Liu, D., **Lin, X.**, Ghosh, D., and Epstein, M. (2008) A powerful and flexible multilocus association test for quantitative traits. *American Journal of Human Genetics*, 82, 386-397.
107. Sanda, M. G., Dunn, R. L., Michalski, J., Sandler, H. M., Northouse, L., Hembroff, L., **Lin, X.**, Greenfield, T., Litwin, M. S., Saigal, C. S., Mahadevan, A., Klein, E., Kibel, A., Pisters, L., Kuban, D., Kaplan, I., Ciezki, J., Shah, N., Wei, J. T. (2008) HRQOL and satisfaction with cancer treatment outcome from the perspective of early stage prostate cancer patients and their spouse/partners. *New England Journal of Medicine*, 358, 1250-1261.

108. Nan, B. and **Lin, X.** (2008) Analysis of case-control age-at-onset data using a modified case-cohort method. *Biometrical Journal*, 50, 311-320.
109. Li, Y., Prentice, R. L. and **Lin, X.** (2008) Maximum likelihood estimation in semi-parametric normal transformation models for bivariate survival data. *Biometrika*, 95, 947-960.
110. Clark, C., Janz, N.K., Dodge, J. A., Mosca, L., **Lin, X.**, Long, Q., Little R. J., Wheeler, J. C., Keteyian, S., Liang, J. (2008) The Effect of Patient Choice of Intervention on Health Outcomes. *Contemporary Clinical Trials*, 29, 679-686.
111. Ye, W., Lin, X. and Taylor, J. (2008). A penalized likelihood approach to joint modeling of longitudinal measurements and time to event data. *Statistics and Its Interface*, 1, 33-45.
112. Zhai, R., Liu, G., Zhou, W., Lynch, T., Wain, J., Su, L., Asomaning, K., **Lin, X.**, Christiani, D. (2008). Vascular endothelial growth factor genotypes, haplotypes, gender, and the risk of non-small cell lung cancer. *Clinical Cancer Research*, 14, 612-617.
113. Liu, D., Ghosh, D. and **Lin, X.** (2008) Estimation and Testing for the Effect of a Genetic Pathway on a Disease Outcome Using Logistic Kernel Machine Regression via Logistic Mixed Models. *BMC Bioinformatics*, 9, 292.
114. Ter-Minassian¹, M., Zhai, R., Asomaning, K., Su, L., Zhou, W., Liu¹, G., Heist, R., Lynch, T., Wain, J. C., **Lin, X.**, DeVivo, I., Christiani, D. C. (2008). Apoptosis gene polymorphisms, age, smoking and the risk of non-small cell lung cancer. *Carcinogenesis*, 29:2147-52.
115. Zhai, R., Liu, G., Asomaning, K., Su, L., Lynch, T. J., Wain, J. C., **Lin, X.**, Christiani, D. C. (2008) Genetic polymorphisms of VEGF, interactions with cigarette smoking exposure and esophageal adenocarcinoma risk, *Carcinogenesis*, 29: 2330-4.
116. Wu, M. and **Lin, X.** (2009). Prior biological knowledge based approaches for the analysis of genome-wide expression profiles using gene sets and pathways. *Statistical Methods in Medical Research*, 18, 577-593.
117. Li, Y., Tang, H. and **Lin, X.** (2009). Covariate measurement error in spatial linear mixed models. *Statistica Sinica*, 19, 1077-1093.
118. Huang, Y. T., Chirieac, L. R., **Lin, X.**, Heist, R., Skaug, V., Haugen, A., Wu, M., Wang, Z., Su, L., Asomaning, K., Christiani, D. (2009) Genome Wide Analysis of Survival in Early-Stage Non-Small Cell Lung Cancer. *Journal of Clinical Oncology*, 27, 2660-2667.
119. Clark, N., Janz, N. K., Dodge, J. A., **Lin, X.**, Trabert, B. L., Kaciroti, N., Mosca, L., Wheeler, J. R., and Keteyian, S. (2009) Heart disease management by women: Does intervention format matter? *Health Education and Behavior*, 36, 394-409.
120. Pan, W., Zeng, D. and **Lin, X.** (2009) Semiparametric transition measurement error models for longitudinal data. *Biometrics*, in press.

121. Wang, M, Chen, F., Zhai, R, Zhang, L, Su, L, **Lin, X.**, Thompson, B. T., and Christiani, D. C. (2009). Plasma Neutrophil Elastase and Elafin Imbalance is Associated with Acute Respiratory Distress Syndrome (ARDS) Development. *PLoS ONE*, 4(2): e4380.
122. Little, R., Long, Q. and **Lin, X.** (2009) A comparison of methods for estimating the causal effect of a treatment in randomized clinical trials subject to noncompliance. *Biometrics*, 65, 640-649.
123. Epstein, M. P., Hunter, J. E., Allen, E. G., Sherman, S. L., **Lin, X.**, Boehnke, M. (2009) A variance-component framework for pedigree analysis of continuous and categorical outcomes. *Statistics in Biosciences*, 2, 181-198.
124. Wu, M.,C., Zhang, L., Wang, Z., Christiani, D. C., **Lin, X.** (2009) Sparse linear discriminant analysis for simultaneous gene set/pathway significance test and gene selection.. *Bioinformatics*, 25,1145-1151.
125. Li, Y., **Lin, X.** and Muller, P. (2011) Bayesian inference in semiparametric mixed models for longitudinal data. *Biometrics*, 66, 70-78.
126. **Lin, X.** and Dicker, L. (2009) Discussion of “Parametric Versus Nonparametrics: Two Alternative Methodologies,” by E. L. Lehmann, *Journal of Nonparametric Statistics*, in press.
127. Ye, W., Taylor, J. M., **Lin, X.** (2010). Simulating Pseudo Data for a Two-stage Approach in Joint Modeling of Longitudinal Measurements and Time-to-Event Data. *Biometrics*, 66, 987-991.
128. Lakhali-Chaieb, L., R. Cook, **Lin, X.** (2010). Inverse probability of censoring weighted estimates of Kendall’s τ for gap time analyses. *Biometrics*, 66, 1145-1152.
129. Paulus JK, Asomaning K, Kraft P, **Lin, X.**, Johnson BE, Christiani DC. (2010) Parity and Risk of Lung Cancer. *American Journal of Epidemiology*. 171, 557-563.
130. Long, Q., Little, R. and **Lin, X.** (2010) Estimating Causal Effects in Trials Involving Multi-Treatment Arms Subject to Non-compliance: A Bayesian Framework. *Journal of the Royal Statistical Society, Series C*, 59(3), 513-531.
131. Zhai, R., Chen, F., Liu, G., Su, L, , Asomaning, K., Kulke, M., **Lin, X.**, Heist, R.S., Lynch, TJ, Wain, JC, Christiani, D.C. (2010) Interactions among genetic variants in apoptosis pathway genes, acid reflux, BMI, and smoking indicate two distinct etiological patterns of esophageal adenocarcinoma. *Journal of Clinical Oncology*, 28, 2445-2451.
132. Laohaudomchok, W., **Lin, X.** , Herrick, R., Christiani, D., Weisskopf, M. (2010) Assessment of Occupational Exposure to Welding Fumes by Portable X-ray Fluorescence Spectrometer. *Journal of Occupational & Environmental Hygiene* , 7(8):456-65.
133. Laohaudomchok, W., **Lin, X.**, Herrick, RF, Fang, SC, Christiani, D., Weisskopf, M. (2010) Neuropsychological effects of low-level manganese exposure in welders *Neuro Toxicology*, in press.

134. Wu, M. C., Kraft, P., Epstein, M. P., Taylor, D., M., Chanock, S. J., Hunter, D., J., and **Lin, X.** (2010) Powerful SNP Set Analysis for Case-Control GenomeWide Association Studies. *American Journal of Human Genetics*, 86, 929-942.
135. Liu, C., Wu, M., Chen, F., Ter-Minassian, M., Asomaning K., Zhai, R., Wang, Z., Su, L., Heist, R., Kulke, M., **Lin, X.**, Liu, G., Christiani, D. (2010) A large scale genetic association study of esophageal adenocarcinoma risk. *Carcinogenesis*, 31, 1259-1263.
136. Wang, L., Rotnitzky, A. and **Lin, X.** (2010) Nonparametric regression with missing outcomes using weighted kernel estimating equations. *Journal of the American Statistical Association*, 105, 1035-1146.
137. Locke AE, Dooley KJ, Tinker SW, Cheong SY, Feingold E, Allen EG, Freeman SB, Torfs C, Cua CL, Epstein MP, Wu MC, **Lin X**, Capone G, Sherman SL, Bean LJH. (2010) Variation in folate pathway genes contributes to risk of congenital heart defects among individuals with Down syndrome. *Genetics Epidemiology*, 34, 613-623.
138. Cai, T., Tonini, G. and **Lin, X.** (2011). Kernel machine approach to testing the significance of multiple genetic markers for risk prediction. *Biometrics*, 67, 975-986.
139. Dicker, L., **Lin, X.**, Ivanov, A. R. (2010) Increased power for the analysis of label-free LC-MS/MS proteomic data by combining spectral counts and peptide peak attributes. *Molecular and Cellular Proteomics*, doi: 10.1074/mcp.M110.002774.
140. Maity, A. and **Lin, X.** (2011) Powerful tests for gene effects in the presence of gene-gene interactions in a gene set using garrotte kernel machines. *Biometrics*, 67, 1271-1284.
141. Wu, M. C., Cai, T., **Lin, X.** (2010) Permutation tests for regression coefficients in regularized regression. *Biometrics*, revision invited.
142. Schwartzman, A. and **Lin, X.** (2011) The Effect of Correlation in False Discovery Rate Estimation. *Biometrika*, 98, 199-214.
143. Li, Y., Müller, P. and **Lin, X.** (2011). Center-Adjusted Inference for a Nonparametric Bayesian Random Effect Distribution, *Statistical Sinica*, 21, 1201-1223.
144. Hu, T., Nan, B., **Lin, X.**, and Robins, J. (2011). Time Dependent Cross-Ratio Estimation. *Biometrika*, 98, 341-354. .
145. Zhao, R., M. Ter-Minassian, J. Wu, M, Wu, L, Su, R. Hecca, Y. Zhao, G. u, **Lin, X.**, D. Christiani (2011) Interactions between Environmental Factors and Polymorphisms in Angiogenesis Pathway Genes in Esophageal Adenocarcinoma Risk: A Case-Only Study. *Cancer*, in press.
146. Naylor, M. G., **Lin, X.**, Weiss, S. T., Raby, B. A., Lange, C. (2010) Using Canonical Correlation Analysis to Discover Genetic Regulatory Variants. *Plos One*, 5, e10395.
147. Fu, S., Li, P., Yang, L., Hoffman, O., Dicker, L., Hide, W., **Lin, X.**, Watkins, S., Ivanov, A Hotamisligil, S. G. (2011). Organelle-Specific Proteomics and Lipidomics Reveal Altered Hepatic Lipid Composition and SERCA Function as a Cause of ER Stress in Obesity. *Nature*, 473, 528531.

148. Paulus JK, Zhou W, Kraft P, Johnson BE, **Lin X**, Christiani DC. (2011) Haplotypes of estrogen receptor-beta and risk of non-small cell lung cancer in women. *Lung Cancer*, 71, 258-263.
149. Yu, Z and **Lin, X.** (2011) Semiparametric regression with time dependent coefficients for clustered failure time data, *Statistica Sinica*, 20, 853-870.
150. Wu, M. C., Lee, S., Cai, T., Li, Y., Boehnke, M. and **Lin, X** (2011) Rare Variant Association Testing for Sequencing Data Using the Sequence Kernel Association Test (SKAT). *American Journal of Human Genetics*, 89, 82-93.
151. Ter-Minassian, et al (2011) Genetic variability in the metabolism of the tobacco-specific nitrosamine 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) to 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol (NNAL), *International Journal of Cancer*, under revision.
152. Lin, X., Cai, T., Wu, M., Liu, G., and Christiani, D. and **Lin, X.** (2011) Kernel Machine SNP-set Analysis for Censored Survival Outcomes in Genome-wide Association Studies. *Genetic Epidemiology*, 35, 620-631.
153. Ionita-Laza, I., Makarov, V., Yoon, S., Raby, B., Buxbaum, J., Nicolae, D. L., **Lin, X.**(2011) Finding genes in Mendelian disorders using sequence data: methods and applications. *American Journal of Human Genetics*, 89, 701-712,
154. Huang, Y. T., **Lin, X.**, Liu, Y., Chirieac, L. R., McGovern, R., Wain, J. C., Heist, R. S, Skaug, V., Zienolddiny, S., Haugen, A., Su, L., Fox, E. D., Wong, K. K., and David C. Christiani (2011) Cigarette Smoking Increases Copy Number Alterations in Non-Small Cell Lung Cancer, *Proceedings of the National Academy of Sciences*, 108:16345-16350. doi: 10.1073/pnas.1102769108.
155. Wang, L, Rotnizky, A., Lin, X., Millikan, R., and Thall, P. (2012) Evaluation of Viable Dynamic Treatment Regimes in a Sequentially Randomized Trial of Advanced Prostate Cancer (with discussions). *Journal of American Statistical Association*, in press.
156. Huang, Y. T, Lin, X., Chirieac, L. R., McGovern, R., Wain, J. C., Heist, R. S., Skaug7, Zienolddiny, V. S., Haugen, A., Su, L., and Christiani1, D. C. (2011) Impact of Disease Development, Genomic Location and Biological Function on Copy Number Alterations of Non-Small Cell Lung Cancer. *Plos One*, in press.
157. Dicker, L. and **Lin, X.** (2011) Variable selection using seamless L0 penalty. *Statistica Sinica*, in press.
158. Cai, T., **Lin, X.** and Carroll, R. (2011) Identifying genetic marker sets associated with phenotypes via an efficient adaptive score test. *Biostatistics*, under revision.
159. Lee, S., Epstein, M., Duncan, R. and **Lin, X.** (2012) Sparse principal component analysis for identifying ancestry-informative markers in genome-wide association studies. *Genetic Epidemiology*, in press.
160. VanderWeele, T., Asomaning, K., Christiani, D. C. and **Lin, X.** (2012). Effect of genetic variants on 15q25.1 on lung cancer for smokers but not through smoking. *American Journal of Epidemiology*, DOI: 10.1093/aje/kwr467.

161. Yu, Z., **Lin, X.**, and Tu, W. (2012) Additive frailty models for correlated survival data with application to sexually transmitted infection data. *Biometrics*, in press.
162. Choi, H., Wang, L., **Lin, X.**, Spengler, J. D., and Perera, F. P. (2012) Window of Heightened Vulnerability to Airborne Carcinogenic Polycyclic Aromatic Hydrocarbon on Fetal Growth: distinguish the window of vulnerability from the window of exposure, *Plos one*, revision invited.

Current Grants:

Grants served as the Principal Investigator:

NCI, P.I. Xihong Lin, 35% Effort
 R37 CA76404-12 (MERIT Award), 2007-2015, \$1,400,000
 Statistical Methods for Correlated and High-dimensional Biomedical Data

NCI, PI Xihong Lin, 15%
 P01 CA134294, 2008-2013, \$3,500,000
 Statistical Informatics in Cancer Research

NIGMS, PI Xihong Lin
 T32, 2010-1014
 Joint Interdisciplinary Training Grant in Biostatistics and Computational Biology

NIEHS/NHGRI, PI/co-PIs Marianne Wessling-Resnick/Xihong Lin/Tom Smith
 T32, 2008-2013
 Training grant in Gene and Environment

NIEHS/EPS, Biostatistics and Bioinformatics Core, PI Xihong Lin
 P42 ES016454, 2010-2014
 Superfund Metal mixtures, Biomarkers and Neurodevelopment

NCI, PI/co-PIs Amy Herring/Xihong Lin, 10% effort (unpaid)
 R13, CA90250, 2001-2008, \$247,500
 Workshop for Junior Biostatisticians in Cancer Research

NCI, P.I. Xihong Lin, 10% effort (unpaid)
 R13, CA124365, 2006-2016, \$125,000
 Conferences on Emerging Statistical Issues in Biomedical Research

Previous Grants:

Grants served as the PI/co-PI:

NCI, P.I. Xihong Lin, 35% Effort
 R01 CA76404-11, 2003-2007, \$788,000
 Statistical Methods for Correlated Biomedical Data

NCI, P.I. Xihong Lin, 50% Effort
 R29 CA76404, 1997-2002, \$350,000
 New Mixed Effects Models for Correlated Biomedical Data

Biostatistics Core P.I. Xihong Lin, 10% Effort
NIEHS/EPA, P.I. B. Israel
ES09539, 1998-2005, \$4,442,732
Michigan Center for the Environment and Children's Health

University of Michigan, P.I. Xihong Lin, 20% Effort
Faculty Career Development Grant, 1996-1997, \$10,560
A New Statistical Model for Longitudinal Binary Data

Grants served as a co-investigator:

NIH/NCI, P. I., Jeremy Taylor, 5% Effort
R01, 2002-2005, \$118,750
Statistical Methods for 3D Conformal Radiation Therapy

NCI, P.I. Jeremy Taylor, 0% effort
2002-2007
Cancer Training Grant for Biostatisticians

NIH/HL, P. I. Patricia Peyser, 5% Effort
R01 HL46292, 2001-2005, \$2,519,167
Epidemiology of Coronary Artery Calcification

NIH/NCI, P. I. Gregory Wolf, 10% Effort
M01, 2002-2007, \$1,756,908
SPORE in Head and Neck Cancer

NIH/NCHGR, P. I. Michael Boehnke, 0% Effort
R01, 2001-2005, \$1,000,000
Design and Analysis of Human Gene Mapping Studies

CDC, P. I. Noreen Clark, 5% Effort
2002-2005, \$344,780
Building Capacity to Assist Head Start Children with Asthma

NIH/NIHLBI, P. I. Noreen Clark, 5% Effort
R18 HL68654, 2003-2007, \$480,556
School-Based Approaches to Help Pre-Teens Manage Asthma

NIH/NINDS, P. I., Beth Malow, 5% Effort
R01, 2002-2005, \$71,858
Effects of Treating Obstructive Sleep Apnea in Epilepsy

NIH, P. I. Noreen Clark, 5% Effort
R01 HL60884, 2000-2005, \$441,139
Effects of Self-Regularitory Education on Women with Asthma

NIH, P. I. Mary Fran Sowers, 5% Effort
R01, 2002-2005, \$164,290
Sleep During the Perimenopuase of a Multi-Ethnic Cohort

NIH, P. I. Michael Cabana, 0% Effort
R01, 2002-2007, \$222,237
Enhancing Pediatric Asthma Management

NIH/NIDA, P. I. Jeff Alexander, 5%
R01 DA003272-18, \$539,199
Drug Abuse Treatment Survey

NIH/Brown University, P. I. Joe Hogan, 5% Effort
R01, 2001-2005, \$1,000,000
Analyzing Multiple Process Data in Studies of HIV/AIDS

NIEHS, P.I. T. Robins, 10% Effort
R01, 1999-2002, \$225,000
Occupational Asthma Associated with Seafood Processing

DHLBI, P.I. N. Clark, 5% Effort
R01 HL58611, 1997-2002, \$2,016,450
The Effect of Heart Disease on Older Women

NIDA, P.I. T. D'Aunno, 15% Effort
R01 , 1998-2002, \$94,385
Drug Abuse Treatment System Survey

NIDR, P.I. W. Loesche, 5% Effort
R01 DE09142, 1999-2000, \$449,580
Geriatric Oral Science Project

NIDA, P.I. R. Price, 10% Effort
RO1 DA03272, 1995-1998, \$1,159,083
Drug Abuse Treatment System Survey

NIH/NCRR, P.I. G. Bole, 25% Effort
M01-RR00042, 1995-1997, \$23,806,076
General Clinical Research Center

NIH, P. I. S. D. Harlow, 10% Effort
R29-HD30373, 1996-1997, \$274,158
An Epidemiologic Assessment of Menstrual Cycle Patterns

NIH/NINR, P.I. A. E. Rogers, 9% Effort
RO1-NR04191, 1997-1998, \$359,744
Management of Excessive Daytime Sleepiness in Narcolepsy

NIH/HIMR, P. I. S. D. Harlow, 10% Effort
5064-324-UOFM-MI-AI34993, 1997-1998, \$30,395
HIV Status and Menstrual Function

Invited Presentations in Professional Meetings (Over 100) (After 2001):

1. March 2002, ENAR Meetings, Washington D. C.

2. July 2002, International Conference on Current Advances and Trends in Nonparametric Statistics, Crete, Greece.
3. August 2002, Discussant, Joint Statistical Meetings, New York City.
4. October 2002, Frontiers of Statistical Research: A Celebration of the 40th Anniversary of the Department of Statistics at Texas A&M University, College Station.
5. March, 2003, ENAR, Tampa.
6. May, 2003, International Conference on Reliability and Survival Analysis, Columbia, SC.
7. June, 2003, Seventh Purdue International Symposium on Statistics, West Lafayette, IN.
8. August, 2003, Joint Statistical Meetings, San Francisco.
9. January, 2004, Workshop on Statistical Learning and Bioinformatics, Gainesville, FL.
10. March, 2004, ENAR, Pittsburgh.
11. August, 2004, Joint Statistical Meetings, Toronto.
12. July, 2005, Joint Meeting of Institute of Mathematical Statistics and Chinese Statistical and Probability Society, Beijing
13. August, 2005, Joint Statistical Meetings, Minneapolis.
14. October, 2005, Workshop on Current Issues in the Analysis of Incomplete Longitudinal Data, Toronto.
15. March, 2006, ENAR
16. July, 2006, Frontier in Biostatistics, Changchun, China
17. October, 2006, Workshop on Statistical Modeling of Complex Systems, Munch, Germany
18. October, 2006, Merck-Temple Conference, Philadelphia, PA
19. March 2007, ENAR, Atlanta.
20. August 2007, Conference on Analysis of High-Dimensional Data, Kun Ming, China.
21. October, 2007, NSF workshop on high-dimensional data analysis
22. April, 2008, Workshop on Statistical Genetics on Complex Disease, Karolinska Institute, Sweden
23. June, 2008, keynote Speaker, Semiparametric Methods in Action, Southern Regional Council on Statistics, Florida.
24. June, 2008, International Indian Statistical Association, Connecticut.
25. August, 2008, Joint Statistical Meetings, Denver.

26. March, 2009, ENAR, Washington DC.
27. May, 2009, Innovation and Inventiveness in Statistics Methodologies, Yale University
28. June, 2009, ICSA Applied Statistical Symposium, San Francisco
29. June, 2009, Distinguished Lecture, IMS Pacific-Rim Conference, Seoul, South Korea
30. July, 2009, IMS-China Conference, Weihai, China
31. August, 2009, JSM, Washington DC
32. August 2009, Banff Conference on Longitudinal Data Analysis
33. November, 2009, APHA, Philadelphia
34. December, 2009, Frontier Statistical Workshop, Statistical Institute, Academic Sinica, Taiwan
35. January, 2010, University of Florida Statistical Workshop on Categorical Data Analysis, Gainesville, FL
36. March 2010, ENAR, New Orleans
37. June 2010, Keynote, ICSA Applied Statistics Symposium, IN
38. August 2010, JSM, Vancouver, Canada
39. December 2010, International Chinese Statistical Conference
40. March 2011, ENAR, Miami
41. May 2011, New England Research Conference, Nantucket
42. June 2011, IMS Pacific Rim Conference, Toyko
43. August 2011, JSM, Miami
44. August 2011, New Zealand Statistical Association Annual Conference
45. October 2011, Conference in Honor of Mary Thompson
46. February 2012, NIDDK Next Generation Sequencing Analysis Meeting
47. March 2012, ENAR
48. May 2012 Canadian Human Genetics Society Meeting
49. June 2012, ICSA Meeting
50. June 2012, Southern Regional Council on Statistics Meeting
51. July 2012, IMS Pacific Rim Meeting
52. July 2012, Joint Biostatistics Symposium

Invited Seminars (Over 100) (After 2001):

1. April 2002, Department of Statistics, University of California, Davis.
2. November 2002, Departments of Statistics and Biostatistics, University of Pennsylvania, Philadelphia.
3. March 2003, Department of Statistics, North Carolina State University.
4. March 2003, Department of Biostatistics, University of North Carolina, Chapel Hill.
5. October 2003, Department of Statistics, University of British Columbia, Vancouver.
6. October 2003, Department of Statistics, Simon Fraser University, Vancouver.
7. October 2003, Department of Biostatistics, University of Washington, Seattle.
8. November 2003, Department of Statistics, University of Illinois Urban-Champaign.
9. December 2003, Department of Biostatistics, University of Pittsburgh.
10. February, 2004, Department of Biostatistics, Harvard School of Public Health.
11. June, 2004, Department of Mathematical Sciences, Tsinghua University
12. July, 2004, Department of Statistics, Beijing University
13. July, 2004, Chinese Academy of Sciences
14. September, 2004, Department of Biostatistics, Yale University
15. March, 2005, Department of Statistics, Kansas State University
16. September, 2005, Applied Statistics Workshop, Department of Government, Harvard University
17. November, 2005, Department of Statistics, Harvard University
18. November, 2005, Longitudinal Data Working Group, Department of Biostatistics, Harvard School of Public Health.
19. January, 2006, Environmental Statistics Working Group, Department of Biostatistics, Harvard School of Public Health.
20. August, 2006, Department of Mathematical Sciences, Tsinghua University, China
21. October, 2006, Department of Mathematics and Statistics, University of Lancaster, UK
22. October, 2006, Department of Mathematics and Statistics, University of Manchester, UK
23. December, 2006, Department of Biostatistics, University of Washington
24. December, 2006, Division of Health Sciences, Fred Hutchison Cancer Institute
25. February, 2007, Department of Statistics, Purdue University

26. March, 2007, Department of Statistics, Yale University
27. April, 2007, Department of Biostatistics, Columbia University
28. March, 2008, Department of Statistics and Group of Statistical Genetics, University of Toronto
29. April, 2008, Department of Operation Research, Cornell University
30. September, 2008, Departments of Statistics and Biostatistics, University of Pennsylvania.
31. October, 2008, Department of Biostatistics and Medical Informatics, University of Wisconsin, Madison
32. October, 2008, Department of Biostatistics and Bioinformatics, MD Anderson Cancer Center
33. April, 2009, Department of Biostatistics, Emory University
34. May, 2009, Department of Epidemiology and Population Health, Albert Einstein College of Medicine
35. October 2009, Department of Biostatistics, Sloan Kettering Cancer Institute
36. April 2010, Department of Human Genetics, Emory University
37. April 2010, Department of Biostatistics, University of Georgia
38. April 2010, Department of Statistics, University of Utah
39. February 2011, Department of Statistics, Case Western Reserve University
40. April 2011, Department of Statistics, Michigan State University
41. April 2011, Department of Statistics, Yale University
42. April 2011, Department of Statistics, Rutgers University
43. May 2011, Department of Biostatistics, Brown University
44. September 2011, Department of Biostatistics, University of Rochester
45. December 2011, Department of Statistics, Boston University
46. February 2012, Department of Biostatistics, UNC Chapel Hill
47. February 2012, Department of Statistics, Texas A& M University
48. March 2012, Department of Statistics and Biostatistics, Ohio State University
49. April 2012, Department of Biostatistics, Columbia University

University-Level Services:

Harvard University:

Advisory Committee, Institute of Quantitative Social Sciences
Hearing Pool, 2005.

University of Michigan:

Member, Junior faculty focus group on promotion and tenure, 1999.

School-Level Services:

Harvard School of Public Health:

School Committee of Appointment and Promotion, 2006-2009

Steering Committee, Gene and Environment Initiative

University of Michigan School of Public Health:

Elected Member of the School Executive Committee, 2001-2004.

Member of the Education and Information Technology Committee, 1999-2000.

Member of the Research Council, 1998-1999

Member of the Future Committee, 1997-1998

Member of the Breadth Day Committee, 1997-1998

Harvard School of Public Health

Standing Committee on Appointments, Reappointments, and Promotions (SCARP),
2006-2009.

Departmental-Level Services:

Harvard University:

Chair, Search Committee, 2010-2011

Chair, Faculty Development Committee, 2007-2009

Chair, Newsletter Committee, 2006-2008

Member of the Curriculum Committee, 2005-2011

University of Michigan:

Member of the Faculty Search Committee, 2004-2005

Member of the Admission Committee, 2003-2004

Member of the Ad Hoc Committee to Review the Qualifying Exam, 2003

Member of the Candidacy Committee, 1997-2003

Chair of the Regular Faculty Search Committee, 2001-2002
Member of the Genetics Faculty Search Committee, 2001-2002
Member of the Faculty Search Committee, 1999-2000
Chair of the Junior Faculty Search Committee, 1998-1999
Chair of the Curriculum Committee, 1998-2000
Member of the Visiting Faculty Search Committee, 1997-1998
Member of the Departmental Student Activity Committee, 1997-1998
Chair of the Seminar/Brownbag Committee, 1995-1997
Member of the Admission Committee, 1994-1996

Doctoral Committees Chaired as the Dissertation Advisor:

University of Michigan

1. Daowen Zhang, graduated in 1997.
Dissertation title: “Generalized Additive Mixed Models”
(His dissertation paper won the 1997 ENAR student travel award).
Current employment: Professor, Department of Statistics, North Carolina State University, Raleigh.
2. Yi Li, graduated in 1999.
Dissertation title: “Frailty Measurement Error Models”
(His dissertation paper won the 1999 ENAR John Van Ryzin Award for the best student paper;
the 1999 ASA David P. Byar Young Investigator Award;
the 1999 ICSA Student Paper Award and Travel Fellowship)
Current employment: Professor of Biostatistics and Director of Kidney Epidemiology and Cost Center, University of Michigan
3. Jason Roy, graduated in 2000.
Dissertation title: “Latent Variable Models for Longitudinal Data with Multiple Outcomes, Informative Dropouts and Missing Covariates”
(His dissertation paper won the 2000 ENAR Student Travel Award;
the 2002 ASA David P. Byar Young Investigator Award)
Current Employment: Assistant Professor, Department of Biostatistics University of Pennsylvania.

4. Wenqin Pan, graduated in 2002.
Dissertation title: “Covariate Measurement error in Transitional Models for Longitudinal Data”
(Her dissertation paper won the 2002 ENAR Student Travel Award)
Current Employment: Assistant Professor, Institute of Outcome Research, Duke University.
5. Mike Epstein (Joint with Mike Boehnke), graduated in 2002.
Dissertation title: “Statistical Methods in Gene Mapping of Familial Traits”
Current Employment: Associate Professor, Department of Human Genetics and Biostatistics, Emory University.
6. Yisheng Li, graduated in 2003.
Dissertation title: “Bayesian Methods in Generalized Additive Mixed Models”
Current Employment: Associate Professor, Department Biostatistics, MD Anderson Cancer Center
7. Qi Long (Joint with Rod Little), graduated in 2005,
Dissertation title: “Emerging Issues in Causal Inference in Intervention Trials”
(His dissertation paper won the 2005 ENAR student travel award).
Current employment: Associate Professor, Department of Biostatistics, Emory University
8. Dawei Liu (Joint with Debashis Ghosh), graduated in 2005.
Dissertation title: “Kernel Machine Methods and Mixed Models for Multiple-dimensional Data”
(His dissertation paper won the 2005 ENAR student travel award and the 2007 Best *Biometrics* Paper award).
Current employment: Assistant Professor, Department of Biostatistics, University of Iowa
9. Honghong Zhou, (Joint with Bin Nan), graduated in 2005.
Dissertation title: “Modeling Longitudinal Covariates in Case-Control Data”
Current employment: Statistician, Johnson and Johnson, NJ
10. Matt Schipper (Joint with Jeremy Taylor), graduated in 2006.
Dissertation title: “Modeling Normal Tissue Complications Using Monotonic Generalized Functional Mixed Effects Models.”
Current employment: Statistician, Innovative Analytics, Kalamazoo, MI.

11. Wen Ye (Joint with Jeremy Taylor), graduated in 2006.
Dissertation title: “Semiparametric Joint Modeling Modeling of Survival and Longitudinal Data”
Current employment: Research Assistant Professor, Department of Biostatistics, University of Michigan.
12. Zhangsheng Yu, graduated in 2006.
Dissertation title: “Nonparametric and Semiparametric Regression for Clustered Survival Data.”
Current employment: Assistant Professor, Department of Biostatistics, Indiana University.

Harvard University

13. Lu Wang (Joint with Andrea Rotnitzky), graduated in 2008.
Dissertation title: “Nonparametric and Semiparametric Regression with Missing Data.”
(Her dissertation paper won the 2007 Student Paper Award of the Section of Statistics in Epidemiology of the American Statistical Association).
Employment: Assistant Professor, Department of Biostatistics, University of Michigan
14. Mike Wu (Joint with Tianxi Cai), graduated in 2009.
Dissertation title: “Statistical Methods for High-Dimensional Genomic Data.”
(His dissertation papers won the 2008 ENAR Distinguished student paper award and the 2008 Student Paper Award of the Statistical Computing Section of the American Statistical Association).
Employment: Assistant Professor, Department of Biostatistics, University of North Carolina, Chapel Hill
15. Lee Dicker, graduated in 2010
Dissertation title: “Variable Selection for High-Dimensional Data.”
Employment: Assistant Professor, Department of Statistics, Rutgers University
16. Rain Cui, graduated in 2011
Dissertation title ”Variable Selection in Mixed Models for Longitudinal Data”
Employment: Associate Statistician, Trinity Partners, Advanced Analytic Group
17. Yen Tsung Huang

18. Xinyi (Cindy) Lin
19. Rajarshi Murkherjee
20. Tamar Sofer
21. Ian Barnett

Supervised Postdoctoral Fellows:

Harvard School of Public Health

1. Jaroslaw (Jarek) Harezlak, 2005-2007
Current employment: Assistant Professor, Department of Biostatistics, Indiana University
2. Baosheng Huang, 2006-2007
Current employment: Assistant Professor, Department of Mathematics and Statistics, Beijing Institute of Technology
3. Lingsong Zhang, 2007-2009
Current employment: Assistant Professor, Department of Statistics, Purdue University
4. Arnab Maity, 2008-2010
Received the K99/R00 Award from the NIEHS on "Statistical Methods for Genes and Environment"
Current employment: Assistant Professor, Department of Statistics, North Carolina State University
5. Gen Nowak, 2009-2011
Current Employment: Research Assistant Professor, Department of Mathematical Sciences Institute, Australian National University.
6. Elizabeth Schfano
7. Lin Li
8. Seunggeun Lee
9. Michelle Qian Zhou
10. Xuefeng Wang

Doctoral Committees Served as a Member:

Current Doctoral Committees Served as a Member:

Biostatistics Department: (1 students)

Anna Snavely, Alissa Stephens

Non-biostatistics Departments: (3 students)

Harvard University

Environmental Health: Wen-Chi Pan, Cali Chang, Shu-Yi Liao,

Tianteng Fan, Wei Jie Seow

Previous Doctoral Committees Served as a Member:

Harvard University

Biostatistics Department: (3 student)

Misha Salganik, Xavier Basagana, Evan Johnson, Shannon Stock.

Environmental Health: (3 students) Monica Ter-Minassian, Jessica Paulus,
hspace0.5in Wisanti Laohaudomchok, Kofi Asomaning,

Epidemiology: (1 student) Fanyi Gu

University of Michigan

Biostatistics Department: (17 students)

Ilsoon Yang, Yingmiao Chen, Hernando Ombao, Carl Langefeld,
Veena Somayaji, Lang Li, Gong Tang, Niko Kaciroti, Xuelin Huang
Hui Zheng, Nichole Carlson, Yue Wang, Shibao Feng, Max Soon,
Yulei He, Menggang Yu, Wenlin Luo,

Other Departments: (31 students)

Harvard University

Epidemiology: (1 student)

Jess Paulus

University of Michigan:

Epidemiology: Kathleen Bainbridge, Hann Clayton, Monica Fisher,
Leslie Lange, Lynda Lisabeth, Peter McElory, Sandra Pope
Helaine Resnick, Aruna Sarma, Lama Jamjoum, Woosung Sohn,
Jennifer Beebe, Terri Madison, Salma Haidar, Kandace Amend,
Jagteshwar Grewal.

Health Behavior and Education: Stephanie Farquhar, Grant Baldwin

Environmental Health Sciences: Amy Gildemeister, Rajen Naidoo,
Mohamed Jeebhay, Fuyuen Yip

Health Management and Policy: Daniel Lee, John McCarthy, Christy
Lemak, Tammie Nahra, Cynthia Campbell, John McCarthy.

Pharmacy: Scott Smith

Statistics: Qin Shen, Yao Wang

Statistics of Business School: Jun Qin

Mentor of the Recipients of K-Awards:

C. J. Milling (Neurology)
Toby Lewis (Pediatrics)

Teaching:

Harvard University:

Method I: 2010-2012

Analysis of Longitudinal and Multivariate Data: 2007-2010.

University of Michigan:

Statistical Methods in Epidemiology: 1994, 1995, 1996, 1997, 1999, 2001

Generalized Linear Models: 1994, 1995

Introduction to Biostatistics: 1995, 1997

Advanced Categorical Data Analysis: 1996, 1998

Analysis of Longitudinal Data: 1999 Summer Epidemiology Program

Advanced Nonparametric Regression Methods: 2002

Biostatistical Investigation: 2004