EDWARD LAKATOS

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PROFESSIONAL EXPERIENCE

2002 – present. President. BiostatHaven Inc

Statistical consulting emphasizing the strategic insight gained through over a decade of experience as a leader within the pharmaceutical industry combined with the expertise of Clinical Trial Design and Analysis methods from a background of over a dozen years at the National Institutes of Heath (NIH). Extensive experience in trials requiring Data and Safety Monitoring Committees and interim analyses. Frequently represents clients at the FDA. Currently serves on a number of Data Monitoring Committees, frequently gives tutorials on statistical methods for interim monitoring. BiostatHaven Inc., with Ed as PI, was awarded an NIH grant to develop STOPP®, a statistical software package for interim monitoring of clinical trials. STOPP® was released in Fall 2008. Ed is an elected Fellow of the ASA.

1997- 2002. Senior Director, Biostatistics, Forest Laboratories.

Developed the Biostatistics Department from a small staff of ten people covering Statistics, Programming, Data Management and Data Entry to a staff of 70. This group handled all Biostatistics and Data Management tasks during the five-year period of Forest's most rapid growth. Approved NDAs were submitted in CNS (Celexa, Lexapro), Cardiovascular (Lercanidipine), Asthma (Aerobid-HFA), as well as numerous SNDAs. Other therapeutic areas include Arthritis, Pain Management, Alzheimer's Disease, Alcohol Abuse. I was heavily involved in assembling NDAs, especially hands on involvement in writing various sections of NDAs and other FDA submissions, including ISEs, as well as responses to FDA questions. Represented Forest at the FDA, at meetings with Partners, and in Inlicensing Evaluations. Participated in Senior Management strategic planning for the aforementioned interactions, as well as for clinical research and development and marketing strategies. Developed global harmonization agreements with Partners. Managed the outsourcing of work to Clinical Service Organizations (CSOs). In addition, served as dissertation advisor for a graduate student who received her Ph.D. in 1998, wrote chapters in Biostatistics books, and published technical articles in peer-reviewed journals.

1994-1997. Director, Statistics, Searle.

I developed the department from 11 statisticians in mid 1994 to a maximum of 26. There were NDAs in cardiovascular, arthritis and anti-infectives. In addition to running the Statistics Department, I served as lead statistician on all of Searle's mega trials, due to my expertise in this area. In 1995, the international RALES trial in congestive heart failure was redesigned based on statistical methods I developed. For CONVINCE, a 15,000 patient trial responding to the calcium channel blocker controversy, I was instrumental in developing a novel design and obtaining FDA acceptance for the design. In 1996, I was heavily involved in Searle's 12,000 patient OPUS and 7,200 patient EXCITE trials of the oral RGD (anti-platelet) compounds, designed in consultation with some of the world's leading cardiologists. In addition, considerations for the 8000 patient CLASS trial for Searle's COX-II inhibitor Celebrex began. NDAs for arthritis were submitted under my direction for Arthrotec and Oxaprozen. I served as Searle's statistical representative to the FDA on all of these mega trials, as well as Searle's statistical representative to the Data Monitoring Committees (I developed the DMC charters). I also established relationships with prominent statisticians and/or academic institutions on most major projects

1992-1994. Associate Director, Biostatistics Department, G.H. Besselaar Associates (now COVANCE).

Primary responsibility was to supervise biostatisticians performing contract work in a broad range of therapeutic areas for pharmaceutical and biotechnology clients. This included all aspects of developing a Clinical Trial Report from design through randomization and analysis as well as NDA preparation. Directed TIMI-9, a 3000 patient international study, encompassing personnel from all areas of clinical trial implementation and report generation. I represented Besselaar at client meetings, at the FDA and at Professional Scientific meetings. Served as expert statistical consultant to the entire Biostatistics Department. Continued to develop statistical methodology for clinical trials.

1980-1992. Senior Statistician.

Biostatistics Research Branch, National Heart, Lung and Blood Institute, NIH. Had final and generally complete responsibility representing the Institute on design and analysis, and all other statistical and clinical trial aspects of the conduct of numerous mega trials. These included SHEP & TOHP (hypertension), CATCH & DISC (life style intervention), COPD (Chronic Obstructive Pulmonary Disease), Women's Health Initiative (with NCI),

NGHS(an epidemiology study) and others. I represented NHLBI in Data and Safety Monitoring Board (DSMB) meetings for these trials and several external DSMBs. I also collaborated with a number of physicians/scientists at the NIH Clinical Center. From 1984-1989, I directed the NHLBI biostatistics consulting program. Performed and published research on statistical methodology.

1975-1979. Mathematical Statistician. Operations Analysis and Quality Control Branch, United States Census Bureau.

Designed and analyzed surveys, and studies to examine the operational characteristics and quality control of survey and census operations. Used results to optimize operations and improve quality control. Achievements include: introduction of Precedence Networks (a form of PERT) in some on going projects; development of artificial intelligence for computerized coding of free verbal responses; development of algorithms for geographic coding and for merging and unduplicating (probabilistically) several address lists.

1970-74 Graduate Assistant, University of Maryland.
Taught all levels of undergraduate mathematics and graded graduate level courses.

1969-73 Society of Industrial and Applied Mathematics.
Editorial Assistant.

REFEREE FOR

Statistics in Medicine, American Journal of Epidemiology, Journal of Statistical Planning and Inference, Journal of Controlled Clinical Trials, The American Statistician, Communications in Statistics, Biometrics, Circulation, European Heart Journal, Biopharmaceutical Statistics

EDITORIAL BOARD – Medical Informatics Insights 2007 - present

ASSOCIATE EDITOR - Journal of Controlled Clinical Trials 1993-1998.

BOARD OF DIRECTORS – Society for Clinical Trials 1999 - 2003.

DISSERTATION ADVISOR

Misun Yu, Ph.D. December 1998
Dissertation Topic: Sample Size Re-estimation.

PROFESSIONAL SOCIETIES

American Statistical Association:
Fellow (Elected 2007)
Council of Sections Representative for Biometrics Section (1992).
Secretary/Treasurer for Council of Sections (1991);
Royal Statistical Society:
Fellow.
Society for Clinical Trials.
Board of Directors (1999-2003)
Washington Statistical Society:
Biostatistics Program Chair 1987-92.
Biometrics Society.
Drug Information Association.

Data Monitoring Committee Membership

Novartis – Psoriasis (active)
Ambrisentan (Myogen): Pulmonary Hypertension – (active)
Elidel (Novartis) – Dermatology – (active)
Kremezin (Kureha) – Chronic Kidney Disease (active)
Vascugel (Pervasis) – AV Access in Hemodialysis (concluded)
STAT-PRONTO – Acute Heart Failure (active)
Lamasil (Novartis) – Dermatology – (ended 2006)
Sandostatin (Novartis) – Chair – Hypothalamic Obesity – (ended 2005)

Served as non-voting sponsor representative to numerous DMCs while at NIH, and later at Searle.

NIH Grant – Completed 2008.
Grant to Develop Software for Designing Clinical Trials with Interim Analyses. STOPP® software currently marketed.

TUTORIALS

What to Consider when Setting the Efficacy, Futility and Safety Stopping Rules for DMC Decisions, A tutorial (half-day) at 4th Annual Data Monitoring Committees Conference, Philadelphia, PA February 2009.

Optimizing Group-Sequential Designs: Focusing on Adaptability – with STOPP® software. A tutorial (half-day) at Novartis, Hanover, NJ. December 2008.

Optimizing Group-Sequential Designs: Focusing on Adaptability – with STOPP® software. A tutorial (half-day) at Deming Conference, Atlantic City, NJ.

December 2008.

Group-Sequential Designs for Sample Size Re-estimation, with STOPP® software. A tutorial at Johnson & Johnson, Raritan, NJ. Oct 2008.

Optimal Group-Sequential Designs with STOPP® software. A tutorial (half-day) at Merck Research Laboratories, West Point, PA. May 2008.

Interim Monitoring of Clinical Trials, A tutorial (half-day) at Deming Conference, Atlantic City, NJ. December 2004.

Interim Monitoring of Clinical Trials, A tutorial (half-day) at Novartis, Hanover, NJ, scheduled for September 2004.

Interim Monitoring of Clinical Trials, A Short Course (half-day) at the Society for Clinical Trials, New Orleans, May 2004.

Interim Monitoring of Clinical Trials, A tutorial at Pfizer (full-day), New York, April 2004.

Interim Monitoring of Clinical Trials, A tutorial at Yale University (full-day), New Haven, June 2003.

Interim Monitoring of Clinical Trials, A tutorial sponsored by PharmaNet (half-day) for pharmaceutical companies in Northern and Central New Jersey. April 2003.

Interim Monitoring of Clinical Trials, A Tutorial (full-day) at a Midwest Pharmaceutical company. Chicago area, November 2002.

Group-Sequential Methods for Survival Trials, Temple University, Philadelphia, PA, November 2001.

Design Issues for Group-Sequential Survival Trials, Workshop in Statistical Design and Analysis, Barnett International, Philadelphia, PA, March 2001.

Designing Group Sequential Survival Trials, as faculty for the Sixth Annual Biopharmaceutical Applied Statistics Symposium, Hilton Head, December 1999.

EDUCATION

1978 University of Maryland. Ph.D. in Mathematical Statistics.
Dissertation advisor, Dr. Damaraju Raghavarao.

Dissertation topic: *Undiminished Residual Effects Designs and Their Application to Survey Samples.*

1971 University of Maryland. M.A. in Mathematics.

1969 Temple University. A.B. in Mathematics.

United States Public Health Service Special Recognition Award - 1992.

BOOK CHAPTERS/SECTIONS

Lakatos, E. Sample Size Determination. In Biostatistics in Clinical Trials. C. Redmond and T. Colton, Eds. New York: Wiley, 2001.

Lakatos, E. and Wu, J. Sample size and power for clinical trials that may change sample size during the trial. In Recent Advances in Experimental Design and Related Topics, S. Altan and J. Singh, Eds., Huntingdon, NY: Nova Science Publishers, Inc, 2001.

Lakatos, E. Sample size calculation in clinical trials. In Encyclopedia of Biostatistics. P. Armitage and T. Colton, Eds. New York: Wiley, 1998.

Lakatos, E. STOPP® - The Handbook. Available from BiostatHaven Inc. 2008

PUBLICATIONS

Lakatos, E. Designing complex group sequential survival trials, *Statistics in Medicine*, 2002 21.1969-1989.

Ganju J, Lakatos E, Rothe E, A simple way to estimate the median time and compare survival distributions in analgesic trials under informative censoring, *J. Biopharm Stat*; 1999 9. 683-93.

Wittes J, Lakatos E, … Selecting screening criteria for clinical trials: an example from the Systolic Hypertension in the Elderly Program. *Controlled Clin Trials*; 1999 20, 121-32.

Udelsman R, Lakatos E, Ladenson P, Optimal surgery for papillary thyroid carcinoma; *World J Surg*; 1996; 20, 88-93.

Zucker DM, Lakatos E, …. Statistical Design of the Child and Adolescent Trial for Cardiovascular Health (CATCH): implications of cluster randomization. *Controlled Clinical Trials*; 1995; 16,96-118.

Snyder MP, Obarzanek E, ..., Lakatos E, Reducing the fat content of ground beef in a school foodservice setting. *J American Dietetic Assoc*; 1994; 94, 1135-9.

Obarzanek E, Schreiber GB, ..., Lakatos E, Energy intake and physical activity in relation to indices of body fat: The National Heart, Lung and Blood Institute Growth and Health Study; *American J. of Clinical Nutrition*; 1994; 60, 15-22.

Campaigne BN, Morrison JA, ..., Lakatos E, ...Indexes of obesity and comparisons with previous national survey data in 9- and 10-year-old black and white girls: the National Heart, Lung, and Blood Institute Growth and Health Study. *J. Pediatr*. 1994; 124, 675-80.

Davis BR, Wittes J, Berge KG, Hawkins CM, Lakatos E, Moye LA, Probstfield JL, Statistical Considerations in Monitoring the Systolic Hypertension in the Elderly Program (SHEP). *Controlled Clinical Trials*; 1993; 14,350-361.

Quyyumi AA, Diodati JG, Cropp A, Lakatos E, Bonow RO, and Epstein SE. Angiogenic effects of low molecular weight heparin, in patients with stable coronary artery disease: a pilot study. *J. American College of Cardiology*; 1993; 22, 635-41

Obarzanek E, Reed DB,..., Lakatos E, Fat and sodium content of school lunch foods: calculated values and chemical analysis. *International J. of Food Sciences and Nutrition*; 1993; 44, 155-165.

Lakatos E and Lan KKG. A comparison of sample size methods for the logrank statistic. *Statistics in Medicine*; 1992; 11,179-191.

Spirito P, Lakatos E, Maron BJ. Degree of left ventricular hypertrophy in patients with hypertrophic cardiomyopathy and chronic atrial fibrillation. *American J. Cradiology*; 1992; 69, 1217-22.

Quyyumi AA, Panza JA, Diodati JG, Lakatos E, Epstein SE. Circadian variation in ischemic threshold. A mechanism underlying the circadian variation in ischemic events. *Circulation*; 1992; 86, 22-8.

Kimm SYS, Payne GH, Lakatos E, Webber, LS and Greenblatt J. Primary care physicians and children's blood cholesterol. *Preventive Medicine*; 1992; 21:191-

202.

TOHP Collaborative Research Group. The effects of nonpharmacologic interventions on blood pressure of persons with high normal levels: Results of the Trials of Hypertension Prevention, Phase I. *J of the American Medical Association* 1992;267:1213-1220.

Labarthe DR, Blaufox MD, Smith WM, Lacy CR, Schnaper H, LaBaw F, Mascoli S, Davey J, Lakatos E. Systolic Hypertension in the Elderly Program (SHEP): Baseline Blood Pressure and Pulse Rate Measurements. *Hypertension*. 1991; 17: II.62-II.76.

Bonow RO, Marin B, Lakatos E, Epstein SE. Serial long-term assessment of the natural history of asymptomatic patients with chronic aoritc regurgitation and normal left ventricular systolic function. *Circulation*; 1991; 84:1625-1635.

SHEP Cooperative Research Group. Prevention of stroke by antihypertensive drug treatment in older patients with isolated systolic hypertension*. J of the American Medical Association*; 1991; 265: 3255-3264.

Borhani NO, Applegate WB, Cutler JA, Davis BR, Furberg CD, Lakatos E, et al. Systolic Hypertension in the Elderly Program (SHEP): Rationale and Design. *Hypertension*. 1991; 17: II.2-II.15.

Zucker D and Lakatos E. Weighted linear rank statistics for comparing survival curves when there is a time lag in the effectiveness of treatment. *Biometrika* 1990; 77: 853-64.

Kimm SYS, Payne GH, Lakatos E, Darby C, Sparrow A. Management of cardiovascular risk factors in children. *American J of Diseases of Childhood* 1990; 144:967-972.

The Systolic Hypertension in the Elderly Program (SHEP): An Intervention Trial on Isolated Systolic Hypertension (with Lakatos E.). *Clinical and Experimental Hypertension*. 1989; A11: 973-989.

Wittes J, Lakatos E, and Probstfield J. Surrogate endpoints in clinical trials: Cardiovascular diseases. *Statistics in Medicine* 1989; 8: 415-425.

The Systolic Hypertension in the Elderly Program (SHEP) Cooperative Research Group (with Lakatos E and Wittes J). Rationale and design of a randomized clinial trial on prevention of stroke in isolated systolic hypertension*. Journal of Clinical Epidemiology* 1988; 41: 1197-1208.

Lakatos E. Sample size based on the logrank static in complex clinical trials. Biometrics 1988; 44: 229-241.

Sorlie P, Lakatos E, Kannel W, and Celli B. Influence of cigarette smoking on lung function at baseline and at follow-up in 14 years. The Framingham Study. Journal of Chronic Diseases 1987; 40: 849-856.

Lakatos E and Raghavarao D. Undiminished residual effects designs and their suggested applications. Communications in Statistics Theory and Methods 1987; 16: 1345-1359.

Lakatos E. Sample size determination in clinical trials with time-dependent rates of losses and noncompliance. Controlled Clinical Trials 1986; 7: 189-199.

Brogan D and Lakatos E. Hypertension detection treatment and control in the U.S. - Not as bad as it seems? American Journal Epidemiology 1986; 124: 738-745.

Sprecher DL, Hoeg JM, Schaefer EJ, Zech LA, Gregg RE, Lakatos E, and Brewer HB. The association of LDL receptor activity, LDL cholesterol level and clinical course in homozygous familial hypercholesterolemia. Metabolism 1985; 34: 294-299.

Bonow RO, Picone AL, McIntosh CL, Jones M, Rosing DR, Marion B, Lakatos E, Clark R, and Epstein S. Survival and functional results after valve replacement for aortic regurgitation from 1976 to 1983: Impact of preoperative left ventricular function. Circulation 1985; 72: 1244-1256.

Higgins M, Keller J, Landis R, Beaty T, Burrows B, DeMets D, Diem J, Higgins T, Lakatos E, Lebowitz M, Menkes H, Speizer F, Tager I, and Weill H. Risk of chronic obstructive pulmonary disease: Collaborative assessment of the validity of the Tecumseh Index of risk. American Review of Respiratory Diseases 1984; 130: 380-385.

Bonow RO, Kent KM, Rosing DR, Lan KKG, Lakatos E, Borer JS, Bacharach SL, Green MV, and Epstein SE. Self-induced ischemia in mildly symptomatic patients with coronary-artery disease and preserved left ventricular function. New England Journal of Medicine 1984; 311: 1339-1345.

Lenes B, Klein HG, and Lakatos E. Selective removal of sickle cells with IBM 2997 continuous-flow blood cell separator. Journal of Clinical Apheresis 1983; 1: 64-70.

Keogh BA, Lakatos E, Price D. and Crystal RG. Importance of the lower respiratory tract in oxygen transfer. American Review of Respiratory Disease 1983; 129: 76-80.

Bonow RO, Rosing DR, McIntosh CL, Jones M, Maron BJ, Lan G, Lakatos E, Bacharach SL, Green MV, and Epstein SE. The natural history of asymptomatic patients with aortic regurgitation and normal left ventricular function. Circulation 1983; 68: 509-517.

Takahara Y, Battaini F, Ross DD, Akman SA, Bachur NR, Bailey KR, Lakatos E, and Peterkofsky A. Detection in human serum by radioimmunoassay of histidyl-proline diketopieperazine, a metabolite of thyrotropin-releasing hormone. Journal of Clinical Endocrinology and Metabolism 1982; 56: 312-319.

INVITED PRESENTATIONS

Optimizing Group-Sequential Designs: Focusing on Adaptability – with STOPP® software. Columbia University, November 2008.

Current Challenges in Clinical Research in the Pharmaceutical Industry: A Statistician's Perspective. Plenary Session – Discussant May 2004

Group-Sequential Survival Trials, Seminar at Yale University, New Haven, October 2003.

Design Considerations for a Very Large Active-Controlled Trial, Workshop on Active Controls in Clinical Trials, Barnett International, Philadelphia, PA. (Scheduled for 9/12/2001, workshop cancelled 9/11/2001).

Adaptive Designs in Clinical Trials: Some Issues in Sample Size Re-estimation and Stochastic Curtailing, International Chinese Association Annual Meeting, Piscataway, N.J, June 2000.

Sample Size for Group-Sequential Survival Trials, Philadelphia Chapter of The American Statistical Association, Philadelphia, PA, March 2000.

Equivalence Trials - How to Select the Smallest Clinically Meaningful Difference. Annual meeting of the Society for Clinical Trials, Atlanta, 1998.

Recent Issues In Interim Monitoring of Survival Trials, Spring Meeting of the Northern Illinois Chapter of the ASA, Chicago, 1996

Discussant for Issues in Interim Monitoring and Group Sequential Analysis at the 29th Annual Meeting of the Drug Information Association, Chicago, 1993.

Keynote Address for Biostatistics Satellite Meeting of the XVIth International Biometrics Conference, New Castle, Australia, 1992.

Power Considerations for Group Sequentially Designed Nonproportional Hazards Survival Trials. Washington Statistical Society, 1992.

Survival Analysis for 2 x 2 Factorial Clinical Trials. Discussant (speaker - Eric Slud) Washington Statistical Society, 1992.

Symposium on Sample Size Methodology. Sample size methods for survival clinical trials. Temple University, June, 1991.

Robust estimation in the two-sample problem in survival data. (presented by David Zucker). George Washington University, 1991.

Weighted rank statistics for comparing survival curves under a time lag in treatment effect (presented by David Zucker). Washington Statistical Society Seminar, 1989.

Computerized Quality Control - How much is enough? Discussant- Society for Clinical Trials Meetings, 1989.

Sample size based on the logrank statistic in complex clinical trials. University of Maryland, 1987.

Some factors which complicate the design of cardiovascular prevention trials (with Janet Wittes and David Zucker). Biometric Society Spring Meetings, 1987.

On surrogate endpoints in cardiovascular clinical trials (presented by Janet Wittes with Jeffrey Probstfield). Biometric Society Meetings, 1987.

Fixed effects and random effects models for informative censoring in long-term follow-up (presented by Kent Bailey). Amer Statistical Assoc Annual Meeting, 1985.

Informative censoring in Clinical Trials (with Kent Bailey). Temple University, Department of Statistics, 1984.

The feasibility of using alternate endpoints in a mild hypertension clinical trial. Working group on Research Directions in the Treatment of Mild Hypertension,

1984.

Adjusting comparisons in the presence of informative censoring (with Kent Bailey). American Statistical Association Annual Meetings, 1984.

Adjusting comparisons in the presence of informative censoring (presented by Kent Bailey). University of Wisconsin, Department of Biostatistics, 1984.

Informative censoring and the CDP aspirin study (with Kent Bailey). Society for Clinical Trials Annual Meetings, 1983.

Regression models - linear, logistic and Cox - and their application to lipid data. Molecular Diseases Branch Research Seminar, 1984.

The feasibility of expansion of the Commodity Transportation Survey. Research seminar. U.S. Bureau of the Census, 1977.

Use of artificial intelligence in coding Census questionnaires. Research seminar. U.S. Bureau of the Census, 1977.

CONTRIBUTED PAPERS

Effect of interim monitoring on the power of survival trials with nonproportional hazards. Annual Meeting- Biometric Society (1992).

The effect of measurement error on a common method of assessing tracking of cardiovascular risk factors. (with Sue Kimm). Society of Pediatric Epidemiologic Research (1992).

Comparison of two methods of quantification of nutrient intake. (Presented by Eva Obarzanek). Seventeenth National Nutirient Data Bank Conference (1992).

Statistical considerations in monitoring the systolic hypertension in the elderly program. (presented by Barry Davis). 13th Annual Meeting- Society for Clinical Trials (1992).

Design considerations for a trial of well-differentiated thryoid carcinoma. (presented by Robert Udelsman). Meeting of Endocrinologists at the Johns Hopkins University (1992).

Sample size for group sequential survival trials. Joint Meeting of the International Society for Clinical Biostatistics-Society for Clinical Trials, 1991.

Body Composition Relation to Blood Pressure and Lipids in 9-10 year old Black and White girls: NHLBI Growth and Health Study (NGHS). (presented by Sue Kimm). 64th Annual Scientific Session of the American Heart Association, 1991.

Calcium and magnesium supplementation and blood pressure: results from Phase I of the Trials of Hypertension Prevention. (presented by Monica Yamamoto). 64th Annual Scientific Session of the American Heart Association, 1991.

Angiogenic effects of low molecular weight heparin (Fragmin) in coronary artery disease. (presented by Arshed Quyyumi). 64th Annual Scientific Session of the American Heart Association, 1991.

Issues related to the design and conduct of life style intervention studies in children. (presented by Sue Kimm). 4th Annual Meeting of the Society for Pediatric Epidemiologic Research, 1991.

Tracking of Cardiovascular Disease Risk Factors in Black and White 9-10 Year Old Girls (presented by Sue Kimm). 63rd Annual Scientific Session of the American Heart Association, 1990.

Ventricular Tachycardia Induced by Programmed Stimulation Predicts Poor Long Term Outcome in Patients with Hypertrophic Cardiomyopathy (presented by Lameh Fananapazir). 63rd Annual Scientific Session of the American Heart Association, 1990.

Hypercholesterolemia in Preadolescent Black and White Girls: predictive value Positive of the Use of Total Blood Cholesterol for Screening. (presented by Sue Kimm). 63rd Annual Scientific Session of the American Heart Association, 1990.

Cardiovascular Disease Risk Factors in Young Black and White Girls: the NHLBI Growth and Health Study (NGHS). 63rd Annual Scientific Session of the American Heart Association, 1990.

Weighted log rank type statistics for comparing survival curves under a time lag in the effectiveness of treatment (presented by David Zucker). Annual Meeting of the Institute of Mathematical Statistics, 1989.

Current Approaches of Family Medicine Physicians Toward Coronary Heart Disease Risk Factors in Children: Implications for Training and Practice. (Presented by Sue Kimm). 22nd Annual Society of Teachers of Family Medicine Conference, 1989.

Syncope in Hypertrophic Cardiomyopathy: A Hemodynamic and Electrophysiologic Risk Analysis (presented by Lameh Fananapazir). 62nd Annual Scientific Session of the American Heart Association, 1989.

Evaluation of Diastolic Pressure in School-Aged Girls: Correlates of Fourth and Fifth Phase Korotkoff Sounds (presented by Frank Biro). The American Pediatric Society, 1989.

The Natural History of Asymptomatic Patients with Chronic Aortic Regurgitation: Serial Long-term Changes in Left Ventricular Function (presented by Robert O. Bonow). 37th Annual Scientific Session of the American College of Cardiology: March, 1988.

Impact on Sample Size in Chemoprevention Trials: Different Methods of Handling Lag Time to Effect and Subjects Who go "Off Intervention" (submitted by Ann Hartman). Third International Conference on Prevention of Human Cancer: Chemoprevention, 1988.

Circadian Variation in Ischemic Events: Causal Role of Variation in Ischemic Threshold Due to Changes in Vascular Resistance. 61st Annual Scientific Session of the American Heart Association, 1988.

Primary Care Physicians' Approaches to Coronary Heart Disease Risk Factors in Children. (Presented by Sue Kimm). 61st Annual Scientific Session of the American Heart Association, 1988.

Physician's Attitudes and Practices Regarding Cholesterol in Children. (Presented by Sue Kimm).The First National Cholesterol Conference: November, 1988.

Asymptomatic Aortic Regurgitation with Normal Left Ventricular Systolic Function: Serial Long Term Evaluation. 60th Annual Scientific Session of the American Heart Association, 1987.

Calculation of Sample Size for Complex Clinical Trials When Analysis is Based on the Logrank Statistic. International Biometric Society Annual Meetings, 1986.

Left Ventricular Function in Normal Subjects: Sex and Age Related Effects at Rest and During Exercise (presented by Robert Bonow). American College of Cardiology, Annual Scientific Meeting, 1986.

Coronary Vascular Response to Histamine in Miniswine with Varying Degrees of Atherosclerotic Disease (presented by Dennis Sprecher) November 1985.

Sample Size Determination in Clinical Trials in the Presence of Time Dependent Losses. American Statistical Association/Institute of Mathematical Statistics Annual Meetings, 1985.

Comparison of Several Methods of Estimation in the Presence of Non-Random Censoring in Repeated Measures Trials (presented by Kent Bailey). American Statistical Association/Institute of Mathematical Statistics Annual Meetings, 1985.

Undiminished Residual Effects Designs and Their Application to Sample Surveys (with D. Raghavarao). American Statistical Association/Institute of Mathematical Statistics Annual Meetings, 1977.

Automated Industry and Occupation Coding. American Statistical Association/Institute of Mathematical Statistics Annual Meetings, 1977.

PUBLICATIONS - DISSERTATION

Undiminished Residual Effects Designs and Their Application to Survey Sampling. University of Maryland, Department of Statistics, Graduate School. (Dissertation)