

REBECCA DERSIMONIAN, Sc.D.
Curriculum Vitae

EDUCATION

<u>Dates</u>	<u>School</u>	<u>Major</u>	<u>Degree</u>
1970 - 1974	Brandeis University	Biology	A.B.
1978 - 1980	Harvard University	Biostatistics	S.M.
1980 - 1983	Harvard University	Biostatistics Pathology (Minor)	Sc.D.

ACADEMIC & PROFESSIONAL APPOINTMENTS

1999 - Present	Mathematical Statistician National Institute of Allergy and Infectious Diseases (NIAID)
1990 - 1999	Mathematical Statistician National Institute of Child Health and Human Development (NICHD)
1984 - 1990	Assistant Professor of Public Health Yale University School of Medicine
1988 & 1993	Fulbright Teaching Scholar Erevan State University, Armenia
1983 - 1984	Post Doctoral Fellow (Biostatistics) University of North Carolina at Chapel Hill
1978 - 1983	Teaching and Research Fellow (Biostatistics) Harvard University School of Public Health

AWARDS & RECOGNITIONS (NIAID)

Special Recognition (2003)

"In appreciation of outstanding contributions and efforts in support of the NIAID mission"

Special Act Award (2006)

"Sustained and exceptional efforts coordinating the Data and Safety Monitoring Board activities for the DAIDS-supported clinical trials"

Merit Award (2008)

"For contributions to the collaborative development of an NIAID DSMB Principles Document, a cross divisional initiative to harmonize key DSMB practices"

Special Act Award (2014)

"Excellence in mastering the leadership of the NIAID Data and Safety Monitoring Boards"

ADVISORY AND COMMITTEE AFFILIATIONS

1986 - 1990	Member of the Academic Progress Committee Yale University School of Public Health
1991 - 1995	Member of the Steering Committee for the NICHD "Trial of Calcium Supplementation for the Prevention of Preeclampsia in Pregnancy"
1995	Member of the Ad Hoc Committee for the NICHD Flexible Workplace Program
1995 - 1998	Member of the Women Scientist Advisory Committee Office of the Deputy Director (Intramural), NIH
1997 - 1998	Member of the Search and Promotion Committee for the Division of Epidemiology, Statistics, and Prevention Research, NICHD
1995 - 1999	Member of the Data and Safety Monitoring Board for the "Pride in Parenting Protocol" of the NIH-DC Initiative
1998 - 1999	Member of the Data and Safety Monitoring Board for the WHO trial of "Misoprostol in the Management of the Third Stage of Labour"
2002	Technical reviewer for the proposals submitted in response to NIAAA RFP "Estimating the Alcohol-Attributable Fraction for U.S. Morbidity and Mortality Based on Meta- Analysis of Epidemiologic Studies"
2009	Member of the FDA's Drug Safety Oversight Board Panel on Meta-Analysis
2000 - Present	Executive Secretary for the following NIAID DSMBs: <ul style="list-style-type: none"><input type="checkbox"/> Division of AIDS (DAIDS) Therapeutics DSMB (2000-2007)<input type="checkbox"/> PENPACT DSMB (2001-2006)<input type="checkbox"/> ESPRIT/SILCAAT DSMB (2001-2007)<input type="checkbox"/> CAMELIA DSMB (2004-2008)<input type="checkbox"/> DAIDS Therapeutics-Africa DSMB (2005-Present)<input type="checkbox"/> DAIDS Prevention DSMB (2011-2012)<input type="checkbox"/> NIAID Prevention-Africa DSMB (2012-Present)<input type="checkbox"/> EBOLA Vaccine DSMB (2014-Present)

INVITED PRESENTATIONS

"Reporting on Methods in Clinical Trials"
Beth Israel Hospital, Boston (1982)

"Meta-Analysis in Clinical Trials"
Stanford University, Palo Alto (1986)

"Meta-Analysis in Medical Research"
Erevan State University, Armenia (1988)

"Issues in Combining Evidence from Comparative Clinical Trials"
Mount Sinai School of Medicine, New York (1989)

"Monitoring of Clinical Trials"
Erevan State University, Armenia (1993)

"Meta-analysis in the Design and Monitoring of Clinical Trials"
National Institutes of Health, Bethesda (1994)

"Heterogeneity and Related Issues in Meta-analysis"
Food and Drug Administration, Rockville (1995)

"Trials of Calcium for the Prevention of Preeclampsia"
10-Th World Congress: International Society for the Study of Hypertension in
Pregnancy, Seattle (1996)

"Reflections on My Years at the Harvard School of Public Health"
50-th Anniversary Celebration of the Biostatistics Department
Harvard School of Public Health, Memphis (1997)

"Meta-Analysis in Social Sciences"
Institute for the Advancement of Social Work Research (2004)

"Heterogeneity in Meta-Analysis of Clinical Trials" Third World Conference on
Computational Statistics and Data Analysis, Limassol, Cyprus (2005)

WORKSHOPS AND SPECIAL COURSES

"Statistical Methodology in Clinical Research"
The Princeton Conference, Atlantic City (1985)

"Introductory Data Analysis"
Erevan State University, Armenia (1988)

"Introduction to Clinical Trials"
Erevan State University, Armenia (1993)

GRADUATE COURSES: YALE UNIVERSITY SCHOOL OF MEDICINE (1984-1990)

- Introduction to Biostatistics
- Linear Regression and Analysis of Variance
- Categorical Data Analysis
- Multivariate Analysis (Theoretical)
- Multivariate Analysis (Applications)
- Bioassay
- Stochastic Processes in Medicine
- Graduate Tutorials

ACADEMIC ADVISOR: DISSERTATIONS

Janet Cobb: Yale University 1986 (Masters)
Christopher Murtaugh: Yale University 1987 (Doctorate)
Mark Legnini: Yale University 1988 (Doctorate)
Nancy Majka: Yale University 1989 (Masters)
Angela Colantino: Yale University 1990 (Doctorate)
Hari Kusnanto: Yale University 1995 (Doctorate)

PEER REVIEWER

Biometrics
Biostatistics
American Statistician
Statistics in Medicine
Journal of the Royal Statistical Society
Journal of Clinical Epidemiology
New England Journal of Medicine
Journal of the American Medical Association
Controlled Clinical Trials
American Journal of Epidemiology
Vaccine
Journal of Biopharmaceutical Statistics
Journal of Acquired Immune Deficiency Syndromes

PUBLICATIONS

DerSimonian R, Charette LJ, McPeck B, and Mosteller F. "Reporting on Methods in Clinical Trials". The New England Journal of Medicine, 306: 1332-1337, 1982.

Laird N, and **DerSimonian R**. "Issues in Combining Evidence from Several Comparative Trials of Clinical Therapy". In: Proceedings of the XIth International Biometric Conference, 1982.

DerSimonian R, and Laird N. "Evaluating the Effectiveness of Coaching on SAT Scores: A Meta-Analysis". Harvard Educational Review, 53: 1-15, 1983.

DerSimonian R, and Laird N. "Meta-Analysis in Clinical Trials". Controlled Clinical Trials, 7: 177-188, 1986.

DerSimonian R. "Maximum Likelihood Estimation of a Mixing Distribution". Journal of the Royal Statistical Society, Series C, 35: 302-309, 1986.

Vlock DR, **DerSimonian R**, and Kirkwood JM. "Prognostic Role of Antibody Reactivity to Melanoma". Journal of Clinical Investigation, 77: 1116-1121, 1986.

DerSimonian R. Invited Commentary on "Empirical Bayes Confidence Intervals Based on Bootstrap Samples". Journal of the American Statistical Association, 82: 755-756, 1987.

DerSimonian R, and Baker S. "Two-Process Models for Discrete-Time Serial Categorical Response". Statistics in Medicine, 7: 965-974, 1988.

Murtaugh CM, Cooney LM, **DerSimonian R**, Smits HL, and Fetter RB. "Nursing Home Reimbursement and the Allocation of Rehabilitation Therapy Resources". Health Services Research, 23: 467-493, 1988.

DerSimonian R. Editorial: "Combining Evidence from Clinical Trials". Anesthesia and Analgesia, 70: 475-476, 1990.

DerSimonian R. Invited Commentary on "Parenteral Nutrition with Branched-Chain Amino Acids in Hepatic Encephalopathy: Meta-Analysis". Hepatology, 11: 1083-1084, 1990.

Flanders WD, **DerSimonian R**, and Rhodes P. "Estimation of Risk Ratios in Case-Base Studies with Competing Risks". Statistics in Medicine, 9: 423-435, 1990.

Legnini MW, Thompson JD, **DerSimonian R**, and Lynch JT. "Recent Changes in Connecticut Hospital Use Rates: Have Small-Area Variations Been Affected?" Inquiry, 27: 51-60, 1990.

Baker SG, Rosenberger WF, and **DerSimonian R**. "Closed-Form Estimates for Missing Counts in Two-Way Contingency Tables". Statistics in Medicine, 11: 643-657, 1992.

Levine RJ, Raymond E, **DerSimonian R**, and Clemens JD. "Preeclampsia Prevention with Calcium Supplementation". Clinics in Applied Nutrition, 2: 30-38, 1992.

Duray PH, **DerSimonian R**, Barnhill R, Stenn K, Ernstoff MS, Fine J, and Kirkwood JM. "An Analysis of Inter-Observer Recognition of the Histopathologic Features of Dysplastic Nevi from a Mixed Group of Nevomelanocytic Lesions". Journal of the American Academy of Dermatology, 27: 741-749, 1992.

Flanders WD, **DerSimonian R**, and Freedman DS. "Interpretation of Linear Regression Models That Include Transformations or Interaction Terms". Annals of Epidemiology, 2: 735-744, 1992.

DerSimonian R, Clemens J, Spirtas R, and Perlman J. "Vasectomy and the Risk of Prostate Cancer: Methodological Review of the Evidence". Journal of Clinical Epidemiology, 46: 163-172, 1993.

Strickler H, Hoover DR, and **DerSimonian R**. "Problems in Interpreting HIV Sentinel Seroprevalence Studies". Annals of Epidemiology, 5: 447-454, 1995.

DerSimonian R. "Meta-Analysis in the Design and Monitoring of Clinical Trials". Statistics in Medicine, 15: 1237-1248, 1996.

Levine RJ, Esterlitz JR, Raymond EG, **DerSimonian R**, et al. "The Trial of Calcium for Preeclampsia Prevention (CPEP): Rationale, Design, and Methods". Controlled Clinical Trials, 17: 442-469, 1996.

Levine R, and **DerSimonian R**. Letter to the Editor: "Effect of Calcium Supplementation on Pregnancy-Induced Hypertension and Preeclampsia: A Meta-analysis". Journal of the American Medical Association, 276: 1387, 1996.

DerSimonian R, and Clemens J. "Does Vasectomy Cause Cancer?" Chance, 10: 12-14, 1997.

Levine R, Hauth J, Curet L, Sibai B, Catalano P, Morris C, **DerSimonian R**, et al. "Trial of Calcium to Prevent Preeclampsia". The New England Journal of Medicine, 337: 69-76, 1997.

Klebanoff M, Levine R, and **DerSimonian R**. Letter to the Editor: "Large Trials versus Meta-analysis of Smaller Trials". Journal of the American Medical Association, 277: 376-377, 1997.

Klebanoff M, Levine R, **DerSimonian R**, Clemens J, and Wilkins DG. "Serum Caffeine and Paraxanthine as Markers for Reported Caffeine Intake in Pregnancy". Annals of Epidemiology, 8: 107-111, 1998.

Klebanoff M, Levine R, Clemens J, **DerSimonian R**, and Wilkins DG. "Serum Cotinine Concentration and Self-reported Smoking during Pregnancy". American Journal of Epidemiology, 148: 259-262, 1998.

DerSimonian R, and Levine R. "Resolving Discrepancies between a Meta-analysis and a Subsequent Large Controlled Trial". Journal of the American Medical Association, 282: 664-670, 1999.

Brenner R, Overpeck M, Trumble A, **DerSimonian R**, and Berendes H. "Deaths Attributable to Injuries in Infants, United States, 1983-1991". Pediatrics, 103: 968-974, 1999.

Zhang J, Klebanoff MA, and **DerSimonian R**. "Epidural Analgesia in Association with Duration of Labor and Mode of Delivery: A quantitative review". American Journal of Obstetrics and Gynecology, 180: 970-977, 1999.

DerSimonian R. Letter to the Editor: "Conference on Meta- analysis and Monitoring of Clinical Trials". Statistics in Medicine, 18: 753-754, 1999.

Mills JL, **DerSimonian R**, Raymond E, Morrow J, et al. "Prostacyclin and Thromboxane Changes Predating Clinical Onset of Preeclampsia: A Multicenter Prospective Study". Journal of the American Medical Association, 282: 356-362, 1999.

Klebanoff M, Levine R, **DerSimonian R**, Clemens J, and Wilkins D. "Maternal Serum Caffeine Metabolites and the Risk of Spontaneous Abortion". The New England Journal of Medicine, 341: 1639-1644, 1999.

Henderson C, Ownby D, Trumble A, and **DerSimonian R**. "Predicting Asthma Severity from Allergic Sensitivity to Cockroaches in Pregnant Inner City Women". Journal of Reproductive Medicine, 45: 337-340, 2000.

Ramsey M, **DerSimonian R**, Holtel M, and Burgess L. "Corticosteroid Treatment for Idiopathic Facial Nerve Paralysis: A Meta-analysis". The Laryngoscope, 110: 335-341, 2000.

Anthony K, Yoder C, Metcalf J, **DerSimonian R**, Orenstein J, Stevens R, Falloon J, Polis M, Lane C, and Sereti I. "Incomplete CD4 T Cell Recovery in HIV-Infection after 12 Months of Highly Active Antiretroviral Therapy (HAART) is Associated with Ongoing CD4 T Cell Activation and Turnover". Journal of Acquired Immune Deficiency Syndromes, 33: 125-133, 2003.

DerSimonian R, and Kacker R. "Random-Effects Model for Meta-analysis of Clinical Trials: An Update". Contemporary Clinical Trials, 28: 105-114, 2007.

Sereti I, Sklar P, Ramchandani MS, Read SW, Aggarwal V, Imamichi H, Natarajan V, Metcalf JA, Joseph A, Kovacs JA, Tavel J, Davey RT, **DerSimonian R**, and Lane HC. "CD4+ T Cell Responses to Interleukin-2 Administration in HIV-Infected Patients Are Directly Related to the Baseline Level of Immune Activation". *The Journal of Infectious Diseases*, 196: 677-683, 2007.

Read SW, DeGrazia M, Ciccone EJ, **DerSimonian R**, Higgins J, Adelsberger JW, Starling JM, Rehm C, and Sereti I. "The effect of leflunomide on cycling and activation of T-cells in HIV-1-infected participants". *PLoS One*, 5: e11937, 2010.

Antonelli LR, Mahnke Y, Hodge JN, Porter BO, Barber DL, **DerSimonian R**, Greenwald JH, Robey G, Mican J, Sher A, Roederer M, and Sereti I. "Elevated frequencies of highly activated CD4+ T cells in HIV+ patients developing immune reconstitution inflammatory syndrome". *Blood*, 116: 3818-3827, 2010

Puronen CE, Thompson WL, Imamichi H, Beq S, Hodge JN, Rehm C, Parker R, **DerSimonian R**, Brenchley JM, and Sereti I. "Decreased interleukin 7 responsiveness of T lymphocytes in patients with idiopathic CD4 lymphopenia". *The Journal of Infectious Diseases*, 205: 1382-1390, 2012.

Mahnke YD, Greenwald JH, **DerSimonian R**, Roby G, Antonelli LR, Sher A, Roederer M, and Sereti I. "Selective expansion of polyfunctional pathogen-specific CD4 (+) T cells in HIV-1-infected patients with immune reconstitution inflammatory syndrome". *Blood*, 119: 3105-3112, 2012.

Lynch RM, Tran L, Louder MK, Schmidt SD, Cohen M, the CHAVI001 clinical team, **DerSimonian R**, Euler Z, Gray ES, Abdool Karim S, Kirchherr J, Montefiori DC, Sibeko S, Soderberg K, Tomaras G, Yang ZY, Nabel GJ, Schuitemaker H, Morris L, Haynes BF, and Mascola JR. "The development of CD4 binding site antibodies during HIV-1 infection". *Journal of Virology*, 86: 7588-7595, 2012.

Sheikh V, **DerSimonian R**, Richterman AG, Porter BO, Natarajan V, Burbelo P, Rupert A, Santich BH, Rehm C, Mican JM, Moir S, and Sereti I. "Graves' disease as immune reconstitution disease in HIV-positive patients is associated with naive and primary thymic emigrant CD4 (+) T-cell recovery". *AIDS*, 28: 31-39, 2014.

Grant PM, Sheikh V, **DerSimonian R**, Rupert A, Roby G, Pau A, Sneller MC, Rico S, Brown TT, and Sereti I. "Clinically-indicated corticosteroids do not affect bone turnover during immune restoration of severely lymphopenic HIV-infected patients". *AIDS Research and Human Retroviruses*, 31(7): 739-744, 2015.

DerSimonian R, and Laird N. "Meta-analysis in clinical trials revisited". *Contemporary Clinical Trials*, 45: 139-145, 2015.

Sheikh V, Porter BO, **DerSimonian R**, Kovacs SB, Thompson WL, Perez-Diez A, Freeman AF, Roby G, Mican J, Pau A, Rupert A, Adelsberger J, Higgins H, Bourgeois JS, Jensen SMR, Morcock DR, Burbelo PD, Osnos L, Maric I, Natarajan V, Croughs T, Yao MD, Estes JD, and Sereti I. "Administration of interleukin-7 increases CD4 T cells in idiopathic CD4 lymphocytopenia". *Blood* (in press).

BOOK CHAPTERS

Louis TA, and **DerSimonian R.** "Health Statistics Based on Discrete Population Groups". In: Regional Variations in Hospital Use. Rothberg DL, Ed. Toronto: Lexington Books, D.C. Heath and Company, 1982.

DerSimonian R., and Laird N. "Evaluating the Effectiveness of Coaching on SAT Scores: A Meta-Analysis". In: Essays on Educational Research. Hauser-Cram P and Martin FC, Eds. Cambridge: Harvard Educational Review, 1983.

DerSimonian R., Charette LJ, McPeck B, and Mosteller F. "Reporting on Methods in Clinical Trials". In: Medical Uses of Statistics (2nd Edition). Bailar JC, and Mosteller F, Eds. Boston: New England Journal of Medicine Books, 1992.

BOOK REVIEWS

DerSimonian R. "Analyzing Effect Sizes: Random Effects Models" (S. Raudenbush). In: Handbook of Research Synthesis. Cooper HM and Hedges LV, Eds. New York: Russell Sage Foundation, 1994.

DerSimonian R. "Systematic Reviews". Chalmers I, and Altman D, Eds. Statistics in Medicine, 16: 2930, 1997.