

CURRICULUM VITAE

Yang Yang

I. Personal Information

Fred Hutchinson Cancer Research Center	(206) 667-6987 (work)
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II. Education

Degrees

2004 Ph.D.	Biostatistics, Emory University, Atlanta, Georgia
2004 M.S.	Biostatistics, Emory University, Atlanta, Georgia
1998 B.S.	Applied Mathematics, South China University of Technology, China

Other Education

1999 — 2000 Master program in Applied Statistics, Worcester Polytechnic Institute,
Worcester, Massachusetts

1998 — 1999 Master program in Applied Statistics, South China Univ. of Tech., China

III. Research and/or Professional Experience

Staff Scientist, July 2006 — present

Fred Hutchinson Cancer Research Center

Co-investigator on two NIH-funded grants, R01-AI32042 and U01-GM070749.
Investigating statistical methods for modeling transmission and control of infectious
diseases such as influenza, smallpox and HIV, and evaluating efficacies of interventions
such as vaccine and antiviral agents.

Research Associate, September 2004 — June 2006

Center for Biostatistics in AIDS Research (CBAR), Harvard University.

Senior statistician in the Statistical and Data Analysis Center of the Adult AIDS Clinical
Trial Groups. Providing statistical support for AIDS clinical trials including protocol
development, data and safety monitoring, analysis plan development and data analysis.

Recent major projects with full or partial involvement:

- A5224S: Long-Term Metabolic Assessment in Subjects Treated with Tenofovir/Emtricitabine or Abacavir/Lamivudine along with either Efavirenz or Atazanavir with Ritonavir.
- A5082: A Randomized, Double-Blinded, Placebo-Controlled Study of Metformin and Rosiglitazone, Alone or in Combination, in HIV-Infected Subjects with Hyperinsulinemia and Elevated Waist/Hip Ratio.
- A5095: Phase III, Randomized, Double-Blinded Comparison of Three Protease Inhibitor-Sparing Regimens for the Initial Treatment of HIV Infection.
- A5084: Evaluation of Metabolic Complications Associated with Antiretroviral Medications in HIV-Infected Pregnant women.

Research Assistant, September 2001 — August 2004

Department of Biostatistics, Emory University.

Supervisor: Dr. Ira Longini and Dr. Elizabeth Halloran.

Investigating stochastic models and simulations for influenza, HIV and smallpox epidemics; estimating per-contact transmission probability of the diseases and the efficacy of influenza antiviral agent and HIV vaccine; exploring trial design issues.

Research Assistant, May. 2001 — Aug. 2001

Department of Biostatistics, Emory University.

Supervisor: Dr. Amita Manatunga.

Developing frailty models for survival times and realizing PR algorithm; exploring proportional hazard models and proportional odds models for grouped survival times.

Research Assistant, Jun. 2000 — Aug. 2000

Department of Biostatistics, Emory University

Supervisor: Azhar Nizam (Senior Associate)

Involved in the project “Epidemiology & Ecology of Vibrio Cholera in Bangladesh”; modeling cholera count data.

IV. Teaching Experience

Teaching Assistant, Sep. 2001 — May 2002

Department of Biostatistics, Emory University

Tutoring biostatistics and SAS programming for graduate students in the School of Public Health.

Teaching Assistant, Sep. 1999 — May 2000

Department of Mathematical Sciences, Worcester Polytechnic Institute

Tutoring calculus and SAS programming for undergraduate students.

Teaching Assistant, Sep. 1998 — Jun. 1999

Department of Applied Mathematics, South China University of Technology

Tutoring linear algebra and calculus for undergraduate students.

V. Consulting Projects

Department of Biostatistics, Emory University, Apr. 2004 — Aug. 2004

➤ Effect of Off Pump Coronary Artery Bypass (OPCAB) in reducing morbidity and mortality.

VI. Publication

1. Halloran, M.E., Longini, I.M., Nizam, A. and Yang, Y.: Containing Bioterrorist Smallpox. *Science*, 2002, Vol. 298: 1428-1432.
2. Longini, I.M., Halloran, M.E., Nizam, A. and Yang, Y.: Containing Pandemic Influenza with Antiviral Agents. *American Journal of Epidemiology*, 2004, Vol. 159: 623-633.
3. Fu, H.Z., Yang, Y. and Yao, Y.X.: A Mathematical Model in Ranking Tax Credibility of Entities. *Mathematics in Practice and Theory* (China). 2004, Vol. 34: 11-15.
4. Yang, Y., Longini, I.M. and Halloran, M.E.: Design and Evaluation of Prophylactic Intervention Using Infectious Disease Incidence Data from Close Contact Groups. *Applied Statistics*. 2006, Vol. 55: 317-330
5. Longini, I.M., Halloran, M.E., Nizam, A., Yang, Y., Xu, S., Burke, D.S., Cummings, D.A.T. and Epstein, J.: Containing a large bioterrorist smallpox attack: A computer simulation approach. *International Journal of Infectious Disease*. 2007, Vol. 11: 98-108.
6. Halloran, M.E., Hayden, F., Yang, Y., Longini, I.M. and Monto, A.: Antiviral Effects on Influenza Viral Transmission and Pathogenicity: Observations from Household-Based Trials. *American Journal of Epidemiology*. 2007, Vol. 165: 212-221.
7. Mulligan, K., Yang, Y., Wininger, D., Koletar, S., Parker, R.A., Alston-Smith, B., Basar, M. and Grinspoon, S.: Effects of Metformin and Rosiglitazone in HIV-Infected Patients with Hyperinsulinemia and Elevated Waist/Hip Ratio. *AIDS*. 2007, Vol. 21: 47-57.
8. Shikuma, C.M., Yang, Y., Meyer, W.A., Glesby, M., Tashima, K.T., Ribaud, H., Webb, N., Bastow, B., Kuritzkes, D.R., and Gulick, R.M.: Metabolic Effects of Protease Inhibitor-Sparing Antiretroviral Regimens given as Initial Treatment of HIV-1 Infection (AIDS Clinical Trials Group Study – A5095). *Journal of AIDS*. 2007, Vol. 44:540-550.
9. Yang, Y., Longini, I.M. and Halloran, M.E.: A Resampling-Based Test to Detect Person-To-Person Transmission of Infectious Diseases. *Annals of Applied Statistics*. 2007, Vol. 1:211-228.
10. Yang, Y., Longini, I.M. and Halloran, M.E.: A Data-Augmentation Method for Infectious Disease Incidence Data from Close Contact Groups. *Computational Statistics and Data Analysis*. 2007, Vol. 51:6582-6595.
11. Yang, Y. and DeGruttola, V.: Resampling-based Multiple Testing Methods with Covariate Adjustment: Application to Investigation of Antiretroviral Drug Susceptibility. *Biometrics*. In

press.

12. Yang, Y., Halloran, M.E., Sugimoto, J. and Longini I.M.: Detecting Human-To-Human Transmission of Avian A(H5,N1) Influenza. *Emerging Infectious Disease*. 2007, Vol. 13:1348-1353.

13. Livingston E.G., Cohn, S.E., Yang, Y., Watts, D.H., Bardeguet, A.D., Jones, T.B., Smith, L.M., Umbleja, T. and McComsey, G.A.: Lipids & Lactate in HIV-1 Infected Pregnancies With/Without Protease Inhibitor-Based Therapy. *Obstetrics and Gynecology*. 2007, Vol. 110:391-397.

I. Papers Submitted

14. Yang, Y., Gilbert, P., Longini, I.M. and Halloran, M.E.: Estimating Vaccine Efficacy per Infectious Contact: A Bayesian Framework with Adjustment for Measurement Error. Submitted.

VII. Conference Abstracts

1. Yang Y. and Longini I.M.: New methods for the estimation of influenza antiviral agent efficacy. *Joint Statistical Meeting*, San Francisco, CA, 2003.

2. Yang Y. and Longini I.M.: Estimation of influenza antiviral agent efficacy. *International Biometric Society/Eastern North American Region Spring Meeting*, Tampa, FL, 2003.

3. Mulligan, K., Yang, Y., Wininger, D., Koletar, S., Parker, R.A., Alston-Smith, B., Basar, M. and Grinspoon, S.: Effects of Metformin and Rosiglitazone on Body Composition in HIV-Infected Patients with Hyperinsulinemia and Elevated Waist/Hip Ratio: A Randomized, Placebo Controlled Trial. *Conference on Retroviruses and Opportunistic Infections*, Denver, CO, 2006.

4. Shikuma, C.M., Yang, Y., Meyer, W.A., Glesby, M., Tashima, K.T., Ribaldo, H., Webb, N., Bastow, B., Kuritzkes, D.R., and Gulick, R.M.: Metabolic Analyses within A5095: Effect of Efavirenz against an All-Nucleoside/Nucleotide Background. *Conference on Retroviruses and Opportunistic Infections*, Denver, CO, 2006.

5. Yang, Y. and DeGruttola, V.: Resampling-based Multiple Testing Methods with Covariate Adjustment: Application to Investigation of Antiretroviral Drug Susceptibility. *Workshop on Quantitative Methods for Research on Antiviral Resistance*, Boston, MA, 2006

VIII. Research Interest

- Statistical models for infectious diseases: recursive models, likelihood methods, Bayesian method, and generalized linear models.
- Multiple testing theory and its application on predicting antiretroviral drug response based on HIV genotype data.
- Survival analysis
- Missing data.

- Stochastic process.
- Likelihood theory, generalized estimating equation, ancillary statistics.
- Statistical computations such as Gibbs sampler, EM algorithm, permutation and bootstrap.

IX. Professional Membership

- American Statistical Association.
- Institute of Mathematical Statistics.

XII. Awards and Honors

- 2000 — 2004 Graduate fellowship, Emory University
- 1999 — 2000 Graduate fellowship, Worcester Polytechnic Institute
- 1997 Excellent college student with outstanding scholarship
- 1997 Outstanding college student in Guangdong Province, China
- 1997 P&G Scholarship
- 1997 Honorable mention in the international Mathematical Contest in Modeling (MCM)
- 1996 Excellent college student with first-place scholarship
- 1995 Excellent college student with second-place scholarship