

DAVID M. ZUCKER

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PERSONAL DATA

Date of Birth: September 21, 1961
Place of Birth: Baltimore, Maryland, U.S.A.
Citizenship: Dual citizen - United States and Israel
Marital Status: Married with three sons and three daughters

Date of Immigration to Israel: September 15, 1992

LANGUAGES

English: native language - well-skilled in writing and oral presentations
Hebrew: fluent - can handle personal affairs, deliver statistical lectures, and interact with colleagues and students
German: knowledge of some basic grammar and vocabulary, some reading proficiency

EDUCATION

<u>Date</u>	<u>Institution</u>	<u>Degree</u>	<u>Field</u>
1987	University of Maryland at Baltimore	J.D.	Law
1986	The Johns Hopkins University	Ph.D.	Mathematical Sciences
1981	The Johns Hopkins University	M.A.	Mathematical Sciences
1980	The Johns Hopkins University	B.A.	Mathematical Sciences

EMPLOYMENT

10/92-Present Faculty Member
Department of Statistics
Hebrew University of Jerusalem
October 1992 – March 2002: Senior Lecturer (tenure granted 12/95)
March 2002 – December 2007: Associate Professor
December 2007 – Present: Professor

Major Duties:

- 1) Teach courses in statistics and biostatistics
- 2) Conduct research in statistical methods (past publications and current interests are listed below)
- 3) Provide statistical consultation to other scientists, particularly in the biomedical sciences

9/01-9/03 Statistician (part-time)
Keryx Biopharmaceuticals
Jerusalem, Israel

Major Duties: Provide statistical consultation services to the company in the design and analysis of clinical trials and other biomedical research studies

8/86-8/92 Mathematical Statistician, Biostatistics Research Branch
Division of Epidemiology and Clinical Applications
National Heart, Lung, and Blood Institute (NHLBI)
National Institutes of Health

Major Duties:

- 1) Provide statistical advice to project office, participate in and deliver presentations during steering committee deliberations, and serve on subcommittees for large-scale NHLBI clinical trials
- 2) Provide statistical consultation and analysis for NHLBI biomedical research scientists
- 3) Engage in biostatistical research related to NHLBI activities
- 4) Organize the branch statistical seminar series

EMPLOYMENT - CONTINUED

5/83-8/86 Mathematical Statistician
 Statistical Evaluation and Research Branch
 Center for Drugs and Biologics, FDA

Major Duties:

- 1) Prepare written statistical review and evaluation reports regarding clinical trials and protocols submitted by drug companies in the drug approval process

- 2) Consult with FDA clinical reviewers, participate in meetings with drug company officials, and deliver presentations at intra-agency meetings and public advisory committee meetings regarding drug company submissions and scientific issues

1981-1982 (Summer): Operations Research Analyst, Systems Methodology Branch
 FLLRD, U.S. Army Materiel Systems Analysis Activity

Major Duties: Performed statistical analyses on computer-simulated weapons performance data and participated in study evaluating Army transportation units

1980 (Summer): Mathematics Aid, U.S. Army Ballistic Research Laboratory

Major Duties: Developed, wrote, tested, and documented in technical report form a computer program to simulate tank radar signatures

9/79-5/83 Teaching Assistant, Mathematical Sciences Department
 The Johns Hopkins University

MAIN RESEARCH INTERESTS

Survival Analysis
Nonlinear Statistical Models with Covariate Measurement Error
Analysis of Repeated Measurement Data (Continuous and Binary)
Clinical Trial Design, including interim sample size updating

RESEARCH GRANTS

[Amount of the award is expressed as total amount / my share]

10/99-9/01, Israel Science Foundation, “Statistical Analysis of Repeated Measures Data in Small Samples,” Orly Manor and David M. Zucker, \$32,800/\$16,400

1/03-6/06, Research Consultancy with the Harvard School of Public Health, “Measurement Error in Cancer Epidemiology,” David M. Zucker, \$30,000/\$30,000

10/05-09/08, US-Israel Binational Science Foundation (BSF), “Statistical Methods for Case-Control Family Studies,” Malka Gorfine, David M. Zucker, and Li Hsu, \$60,000/\$30,000

12/06-8/09, U.S. National Cancer Institute, “Measurement Errors in Cancer Epidemiology,” Donna Spiegelman et al., \$391,014/\$40,595 each year (direct costs)

5/09-2/14, U. S. National Institute of Environmental Health Sciences, “Measurement Errors in Environmental Epidemiology”, Donna Spiegelman et al.

12/10-11/13, U.S. National Cancer Institute, “Measurement Errors in Cancer Epidemiology,” Donna Spiegelman et al.

PROFESSIONAL SERVICE**A. Editorial Service**

Co-Editor, *Biometrics*, January 2008 – December 2010

Associate Editor, *Biometrics*, January 2003 to December 2007

Associate Editor, *Controlled Clinical Trials*, 1998-1999

Joint Editor (with M. Wu, J. Wittes, and J. Ware), Proceedings of methods for longitudinal data analysis in epidemiological and clinical studies. *Statistics in Medicine* 1988; 7: No. 1/2.

Refereeing/Reviewing for various journals and organizations, including: *Annals of Statistics*, *Journal of the American Statistical Association*, *Biometrics*, *Statistics in Medicine*, *Controlled Clinical Trials*, *Circulation*, *American Journal of Epidemiology*, *International Journal of Epidemiology*, *Biometrika*, *Journal of Statistical Planning and Inference*, *Communications in Statistics*, *Biometrical Journal*, American Red Cross R&D office, Israel Science Foundation

PROFESSIONAL SERVICE - CONTINUED

B. Service Work Within Hebrew University

1. Statistics Department MA/MSc admissions officer and advisor, July 2003 to October 2007
2. Statistics Department MA exam committee: member, 1993-94 and 1995-96; chairman, 1997-98; member 2000-01; chairman, 2002-03
3. Chairman, special committee to assemble MA exam question bank (1996-97)
4. Seminar organizer, 1998-9 (first semester) and 1999-2000
5. Academic Review Committee (Vaadah Techumit), School of Public Health, 2004-05 and 2005-06
6. Library Committee (Vaad HaSifriyah) 1994-95, 2000-01, and 2005-06
7. Teaching Policy Committee (Vaadat Horaah), 2011-12
8. Membership on various ad-hoc academic review committees

C. Other Professional Service

Council, Israel Statistical Association, 1995/6-1996/7

Regional Organizing Committee and Inaugural Conference Program Chair, Eastern Mediterranean Region, International Biometric Society, 2001

Country Representative for Israel, Eastern Mediterranean Region, International Biometric Society, 2003-2005

Co-Organizer, Israel Biostatistics Forum meeting, December 2003

Co-Chair of Organizing Committee, Fourth International Conference of the Eastern Mediterranean Region, International Biometric Society (held in Eilat, Israel, in January 2007; see <http://www.congress.co.il/emr-ibs2007/>)

President, Eastern Mediterranean Region, International Biometric Society, from May 2007 to May 2009

Scientific Committee, Seventh International Conference of the Eastern Mediterranean Region, International Biometric Society (to be held in Tel Aviv, Israel, in May 2013)

Membership on various ad-hoc academic review committees

PROFESSIONAL SOCIETY MEMBERSHIPS

American Statistical Association, Institute of Mathematical Statistics, International Biometric Society, Israel Statistical Association

LICENSES: Licensed attorney in Maryland and the District of Columbia (inactive status).

HONORS AND AWARDS

Phi Beta Kappa

Mathematical Sciences Senior Award upon receiving B.A. degree

University and Department Honors upon receiving B.A. degree

Graduate fellowship for 1981-1983, Department of Mathematical Sciences,

Johns Hopkins University

Order of the Coif, University of Maryland School of Law

FDA Award of Merit (group award, Statistical Evaluation and Research Branch)

ADVISEES (Hebrew University)

Malka Gorfine – for MA degree (1994) and PhD degree (2000)

(supervision of PhD thesis joint with B. Yakir)

Havi Murad – for MA degree (1998) (joint with S. Oman)

Laura Rosen – for PhD degree in public health (2004)

(joint with D. Englehard and O. Manor, Hadassah Ein-Karem)

Yury Gubman – for MA degree (2004) (joint with O. Manor), and current PhD advisee

Nir Sharon – for MA degree (2009)

Sarit Agami – for MA degree (2009) and current PhD advisee

SELECTED COURSES TAUGHT

Introductory Statistics for Economics Majors B (1st year BA)

Nonparametric Statistics for Nonstatisticians

Statistical Inference and Its Applications A (2nd yr BA)

Statistical Inference and Its Applications B (2nd yr BA)

Regression and Linear Models (2nd yr BA)

Sampling Theory (2nd yr BA)

Statistical Models and Their Applications (3rd year BA)

Principles of Research Design and Sampling Theory (2nd-3rd yr BA and MA)

Survival Analysis (3rd yr BA and MA)

Binary Data Analysis (3rd yr BA and MA)

Topics in Biostatistics (3rd yr BA and MA)

Measurement Error Models (3rd yr BA and MA)

Advanced SAS Applications (3rd yr BA and MA)

Repeated Measures Analysis (MA)

Matrix Theory With Statistical Applications (MA)

Asymptotic Statistical Theory (MA and PhD)

STATSTICAL CONSULTING ACTIVITIES

A. CONSULTING ACTIVITIES SINCE JOINING HEBREW UNIVERSITY

1. Collaborating with Dr. Elisheva Simchen, School of Public Health, Hebrew University - Hadassah, on analysis of surgical infection rates for various types of surgery in various hospitals across Israel
2. Consulting with Dr. Benny Mozes and Mrs. Eti Shabtai of Tel HaShomer Hospital on analysis of outcomes in seven Israeli dialysis centers
3. Consulting for Teva Pharmaceuticals, Israel, on various clinical trial projects
4. Consulting with Dr. Itai Bab, Bone Lab, School of Dentistry, Hebrew University - Hadassah, on design and analysis of a study on a chemotherapeutic agent in mice
5. Consulting with Biotechnology General, Rehovot, on a clinical trial project
6. Consulting for Agis Pharmaceuticals, Israel, on various clinical trial projects
7. Consulting with Sophistview Technologies, Jerusalem, on testing a clinical diagnostic product (joint consulting with Dr. Ronit Nirel)
8. Consulting with R.S. Medical Monitoring, Jerusalem, on testing a clinical diagnostic product
9. Consulting with Dr. Simcha Yagel (Hadassah Har HaTzofim) and Laura Rosen (Hadassah Ein Karem) on project concerning safety and efficacy of tocolytics for preterm labor
10. Consulting with Prof. Meir Pener, Department of Biology, Hebrew University, on project dealing with morphometrics of different strains of locusts
11. Collaboration with Laura Rosen and Orly Manor on a field trial to investigate the effects of a hygiene education program in preschools (Rosen's PhD thesis project)
12. Consulting with Keryx Biopharmaceuticals on clinical trials projects
13. Consulting with Neurotrax, Inc., on research on computer-based cognitive assessment
14. Consulting with Dr. Charles Milgrom, Hadassah Ein-Karem, on a orthopedic trial paper
15. Consulting with Dr. Jeff Hausdorff, Tel-Aviv Sourasky Medical Center, on grant proposal on analysis of gait and falling in the elderly

STATISTICAL CONSULTING ACTIVITIES - CONTINUED

16. Collaborating with Dr. Elisheva Simchen, School of Public Health, Hebrew University – Hadassah, and Israel Ministry of Health, on mortality analysis of intensive care units versus regular hospital departments in the treatment of critically ill patients.
17. Consulting with Izun Pharmaceuticals, Jerusalem, on a periodontic clinical trial project
18. Collaboration with Laura Rosen on a field trial to investigate the effects of a multifaceted intervention aimed at reducing infant exposure to second-hand smoke
19. Consulting with Kitov Biopharmaceuticals, Jerusalem, on clinical trial projects

B. PAST PARTICIPATION IN MAJOR NHLBI PROJECTS

Post-CABG—Statistical advisor to program office, Design and Endpoints Subcommittee, wrote data analysis and statistical power chapters of the protocol ; CATCH—Statistical advisor to program office, Design and Analysis Subcommittee, wrote statistical design paper ; BARI—Statistical advisor to program office, Analysis Subcommittee, Patient Entry Criteria Subcommittee; CABG Pooling—Primary statistician for project; TIMI-- Statistical advisor to program office, manuscript reviewer; REDS—Advisor to program office, Donor Survey and Data Analysis Subcommittees; PVD—Advisor to program office on new initiative; High-Risk Hypertension—Advisor to program office on new initiative; Raynaud’s Syndrome—Advisor to program office on new initiative; CAMP—Statistical advisor to program office; Randomization Process, Sample Size, Data Analysis, and Outcome Measures subcommittees

C. OTHER CONSULTING AT NHLBI

Dr. S. MacMahon (CTB, DECA) - Mitral Prolapse and Endocarditis; Dr. J. Kalan (Pathology Branch) - Heart Weight and CABG Operative Mortality; Dr. J. Kupferschmid (Surgery Branch) - Adverse Effects of Amiodarone in Heart Surgery Patients; Marguerite Engler, R.N. (Surgery Branch) - Effects of Special Diets in Rats; Dr. S. Sax (Cardiology Branch) - Calcium Antagonist Activity in Cardiomyopathy; Dr. R. Gallagher (PDRB, DECA) - Features of PCAA Applicants and Awardees; Dr. C. Haines (OPEC) - Prevalence of High Cholesterol; Ms. Clarice Brown (OPEC) - Survey on Transfusion Practices

D. OTHER CONSULTING: Baltimore City Civil Service Commission, Maryland State Commission on Human Relations, Dr. P. Slavney, Johns Hopkins School of Medicine

INVITED ORAL PRESENTATIONS**Conference Presentations**

“Asymptotic Expansions for Long-Memory Stationary Gaussian Time Series”, conference on Foundations of Statistical Inferences, Shores, Israel, December 2000.

“Internal Pilot Designs for Sample Size Recalculation in Clinical Trials”, Annual Joint Statistical Meetings (ASA, Biometric Society, IMS), Orlando, Florida, August 1995; Israel Statistical Association Meeting, June 1996.

“Classification Analysis with Repeated Measurements in the Covariates”, Israel Statistical Association, June 1994.

“Inference for the Association Between Coefficients in a Multivariate Growth Curve Model”, International Biometric Society WNAR Meeting, Corvallis, June 1992.

“A Statistician's Perspective on Ethical Issues in Cardiovascular Clinical Trials”, Joint WNAR/IMS Session, Santa Barbara, California, July 1991.

“Experiences with the Research Data Corporation Computer NDA System”, Pharmaceutical Manufacturers Associations and Food and Drug Administration joint conference on computer NDA technology, Baltimore, Maryland, June, 1988.

“On Splitting a Clinical Trial in an Attempt to Produce Replication”, Pharmaceutical Manufacturers Association, Washington, D.C., September 1986.

“Covariate Analysis of Survival Data”, American Mathematical Society (Probability/Statistics Section), Baltimore, Maryland, May 1986.

Seminars

“Measurement Error Models in Regression”, Israel Central Bureau of Statistics, August 2006.

“Measurement Error Correction in Nonlinear Models”, Department of Statistics, Hebrew University, June 2006.

“A Pseudo Partial Likelihood Method for Semi-Parametric Survival Regression with Covariate Error,” Department of Statistics, Hebrew University, May 2004.

“Inference for the Proportional Hazards Model with Covariate Error”, Israel Biostatistics Forum Meeting, December 2002.

INVITED ORAL PRESENTATIONS - CONTINUED

“Inference in the Proportional Hazards Model with Misclassified Discrete Covariates”, Department of Statistics, Hebrew University, June 2002.

“Sample Size Re-determination for Repeated Measures Studies”, Department of Statistics and Operations Research, Tel-Aviv University, May 2001; Department of Biostatistics, Harvard University, November 2001; Department of Statistics, Haifa University, December 2001.

“Improved Small-Sample Inference in the Mixed Linear Model: Bartlett-Correction and Adjusted Likelihood”, Hebrew University, January 1999; Tel-Aviv University, January 1999; Technion, February 1999; US National Heart, Lung, and Blood Institute, August 1999.

“Restricted Means with Covariates”, Technion, December 1997.

“Inference for the Association Between Coefficients in a Multivariate Growth Curve Model”, Department of Statistics, Hebrew University of Jerusalem, December 1992.

“Testing for Treatment Effect in Experiments with Correlated Binary Outcomes”, School of Public Health and Community Medicine, Hebrew University of Jerusalem, January 1992.

“Efficiency Robustness in the Two-Sample Problem with Survival Data”, Department of Statistics and Computer/Information Science, George Washington University, October 1991; Department of Statistics, Hebrew University of Jerusalem, January 1992.

“An Introduction to Generalized Estimating Equation (GEE) Methodology”, George Washington University Biostatistics Center, January 1991.

Discussant for “Design of a Panel Survey Under an Alternating Poisson Assumption” by P. Albert, Washington Statistical Society, February 1990.

“An Introduction to Tree-Based Classification Methodology (CART)”, George Washington University Biostatistics Center, February 1990.

“Weighted Logrank-type Statistics for Comparing Survival Curves When There is a Time Lag in the Effectiveness of Treatment”, Washington Statistical Society, October 1989.

Discussant for “Partial Likelihood Methods in Time Series and Survival Analysis” by E. Slud, Washington Statistical Society, April 1987.

“A Generalized Cox Regression Model”, Washington Statistical Society, April 1987.

CONTRIBUTED PRESENTATIONS (all oral unless otherwise noted)

“A Regularization Corrected Score Method for Nonlinear Regression Models with Covariate Error,” International Biometric Society Eastern Mediterranean Regional Conference, Crete, May 2011; Annual Joint Statistical Meetings, Miami FL, August 2011.

“Corrected Score Estimation in the Cox Regression Model With Misclassified Discrete Covariates,” BIOSTAT2006 Conference, Limassol, Cyprus, May 2006.

“A Pseudo Partial Likelihood Method for Semi-Parametric Survival Regression with Covariate Error,” CS/Stat '03 Meeting, December 2003, University of Haifa, Israel; Joint Statistical Meetings, Toronto, Canada, August 2004; International Biometric Society Eastern Mediterranean Regional Conference, Corfu, Greece, May 2005.

“Inference in the Proportional Hazards Model with Misclassified Discrete Covariates”, Israel Statistical Association, May 2002; International Society for Clinical Biostatistics Conference, Dijon, France, September 2002; International Biometric Society East Mediterranean Regional Conference, Antalya, Turkey, January 2003.

“Sample Size Re-determination for Repeated Measures Studies”, International Biometric Society East Mediterranean Regional Conference, Athens, Greece, January 2001 (oral); International Society for Clinical Biostatistics Conference, Dijon, France, September 2002 (poster).

“Improved Small Sample Inference in the Mixed Linear Model - Bartlett Correction and Adjusted Likelihood”, American Statistical Association Annual Meeting, August 1999.

“Restricted Means with Covariates”, Israel Statistical Association, June 1998.

“Inference for the Association Between Coefficients in a Multivariate Growth Curve Model”, Annual Joint Statistical Meetings (ENAR Session), August 1991.

“Testing the Effect of Treatment in Experiments With Correlated Binary Outcomes”, Annual Joint Statistical Meetings (ENAR Session), August 1990.

“Weighted Logrank-type Statistics for Comparing Survival Curves When There is a Time Lag in the Effectiveness of Treatment”, Annual Joint Statistical Meetings (IMS Session), August 1989.

“Some Thoughts on Combining Evidence from Several Clinical Trials”, Biometric Society (WNAR), San Luis Obispo, California, June 1985.

TECHNICAL REPORTS

“Radar Signature of an M48 Tank”, Interim Memorandum Report, Ballistic Modelling Division, U.S. Army Ballistic Research Laboratory (with Joseph Lacetera), 1981.

“Unit Productivity - Transportation”, Interim Note, Field Liaison and Logistics Readiness Division, U.S. Army Materiel Systems Analysis Activity (with D. Shaffer (study leader), T. Muehl, F. Parman, and J. O'Malley), 1982.

DISSERTATION

Survival Data Regression Analysis with Time-dependent Covariate Effects, Mathematical Sciences, The Johns Hopkins University, 1986. Alan F. Karr, Advisor.

PEER-REVIEWED SCIENTIFIC PUBLICATIONS

1. MacMahon SW, Roberts JK, Kramer-Fox R, **Zucker DM**, Roberts RB, and Devereux RB (1987). Mitral valve prolapse and infective endocarditis. *American Heart Journal* 113: 1291-1298.
2. **Zucker DM** and Yusuf SY (1989). The likelihood ratio vs. the p-value in meta-analysis: where is the evidence? Comment on paper by S. N. Goodman. *Controlled Clinical Trials* 10: 205-208.
3. McKinlay SM, Stone EJ, and **Zucker DM** (1989). Research design and analysis issues. *Health Education Quarterly* 16: 307-313.
4. Murray DM, Hannan PJ, and **Zucker DM** (1989). Analysis issues in school-based health promotion studies. *Health Education Quarterly* 16: 315-320.
5. **Zucker DM** and Karr AF (1990). Nonparametric survival analysis with time-dependent covariate effects: a penalized likelihood approach. *Annals of Statistics* 18: 329-353.
6. **Zucker DM** and Lakatos E (1990). Weighted linear rank statistics for comparing survival curves when there is a time lag in the effectiveness of treatment. *Biometrika* 77: 853-864.
7. **Zucker DM** (1990). An analysis of variance pitfall: the fixed effects analysis in a nested design. *Educational and Psychological Measurement* 50: 731-738.
8. Yusuf S, Garg R, and **Zucker D** (1991). Analyses by the intention to treat principle in randomized trials and data-bases. *PACE* 14: 1-5.

PEER-REVIEWED SCIENTIFIC PUBLICATIONS – CONTINUED

9. **Zucker D** and Wittes J (1992). Testing the effect of treatment in experiments with correlated binary outcomes. *Biometrics* 48: 695-710.
10. **Zucker DM** (1992). The efficiency of a weighted log rank test under a percent error misspecification model for the log hazard ratio. *Biometrics* 48: 893-900.
11. Lan KKG and **Zucker DM** (1993). Sequential monitoring of clinical trials: the role of information and Brownian motion. *Statistics in Medicine* 12: 753-765.
12. Belcher JD, Ellison RC, Shepard WE, Bigelow C, Webber L, Wilmore JH, Parcel GS, **Zucker DM**, and Luepker RV (1993). Lipid and lipoprotein distributions in children by ethnic group, gender, and geographic location - preliminary findings of the Child and Adolescent Trial for Cardiovascular Health (CATCH). *Preventive Medicine* 22: 143-153.
13. Wu MC, Hunsberger S, and **Zucker D** (1994). Testing for differences in changes in the presence of censoring: parametric and nonparametric methods. *Statistics in Medicine* 13:635-646.
14. Zerbe GO, Wu MC, and **Zucker DM** (1994). Studying the relationship between change and initial value in longitudinal studies. *Statistics in Medicine* 13:759-768.
15. Yusuf S, **Zucker D**, Peduzzi P, Takaro T, Detre K, Kennedy JW, Fisher L, Davis K, Killip T, Passamani E, Norris R, Morris C, Mathur V, Varnauskas E, and Chalmers T (1994). Effect of coronary artery bypass graft surgery on survival: overview of ten year results from the randomized trials. *Lancet* 344:563-570.
16. **Zucker DM**, Lakatos E, Webber LS, Murray DM, McKinlay SM, Feldman HA, Kelder SH, and Nader PR (1995). Statistical design of the Child and Adolescent Trial for Cardiovascular Health (CATCH): implications of cluster randomization. *Controlled Clinical Trials* 16:96-118.
17. **Zucker DM**, Zerbe GO, and Wu MC (1995). Inference for the association between coefficients in a multivariate growth curve model. *Biometrics* 54:413-424.
18. Simchen E, **Zucker D**, Igra-Siegman Y, and Galai N (1996). Method for separating patient and procedural factors while analyzing inter-departmental differences in rates of surgical infections: the Israeli Study of Surgical Infection in Abdominal Operations. *Journal of Clinical Epidemiology* 49:1003-1007.
19. Canner PL, Thompson B, Knatterud G, Geller N, Campeau L, and **Zucker D** (1997). An application of the Zucker-Wittes modified ratio estimate statistic in the Post-CABG clinical trial. *Controlled Clinical Trials* 18:318-327.

PEER-REVIEWED SCIENTIFIC PUBLICATIONS - CONTINUED

20. Mozes B, Shabtai E, and **Zucker D** (1997). Differences in quality of life among patients receiving dialysis at seven medical centers. *Journal of Clinical Epidemiology* 50: 1035-1043.
21. Mozes B, Shabtai E, and **Zucker D** (1998). Variation in mortality among seven hemodialysis centers as a quality indicator. *Clinical Performance and Quality Health Care* 6: 73-78.
22. **Zucker DM** (1998). Restricted mean life with covariates: modification and extension of a useful survival analysis method. *Journal of the American Statistical Association* 93:702-709.
23. Oppenheimer-Gazit V, Rosen L, Hanoch J, Bar-Oz B, **Zucker D**, Yagel S. (1999). Short delay between indomethacin treatment for preterm labor and delivery is associated with severe neonatal complications. *Israel Journal of Obstetrics and Gynecology* 10:149-155.
24. Wittes J, Schabenberger O, **Zucker D**, Brittain E, and Proschan M. (1999). Internal pilot studies, I: Type I error rate of the uncorrected *t*-test. *Statistics in Medicine* 18:3481-3491.
25. **Zucker DM**, Schabenberger O, Brittain E, and Wittes JT. (1999). The internal pilot design, II: comparison of various procedures. *Statistics in Medicine* 18:3493-3509.
26. Lieberman O, Rousseau J, and **Zucker D**. (2000). Small-sample likelihood-based inference in the ARFIMA models. *Econometric Theory* 16:231-248.
27. **Zucker DM**, Lieberman O, and Manor O. (2000). Improved small-sample inference in the mixed linear model: Bartlett-correction and adjusted likelihood. *Journal of the Royal Statistical Society, Series B*, 62:827-838.
28. Lieberman O, Rousseau, **Zucker DM** (2001). Small-sample asymptotics for the sample autocorrelation function under long range dependence. *Econometric Theory* 17:251-275.
29. Rosen LJ, **Zucker D**, Oppenheimer-Gazit V, and Yagel S. (2001). The great tocolytic debate: some pitfalls in the study of safety. *American Journal of Obstetrics and Gynecology* 184 (2): 1-7.
30. Oman S and **Zucker D**. (2001). Modeling and generating correlated binary variables. *Biometrika* 88:287-290.
31. **Zucker DM** and Denne J. (2002). Sample size redetermination for repeated measures studies. *Biometrics* 58: 548-559.

PEER-REVIEWED SCIENTIFIC PUBLICATIONS - CONTINUED

32. Lieberman O, Rousseau J, **Zucker DM**. (2003) Valid asymptotic expansions for the maximum likelihood estimator of the parameter of a stationary, Gaussian, strongly dependent process. *Annals of Statistics* 31:586-612.
33. **Zucker DM**, and Spiegelman, D. (2004). Inference for the proportional hazards model with misclassified discrete-valued covariates. *Biometrics* 60:324-334.
34. Manor O and **Zucker DM**. (2004). Small sample inference for the fixed effects in the mixed linear model. *Computational Statistics and Data Analysis* 46:801-817.
35. Tian L, **Zucker DM**, and Wei LJ. (2005). On the Cox model with time-varying regression coefficients. *Journal of the American Statistical Association* 100:172-183.
36. **Zucker DM**. (2005). A pseudo partial likelihood method for semi-parametric survival regression with covariate errors. *Journal of the American Statistical Association* 100:1264-1277.
37. Rosen L, Manor O, Engelhard D, Brody D, Rosen B, Peleg H, Meir M, **Zucker D**. (2006). Can a handwashing intervention make a difference? Results from a randomized controlled trial in Jerusalem preschools. *Preventive Medicine* 42:27-32.
38. **Zucker DM** and Yang S. (2006). Inference for a family of survival models encompassing the proportional hazards and proportional odds models. *Statistics in Medicine* 25: 995-1014.
39. Doniger G, Dwolatzky T, **Zucker DM**, Chertkow H, Crystal H, Schweiger A, Simon ES. (2006). Computerized cognitive testing battery identifies MCI and mild dementia even in the presence of depressive symptoms. *American Journal of Alzheimer's Disease and Other Dementias* 21: 28-36.
40. Rosen L, Manor O, Engelhard D, **Zucker D**. (2006). In defense of the randomized controlled trial for health promotion research. *American Journal of Public Health* 96:1181-1186.
41. Gorfine M, **Zucker DM**, and Hsu L. (2006). Prospective survival analysis with a general semiparametric shared frailty model: a pseudo full likelihood approach. *Biometrika* 93:735-741.
42. Rosen L, Manor O, Englehard D, **Zucker D**. (2006). Design of the Jerusalem Handwashing Study: meeting the challenges of a preschool-based public health intervention trial. *Clinical Trials* 3:376-384.

PEER-REVIEWED SCIENTIFIC PUBLICATIONS - CONTINUED

43. **Zucker DM**, Gorfine M, Hsu L. (2008). Pseudo full likelihood estimation for prospective survival analysis with a general semiparametric shared frailty model: asymptotic theory. *Journal of Statistical Planning and Inference* 138:1998-2016.
44. **Zucker DM**, and Spiegelman, D. (2008). Corrected score estimation in the proportional hazards model with misclassified discrete covariates. *Statistics in Medicine* 27:1911-1933.
45. Rosen LJ, **Zucker D**, Rosenberg H, Connolly G. (2008). Environmental tobacco smoke in Israeli bars, pubs, and cafes. *Israel Medical Association Journal* 10:1-4.
46. Gorfine M, **Zucker DM**, Hsu L. (2009). Case-control survival analysis with a general semiparametric shared frailty model: a pseudo full likelihood approach. *Annals of Statistics* 37:1489-1517.
47. Rosen L, **Zucker D**, Brody D, Englehard D, Manor O (2009). The effect of a handwashing intervention on preschool educator beliefs, attitudes, knowledge, and self-efficacy. *Health Education Research*, 24: 686-698.
48. Rosen LJ, Manor O, Brody D, Englehard D, Shtarkshall R, **Zucker D**. (2009). From pills to programs: lessons from medicine for developing effective lifestyle interventions. *Preventive Medicine* 49:12-8.
49. Chen YH, **Zucker DM** (2009). Case-cohort analysis with semiparametric transformation models. *Journal of Statistical Planning and Inference* 39:3706-3717.
50. Rosen L, **Zucker D**, Brody D, Meir M, Peleg M, Englehard D, Manor O. (2009). The effect of a hygiene intervention program on environmental conditions in preschools. *Israel Health Promotion Journal*, Spring 2009:15-24 (in Hebrew).
51. Rosen L, **Zucker D**, Brody D, Engelhard D, Meir M, Manor O. (2011). Enabling hygienic behavior among preschoolers: Improving environmental conditions through a multi-faceted intervention. *American Journal of Health Promotion* 25:248-256.
52. Rosen L, Brody D, Manor O, **Zucker D**, Meier M, Engelhard D. (2010). Spreading the handwashing message: An alternative to traditional media campaigns. *American Journal of Infection Control* 7:562-564.
53. Rosen L, **Zucker D**, Rosen B, Connolly G. (2011). Secondhand smoke levels in Israeli bars, pubs, and cafes before and after implementation of smoke-free legislation. *European Journal of Public Health* 21:15-20.
54. Liao X, **Zucker DM**, Li Y, Spiegelman D. (2011). Survival analysis with error-prone time-varying covariates: a risk set calibration approach. *Biometrics* 67:50-58.

55. Rosen LJ, Guttman N, Hovell M, Ben-Noach M, Winickoff JP, Tchernokovski S, Rosenblum J, Rubenstein U, Seidmann V, Vardavas C, Kleipeis N, **Zucker D** (2011). Development, design, and conceptual issues of Project Zero Exposure: a program to protect young children from tobacco smoke exposure. *BMC Public Health* 11:508 (online journal – the URL of the paper is <http://www.biomedcentral.com/1471-2458/11/508>)

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