

May 13, 2016

Curriculum Vitae

**Christopher Henry Schmid**

**Professor of Biostatistics**

**Brown University**

Office Address:

Center for Evidence Based Medicine

Box G-S121-8

121 South Main St

Brown University

Providence, RI 02912

Email: [christopher\\_schmid@brown.edu](mailto:christopher_schmid@brown.edu)

Phone: 1-401-863-6453

**Education**

1983 B.A. *Haverford College* (Mathematics)

1987 A.M. *Harvard University* (Statistics)

1991 PhD *Harvard University* (Statistics).

**Dissertation:** Measurement Error Models for Logistic and Longitudinal Regression

2013 A.M. Brown University (ad eundem)

**Professional Appointments**

1983-1985 Actuarial Assistant, Prudential Reinsurance Company

1989-1991 Statistical Instructor, Bolt Beranek and Newman Software

1991-1994 Statistician, Center for Health Services Research and Study Design,  
Tufts-New England Medical Center

1992-2012 Special and Scientific Staff, Department of Medicine, Tufts Medical Center

1992-1993 Senior Instructor, Tufts University School of Medicine

1993-1999 Assistant Professor of Medicine, Tufts University School of Medicine

1994-2006 Senior Statistician, Biostatistics Research Ctr, Div of Clinical Care Research/ ICRHPS, Tufts

1996-1999 Assistant Professor of Family Medicine and Community Health, TUSM

1999-2006 Associate Professor of Medicine, Tufts University School of Medicine

Associate Prof. of Clinical Research, Sackler School of Graduate Biomedical Sciences, Tufts

2006-2012 Professor of Medicine, Tufts University School of Medicine

Professor, Sackler School of Graduate Biomedical Sciences, Tufts University

2006-2012 Director, Biostatistics Research Center, ICRHPS, Tufts Medical Center

2007-2012 Adjunct Professor, Friedman School of Nutrition Science and Policy, Tufts University

2012- Adjunct Professor of Medicine, Tufts University

2012- Professor of Biostatistics, Brown University

2012- Center for Evidence Based Medicine, Brown University

2014- Center for Statistical Sciences, Brown University

## Publications

### Books

1. Committee on Standards for Systematic Review of Comparative Effectiveness Research. Finding What Works in Health Care: Standards for Systematic Reviews, eds. J Eden, L Levit, A Berg and S Morton. Washington, DC: Institute of Medicine of the National Academies, 2011.

### Book Chapters

1. **Schmid CH**. Value Splitting: Taking the Data Apart in *Fundamentals of Exploratory Analysis of Variance*, ed. DC Hoaglin, F Mosteller and JW Tukey. NY: John Wiley and Sons, 1991, 72-113.
2. DeGroot AS, McGowen K, Schieb RG, **Schmid CH**, Lieberman J and Wyler DJ. T Cell Responses to Mycobacterium tuberculosis Antigens in the HIV-Infected Host in *Vaccines 93*. Cold Spring Harbor, NY: Cold Spring Harbor Press, 1993, 251-257.
3. Brown EN and **Schmid CH**. Application of the Kalman Filter to Computational Problems in Statistics in *Methods in Enzymology Volume 240: Numerical Computer Methods Part B*, ed. ML Johnson and L Brand. NY: Academic Press, 1994, 171-181.
4. **Schmid CH**. Nuisance Parameters in *Encyclopedia of Biostatistics*. NY: John Wiley and Sons, 1998, 3079-3080.
5. **Schmid CH** and Griffith JL. Multivariate Classification Rules: Calibration and Discrimination in *Encyclopedia of Biostatistics*. NY: John Wiley and Sons, 1998, 2844-2850.
6. Ioannidis JPA, **Schmid CH** and Lau J. Meta-Analysis Approaches for Epidemiologic Research on Asbestos. In: *Current Asbestos Issues: Volume 18 of the Sourcebook for Asbestos Diseases*, ed. GA Peters and BJ Peters. Charlottesville, VA: Lexis Law Publishing, 1998, 93-116.
7. **Schmid CH** and Brown EN. A Probability Model for Saltatory Growth in *Saltation and Stasis in Human Growth and Development: Evidence, Methods and Theory*, ed. M Lampl. London: Smith-Gordon, 1999, 121-131.
8. **Schmid CH** and Brown EN. Bayesian Hierarchical Models in *Methods in Enzymology Volume 321: Numerical Computer Methods Part C*, ed. ML Johnson and L Brand. NY: Academic Press, 2000, 305-330. [PMID: 10909064]
9. Ioannidis JPA, **Schmid CH** and Lau J. Meta-analysis in Hematology and Oncology in *Hematology/Oncology Clinics of North America: Understanding Clinical Trials*, ed. CJ Allegra and BS Kramer. Philadelphia: WB Saunders, 2000, 973-991. [PMID: 10949784]
10. **Schmid CH**, Cappelleri JC and Lau J. Bayesian methods to improve sample size approximations in *Methods in Enzymology Volume 383: Numerical Computer Methods Part D*, ed. ML Johnson and L Brand. NY: Elsevier, 2004, 406-427. [PMID: 15063660]
11. Mengersen K, **Schmid CH**, Jennions MD and Gurevitch J. Statistical models and approaches to inference for meta-analysis in *Handbook of Meta-Analysis in Ecology and Evolution*, eds. J Koricheva, J Gurevitch and K Mengersen. Princeton, NJ: Princeton University Press, 2013, 89-107.
12. Mengersen K and **Schmid CH**. Maximum likelihood approaches to meta-analysis in *Handbook of Meta-Analysis in Ecology and Evolution*, eds. J Koricheva, J Gurevitch and K Mengersen. Princeton, NJ: Princeton University Press, 2013, 125-144.
13. **Schmid CH** and Mengersen K. Bayesian meta-analyses in *Handbook of Meta-Analysis in Ecology and Evolution*, eds. J Koricheva, J Gurevitch and K Mengersen. Princeton, NJ: Princeton University Press, 2013, 145-173.
14. **Schmid CH**, Stewart G, Rothstein H and Gurevitch J. Software for meta-analysis in *Handbook of Meta-Analysis in Ecology and Evolution*, eds. J Koricheva, J Gurevitch and K Mengersen. Princeton, NJ: Princeton University Press, 2013, 174-191.

15. Mengersen K, Jennions MD and **Schmid CH**. Statistical models for the meta-analysis of non-independent data in *Handbook of Meta-Analysis in Ecology and Evolution*, eds. J Koricheva, J Gurevitch and K Mengersen. Princeton, NJ: Princeton University Press 2013, 255-283.
16. Mengersen K, Gurevitch J and **Schmid CH**. Meta-analysis of primary data in *Handbook of Meta-Analysis in Ecology and Evolution*, eds. J Koricheva, J Gurevitch and K Mengersen. Princeton, NJ: Princeton University Press, 2013, 300-312.
17. Wallace BC, **Schmid CH**, Lau J and Trikalinos TA. Evidence-Based Medicine and Meta-Analysis: Modernizing Evidence Synthesis in *Clinical Decision Support: The Road to Broad Adoption*, 2<sup>nd</sup> edition, ed. RA Greenes. NY: Academic Press, 2014, 339-361.
18. Mengersen K, McGree JM and **Schmid CH**. Statistical Analysis of N-of-1 Trials in *The Essential Guide to N-of-1 Trials in Health*, eds. J Nikles and G Mitchell. NY: Springer, 2015, 135-153.
19. Mengersen K, McGree JM and **Schmid CH**. Systematic Review and Meta-analysis Using N-of-1 Trials in *The Essential Guide to N-of-1 Trials in Health*, eds. J Nikles and G Mitchell. NY: Springer, 2015, 211-232.

### Refereed Journal Articles

(b) (6)

1. **Schmid CH** and Rosner B. A Bayesian Approach to Logistic Regression Models Having Measurement Error Following a Mixture Distribution. *Statistics in Medicine* 12:1141-1153, 1993. [PMID: 8210818]
2. Schmidt-Ullrich RK, Wazer DE, DiPetrillo T, Marchant DJ, Smith TJ, Safaii H, **Schmid C** and Homer MJ. Breast Conservation Therapy for Early Stage Breast Carcinoma with Outstanding 10-year Locoregional Control Rates: A Case for Aggressive Therapy to the Tumor Bearing Quadrant. *Int. J. Radiation Oncology Biol. Phys.* 27:545-552, 1993. [PMID: 8226147]
3. Rhodes J, Udelson JE, Marx GR, **Schmid CH**, Konstam MA, Hijazi ZM, Bova SA and Fulton DR. A New Noninvasive Method for the Estimation of Peak dP/dt. *Circulation* 88: 2693-2699, 1993. [PMID: 8252680]
4. Bry JDL, Belkin M, O'Donnell TF, Mackey WC, Udelson JE, **Schmid CH** and Safran DG. An Assessment of the Positive Predictive Value and Cost-Effectiveness of Dipyridamole Myocardial Scintigraphy in Patients Undergoing Vascular Surgery. *Journal of Vascular Surgery* 19:112-124, 1994. [PMID: 8301724]
5. Steere AC, Levin RE, Molloy PJ, Kalish RA, Abraham JH, Liu NY and **Schmid CH**. Treatment of Lyme Arthritis. *Arthritis and Rheumatism* 37: 878-888, 1994. [PMID: 8003060]
6. Goldenberg DL, Kaplan KH, Nadeau MG, Brodeur C, Smith S and **Schmid CH**. A Controlled Study of a Stress-Reduction, Cognitive-Behavioral Treatment Program in Fibromyalgia. *Journal of Musculoskeletal Pain* 2: 53-66, 1994.
7. Graham RA, Homer MJ, Sigler CJ, Safaii H, **Schmid CH**, Marchant DJ and Smith TJ. The Efficacy of Specimen Radiography in Evaluating the Surgical Margins of Impalpable Breast Carcinoma. *American Journal of Roentology* 162: 33-36, 1994. [PMID: 8273685]
8. Kaelin CM, Smith TJ, Homer MJ, Taback B, Azurin D, **Schmid CH** and Weld L. Safety, Accuracy, and Diagnostic Yield of Needle Localization Biopsy of the Breast Performed Using Local Anesthesia. *Journal of the American College of Surgeons*, 179: 267-272, 1994. [PMID: 8069420]
9. Wazer DE, Erban JK, Robert NJ, Smith TJ, Marchant DJ, **Schmid C**, DiPetrillo T and Schmidt-Ullrich R. Breast Conservation in Elderly Women for Clinically Negative Axillary Lymph Nodes without Axillary Dissection. *Cancer* 74: 878-883, 1994. [PMID: 8039115]
10. Fink JC, **Schmid CH** and Selker HP. A Decision Aid for Referring Patients with Systolic Murmurs for Echocardiography. *J. General Internal Medicine* 9: 479-484, 1994. [PMID: 7996289]
11. Pereira BJB, Wright TL, **Schmid CH**, Bryan CF, Cheung RC, Cooper ES, Hsu H, Kelly MK, Light JA, Norman DJ, Van Thiel DH, Werner BG, Wright CE, and Levey AS. Screening and Confirmatory Testing of Cadaver

- Organ Donors for Hepatitis C Virus Infection: A U.S. National Collaborative Study. *Kidney International* 46: 886-892, 1994. [PMID: 7527878]
12. Selker, HP, Beshansky JR, **Schmid CH**, Griffith JL, Longstreth WT, O'Connor CM, Caplan LR, Massey EW, D'Agostino RB, Laks MM, Lee KL, Maynard C, Wagner GS, Weaver WD and Califf RM. Presenting Pulse Pressure Predicts Thrombolytic Therapy-Related Intracranial Haemorrhage: Thrombolytic Predictive Instrument (TPI) Project Results. *Circulation* 90: 1657-1661, 1994. [PMID: 7923649]
  13. **Schmid CH**, Segal M and Rosner B. Incorporating Measurement Error in the Estimation of Autoregressive Models for Longitudinal Data. *Journal of Statistical Planning and Inference* 42:1-18, 1994. [PMID: 7923649]
  14. Maynard C, Selker HP, Beshansky JR, Griffith JL, **Schmid CH**, Califf RM, D'Agostino RB, Laks MM, Lee KL, Wagner GS and Weaver WD. The Exclusion of Women from Clinical Trials of Thrombolytic Therapy: Implications for Developing the Thrombolytic Predictive Instrument Database. *Medical Decision Making* 15: 38-43, 1995. [PMID: 7898296]
  15. Lau J, **Schmid CH** and Chalmers TC. Cumulative Meta-Analysis of Clinical Trials Builds Evidence for Exemplary Medical Care. *Journal of Clinical Epidemiology* 48: 45-57, 1995. [PMID: 7853047]
  16. Pereira BJG, Wright TL, **Schmid CH**, and Levey AS for The New England Organ Bank Hepatitis C Study Group. A Controlled Study of Hepatitis C Transmission by Organ Transplantation. *Lancet* 345: 484-487, 1995. [PMID: 7532254]
  17. Werner-Wasik M, **Schmid CH**, Bornstein LE and Madoc-Jones H. Increased Risk of Second Malignant Neoplasms Outside Radiation Fields in Patients with Cervical Carcinoma. *Cancer* 75: 2281-2285, 1995. [PMID: 7712437]
  18. Werner-Wasik M, **Schmid CH**, Bornstein L, Ball HG, Smith DM, and Madoc-Jones H. Prognostic Factors for Local and Distant Recurrence in Stage I and II Cervical Carcinoma. *Int. J. Radiation Oncology Biol. Phys.* 32: 1309-1317, 1995. [PMID: 7635770]
  19. Pereira BJG, Wright TL, **Schmid CH**, and Levey AS. The Impact of Pretransplantation Hepatitis C Infection on the Outcome of Renal Transplantation. *Transplantation* 60:799-805, 1995. [PMID: 7482738]
  20. Goldenberg DL, Mossey CJ and **Schmid CH**. A Model to Assess Severity and Impact of Fibromyalgia. *Journal of Rheumatology* 22:2313-2318, 1995. [PMID: 8835568]
  21. **Schmid CH**. An EM Algorithm Fitting First-Order Conditional Autoregressive Models to Longitudinal Data. *Journal of the American Statistical Association* 91:1322-1330, 1996.
  22. Pereira BJG, Natov SN, Sundaram S, **Schmid CH**, Trabelsi FR, Strom JA and King AJ. Impact of Single Use Versus Reuse of Cellulose Dialyzers on Clinical Parameters and Indices of Biocompatibility. *Journal of the American Society of Nephrology* 7:861-870, 1996. [PMID: 8793794]
  23. Lakshmipathy N, Bokesch PM, Cowan DE, Lisman SR and **Schmid CH**. Environmental Tobacco Smoke: A Risk Factor for Pediatric Laryngospasm. *Anesthesia Analgesics* 82:724-727, 1996. [PMID: 8615487]
  24. Wazer DE, Gage I, Homer MJ, Krosnick SH and **Schmid C**. Age-Related Differences in Patients with Nonpalpable Breast Carcinomas. *Cancer* 78:1432-1437, 1996. [PMID: 8839548]
  25. Cappelleri JC, Ioannidis JPA, **Schmid CH**, de Ferranti SD, Aubert M, Chalmers TC and Lau J. Large Trials Vs Meta-Analysis of Smaller Trials: How Do Their Results Compare? *Journal of the American Medical Association* 276:1332-1338, 1996. [PMID: 8861993]
  26. Nocton JJ, Bloom BJ, Rutledge BJ, Persing DH, Logigian EL, **Schmid CH** and Steere AC. Detection of *Borrelia burgdorferi* DNA by Polymerase Chain Reaction in Cerebrospinal Fluid in Lyme Neuroborreliosis. *Journal of Infectious Diseases* 174: 623-627, 1996. [PMID: 8769624]
  27. Ioannidis JPA, Cappelleri JC, **Schmid CH** and Lau J. Impact of Epidemic and Individual Heterogeneity on the Population Distribution of Disease Progression Rates: An Example from Patient Populations in Trials of Human Immunodeficiency Virus Infection. *American Journal of Epidemiology* 144: 1074-1085, 1996. [PMID: 8942440]

28. Goldenberg D, Mayskiy M, Mossey C, Ruthazer R and **Schmid C**. A Randomized, Double-Blind Crossover Trial of Fluoxetine and Amitriptyline in the Treatment of Fibromyalgia. *Arthritis and Rheumatism* 39:1852-1859, 1996. [PMID: 8912507]
29. Stason W, **Schmid CH**, Caubet JF, Kupelnick B, Cory D, Whiting G, Chalmers TC and Ross SD. Searching for Signals: Mortality and Cardiovascular Events in Published Randomized Control Trials of Nifedipine in Ischemic Heart Disease and Hypertension. *Journal of Hypertension* 14 (suppl 2): S5-S7, 1996. [PMID: 8934371]
30. Murthy BVR, Muerhoff AS, Desai SM, Lund J, **Schmid CH**, Levey AS, Mushahwar IK and Pereira BJG. GB Hepatitis Agent In Cadaver Organ Donors and Their Recipients. *Transplantation*, 63:346-351, 1997. [PMID: 9039921]
31. Bouthot BA, Murthy BVR, **Schmid CH**, Levey AS and Pereira BJG. Long-Term Follow-up of Hepatitis C Virus Infection Among Organ Transplant Recipients: Implications for Policies on Organ Procurement. *Transplantation* 63:849-853, 1997. [PMID: 9089225]
32. Zucker DR, **Schmid CH**, McIntosh MW, D'Agostino RB, Selker HP and Lau J. Combining Single Patient (N-of-1) Trials to Estimate Population Treatment Effects and to Evaluate Individual Patient Responses to Treatment. *Journal of Clinical Epidemiology* 50:401-410, 1997. [PMID: 9179098]
33. Murthy BVR, Muerhoff AS, Desai SM, Mushahwar IK, **Schmid CH**, Levey AS and Pereira BJG. Impact of Pretransplantation GB Virus C Infection on the Outcome of Renal Transplantation. *Journal of the American Society of Nephrology* 8:1164-1173, 1997. [PMID: 9219167]
34. Stason WB, **Schmid CH**, Niedzwiecki D, Whiting G, Cory D, Luo D, Caubet JF, Sheinhait I, Freedman R, Ross SD and Chalmers TC. Safety of Nifedipine in Patients with Hypertension: A Meta-Analysis. *Hypertension* 30: 7-14, 1997. [PMID: 9231814]
35. Wazer DE, Schmidt-Ullrich RK, **Schmid CH**, Ruthazer R, Kramer B, Safaii H and Graham R. The Value of Breast Lumpectomy Margin Assessment as a Predictor of Residual Tumor Burden. *Int. J. Radiation Oncology Biol. Phys.* 38: 291-299, 1997. [PMID: 9226315]
36. Wazer DE, Morr J, Erban J, **Schmid C**, Ruthazer R and Schmidt-Ullrich RK. The Effects of Postradiation Treatment with Tamoxifen on Local Control and Cosmetic Outcome in the Conservatively Treated Breast. *Cancer* 80:732-740, 1997. [PMID: 9264357]
37. Tunis SR, Sheinhait IA, **Schmid CH**, Bishop DJ and Ross SD. Lansoprazole Compared with Histamine<sub>2</sub>-Receptor Antagonists in Healing Gastric Ulcers: A Meta-Analysis. *Clinical Therapeutics* 19: 743-757, 1997. [PMID: 9377618]
38. Wazer DE, Kramer B, **Schmid C**, Ruthazer R, Ulin K and Schmidt-Ullrich R. Factors Determining Outcome in Patients Treated with Interstitial Implantation as a Radiation Boost for Breast Conservation Therapy. *Int. J. Radiation Oncology Biol. Phys.* 39: 381-393, 1997. [PMID: 9308942]
39. Selker HP, Griffith JL, Beshansky JR, **Schmid CH**, Califf RM, D'Agostino RB, Laks MM, Lee KL, Maynard C, Selvester RH, Wagner GS, Weaver WD. Patient-Specific Predictions of Outcomes in Myocardial Infarction for Real-Time Emergency Use: A Thrombolytic Predictive Instrument. *Annals of Internal Medicine*, 127: 538-556, 1997. [PMID: 9313022]
40. **Schmid CH**, D'Agostino RB, Griffith JL, Beshansky JR, Selker HP. A Logistic Regression Model When Some Events Precede Treatment: The Effect of Thrombolytic Therapy for Acute Myocardial Infarction on the Risk of Cardiac Arrest. *Journal of Clinical Epidemiology*, 50: 1219-1229, 1997. [PMID: 9393378]
41. Lafayette RA, Pare G, **Schmid CH**, King AJ, Rohrer RJ and Nasraway SA. Pretransplant Renal Dysfunction Predicts Poorer Outcome in Liver Transplantation. *Clinical Nephrology* 48: 159-164, 1997. [PMID: 9342487]
42. Rhodes J, Warner KG, Fulton DR, Romero BA, **Schmid CH** and Marx GR. Fate of Mitral Regurgitation Following Repair of Atrioventricular Septal Defects. *American Journal of Cardiology* 80: 1194-1197, 1997. [PMID: 9359549]

43. Lau J, Ioannidis JPA and **Schmid CH**. Quantitative Synthesis in Systematic Overviews. *Annals of Internal Medicine* 127: 820-826, 1997 and in Systematic Reviews: Synthesis of Best Evidence for Health Care Decisions. Philadelphia: American College of Physicians, 91-101, 1998. [PMID: 9382404]
44. Lau J, Ioannidis JPA and **Schmid CH**. Summing Up Evidence: One Answer Is Not Always Enough. *Lancet* 351: 123-127, 1998. [PMID: 9439507]
45. King AJ, Kehayias JJ, Roubenoff R, **Schmid CH** and Pereira BJG. Cytokine Production and Nutritional Status in Hemodialysis Patients. *International Journal of Artificial Organs* 21:4-11, 1998. [PMID: 9554819]
46. Wazer DE, Schmidt-Ullrich RK, Ruthazer R, **Schmid CH**, Graham R, Safaii H, Rothschild J, McGrath J and Erban JK. Factors Determining Outcome for Breast-Conserving Irradiation with Margin-Directed Dose Escalation to the Tumor Bed. *Int. J. Radiation Oncology Biol. Phys.* 40: 851-858, 1998. [PMID: 9531370]
47. Pereira BJG, Natov SN, Bouthot BA, Murthy BVR, Ruthazer R, **Schmid CH**, Levey AS and the New England Organ Bank Hepatitis C Study Group. Effect of Hepatitis C Infection and Renal Transplantation on Survival in End-Stage Renal Disease. *Kidney International* 53: 1374-1381, 1998. [PMID: 9573555]
48. Murthy BVR, Muerhoff AS, Desai SM, Natov SN, Bouthot BA, Ruthazer R, **Schmid CH**, Levey AS, Mushahwar IK and Pereira BJG. Predictors of GBV-C Infection Among Patients Referred for Renal Transplantation. *Kidney International*, 53: 1769-1774, 1998. [PMID: 9607211]
49. Natov SN, Lau JY, Bouthot BA, Murthy BV, Ruthazer R, **Schmid CH**, Levey AS, Pereira BJ. Serologic and virologic profiles of hepatitis C infection in renal transplant candidates. New England Organ Bank Hepatitis C Study Group. *American Journal of Kidney Disease*, 31:920-927, 1998. [PMID: 9631834]
50. Steere AC, Sikand VK, Meurice F, Parenti DL, Fikrig E, Schoen RT, Nowakowski J, **Schmid CH**, Laukamp S, Buscarino C, Krause DS and the Lyme Disease Vaccine Study Group. Vaccination Against Lyme Disease With Recombinant Borrelia burgdorferi Outer-Surface Lipoprotein A With Adjuvant. *New England Journal of Medicine* 339: 209-215, 1998. [PMID: 9673298]
51. **Schmid CH**, Lau J, McIntosh MW and Cappelleri JC. An Empirical Study of the Effect of the Control Rate as a Predictor of Treatment Efficacy in Meta-Analysis of Clinical Trials. *Statistics in Medicine* 17:1923-1942, 1998. [PMID: 9777687]
52. Balakrishnan VS, Jaber BL, Natov SN, Cendoroglo M, King AJ, **Schmid CH** and Pereira BJG. Interleukin-1 Receptor Antagonist Synthesis by Peripheral Blood Mononuclear Cells in Hemodialysis Patients: Influence of Clinical and Laboratory Values. *Kidney International* 54: 2106-2112, 1998. [PMID: 9853276]
53. Ettinger LM, Hijazi ZM, Geggel RL, Supran SE, Cao QL and **Schmid CH**. Peripheral pulmonary artery stenosis: Acute and mid-term results of high pressure balloon angioplasty. *Journal of Interventional Cardiology* 11: 337-344, 1998.
54. **Schmid CH**. Exploring Heterogeneity in Randomized Trials via Meta-Analysis. *Drug Information Journal* 33: 211-224, 1999.
55. Stason WB, **Schmid CH**, Niedzwiecki D, Whiting GW, Caubet JF, Cory D, Luo D, Ross SD and Chalmers TC. Safety of Nifedipine in Angina Pectoris: A Meta-Analysis. *Journal of Hypertension* 33: 24-31, 1999. [PMID: 9931077]
56. Engels EA, Ellis CA, Supran SE, **Schmid CH**, Barza M, Schenkein DP, Koc Y, Miller KB and Wong JB. Early Infection in Bone Marrow Transplantation: Quantitative Study of Clinical Factors That Affect Risk. *Clinical Infectious Diseases* 28:256-266, 1999. [PMID: 10064241]
57. **Schmid CH**, Whiting G, Cory D, Ross SD and Chalmers TC. Omeprazole Plus Antibiotics in the Eradication of Helicobacter pylori Infection: A Meta-Regression Analysis of Randomized, Controlled Trials. *American Journal of Therapeutics* 6: 25-36, 1999. [PMID: 10423644]
58. Wazer DE, Jabro G, Ruthazer R, **Schmid C**, Safaii H and Schmidt-Ullrich RK. Extent of Margin Positivity as a Predictor for Local Recurrence After Breast Conserving Irradiation. *Radiation Oncology Investigations* 7: 111-117, 1999. [PMID: 10333252]

59. Natov SN, Lau JYN, Ruthazer R, **Schmid CH**, Levey AS, Pereira BJG and the New England Organ Bank Hepatitis C Study Group. Hepatitis C Virus Genotype Does Not Affect Patient Survival Among Renal Transplant Candidates. *Kidney International* 56: 700-706, 1999. [PMID: 10432411]
60. Kaplan MM, **Schmid C**, Provenzale D, Sharma A, Dickstein G and McKusick A. A Prospective Trial of Colchicine and Methotrexate in the Treatment of Primary Biliary Cirrhosis. *Gastroenterology* 117: 1173-1180, 1999. [PMID: 10535881]
61. Arbo MDJ, Syndman DR, Wong J, Goldberg HS, **Schmid CH** and Pauker SG. Cytomegalovirus Immune Globulin After Liver Transplantation: A Cost-Effectiveness Analysis. *Clinical Transplantation* 14: 19-27, 2000. [PMID: 10693631]
62. Engels EA, **Schmid CH**, Terrin N, Olkin I and Lau J. Heterogeneity and Statistical Significance in Meta-Analysis: An Empirical Study of 125 Meta-Analyses. *Statistics in Medicine* 19:1707-1728, 2000. [PMID: 10861773]
63. Balakrishnan VS, **Schmid CH**, Jaber BL, Natov SN, King AJ, Pereira BJG. Interleukin-1 Receptor Antagonist Synthesis by Peripheral Blood Mononuclear Cells: A Novel Predictor of Morbidity Among Hemodialysis Patients. *Journal of the American Society of Nephrology*, 11: 2114-2121, 2000. [PMID: 11053488]
64. Athienites NV, Miskulin DC, Fernandez G, Bunnapradist S, Simon G, Landa M, **Schmid CH**, Greenfield S, Levey AS, Meyer KB. Comorbidity assessment in hemodialysis and peritoneal dialysis using the index of coexistent disease. *Seminars in Dialysis* 13: 320-326, 2000. [PMID: 11014695]
65. **Schmid CH**. Using Bayesian Inference to Perform Meta-Analysis. *Evaluation and the Health Professions* 24: 165-189, 2001. [PMID: 11523385]
66. Klempner MS, **Schmid CH**, Hu L, Steere AC, Johnson G, McLeod B, Noring R and Weinstein A. Intralaboratory Reliability of Serologic and Urine Testing for Lyme Disease. *American Journal of Medicine* 110: 217-219, 2001. [PMID: 11182109]
67. Jafar TH, **Schmid CH**, Landa M, Giatras I, Toto R, Remuzzi G, Maschio G, Brenner BM, Kamper A, Zucchelli P, Becker G, Himmelmann A, Bannister K, Landais P, Shahinfar S, de Jong PE, de Zeeuw D, Lau J and Levey AS for the AIPRD Study Group. Angiotensin-Converting Enzyme Inhibitors and Progression of Nondiabetic Renal Disease: A Meta-Analysis of Patient-Level Data. *Annals of Internal Medicine*, 135:73-87, 2001. [PMID: 11453706]
68. Klempner MS, Hu LT, Evans J, **Schmid CH**, Johnson GM, Trevino RP, Norton D, Levy L, Wall D, McCall J, Kosinski M, and Weinstein A. Two Controlled Trials of Antibiotic Treatment in Patients with Persistent Symptoms and a History of Lyme Disease. *New England Journal of Medicine* 345: 85-92, 2001. [PMID: 11450676]
69. Jafar TH, Stark PC, **Schmid CH**, Landa M, Maschio G, Marcantoni C, de Jong PE, de Zeeuw D, Shahinfar S, Ruggenenti P, Remuzzi G and Levey AS for the AIPRD Study Group. Proteinuria as a Modifiable Risk Factor for the Progression of Non-Diabetic Renal Disease. *Kidney International* 60: 1131-1140, 2001. [PMID: 11532109]
70. **Schmid CH**. Marginal and Dynamic Regression Models for Longitudinal Data. *Statistics in Medicine* 20: 3295-3311, 2001. [PMID: 11746319]
71. **Schmid CH**, Griffith JL, Terrin N and D'Agostino RB Sr. Predictive Performance of Missing Data Methods for Logistic Regression, Classification Trees and Neural Networks. *Journal of Statistical Computation and Simulation* 71: 115-140,2001.
72. Berlin JA, Santanna J, **Schmid CH**, Szczech LA, Feldman HI for the Anti-lymphocyte Antibody Induction Therapy Study Group. Individual Patient versus Group-level Data Meta-regressions for the Investigation of Treatment Effect Modifiers: Ecological Bias Rears Its Ugly Head. *Statistics in Medicine* 21: 371-387, 2002. [PMID: 11813224]

73. Jaber BL, Lau J, **Schmid CH**, Karsou SA, Levey AS, Pereira BJG. Effect of Biocompatibility of Hemodialysis Membranes on Mortality in Acute Renal Failure: a Meta-analysis. *Clinical Nephrology* 57: 274-282, 2002. [PMID: 12005243]
74. Balk EM, Bonis PAL, Moskowitz H, **Schmid CH**, Ioannidis JPA, Wang C, Lau J. Correlation of quality measures with estimates of treatment effect in meta-analyses of randomized controlled trials. *JAMA* 287:2973-2982, 2002. [PMID: 12052127]
75. Norris SL, Lau J, Smith SJ, **Schmid CH**, Engelgau MM. Self-management Education for Adults With Type 2 Diabetes: a Meta-analysis of the Effect on Glycemic Control. *Diabetes Care* 25:1159-71, 2002. [PMID: 12087014]
76. Olsen IE, Richardson DK, **Schmid CH**, Ausman LM and Dwyer JT. Intersite Differences in Weight Growth Velocity of Extremely Premature Infants. *Pediatrics* 110:1125-1132, 2002. [PMID: 12456909]
77. Kent DM, **Schmid CH**, Lau J and Selker HP. Is Primary Angioplasty for Some as Good as Primary Angioplasty for All? Modeling Across Trials and Individual Patients. *Journal of General Internal Medicine* 17:887-894, 2002. [PMID: 12472924]
78. **Schmid CH**, Landa M, Jafar TH, Giatras I, Karim T, Reddy M, Stark PC and Levey AS for the Angiotensin-Converting Enzyme Inhibition in Progressive Renal Disease (AIPRD) Study Group. Constructing a Database of Individual Clinical Trials for Longitudinal Analysis. *Controlled Clinical Trials*, 24:324-340, 2003. [PMID: 12757997]
79. Selker HP, Raitt MH, **Schmid CH**, Laks MM, Beshansky JR, Griffith JL, Califf RM, Selvester RH, Maynard C, D'Agostino RB and Weaver WD. Time-Dependent Predictors of Primary Cardiac Arrest in Patients with Acute Myocardial Infarction. *American Journal of Cardiology* 91:280-286, 2003. [PMID: 12565083]
80. Terrin N, **Schmid CH**, Lau J and Olkin I. Adjusting for Publication Bias in the Presence of Heterogeneity. *Statistics in Medicine* 22: 2113-2126, 2003. [PMID: 12820277]
81. Jafar TH, Levey AS, Jafary FH, White F, Gul A, Rahbar MH, Khan AQ, Hattersley A, **Schmid CH**, Chaturvedi N. Ethnic Subgroup Differences in Hypertension in Pakistan. *Journal of Hypertension* 21: 905-912, 2003. [PMID: 12714864]
82. Kaplan RF, Trevino RP, Johnson GM, Levy L, Dornbush R, Hu LT, Evans J, Weinstein A, **Schmid CH** and Klempner MS. Cognitive Function in Post-treatment Lyme Disease: Do additional antibiotics help? *Neurology* 60: 1916-1922, 2003. [PMID: 12821733]
83. Jafar TH, Stark PC, **Schmid CH**, Landa M, Maschio G, de Jong PE, de Zeeuw D, Shahinfar S, Toto R, and Levey AS. Progression of Chronic Kidney Disease: The Role of Blood Pressure Control, Proteinuria, and Angiotensin-Converting Enzyme Inhibition: A Patient-Level Meta-Analysis. *Annals of Internal Medicine* 139: 244-252, 2003. [PMID: 12965979]
84. Terrin N, **Schmid CH**, Griffith JL, D'Agostino RB, Selker HP. External validity of predictive models: a comparison of logistic regression, classification trees, and neural networks. *Journal of Clinical Epidemiology* 56: 721-9, 2003. [PMID: 12954463]
85. Jafar TH, Chaturvedi N, Gul A, Khan AQ, **Schmid CH**, Levey AS. Ethnic differences and determinants of proteinuria among South Asian subgroups in Pakistan. *Kidney International* 64: 1437-1444, 2003. [PMID: 12969163]
86. Jafar TH, **Schmid CH**, Stark PC, Toto R, Remuzzi G, Ruggenenti P, Marcantoni C, Becker G, Shahinfar S, de Jong PE, de Zeeuw D, Kamper AL, Strangaard S and Levey AS for the ACE Inhibition in Progressive Renal Disease (AIPRD) Study Group. The rate of progression of renal disease may not be slower in women compared with men: a patient-level meta-analysis. *Nephrology Dialysis Transplantation* 18: 2047-2053, 2003. [PMID: 13679479]
87. Shearman AM, Cupples LA, Demissie S, Peter I, **Schmid CH**, Karas RH, Mendelsohn ME, Housman DE and Levy D. Association between estrogen receptor- $\alpha$  gene variation and cardiovascular disease. *JAMA* 290: 2263-2270, 2003. [PMID: 14600184]



88. Olsen IE, Richardson DK, **Schmid CH**, Ausman LM, Dwyer JT. The impact of early transfer bias in a growth study among neonatal intensive care units. *Journal of Clinical Epidemiology* 56: 998-1005, 2003. [PMID: 14568632]
89. Norris SL, Zhang X, Avenell A, Gregg E, **Schmid CH**, Kim C, Lau J. Efficacy of pharmacotherapy for weight loss in adults with type 2 diabetes mellitus: a meta-analysis. *Archives of Internal Medicine* 164: 1395-1404, 2004. [PMID: 15249348]
90. Jafar TH, Levey AS, White FM, Gul A, Jessani S, Khan AQ, Jafary FH, **Schmid CH** and Chaturvedi N. Ethnic differences and determinants of diabetes and central obesity among South Asians of Pakistan. *Diabetic Medicine* 21: 716-723, 2004. [PMID: 15209764]
91. **Schmid CH**, Stark PC, Berlin JA, Landais P and Lau J. Meta-regression detected associations between heterogeneous treatment effects and study-level, but not patient-level, factors. *Journal of Clinical Epidemiology* 57: 683-697, 2004. [PMID: 15358396]
92. Norris SL, Zhang X, Avenell A, Gregg E, Bowman B, Serdula M, Brown TJ, **Schmid CH** and Lau J. Long-term effectiveness of lifestyle and behavioral weight loss interventions in adults with type 2 diabetes: A meta-analysis. *American Journal of Medicine* 116: 762-774, 2004. [PMID: 15541326]
93. Fleming RV, Marques AR, Klempler MS, **Schmid CH** Dally LG, Martin DS and Philipp MT. Pre-treatment and Post-treatment Assessment of the C<sub>6</sub> Test in Patients with Persistent Symptoms and a History of Lyme Borreliosis. *European Journal of Clinical Microbiology & Infectious Diseases* 23:615-618, 2004. [PMID: 15243815]
94. Norris SL, Zhang X, Avenell A, Gregg E, Bowman B, **Schmid CH** and Lau J. Long-Term Effectiveness of Weight Loss Interventions in Adults with Pre-Diabetes: A Review. *American Journal of Preventive Medicine* 28:126-139, 2005. [PMID: 15626569]
95. Jafar TH, Stark PC, **Schmid CH**, Strangaard S, Kamper AL, Maschio G, Becker G, Perrone RD and Levey AS for the ACE Inhibition in Progressive Renal Disease (AIPRD) Study Group. The effect of angiotensin-converting-enzyme inhibitors on progression of advanced polycystic kidney disease. *Kidney International* 67: 265-271, 2005. [PMID: 15610250]
96. Jafar TH, Islam M, Poulter N, Hatcher J, **Schmid CH**, Levey AS and Chaturvedi N. Children in South Asia Have Higher Body Mass Adjusted Blood Pressure Levels than Caucasian Children in the United States – A Comparative Study. *Circulation* 111:1291-1297, 2005. [PMID: 15769771]
97. Gill CJ, Savin L and **Schmid CH**. Why clinicians are natural Bayesians. *British Medical Journal* 330: 1080-1083, 2005. [PMID: 15879401]
98. Wang C, Roubenoff R, Lau J, Kalish R, **Schmid CH**, Tighiouart H, Roncs R, Hibberd PL. Effect of Tai Chi in adults with rheumatoid arthritis. *Rheumatology* 44: 685-687, 2005. [PMID: 15741197]
99. Tatsioni A, Zarin DA, Aronson N, Samson DJ, Flamm CR, **Schmid C**, Lau J. Challenges in Systematic Reviews of Diagnostic Technologies. *Annals of Internal Medicine* 142:1048-1055, 2005. [PMID: 15968029].
100. Terrin N, **Schmid CH** and Lau J. In an empirical evaluation of the funnel plot, researchers could not visually identify publication bias. *Journal of Clinical Epidemiology* 58:894-901, 2005. [PMID: 16085192]
101. Jafar TH, **Schmid CH** and Levey AS. Serum Creatinine as Marker of Kidney Function in South Asians: A Study of Reduced GFR in Adults in Pakistan. *Journal of the American Society of Nephrology* 16:1413-1419, 2005. [PMID: 15800118]
102. Jafar TH, Chaturvedi N, Hatcher J, Khan I, Rabbani A, Khan AQ, Portman R, **Schmid CH** and Levey AS. Proteinuria in South Asian Children: Prevalence and Determinants. *Pediatric Nephrology* 20: 1458-1465, 2005. [PMID: 15947988]
103. Olsen IE, Richardson DK, **Schmid CH**, Ausman LM, Dwyer JT. Dietitian Involvement in the Neonatal Intensive Care Unit: More Is Better. *Journal of the American Dietetic Association* 105: 1224-1230, 2005. [PMID: 16182638]

104. Klempner MS, Wormser GH, Wade K, Trevino R, Tang J, Kaslow RA and **Schmid CH**. A Case-Control Study to Examine HLA Haplotype Associations in Patients with Post-treatment Chronic Lyme Disease. *Journal of Infectious Diseases* 192: 1010-1013, 2005. [PMID: 16107953]
105. Shearman AM, Demissie S, Cupples LA, Peter I, **Schmid CH**, Ordovas JM, Mendelsohn ME and Housman DE. Tobacco smoking, estrogen receptor alpha gene variation and small low density lipoprotein level. *Human Molecular Genetics* 14: 2405-2413, 2005. [PMID: 16014638]
106. Peter I, Shearman AM, Vasan RS, Zucker DR, **Schmid CH**, Demissie S, Cupples LA, Kuvin JT, Karas RH, Mendelsohn ME, Housman DE and Benjamin EJ Association of estrogen receptor Beta gene polymorphisms with left ventricular mass and wall thickness in women. *American Journal of Hypertension*.18:1388-95,2005. [PMID: 16280269]
107. Peter I, Shearman AM, Zucker DR, **Schmid CH**, Demissie S, Cupples LA, Larson MG, Vasan RS, D'agostino RB, Karas RH, Mendelsohn ME, Housman DE and Levy D. Variation in estrogen-related genes and cross-sectional and longitudinal blood pressure in the Framingham Heart Study. *Journal of Hypertension*. 23: 2193-2200, 2005. [PMID: 16269961]
108. Demissie S, Cupples LA, Shearman AM, Gruenthal KM, Peter I, **Schmid CH**, Karas RH, Housman DE, Mendelsohn ME and Ordovas JM. Estrogen Receptor- $\alpha$  variants are associated with lipoprotein size distribution and particle levels in women: The Framingham Heart Study. *Atherosclerosis* 185: 210-218, 2006. [PMID: 16005459]
109. Lau J, Ioannidis JPA, Terrin N, **Schmid CH** and Olkin I. The case of the misleading funnel plot. *British Medical Journal* 333: 597-600, 2006. [PMID: 16974018]
110. Zucker DR, Ruthazer R, **Schmid CH**, Feuer JM, Fischer PA, Kieval RI, Mogavero N, Rapoport RJ, Selker HP, Stotsky SA, Winston E and Goldenberg DL. Lessons learned combining N-of-1 trials to assess fibromyalgia therapies. *Journal of Rheumatology* 33:2069-2077, 2006. [PMID: 17014022]
111. Hagadorn JI, Furey AM, Nghiem T-H, **Schmid CH**, Phelps DL, Pillers DM and Cole CH. Achieved versus intended pulse oximeter saturation in infants less than 28 weeks gestation: The AVIOx study. *Pediatrics* 118:1574-1582, 2006. [PMID: 17015549]
112. Kourtis AP, **Schmid CH**, Jamieson DJ and Lau J. Use of antiretroviral therapy in pregnant HIV-infected women and the risk of premature delivery: A meta-analysis. *AIDS* 21:607-615, 2007. [PMID: 17314523]
113. Peter I, Huggins GS, Shearman AM, Pollak A, **Schmid CH**, Cupples LA, Demissie S, Patten RD, Karas RH, Housman DE, Mendelsohn ME, Vasan RS and Benjamin EJ. Age-related changes in echocardiographic measurements: Association with variation in the estrogen receptor-  $\alpha$  Gene. *Hypertension* 49:1000–1006, 2007. [PMID: 17372038]
114. McAlindon T, Formica M, **Schmid CH** and Fletcher J. Changes in barometric pressure and ambient temperature influence osteoarthritis pain. *American Journal of Medicine* 120:429-434, 2007. [PMID: 17466654]
115. Hagadorn JI, Richardson DK, **Schmid CH** and Cole CH. Cumulative illness severity and progression from moderate to severe retinopathy of prematurity. *Journal of Perinatology* 27:502-509, 2007. [PMID: 17568754]
116. Chu SY, Kim SY, **Schmid CH**, Dietz PM, Callaghan WM, Lau J and Curtis KM. Maternal obesity and the risk of cesarean delivery: A meta-analysis. *Obesity Reviews* 8: 385-394, 2007. [PMID: 17716296]
117. Chu SY, Kim SY, Lau J, **Schmid CH**, Dietz PM, Callaghan WM and Curtis KM. Maternal obesity and risk of stillbirth: a metaanalysis. *American Journal of Obstetrics and Gynecology* 197: 223-228, 2007. [PMID: 17826400]
118. Chu SY, Callaghan WM; Kim SY, **Schmid CH**, Lau J, England L and Dietz PM. .Maternal obesity and risk of gestational diabetes mellitus: A meta-analysis. *Diabetes Care* 30: 2070-2076, 2007. [PMID: 17416786]
119. Shen Y-C, Eggleston K, Lau J and **Schmid CH**. Hospital ownership and financial performance: What explains the different empirical literature findings? *Inquiry* 44:41-68, 2007. [PMID: 17583261]

120. Stevens LA, Manzi J, Levey AS, Chen J, Deysher AE, Greene T, Poggio ED, **Schmid CH**, Steffes MW, Zhang YL, Van Lente F, Coresh J. Impact of creatinine calibration on performance of GFR estimating equations in a pooled individual patient database. *American Journal of Kidney Diseases* 50:21-35, 2007. [PMID: 17591522]
121. Prata MM, Pinto Dos Santos J, Hegbrant J, **Schmid CH**, Pereira BJB and Wald R. Dose Requirements among hemodialysis patients treated with darbepoietin-alpha or epoetin-beta. *Nephron Clinical Practice* 107:c50-55, 2007. [PMID: 17713351]
122. Stevens LA, Coresh J, Feldman HI, Greene T, Lash JP, Nelson RG, Rahman M, Deysher AE, Zhang YL, **Schmid CH** and Levey AS. Evaluation of the modification of diet in renal disease Study Equation in a Large Diverse Population. *Journal of the American Society of Nephrology* 18: 2749-57, 2007. [PMID: 17855641]
123. Gordon CE, Uhlig K, Lau J, **Schmid CH**, Levey AS and Wong JB. Interferon treatment in hemodialysis patients with chronic hepatitis C Virus infection: A systematic Review of the literature and meta-analysis of treatment efficacy and harms. *American Journal of Kidney Diseases* 51: 263-277, 2008. [PMID: 18215704]
124. Stevens LA, Coresh J, **Schmid CH**, Feldman HI, Froissart M, Kusek J, Rossert J, Van Lente F, Bruce RD, Zhang YL Greene T and Levey AS. Estimating GFR Using Serum Cystatin C Alone and in Combination With Serum Creatinine: A Pooled Analysis of 3,418 Individuals With CKD. *American Journal of Kidney Diseases* 51: 395-406, 2008. [PMID: 18295055]
125. Drees M, Snyderman DR, **Schmid CH**, Barefoot L, Hansjosten K, Vue PM, Cronin M, Nasraway SA and Golan Y. Prior Environmental Contamination Increases the Risk of Acquisition of Vancomycin-Resistant Enterococci. *Clinical Infectious Diseases* 46: 678-685, 2008. [PMID: 18631116]
126. Quach LB, Wanke CA, **Schmid CH**, Gorbach SL, Mwamburi MD, Mayer KH, Spiegelman D and Tang AM. Drug Use and Other Risk Factors Related to Lower Body Mass Index among HIV-Infected Individuals. *Drug and Alcohol Dependence* 95: 30-36. 2008. [PMID: 18243579]
127. Rao SR, Graubard BI, **Schmid CH**, Morton SC, Louis TA, Zaslavsky AM and Finkelstein DM. Meta-Analysis of Survey Data: Application to Health Services Research. *Health Services and Outcomes Research Methodology* 8: 98-114, 2008.
128. Rasmussen SA, Chu SY, Kim SY, **Schmid CH** and Lau J. Maternal obesity and risk of neural tube defects: A meta-analysis. *American Journal of Obstetrics and Gynecology* 198: 611-619, 2008. [PMID: 18538144]
129. Drees M, . Snyderman DR, **Schmid CH**, Barefoot L, Hansjosten K, Vue PM, Cronin M, Nasraway SA and Golan Y. Antibiotic Exposure and Room Contamination among Patients Colonized with Vancomycin-Resistant Enterococci. *Infection Control and Hospital Epidemiology* 29: 709-715, 2008. [PMID: 18631116]
130. Rhee MS, **Schmid CH**, Stevens LA and Forrester JE. Risk Factors for Proteinuria in HIV-infected and -uninfected Hispanic Drug Users. *American Journal of Kidney Diseases*, 52:683-90, 2008. [PMID: 18572293]
131. Wang C, **Schmid CH**, Hibberd PL, Kalish R, Roubenoff R, Rones R, Okparavero, A and McAlindon T. Tai Chi for treating knee osteoarthritis: designing a long-term follow up randomized controlled trial. *BMC Musculoskeletal Disorders* 9:108, 2008. [PMID: 18664276]
132. Wang C, De Pablo P, Chen X, **Schmid C** and McAlindon T. Acupuncture for pain relief in patients with rheumatoid arthritis: a systematic review. *Arthritis and Rheumatism (Arthritis Care and Research)* 59: 1249-1256, 2008. [PMID: 18759255]
133. Eggleston K, Shen Y-C, Lau J, **Schmid CH** and Chan J. Hospital Ownership and Quality of Care: What Explains the Different Results in the Literature? *Health Economics* 17:1345-1362, 2008. [PMID: 18186547]
134. Stevens LA, Zhang Y and **Schmid CH**. Evaluating the performance of equations for estimating glomerular filtration rate. *Journal of Nephrology* 21L 797-807, 2008. [PMID: 19034863]

135. Stevens LA, **Schmid CH**, Greene T, Li Liang, Beck GJ, Joffe M, Froissart M, Kusek J, Zhang Y, Coresh J and Levey AS. Factors other than glomerular filtration rate affect serum cystatin C levels. *Kidney International* 75:652-660, 2009. [PMID: 19119287]
136. Levey AS, Stevens LA, **Schmid CH**, Zhang Y, Castro AF, III, Feldman HI, Kusek JW, Eggers P, Van Lente F, Greene T and Coresh J, for the CKD-EPI (Chronic Kidney Disease Epidemiology Collaboration). A New Equation to Estimate Glomerular Filtration Rate. *Annals of Internal Medicine* 150: 604-612, 2009. [PMID: 19414839]
137. Stevens LA, Nolin TD, Richardson MM, Feldman HI, Lewis JB, Rodby R, Townsend R, Okparavero A, Zhang Y, **Schmid CH** and Levey AS on behalf of the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI). Comparison of drug dosing recommendations based on measured GFR and kidney function estimating equations. *American Journal of Kidney Diseases* 54: 33-42, 2009. [PMID: 19446939]
138. Stoycheff N, Stevens LA, **Schmid CH**, Tighiouart H, Lewis J, Atkins RC, Levey AS. Nephrotic syndrome in diabetic kidney disease: an evaluation and update of the definition. *American Journal of Kidney Diseases*, 2009. [PMID: 19556043]
139. Gordon CE, Uhlig K, Lau J, **Schmid CH**, Levey AS and Wong JB. Interferon for Hepatitis C Virus in Hemodialysis – an Individual Patient Meta-analysis of Factors Associated with Sustained Virological Response. *Clinical Journal of the American Society of Nephrology* 4: 1449-1458, 2009. [PMID: 19643927]
140. Wang C, **Schmid CH**, Hibberd PL, Kalish R, Roubenoff R, Roness R and McAlindon T. Tai Chi Is Effective in Treating Knee Osteoarthritis: A Randomized Controlled Trial. *Arthritis & Rheumatism (Arthritis Care & Research)* 61:1545–1553, 2009. [PMID: 19877092]
141. Bannuru RR, Natov NS, Obadan IE, Price LL, **Schmid CH** and McAlindon TE. Therapeutic trajectory of hyaluronic acid versus corticosteroids in the treatment of knee osteoarthritis: a systematic review and meta-analysis. *Arthritis and Rheumatism (Arthritis Care and Research)* 61: 1704-1711, 2009. [PMID: 19950318]
142. Wallace B, **Schmid CH**, Lau J, Trikalinos TA. Meta-Analyst: software for meta-analysis of binary, continuous and diagnostic data. *BMC Medical Research Methodology*, 2009, 9:80. [PMID: 19961608]
143. Stevens LA, **Schmid CH**, Zhang Y, Coresh J, Manzi J, Landis R, Bakoush O, Contreras G, Genuth S, Klintmalm GB, Poggio E, Rossing P, Rule AD, Weir MR, Kusek J, Greene T and Levey AS. Development and validation of GFR-estimating equations using diabetes, transplant and weight. *Nephrology, Dialysis and Transplant*, 25:449-57, 2010. [PMID: 19793928]
144. Wallace B, Trikalinos TA, Lau J, Brodley CE and **Schmid CH**. Semi-automated screening of biomedical citations for systematic reviews. *BMC Informatics* 2010, 11:55. [PMID: 20102628]
145. Wang C, Bannuru R, Ramel J, Kupelnick B, Scott T and **Schmid CH**. Tai Chi on psychological well-being: systematic review and meta-analysis. *BMC Complementary and Alternative Medicine* 10:23, 2010. [PMID: 20492638]
146. Wang C, **Schmid CH**, Roness R, Kalish R, Yihn J, Goldenberg DL, Lee Y and McAlindon T. A Randomized Trial of Tai Chi for Fibromyalgia. *New England Journal of Medicine*, 363:743-754, 2010. [PMID: 20818876]
147. Stevens LA, **Schmid CH**, Greene T, Zhang Y, Beck GJ, Froissart M, Hamm LL, Lewis JB, Mauer M, Navis GJ, Steffes MW, Eggers PE, Coresh J and Levey AS. Comparative Performance of the CKD Epidemiology Collaboration (CKD-EPI) and the Modification of Diet in Renal Disease (MDRD) Study Equations for Estimating GFR Levels Above 60 mL/min/1.73 m<sup>2</sup>. *American Journal of Kidney Diseases* 56: 486-495, 2010. [PMID: 20557989]
148. Zucker DR, Ruthazer R and **Schmid CH**. Individual (N-of-1) trials can be combined to give population comparative treatment effect estimates: methodologic considerations. *Journal of Clinical Epidemiology* 63: 1312-1323, 2010. [PMID: 20863658]
149. Askling J, Fahrback K, Nordstrom B, Ross S, **Schmid CH** and Symmons D. Cancer risk with tumor necrosis factor (TNF) inhibitors: meta-analysis of randomized controlled trials of adalimumab, etanercept and

- infliximab using patient level data. *Pharmacoepidemiology and Drug Safety* 20:119-130, 2011. [PMID: 21254282]
150. Kitsios GD, Dahabreh IJ, Trikalinos TA, **Schmid CH**, Huggins GS and Kent D. Heterogeneity of the phenotypic definition of coronary artery disease and its impact on genetic association studies. *Circulation: Cardiovascular Genetics* 4:58-67, 2011. [PMID: 21149552]
  151. Tangri N, Stevens LA, **Schmid CH**, Zhang Y, Beck GJ, Greene T, Coresh J and Levey AS. Changes in dietary protein intake has no effect on serum cystatin C levels independent of the glomerular filtration rate. *Kidney International* 79:471-477, 2011. [PMID: 20980977]
  152. Stevens LA, Claybon MA, **Schmid CH**, Chen J, Horio M, Imai E, Nelson RG, van Deventer, Wang HY, Zuo L, Zhang Y and Levey AS. Evaluation of the Chronic Kidney Disease Epidemiology Collaboration equation for estimating the glomerular filtration rate in multiple ethnicities. *Kidney International* 79: 555-562, 2011. [PMID: 21107446]
  153. Bannuru RR, Natov NS, Dasi UR, **Schmid CH** and McAlindon TE. Therapeutic trajectory following intra-articular hyaluronic acid injection in knee osteoarthritis - Meta-analysis. *Osteoarthritis and Cartilage* 19:611-9, 2011. [PMID: 21443958]
  154. Gordon CE, Uhlig K, **Schmid CH**, Levey AS and Wong JB. Long-term Viral Negativity After Interferon for Chronic Hepatitis C Virus Infection in Hemodialysis: a Systematic Review and Meta-analysis. *Clinical Journal of the American Society of Nephrology* 5: 2226-34, 2011. [PMID: 21784816]
  155. Deo A, **Schmid CH**, Earley A, Lau J and Uhlig K. Loss to Analysis in Randomized Controlled Trials in Chronic Kidney Disease. *American Journal of Kidney Diseases* 58: 349-55, 2011. [PMID: 21778004]
  156. Li T, Puhan MA, Vedula SS, Singh S, Dickersin K and the Ad Hoc Network Meta-analysis Methods Meeting Working Group. Network meta-analysis - highly attractive but more methodological research is needed. *BMC Medicine* 9:79, 2011. [PMID: 21707969]
  157. Sterne JAC, Sutton AJ, Ioannidis JPA, Terrin N, Jones DR, Lau J, Carpenter J, Rucker G, Harbord RM, **Schmid CH**, Tetzlaff J, Deeks J, Peters J, Macaskill P, Schwarzer G, Duval S, Altman DG, Moher D, and Higgins JP. Recommendations for examining and interpreting funnel plot asymmetry in meta-analyses of randomised controlled trials, *British Medical Journal* 343: d4002., 2011.[PMID: 21784880]
  158. Jansen JP, **Schmid CH** and Salanti G. Directed acyclic graphs can help understand bias in indirect and mixed treatment comparisons. *Journal of Clinical Epidemiology* 65:798–807, 2012. [PMID: 22521579]
  159. Wallace BC, Dahabreh IJ, Trikalinos TA, Lau J, Trow P and **Schmid CH**. Closing the gap between methodologists and end-users: R as a computational back-end. *Journal of Statistical Software* 49: 5, 2012, online at <http://www.jstatsoft.org/>.
  160. Zintzaras E, Doxani C, Mprotsis T, **Schmid CH** and Hadjigeorgiou GM. Network analysis of randomized controlled trials in multiple sclerosis. *Clinical Therapeutics* 34:857-869, 2012. [PMID: 22444787].
  161. Inker LA, **Schmid CH**, Tighiouart H, Eckfeldt JH, Feldman HI, Greene T, Kusek JW, Manzi J, Van Lente F, Zhang Y, Coresh J and Levey AS. Estimating Glomerular Filtration Rate from Creatinine and Cystatin C. *New England Journal of Medicine* 367:20-29, 2012. [PMID: 22762315]
  162. Inker LA, Wyatt C, Creamer R, Hellinger J, Hotta M, Leppo M, Levey AS, Okparavero A, Graham H, Savage K, **Schmid CH**, Tighiouart H, Wallach F and Krishnasami Z. Performance of creatinine and cystatin C gfr estimating equations in an HIV-positive population on antiretrovirals. *Journal of Acquired Immune Deficiency Syndrome*, 61: 302-309, 2012. [PMID: 22842844]
  163. Padala S, Tighiouart H, Inker L, Contreras G, Beck GJ, Lewis J, Steffes M, Rodby RA, **Schmid CH** and Levey AS. Accuracy of a GFR estimating equation over time in people with a wide range of kidney function. *American Journal of Kidney Diseases* 60:217-224, 2012. [PMID: 22495467]
  164. Wallace BC, Small K, Brodley CE, Lau J, **Schmid CH**, Bertram L, Lill CM, Cohen JT and Trikalinos TA. Towards modernizing the systematic review pipeline in genetics: efficient updating via data mining. *Genetics in Medicine* 14:663-9, 2012. [PMID: 22481134]

165. Dahabreh IJ, **Schmid CH**, Lau J, Varvarigou V, Murray S and Trikalinos TA. Genotype misclassification in genetic association studies of the rs1042522 *TP53* (Arg72Pro) polymorphism: a systematic review of studies in breast, lung, colorectal, ovarian, and endometrial cancer. *American Journal of Epidemiology* 177: 1317-1325, 2013. [PMID: 23729685]
166. Beidleman BA, Tighiourart H, **Schmid CH**, Fulco CS and Muza SR. Predictive models of acute mountain sickness after rapid ascent to various altitudes. *Medicine and Science in Sports and Exercise* 45:792-800, 2013. [PMID: 23135373]
167. Duan N, Kravitz RL and **Schmid CH**. Single patient (n-of-1) trials: A pragmatic clinical decision methodology for patient-centered comparative effectiveness research. *Journal of Clinical Epidemiology* 66: S21-S28, 2013. [PMID: 23849149]
168. Dahabreh IJ, Chung M, Kitsios GD, Terasawa T, Raman G, Tatsioni A, Tobar A, Lau J, Trikalinos TA and **Schmid CH**. Survey of the methods and reporting practices in published meta-analyses of test performance: 1987-2009. *Research Synthesis Methods* 4: 242-255, 2013. [PMID: 26053844] doi: 10.1002/jrsm.1083.
169. Yu WW, **Schmid CH**, Lichtenstein AH, Lau J and Trikalinos TA. Empirical evaluation of meta-analytic approaches for nutrient and health outcome dose-response data. *Research Synthesis Methods*, 4: 256-268, 2013. [PMID: 25379059] doi: 10.1002/jrsm.1084.
170. Chaimani A, Vasiliadis HS, Pandis N, **Schmid CH**, Welton NJ and Salanti G. Effects of study precision and risk of bias in networks of interventions: a network meta-epidemiological study. *International Journal of Epidemiology* 42: 1120-1131, 2013. [PMID: 23811232].
171. Wallace BC, Dahabreh IJ, **Schmid CH**, Lau J and Trikalinos TA. Modernizing the systematic review process to inform comparative effectiveness: tools and methods. *Journal of Comparative Effectiveness Research* 2:273-282, 2013. [PMID: 24236626]
172. Jessani S, Levey AS, Bux R, Inker LA, Islam M, Chaturvedi N, Mariat C, **Schmid CH** and Jafar TH. Estimation of GFR in south Asians: A study from the general population in Pakistan. *American Journal of Kidney Diseases* 63:49-58, 2014. [PMID: 24074822]
173. Nikolakopoulou A, Chaimani A, Veroniki AA, Vasiliadis HS, **Schmid CH** and Salanti G. Characteristics of networks of interventions: A description of a database of 186 published networks. *PLOS One* 9(1):e86754, 2014. [PMID: 24466222]
174. Trikalinos TA, Hoaglin DC and **Schmid CH**. An empirical comparison of univariate and multivariate meta-analysis for categorical outcomes. *Statistics in Medicine* 33:1441-1459, 2014. [PMID: 24285290]
175. Hutton B, Salanti G, Chaimani A, Caldwell DM, **Schmid C**, Thorlund K, Mills E, Turner L, Catala-Lopez F, Turner L, Altman DG, and Moher D. The quality of reporting methods and results in network meta-analyses: an overview of reviews and suggestions for improvement. *PLOS One* 9(3): e92508 doi:10.1371/journal.pone.0092508, 2014.
176. **Schmid CH**, Trikalinos TA and Olkin I. Bayesian network meta-analysis for unordered categorical outcomes with incomplete data. *Research Synthesis Methods* 5:162-185, 2014. [PMID: 26052655] doi: 10.1002/jrsm.1103.
177. Wang C, Iverson MD, McAlindon T, Harvey WF, Wong JB, Fielding RA, Driban JB, Price LL, Rones R, Gamache T and **Schmid CH**. Assessing the comparative effectiveness of tai Chi versus physical therapy for knee osteoarthritis: design and rationale for a randomized trial. *BMC Complementary and Alternative Medicine* 14:333, 2014. [PMID: 25199526].
178. Trikalinos TA, Hoaglin DC, Small KM, Terrin N and **Schmid CH**. Methods for the joint meta-analysis of multiple tests. *Research Synthesis Methods* 5:294-312, 2014.
179. Inker LA, Heerspink Lambers HJ, Mondal H, **Schmid CH**, Tighiourart H, Noubary F, Coresh J, Greene TH and Levey AS. GFR decline as an alternative end point to kidney failure in clinical trials: A meta-analysis of



- treatment effects from 37 randomized trials. *American Journal of Kidney Diseases* 64:848-59, 2014. [PMID:25441438]
180. Bannuru RR, **Schmid CH**, Kent D, Wong J and McAlindon T. Comparative effectiveness of pharmacological interventions for knee osteoarthritis: A systematic review and network meta-analysis. *Annals of Internal Medicine* 162:46-54, 2015 [PMID 25560713].
  181. Wang C, McAlindon T, Fielding RA, Harvey WF, Driban JB, Price LL, Kalish R, Schmid A, Scott TM and **Schmid CH**. A novel comparative effectiveness study of Tai Chi versus aerobic exercise for fibromyalgia: study protocol for a randomized controlled trial. *Trials* 16:34, 2015. [PMID: 25633475]
  182. Barr C, Marois M, Sim I, **Schmid CH**, Wilsey B, Ward D, Duan N, Hays RD, Selsky J, Servadio J, Schwartz M, Dsouza C, Dhammi N, Holt Z, Baqeuo V, MacDonald S, Jerant A, Sprinkle R and Kravitz RL. The PREEMPT study – evaluating smartphone-assisted n-of-1 trials in patients with chronic pain: study protocol for a randomized controlled trial. *Trials* 16:67, 2015. DOI 10.1186/s13063-015-0590-8. [PMID: 25919529]
  183. Stewart LA, Clarke M, Rovers M, Riley RD, Simmonds M, Stewart G, Tierney JF and the **PRISMA-IPD Development Group**. Preferred Reporting Items for Systematic Review and Meta-Analyses of individual participant data: the PRISMA-IPD Statement. *JAMA* 313(16):1657-65, 2015. DOI:10.1001/jama.2015.3656. [PMID: 25919529]
  184. Hutton T, Salanti G, Caldwell DM, Chaimani A, **Schmid CH**, Cameron C, Ioannidis JPA, Straus S, Shing LK, Thorlund K, Jansen J, Mulrow C, Catala-Lopez F, Gotzsche PC, Dickersin K, Altman D and Moher D. The PRISMA Extension Statement for Reporting of Systematic Reviews Incorporating Network Meta-Analyses of Healthcare Interventions: Checklist and Explanations. *Annals of Internal Medicine* 162:777-784, 2015. doi:10.7326/M14-2385 [PMID: 26030634]
  185. Vohra S, Shamseer L, Sampson M, Bukutu C, **Schmid CH**, Tate R, Nikles J, Zucker DR, Kravitz R, Guyatt G, Altman DG, Moher D and the CENT Group. CONSORT Statement: an Extension for N-of-1 Trials (CENT). *British Medical Journal*, 350:h1738, 2015. DOI:10.1136/bmj.h1738. Also in *Journal of Clinical Epidemiology* 2015 Aug 10. pii: S0895-4356(15)00225-5. doi: 10.1016/j.jclinepi.2015.05.004. [PMID: 26272792].
  186. Shamseer L, Sampson M, Bukutu C, **Schmid CH**, Nikles J, Tate R, Johnson BC, Zucker DR, Shadish W, Kravitz R, Guyatt G, Altman DG, Moher D, Vohra S and the CENT Group. CONSORT Extension for N-of-1 Trials (CENT): Explanation and Elaboration. *BMJ*, 350:h1793 doi: 10.1136/bmj.h1793, 2015. Also in *Journal of Clinical Epidemiology* 2015 Aug 10. pii: S0895-4356(15)00259-0. doi: 10.1016/j.jclinepi.2015.05.018. [Epub ahead of print] PubMed PMID: 26272791.
  187. Halladay C, Trikalinos, Schmid IT, **Schmid CH** and Dahabreh IJ. Using data sources beyond PubMed has a modest impact on the results of systematic reviews of therapeutic interventions. *Journal of Clinical Epidemiology* 68(9):1076-84, 2015, doi: 10.1016/j.jclinepi.2014.12.017 [PMID: 26279401].
  188. Levine AC, Glavis-Bloom J, Modi P, Nisreen S, Rege S, Chu C, **Schmid CH** and Alam NH. Empirically Derived Dehydration Scoring and Decision Tree Models for Children With Diarrhea: Assessment and Internal Validation in a Prospective Cohort Study in Dhaka, Bangladesh. *Global Health Science Practice* 18: 3(3):405-18, 2015. doi: 10.9745/GHSP-D-15-00097. [PMID: 26374802].
  189. Bannuru RR, McAlindon T, Kent D, Wong J and **Schmid CH**. Effectiveness and implications of alternative placebo treatments: A systematic review and network meta-analysis of osteoarthritis trials. *Annals of Internal Medicine* 163(5):365-72, 2015. doi: 10.7326/M15-0623 [PMID: 26215539].
  190. Miligkos M, Bannuru RR, Alkofide H, Kher SR, **Schmid CH** and Balk EM. Leukotriene receptor antagonists versus placebo in the treatment of asthma in adults and adolescents: a systematic review and meta-analysis. *Annals of Internal Medicine* 163: 756-767, 2015. doi: 10.7326/M15-1059 [PMID: 26390230 PMID: PMC4648683].

192. Whiting P, Savović J, Higgins JPT, Caldwell DM, Reeves BC, Shea B, Davies P, Kleijnen J, Churchill R and the **ROBIS group**. ROBIS: a new tool to assess the risk of bias in systematic reviews. *Journal of Clinical Epidemiology* 69:225-234, 2016, doi:10.1016/j.jclinepi.2015.06.005.

193. (b) (4)

### Peer-Reviewed Reports

1. Norris S, Zhang X, Avenell A, Gregg E, **Schmid CH**, Lau J. Pharmacotherapy for weight loss in adults with type 2 diabetes mellitus. *Cochrane Database of Systematic Reviews* 2005, Issue 1. [PMID:15674929]
2. Norris SL, Zhang X, Avenell A, Gregg E, Brown TJ, **Schmid CH**, Lau J. Long-term non-pharmacologic weight loss interventions for adults with type 2 diabetes. *Cochrane Database of Systematic Reviews* 2005, Issue 2. [PMID:15846698]
3. Norris SL, Zhang X, Avenell A, Gregg E, **Schmid CH**, Lau J. Long-term non-pharmacological weight loss interventions for adults with prediabetes. *Cochrane Database of Systematic Reviews* 2005, Issue 2. [PMID:15846748]
4. Gatsonis C, Carlos R, Gareen I, Gorelick J, Kessler L, Lau J, Rutter C, **Schmid C**, Tosteson ANA, Trikalinos T. Standards in the Design, Conduct and Evaluation of Diagnostic Testing For Use in Patient Centered Outcomes Research. Patient Centered Outcomes Research Institute, 2012. Available at <http://www.pcori.org/assets/Standards-inthe-Design-Conduct-and-Evaluation-of-Diagnostic-Testing-for-Use-in-Patient-Centered-Outcomes-Research.pdf>.
5. Dahabreh IJ, Chung M, Kitsios GD, Terasawa T, Raman G, Tatsioni A, Tobar A, Lau J, Trikalinos TA and **Schmid CH**. Comprehensive Overview of Methods and Reporting of Meta-Analyses of Test Accuracy. *AHRQ Methods Research Report*. AHRQ Publication No 12-EHC044-EF, 2012. [PMID: 22553887]
6. Dahabreh IJ, Trikalinos TA, Lau J and **Schmid CH**. Evaluating Practices and Developing Tools for Comparative Effectiveness Reviews of Diagnostic Test Accuracy. Task 2: An Empirical Assessment of Bivariate Methods for Meta- Analyses of Test Accuracy. *AHRQ Methods Research Report*. AHRQ Publication No. 12(13)-EHC136-EF, 2012.
7. Trikalinos TA, Hoaglin DC, Small KM and **Schmid CH**. Evaluating Practices and Developing Tools for Comparative Effectiveness Reviews of Diagnostic Test Accuracy: Methods for the Joint Meta-Analysis of Multiple Tests. *AHRQ Methods Research Report*. AHRQ Publication No. 12(13)-EHC151-EF, 2013. [PMID: 23865097]
8. Trikalinos TA, Hoaglin DC and **Schmid CH**. Empirical and simulation-based comparison of univariate and multivariate meta-analysis for binary outcomes. *AHRQ Methods Research Report*. AHRQ Publication No. 13-EHC066-EF, 2013. [PMID: 23617018]
9. Trikalinos TA, Dahabreh IJ, Wallace BC, **Schmid CH** and Lau J. Towards a Framework for Communicating Confidence in Methodological Recommendations for Systematic Reviews and Meta-Analyses. *AHRQ Methods Research Report* AHRQ Publication No. 13-EHC119-EF, 2013. [PMID: 24156117]
10. Trikalinos TA, Trow P and **Schmid CH**. Simulation-based Comparison of Methods for Meta-Analysis of Proportions and Rates. *AHRQ Methods Research Report*. AHRQ Publication No. 13-EHC066-EF, 2013. [PMID: 24404633]
11. Kravitz RL, Duan N, eds, and the DECIDE Methods Center N-of-1 Guidance Panel (Duan N, Eslick I, Gabler NB, Kaplan HC, Kravitz RL, Larson EB, Pace WD, **Schmid CH**, Sim I, Vohra S). Design and



Implementation of N-of-1 Trials: A User's Guide. AHRQ Publication No. 13(14)-EHC122-EF. Rockville, MD: Agency for Healthcare Research and Quality; February 2014.

12. Wagner M, Earley AK, Webster AC, **Schmid CH**, Balk EM, Uhlig K. Mycophenolic acid versus azathioprine as primary immunosuppression for kidney transplant recipients. *Cochrane Database of Systematic Reviews* 2015, Issue 12. [PMID: 26633102]

### Book Reviews

1.  (b) (4)

### Non-Refereed Articles

1. **Schmid CH**. A State-Space Model for Longitudinal Regression. *Proceedings of the 26<sup>th</sup> Symposium on the Interface*. Interface Foundation of North America, 125-129, 1994.
2. **Schmid CH**, Cappelleri JC and Lau J. Bayesian Methods to Improve Sample Size Approximations. *Proceedings of the Section on Bayesian Statistics*, American Statistical Association, 89-94, 1995.
3. **Schmid CH** and Brown EN. A Hierarchical Bayes Model for Human Growth. *Proceedings of the Section on Bayesian Statistics*, American Statistical Association, 146-151, 1996.
4. **Schmid CH**, Griffith JL, Terrin N and D'Agostino RB Sr. Synthesizing the Treatment of Missing Data in Logistic Regression, Classification Trees and Neural Networks. *Proceedings of the Biometrics Section*, American Statistical Association, 265-269, 1997.
5. Terrin N, Griffith JL, **Schmid CH** and D'Agostino RB Sr. The Impact of Outliers and Distortions on the Predictive Performance of Logistic Regression, Classification Trees and Neural Networks. *Proceedings of the Biometrics Section*, American Statistical Association, 270-275, 1997.
6. Griffith JL, **Schmid CH**, Terrin N and D'Agostino RB Sr. Impact of Sample Size and Outcome Prevalence on the Predictive Performance of Logistic Regression, Classification Trees and Neural Networks. *Proceedings of the Biometrics Section*, American Statistical Association, 259-264, 1997.
7. D'Agostino RB Sr., Griffith JL, **Schmid CH** and Terrin N. Measures for Evaluating Model Performance. *Proceedings of the Biometrics Section*, American Statistical Association, 253-258, 1997.
8. **Schmid CH**. Regression Models for Longitudinal Data with Missing Covariate Values. *Proceedings of the Section on Statistics in Epidemiology*, American Statistical Association, 25-34, 1999.
9. **Schmid CH**, Brown EN and Ogren JM. Modeling Daily Growth in children. *ASA Proceedings of the Joint Statistical Meetings*, 3698-3705, 2003.
10. Stark PC, Levey AS and **Schmid CH**. Predictors of Change in Glomerular Filtration Rate Among Nondiabetic Patients with Chronic Kidney Disease. *ASA Proceedings of the Joint Statistical Meetings*, 4047-4049, 2003.
11. Nguyen DP, **Schmid CH**, Klerman EB, Adler G and Brown EN. Stochastic Deconvolution of Neuroendocrine Hormone Rhythms. *ASA Proceedings of the Joint Statistical Meetings*, 3025-3032, 2003.
12. Schmid A, McAlindon T, **Schmid CH** and Wang C. The Influence of Tai Chi Exercise on Proprioception in Patients with Knee Osteoarthritis: Results from a Pilot Randomized Controlled Trial. *International Journal of Integrative Medicine* 1:37, 2013.

### Working Papers

1. Shen Y-C, Eggleston K, Lau J and **Schmid C**. Hospital Ownership and Financial Performance: A Quantitative Research Review. National Bureau of Economic Research Working Paper Series 11662, <http://www.nber.org/papers/w11662>, 2005.

2. Eggleston K, Shen Y-C, Lau J, **Schmid CH** and Chan J. Hospital Ownership and Quality of Care: What Explains the Different Results? National Bureau of Economic Research Working Paper 12241, <http://www.nber.org/papers/w12241,2006>.

### **Editorials**

1. Levey AS, **Schmid CH** and Lau J. Antilymphocyte antibodies, renal transplantation, and meta-analysis. *Annals of Internal Medicine* 128: 863-865, 1998. [PMID: 9599200]
2. Uhlig K, Menon V and **Schmid CH**. Recommendations for Reporting of Clinical Research Studies. *American Journal of Kidney Diseases* 49: 3-8, 2007. [PMID: 17185140]
3. Lipsey MW and **Schmid CH**. From the editors. *Research Synthesis Methods* 1:1, 2010. [PMID: 26056089]
4. Zucker DR, Deo A and **Schmid CH**. Dialysis Research and N-of-1 Trials: Made for Each Other? *American Journal of Kidney Diseases* 55: 635-638, 2010. [PMID: 20144495] doi: 10.1002/jrsm.9.
5. Salanti G and **Schmid CH**. Research Synthesis Methods special issue on network meta-analysis: introduction from the editors. *Research Synthesis Methods* 3: 69-70, 2012. [PMID: 26062081] doi: 10.1002/jrsm.1050.
6. Stewart G and Schmid CH. Lessons from meta-analysis in ecology and evolution: the need for trans-disciplinary evidence synthesis methodologies. *Research Synthesis Methods* 6: 109-110, 2015. [PMID: 26099477] doi: 10.1002/jrsm.1115.
7. Rothstein H, Schmid CH and Shrier I. 2016 Bulletin. *Research Synthesis Methods* 6:1, 2016. Doi: 10.1002/jrsm.1189.

### **Dissertation**

**Schmid CH**. Measurement Error Models for Logistic and Longitudinal Regression. PhD Dissertation. Harvard University, Dept of Statistics. Ann Arbor: University Microfilms, 1991.

### **Manuals**

1. **Schmid CH**. Selected Solutions for an Introduction to Statistical Methods and Data Analysis. Boston: PWS-Kent, 1988.
2. **Schmid CH**. Introduction to Design of Experiments. Cambridge, MA: BBN Software Products, 1991.
3. **Schmid CH**. Design of Experiments Using RS/Discover. Cambridge, MA: BBN Software Products, 1991.
4. **Schmid CH**. Advanced Topics in Experimental Design. Cambridge, MA: BBN Software Products, 1991.
5. **Schmid CH**. Regression Analysis Using RS/Explore. Cambridge, MA: BBN Software Products, 1991.

### **Letters to the Editor**

1. Cappelleri JC, Ioannidis JPA, **Schmid CH** and Lau J. Reply to letters about "Large Trials vs Meta-analysis of Smaller Trials." *Journal of the American Medical Association* 277:376-378, 1997.
2. Lau J, Ioannidis JPA, **Schmid CH**. Meta-analyses, multivariate analyses, and coping with the play of chance. *Lancet* 351: 1062-1063, 1998.
3. Selker HP, **Schmid CH** and Griffith JL. Thrombolytic predictive instrument. *Annals of Internal Medicine* 131: 791-792, 1999.
4. Jafar TH, **Schmid CH**, Levey AS. Effect of angiotensin-converting enzyme inhibitors on progression of nondiabetic renal disease. *Annals of Internal Medicine* 137: 298-9, 2002. [PMID: 12186531]
5. Kourtis AP, Jamieson DJ, **Schmid CH**, Lau J. Author's reply to letter about "Use of antiretroviral therapy in pregnant HIV-infected women and the risk of premature delivery: A meta-analysis." *AIDS*. 21:1657-8, 2007.

6. Marques A, Shaw P, **Schmid CH**, Steere A, Kaplan RF, Hassett A, Shapiro G, Wormser GP, F. Comment to A randomized, placebo-controlled trial of repeated IV antibiotic therapy for Lyme encephalopathy prolonged Lyme disease treatment: enough is enough. *Neurology* 72:383-386, 2009.
7. Uhlig K, Earley A, **Schmid CH**. In reply to "Misuse and reporting of renal endpoints in randomized clinical trials." *American Journal of Kidney Diseases* 59: 160-162, 2012.

8.  (b) (4)

### **Presentations**

1. "Incorporating Measurement Error in the Estimation of Autoregressive Models for Longitudinal Data." Joint Statistical Meetings, Anaheim, CA, August 1990.
2. "A Bayesian Approach to Logistic Regression Models Having Measurement Error Following a Mixture Distribution." Joint Statistical Meetings, Boston, MA, August 1992.
3. "A Logistic Regression Model for the Effect of Thrombolytic Therapy on the Risk of Cardiac Arrest When Some Outcomes Precede Treatment." Meeting of the American Federation for Clinical Research, Washington DC, May 1993.
4. "Applying Bayesian Meta-Regression to the Study of Thrombolytic Therapy." Meeting of the American Federation for Clinical Research, Baltimore, MD, May 1994.
5. "A State-Space Model for Longitudinal Regression." Twenty-Sixth Symposium on the Interface, Research Triangle Park, NC, June 1994.
6. "Measuring the Impact of the Control Rate in Meta-Analysis of Clinical Trials." Sixteenth Annual Meeting of the Society for Clinical Trials, Seattle, Washington, April-May 1995.
7. "Bayesian Methods to Improve Sample Size Approximations." Joint Statistical Meetings, Orlando, FL, August 1995.
8. "Making Predictive Instruments." Short course given with Harry Selker and John Griffith at annual meeting of the Society for General Internal Medicine, Washington, DC, May 1996.
9. "A Hierarchical Model for Human Growth." Joint Statistical Meetings, Chicago, IL, August 1996.
10. Introductory course in biostatistics given to the Portuguese Society of Nephrology, Porto, Portugal, March 3-6, 1997.
11. "Making Predictive Instruments." Short course given with Harry Selker and John Griffith at annual meeting of the Society for General Internal Medicine, Washington, DC, May 1997.
12. "Synthesizing the Treatment of Missing Data in Logistic Regression, Classification Trees and Neural Networks." Joint Statistical Meetings, Anaheim, CA, August 1997.
13. "A Probability Model for Saltatory Growth." Colloquium given to the Department of Mathematical Sciences, Worcester Polytechnic Institute, Worcester, MA, September 1997.
14. "An Empirical Study of the Effect of the Control Rate as a Predictor of Treatment Efficacy in Meta-Analysis of Clinical Trials." 1997 International Conference on Health Policy Research, Crystal City, VA, December 1997.
15. "Exploring Heterogeneity in Randomized Trials via Meta-Analysis." 1998 Drug Information Association Conference on Global Statistical Challenges and Strategies in the Pharmaceutical Industry, Hilton Head, SC, March 1998.
16. "Exploring Heterogeneity in Clinical Trials With Meta-Analysis." Bayer International Clinical Datapool Meeting, Wuppertal, Germany, June 1998.

17. Short Course in Meta-Analysis at Medical Decision Making annual conference, Cambridge, MA, October, 1998.
18. "Regression Models for Longitudinal Data with Missing Covariate Values." Invited talk given to American Statistical Association, Baltimore, August 1999.
19. "Marginal and Dynamic Regression Models for Longitudinal Data." Talk given to Epidemiology Methods Working Group, Harvard School of Public Health, January 2000.
20. "Introduction to Meta-Analysis." Eunice Kennedy Shriver Center, Waltham MA, May 2000.
21. "Modeling Growth in Kids" Presentation to Summer Seminar Lecture Series in Clinical Care Research, New England Medical Center, July 2000.
22. "Exploring Heterogeneity in Randomized Trials With Meta-Analysis." Invited talk given to American Statistical Association, Indianapolis, August 2000.
23. "Exploring Heterogeneity in Randomized Trials With Meta-Analysis". Talk given at Rand, Santa Monica, November 2000.
24. "Exploring Heterogeneity in Randomized Trials with Meta-Analysis" Talk and panel discussion at Merck Institute on Aging, Washington DC, June 2001.
25. Introductory course in biostatistics given to the Portuguese Society of Nephrology, Porto, Portugal, July 8-10, 2001.
26. "Saltatory Growth in Children." Presentation to Summer Seminar Lecture Series in Clinical Care Research, New England Medical Center, Boston, July 2001.
27. "Using Bayesian Models to Perform Meta-Analysis" Bartlett International workshop on Statistical Design and Analysis, Philadelphia, November 2001.
28. "Modeling Daily Growth in Children." Presentation to Summer Seminar Lecture Series in Clinical Care Research, New England Medical Center, Boston, July 2002.
29. "Using the Control Rate to Explore Heterogeneity of Treatment Effects in Clinical Trials" Invited talk given to American Statistical Association, New York, August 2002.
30. "Modeling Daily Growth in Children." Presentation at Yale University Biostatistics colloquium, New Haven, October 2002.
31. "Using Meta-Analysis to Explore Differences in Study Effects." Lecture given to Ninth Annual Biopharmaceutical Applied Statistics Symposium, Savannah, December 2002.
32. "Modeling Daily Growth in Children." Talk given to American Statistical Association, San Francisco, August 2003.
33. "Predictors of Change in Glomerular Filtration Rate Among Nondiabetic Patients with Chronic Kidney Disease." Talk given to American Statistical Association, San Francisco, August 2003.
34. "Combining N-of-1 Studies to Improve Treatment for Individual Patients." Talk given to Center for Health Quality, Outcomes & Economics Research, Bedford, MA, December 2003.
35. "Using Meta-Regression to Explore Treatment Heterogeneity." Talk given to meeting of US Cochrane Center, Brown University, Providence RI, April 2004.
36. "Using Bayesian Models to Perform Meta-Analysis." Lecture given at Harvard University, Boston, MA, April 2004.
37. "The State of the Art in Diagnostic Test Meta-Analysis." Invited talk given to American Statistical Association, Toronto, August 2004.
38. "Survey of Diagnostic Test Meta-Analyses." Talk given to 12<sup>th</sup> Cochrane Collaboration Colloquium, Ottawa, Canada, October 2004.
39. "Basics of Combining Data in a Meta-Analysis." Talk given to Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA, October 2004.

40. "Exploring Heterogeneity in Study Results Through Meta-Analysis." Talk given to Statistics group, Roche Labs, Nutley, NJ, November 2004.
41. "Statistical Basis of Meta-Analysis." Course given to National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA, May 2005.
42. "Systematic Review/Meta-analysis Workshop" given at Sanofi-Aventis pharmaceuticals, Bridgewater, NJ, September 2005.
43. "The State of the Art in Metaanalyses of Diagnostic Tests." Talk given at 6<sup>th</sup> International Conference on Health Policy Research, Boston, MA, October 2005.
44. Modern Metaanalysis. Course given at 6<sup>th</sup> International Conference on Health Policy Research, Boston, MA, October 2005.
45. "Statistical Methods for Diagnostic Tests." Talk given at International Chinese Statistical Association, Storrs, CT, June 2006.
46. "The State of the Art in Diagnostic Test Meta-Analysis." Talk given at Center for Medicare and Medicaid Services, Baltimore MD, October 2006.
47. "Evaluating Heterogeneity in Studies of Diagnostic Test Accuracy." Talk given to 14<sup>th</sup> Cochrane Collaboration Colloquium, Dublin, Ireland, October 2006.
48. "Testing the Accuracy of Diagnostic Tests Through Meta-Analysis." Talk given to Epidemiology Methods Working Group, Harvard School of Public Health, Cambridge MA, March, 2007.
49. "The Design of Studies for Medical Research: Common Errors in Statistics and How to Avoid Them." Pre-Congress Satellite Course given at XXI Portuguese Congress of Nephrology, Vilamoura, Portugal, May 2007.
50. "Putting Together a Strong Clinical Study." Talk given to Fourth International Meeting Ten Years of the US-Russian Program in Prosthetics and Rehabilitation, Stoughton MA, June 2007.
51. Random-Effects Meta-Analyses For Outcomes With Three or More Mutually Exclusive Categorical Responses." Talk given to Society for Research Synthesis Methodology Annual Meeting, Chicago, IL, July 2007.
52. "Basic Statistical Concepts for the Medical Researcher." Course given at the American College of Rheumatology Annual Meeting, Boston MA, November 2007.
53. "What If I'd Known Then What I Know Now? Re-evaluating Diagnostic Test Meta-Analyses With New Statistical Models." Talk given at 7<sup>th</sup> International Conference on Health Policy Statistics, Philadelphia PA, January 2008.
54. "Random-Effects Meta-Analyses For Outcomes With Three or More Mutually Exclusive Categorical Responses." Talk given to Midwest Biopharmaceutical Statistics Workshop, Muncie IN, May 2008.
55. "Bayesian Meta-analysis." Seminar given at Pfizer Research and Development, New London CT, June 2008.
56. "State of the art and science' associated with the use of statistical models used in the meta-analysis of clinical data". Talk given to the Life Science Informatics group at the Massachusetts Biotechnology Council, Cambridge MA, June 2008.
57. Course on biostatistics given to Consultation of Investment in Health Promotion, Hanoi, Vietnam, June 2008.
58. "Empirical Study of Bayesian Methods for Meta-Analyses of Diagnostic Test Data Using a Large Database of Studies in the Medical Literature." Talk given to Society for Research Synthesis Methodology, Corfu, Greece, July 2008.
59. "Empirical Study of Bayesian Methods for Meta-Analyses of Diagnostic Test Data Using a Large Database of Studies in the Medical Literature." Invited talk given American Statistical Association, Denver, August 2008.

60. "Estimating Treatment-Covariate Interactions Using Meta-Regression and Individual Patient Data." Invited workshop given at 16<sup>th</sup> Cochrane Collaboration Colloquium, Freiburg, Germany, October 2008.
61. "Meta-Analysis of Clinical Trials: Strengths and Weaknesses." Invited talk given at 11<sup>th</sup> Cardiology Conference of Central Greece. Larissa, Greece, October 2008.
62. "Issues When Trying to Adjust for Confounders in Meta-Analyses of Observational Data " Invited talk given to Drug Information Association/FDAPHRMA Drug Safety Conference, Arlington, VA October 2008.
63. "Issues When Trying to Adjust for Confounders in Meta-Analyses of Observational Data " Webinar given given to Drug Information Association, May 2009.
64. "Meta-analysis of Clinical Trials: Strengths and Weaknesses." Invited talk to Greek medical conference, Porto Carras, Greece, July 2009.
65. "Meta-Analyst Software" Talk given to Society for Research Synthesis Methodology, Seattle, WA, July 2009.
66. "The Statistician as an Expert Witness". Talk given to American Statistical Association, Washington DC, August 2009.
67. "Multiple-treatments meta-analysis for categorical outcomes." Talk given at 8<sup>th</sup> International Conference on Health Policy Statistics, Washington DC, January 2010.
68. "Multiple-treatments meta-analysis for categorical outcomes." Talk given at Massachusetts General Hospital Biostatistics Center, Boston MA, February 2010.
69. "Multiple-treatments meta-analysis." Talk given at Johns Hopkins University Center for Clinical Trials, Baltimore, MD, March 2010.
70. "Semi-automated abstract screening for systematic reviews using support vector machines." Talk given at University of York, Centre for Reviews and Dissemination, York, United Kingdom, March 2010.
71. "Multiple Treatments Meta-Analysis for Comparative Effectiveness." Talk given to ACRT/SCTS Joint Annual Meeting, Clinical and Translational Research and Education Meeting , Washington DC, April, 2010.
72. "Bayesian Meta-Analysis" Talk given at Pfizer, New York, NY, April 2010.
73. "Multiple-treatments, Multiple Outcomes and Multiple Followup Times." Talk given to Network Meta-analysis Methods Meeting and Workshop. Baltimore, MD, May 2010.
74. "Bayesian Analysis Using ()BUGS." Talk given to Network Meta-analysis Methods Meeting and Workshop. Baltimore, MD, May 2010.
75. "Multiple-treatments meta-analysis for categorical outcomes." Talk given to Society for Research Synthesis Methodology, Cartagena, Spain, July 2010.
76. "Multiple-treatments meta-analysis for categorical outcomes." Talk at 18<sup>th</sup> Cochrane Collaboration Colloquium, Keystone, Colorado, October 2010.
77. "Interpreting Multiple Results to the Same Query." Panel discussion at Expert Workshop: Statistical and Epidemiological Issues in Active Medical Product Surveillance. Brookings Institution, Washington DC, February 2011.
78. "Institute of Medicine Perspective on Systematic Reviews." Talk given at Registering Systematic Review Portocols: An International Initiative. Vancouver, Canada, February 2011.
79. "Meta-Analysis." Talk given to Comparative Effectiveness Research course, Tufts, Boston MA 2011.
80. "Heterogeneity, Meta-Regression and Statistical Models." Course given to Italian Cochrane Center. Milan, Italy, March 2011.
81. "Multiple-treatments meta-analysis for categorical outcomes." Talk given to Eastern North American Region of the International Biometric Society (ENAR). Miami, Florida, March 2011.
82. "Modernizing knowledge synthesis and integration for comparative effectiveness." Talk given to ACRT/SCTS Joint Annual Meeting, Clinical and Translational Research and Education Meeting , Washington DC, April 2011.

83. "Bayesian Methods for Multivariate Meta-Analysis." Course given at Eli Lilly and Company, Indianapolis, IN, June 2011.
84. "Finding What Works in Health Care: Standards for Systematic Reviews." Talk given to Society for Research Synthesis Methodology, Ottawa, Canada, July 2011.
85. "Proposed National Standards for Reviews of Health Care Evidence." Invited talk given at Joint Statistical Meetings, Miami FL, July 2011.
86. "Evidence-Based Medicine and Statistics." Introductory Overview Lecture given at Joint Statistical Meetings, Miami FL, August 2011.
87. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Joint Statistical Meetings, Miami FL, August 2011.
88. "Multinomial Network Meta-Analysis". Talk given at University of Ioannina, Greece, September 2011.
89. "Network Meta-Analysis." Workshop given at 9<sup>th</sup> International Conference on Health Policy Statistics, Cleveland, OH, October 2011.
90. "A Conversation on Standards for Systematic Reviews." Workshop given at 19<sup>th</sup> Cochrane Collaboration Colloquium, Madrid, Spain, October 2011.
91. "Network Meta-Analysis for Comparative Effectiveness." Starr Lecture at Brown University, Providence RI, October 2011.
92. "IOM Standards on Systematic Reviews." Talk given at International Life Sciences Institute meeting, Phoenix, AZ, January 2012.
93. "Institute of Medicine Standards on Systematic Reviews." Webinar given to Guidelines International North America, February, 2012.
94. "OpenMetaAnalyst software for diagnostic test accuracy studies." Webinar given to Learning Network, Evidence-Based Practice Center program, Agency for Healthcare Research and Quality, May 2012.
95. "Meta-analysis combining individual participant level data (IPD) and aggregated data (AD)." Workshop given to International Society of Pharmacoeconomics and Outcomes Research (ISPOR) 17th Annual International Meeting, Washington DC, June 2012.
96. "Exploring a Network of Treatments with Direct and Indirect Comparisons." Talk given to Fourth DEcIDE Symposium on Comparative Effectiveness Research Methods, Rockville MD, June 2012.
97. "Methods and reporting of meta-analyses of test accuracy." Talk given to Society for Research Synthesis Methodology, Aix-en-Provence, France, June 2012.
98. "Empirical assessment of methods for the meta-analysis of test accuracy studies." Talk given to Society for Research Synthesis Methodology, Aix-en-Provence, France, June 2012.
99. "Methods for the joint meta-analysis of several medical tests." Talk given to Society for Research Synthesis Methodology, Aix-en-Provence, France, June 2012.
100. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Joint Statistical Meetings, San Diego, CA, July 2012.
101. "Bayesian Methods for Multivariate Meta-Analysis of Treatment Networks with Incomplete Data." Invited talk given at Joint Statistical Meetings, San Diego, CA, July 2012.
102. "Meta Analysis with Multivariate Data." Course given to ASA Biopharmaceutical Section FDA-Industry Statistics Workshop, Washington DC, September 2012.
103. "Towards Modernizing the Systematic Review Pipeline: Efficient Updating via Data Mining." Talk given at 20<sup>th</sup> Cochrane Collaboration Colloquium, Auckland, New Zealand, October 2012.
104. "Methods for the Joint Meta-Analysis of Multiple Tests." Talk given at 20<sup>th</sup> Cochrane Collaboration Colloquium, Auckland, New Zealand, October 2012.
105. "An Empirical Assessment of Bivariate Methods for Meta-Analysis of Test Performance." Talk given at 20<sup>th</sup> Cochrane Collaboration Colloquium, Auckland, New Zealand, October 2012.

106. "Comparing multiple treatments 1: Overview or intervention review." Workshop given at 20<sup>th</sup> Cochrane Collaboration Colloquium, Auckland, New Zealand, October 2012.
107. "Bayesian Network Meta-Analysis for Unordered Categorical Outcomes With Incomplete Data." Talk given to DIMACS Workshop on Analysis of Information from Diverse Sources, Rutgers University, New Brunswick NJ, May 2013.
108. "N-of-1 Trials: A Tool for Making Patient-Centered Treatment Decisions." Talk given to International Chinese Statistics Association Conference, Bethesda, MD, June, 2013.
109. "Bayesian Network Meta-Analysis for Unordered Categorical Outcomes With Incomplete Data." Talk given to Society for Research Synthesis Methodology, Providence, RI, June 2013.
110. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Joint Statistical Meetings, Montreal, Canada, Aug 2013.
111. "Network Meta-Analysis of Categorical Outcomes With Incomplete Data." Invited talk given at Joint Statistical Meetings, Montreal, Canada, Aug 2013.
112. "Multivariate Techniques for Combining Information." Talk given at 10<sup>th</sup> International Conference on Health Policy Statistics, Chicago, IL, October 2013.
113. "N of 1 Studies." Talk given at University of Massachusetts Medical Center, Worcester, MA, February 2014.
114. "Bayesian Network Meta-Analysis for Categorical Outcomes." Talk given to Eastern North American Region of the International Biometric Society (ENAR). Baltimore, MD, March 2014.
115. "Meta-Analysis of Diagnostic Test Accuracy Comparisons: Network Methods." Talk given to Eastern North American Region of the International Biometric Society (ENAR). Baltimore, MD, March 2014.
116. "N-of-1 Trials." Talk given to American Statistical Association Connecticut Chapter annual meeting, Danbury CT, March, 2014.
117. "Network Meta-Analysis for Comparative Effectiveness in Safety Studies." Talk given to DIA/FDA Statistics Forum, Bethesda MD, April 2014.
118. "Introduction to Meta-Analysis." Workshop given to Global Clinical Scholars Research Training Program, Harvard Medical School, Boston MA, June 2014.
119. "Opportunities and Challenges in conducting a series of N-of-1 studies". Talk given to Society for Research Synthesis Methodology, York UK, July 2014.
120. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Joint Statistical Meetings, Boston, MA, Aug 2014.
121. "N-of-1 Trials." Webinar given to Health Policy Statistics Section of American Statistical Association, Sept 2014.
122. "Network Meta-Analysis." Talk given to Department of Industrial and Systems Engineering, Georgia Institute of Technology Atlanta GA, December 2014.
123. "Network Meta-Analysis for Comparative Effectiveness in Safety Studies." Webinar given to Eli Lilly, April 2015.
124. "How question formulation motivates different approaches to research synthesis." Talk given to Society for Research Synthesis Methodology, Nashville, TN, July 2015.
125. "An Empirical Comparison of Univariate and Multivariate Meta-Analyses for Categorical Outcomes." Talk given at Joint Statistical Meetings, Seattle, WA, Aug 2015.
126. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Joint Statistical Meetings, Seattle, WA, Aug 2015.
127. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Centers for Disease Control, Atlanta, GA, Aug 2015.
128. "Meta-Analysis: Combining the Results of Multiple Studies." Course given at Medtronic, Minneapolis, MN, Oct 2015.



**Patents**

2009 US Patent #8,126,826 B2 Method and System for Active Learning Screening Process With Dynamic Information Modeling

## Research Grants

### Current

Title: *Innovative Training to Improve CER PCOR Systematic Review Production and Uptake*

Funding Source: Agency for Health Care Research and Quality

Total Costs: \$2,500,000

Funding Period: 2014-2019

Role: Principal Investigator

Title: *Develop Patient Centered Outcomes Scholars for Comparative Effectiveness Research*

Funding Source: Agency for Health Care Research and Quality

Total Costs: \$1,200,000

Funding Period: 2014-2019

Role: Co-Investigator (PI: Joseph Lau)

Title: *Evaluating Observational Data Analyses: Confounding Control and Treatment Effect Heterogeneity*

Funding Source: Patient Centered Outcomes Research Institute

Direct Costs: (b) (4)

Funding Period: 2014-2017

Role: Co-Investigator (PI: Issa Dahabreh)

Title: *Integrating Causal Inference, Evidence Synthesis, and Research Prioritization Methods*

Funding Source: Patient Centered Outcomes Research Institute

Direct Costs: (b) (4)

Funding Period: 2013-2016

Role: Co-Investigator (PI: John Wong)

Title: *Advanced and Accessible Statistical Tools for Quantitative Research Synthesis in Ecology and Evolutionary Biology*

Funding Source: National Science Foundation

Direct Costs: (b) (4)

Funding Period: 2013-2016

Role: Co-Investigator (PI: Byron Wallace and Jessica Gurevitch)

Title: *N-of-1 Trials Using mHealth in Chronic Pain*

Funding Source: National Institute of Nursing Research R01 NR13938-01

Direct Costs: \$290,273

Funding Period: 2012-2017

Role: PI on subcontract (Overall PI: Richard Kravitz)

Title: *Evidence Based Practice Center IV*

Funding Source: Agency for Healthcare Research and Quality

Direct Costs: \$70,000

Funding Period: 2012-2017

Role: Statistical advisor (PI: Thomas Trikalinos)

Title: *Postdoctoral Fellowships in Health Services Research*

Funding Source: Agency for Healthcare Research and Quality

Direct Costs:  
Funding Period: 2013-2017  
Role: Faculty Member (PI: Vince Mor)

Title: *Tai Chi and Knee Osteoarthritis*  
Funding Source: National Center for Complementary and Alternative Medicine  
Direct Costs: \$381,917  
Funding Period: 2010-2015  
Role: Senior Statistician (PI: Chenchen Wang)

Title: *Tai Chi and Fibromyalgia*  
Funding Source: National Center for Complementary and Alternative Medicine  
Direct Costs: \$451,591  
Funding Period: 2011-2016  
Role: Senior Statistician (PI: Chenchen Wang)

Title: *Develop, Test and Disseminate a New Technology to Modernize Data Abstraction in PCOR Systematic Reviews*  
Funding Source: PCORI  
Direct Costs: (b) (4)  
Funding Period: 2014-2017  
Role: PI on subcontract (Overall PI: Tianjing Li)

Title: *Melatonin for initial insomnia in stimulant-treated pediatric ADHD*  
Funding Source: NHMRC  
Direct Costs: \$20,000  
Funding Period: 2015  
Role: PI on subcontract (Overall PI: Jane Nikles)

Title: *Center of Excellence in Physical Therapy*  
Funding Source: Foundaton for Physical Therapy  
Direct Costs: (b) (4)  
Funding Period: 2013-2017  
Role: Co-Investigator (PI: Linda Resnik)

Title: *Methods and Dissemination: Collaboration to improve validity, consistency, and utility of systematic reviews*  
Funding Source: Agency for Healthcare Research and Quality  
Direct Costs: \$47,385  
Funding Period: 2013-2017  
Role: Co-Investigator (PI: Thomas Trikalinos)

### **Completed**

Title: *An MI Thrombolytic Therapy Outcome Predictive Instrument*  
Funding Source: Agency for Health Care Policy and Research R01 HS06208  
Direct Costs: \$1,227,401

Funding Period: 1989-1993

Role: Investigator/Statistician (PI: Harry Selker)

Title: *Comparative Outcomes of Ambulatory Pharmaceutical Agents*

Funding Source: Agency for Health Care Policy and Research R01 HS07782-01

Direct Costs: \$1,200,000

Funding Period: 1993-1996

Role: Investigator (PI: Joseph Lau)

(b) (4)

Title: *Assessing New Mathematical Models for Medical Events*

Funding Source: National Library of Medicine

Direct Costs: \$812,163

Funding Period: 1995-1999

Role: Investigator (PI: Harry Selker)

Title: *Combining Different Data Sources to Assess Treatments*

Funding Agency: Agency for Healthcare Research and Quality R01 HS08532

Direct Costs: \$260,529

Funding Period: 1995-1998

Role: Principal Investigator

Title: *Assessing New Mathematical Models for Medical Events*

Funding Source: National Library of Medicine R01 LM05607

Direct Costs: \$825,413

Funding Period: 1999-2002

Role: Investigator (PI: John Griffith)

Title: *An Integrated Heuristics-Guided Meta-Analysis System*

Funding Source: NCCR/Small Business Technology Transfer Program R41 RR12418

Direct Costs: \$100,000

Funding Period: 1997-1998

Role: Statistician (PI: Joseph Lau)

Title: *Epidemiology, Clinical Trials, and Outcomes Research*

Funding Source: Nat. Institute of Diabetes and Digestive and Kidney Diseases 2T32DK007777

Direct Costs: \$347,901

Funding Period: 1998-2003

Role: Faculty Member (PI: Andrew Levey)

Title: *Training Evidence-Based Practitioners*

Funding Source: Agency for Healthcare Research and Quality R25 HS09796  
Direct Costs: \$298,521  
Funding Period: 1998-2001  
Role: Investigator (PI: Joseph Lau)

Title: *Individual Patient Meta-Analysis in Chronic Renal Disease*  
Funding Source: National Institute of Diabetes and Digestive and Kidney Diseases R01 DK53869  
Direct Costs: \$605,980  
Funding Period: 1999-2002  
Role: Statistician (PI: Andrew Levey)

Title: *Analysis of Longitudinal Cardiopulmonary Data*  
Funding Source: National Institute of Heart, Lung and Blood 2R01 HL40619  
Direct Costs: \$164,766  
Funding Period: 1991-2002  
Role: Principal Investigator on NEMC subcontract (PI: Bernard Rosner)

Title: *Combining Different Data Sources to Assess Treatments*  
Funding Agency: Agency for Healthcare Research and Quality 5 R01 HS10064  
Direct Costs: \$453,009  
Funding Period: 1998-2002  
Role: Principal Investigator

Title: *Statistical Analysis of Human Circadian Rhythms*  
Funding Source: National Institute of General Medicine R01 GM53559  
Direct Costs: \$53,160  
Funding Period: 2000-2003  
Role: Principal Investigator on NEMC Subcontract (Overall PI: Emery Brown, MD, PhD)

Title: *Combining N-of-1 Trials to Assess Fibromyalgia Therapies*  
Funding Source: National Institute of Arthritis and Musculoskeletal and Skin Diseases R01 AR45416  
Direct Costs: \$896,526  
Funding Period: 1999-2003  
Role: Statistician (PI: Deborah Zucker)

Title: *Specialized Center of Research in Ischemia: Core C Statistical Core*  
Funding Source: National Institute of Heart, Lung and Blood P50 HL63494  
Direct Costs: \$90,470  
Funding Period: 2000-2005  
Role: Statistician (PI: Michael Mendelsohn)

Title: *Hypertension and Renal Disease in the Pakistani Population*  
Funding Source: Fogarty International 5R03TW005657  
Direct Costs: (b) (4)  
Funding Period: 2002-2005  
Role: Statistician (PI: Andrew Levey)

Title: *Clinical Studies in Patients with Lyme Disease*

Funding Source: National Institute of Arthritis and Infectious Disease N01 AI65308

Direct Costs: \$ 6,720,169

Funding Period: 1996-2005

Role: Senior Statistician/ Principal Investigator (PI 1996-2001 Mark Klempner)

Title: *Dealing with Publication Bias in Meta-Analysis*

Funding Source: Agency for Healthcare Research and Quality R01 HS10254

Direct Costs: \$388,565

Funding Period: 1999-2006

Role: Investigator (PI: Norma Terrin)

Title: *Social and Affective Processes in Autism*

Funding Source: NIMH/NICHHD U54 MH/HD 66398

Direct Costs: \$8,104,839

Funding Period: 2003-2009

Role: Statistician (PI: Helen Tager-Flusberg)

Title: *Tufts-NEMC-Sackler Clinical Research Curriculum*

Funding Source: National Heart Lung and Blood Institute K30 HL04116

Direct Costs: \$1,000,000

Funding Period: 1999-2008

Role: Faculty Member (PI: Harry Selker)

Title: *Language in Autism: Clinical and Basic Studies*

Funding Source: National Institute of Mental Health 1PO1 HD34578

Direct Costs: \$4,123,176

Funding Period: 1997-2007

Role: Statistician (PI: Helen Tager-Flusberg)

Title: *Improving Meta-Analysis of Diagnostic Test Studies*

Funding Agency: Agency for Healthcare Research and Quality 1 R01 HS13328

Direct Costs: \$404,351

Funding Period: 2002-2007

Role: Principal Investigator

Title: *A System for Comprehensive Meta-Analysis*

Funding Agency: National Center for Research Resources 1 R33 RR17109

Direct Costs: \$750,000

Funding Period: 2002-2007

Role: Principal Investigator

Title: *Chronic Renal Disease-Individual Patient Meta Analysis*

Funding Source: National Institute of Diabetes and Digestive and Kidney Diseases 5 R01 DK053869

Direct Costs:\$1,751,793

Funding Period: 1999-2007

Role: Statistician (PI: Andrew Levey)

Title: *GPCR Variants as Genetic Determinants of Obesity*

Funding Source: NIDDK/NIA/NCCAM 1R01DK072497

Direct Costs: \$5,193,236

Funding Period: 2005-2009

Role: Statistician (PI: Alan Kopin)

Title: *Mechanisms of Varicose Vein Formation*

Funding Source: NIH/NHLBI 5R01HL081730-04

Direct Costs:

Funding Period: 2006-2009

Role: Statistician (PI: Mark lafrati )

Title: *Computer Program for Meta-analysis*

Funding Source: AHRQ Contract #290-02-0022

Direct Costs: \$94,388

Funding Period: 2008-2009

Role: Co-Investigator

Title: *Relationship of Vitamin D and Calcium Intake to Nutrient Status Indicators and Health Outcomes*

Funding Source: AHRQ Contract

Direct Costs: \$348,879

Funding Period: 2008-2009

Role: Co-Investigator (PI: Joseph Lau)

Title: *Molecular Mechanisms of Vascular Relaxation*

Funding Source: National Heart, Lung and Blood Institute 1P01HL077378-01

Direct Costs: \$11,300,000

Funding Period: 2004-2009

Role: Statistician (PI: Michael Mendelsohn)

(b) (4)



Title: *Clinical Research Training in Infectious Diseases*

Funding Source: Nat. Institute of Allergy and Infectious Disease 1T32AI055412-01A2

Direct Costs: \$1,451, 608

Funding Period: 2004-2009

Role: Statistician (PI: David Snyderman)

Title: *Chronic Renal Disease-Individual Patient Meta Analysis*

Funding Source: National Institute of Diabetes and Digestive and Kidney Diseases U01 RDK 053869A

Direct Costs:\$1,751,793

Funding Period: 2003-2010

Role: Statistician (PI: Andrew Levey)

Title: *Tai Chi for Fibromyalgia*

Funding Source: NIH/NCCAM R21 AT 003621

Direct Costs: \$100000

Funding Period: 2007-2010

Role: Statistician (PI: Chenchen Wang)

(b) (4)

Title: *Statistical Support for United States Army Research Institute of Environmental Medicine*

Funding Source: US Army W911QY-06-P-0270

Direct Costs: \$12,000/yr

Funding Period: 2007-2012

Role: Principal Investigator

Title: *Tufts Clinical and Translational Science Institute*

Funding Source: NIH/NCRR UL1 RR025752

Direct Costs:\$20,000,000

Funding Period: 2008-2013

Role: Statistician (PI: Harry Selker)

Title: *Postdoctoral Fellowships in Health Services Research*

Funding Source: Agency for Healthcare Research and Quality T32 HS00060

Direct Costs:

Funding Period: 1993-2012

Role: Faculty Member (PI: Harry Selker)

Title: ARRA: *EPC Methods Research and Resource Activities for Evidence Synthesis – Statistical Issues*

Funding Source: AHRQ Contract HHSA 290-2007-10055-I Task Order No. 6

Direct Costs: \$950,000

Funding Period: 2009-2012

Role: Co-Investigator (PI: Joseph Lau)

Title: *Empirical Evaluation of Multivariate Meta-analysis for Binary Outcomes*

Funding Source: Agency for Healthcare Research and Quality

Direct Costs: \$27255



Funding Period: 2011-2013

Role: Statistical advisor (PI: Thomas Trikalinos)

Title: *Empirical Evaluation of Meta-analysis of Proportions and Rates*

Funding Source: Agency for Healthcare Research and Quality

Direct Costs: \$15000

Funding Period: 2011-2013

Role: Statistical advisor (PI: Thomas Trikalinos)

Title: *Evaluating Practices & Developing Tools for Comparative Effectiveness Reviews of Diagnostic Test Accuracy*

Funding Source: Agency for Healthcare Research and Quality

Direct Costs: \$73000

Funding Period: 2011-2013

Role: Statistical advisor (PI: Thomas Trikalinos)

Title: *Developing a Framework for Grading the Strength of Methodological Recommendations for Systematic Review and Meta-Analysis*

Funding Source: Agency for Healthcare Research and Quality

Direct Costs: \$73000

Funding Period: 2011-2013

Role: Statistical advisor (PI: Thomas Trikalinos)

Title: *Kidney Function, Aortic Stiffness and Aging*

Funding Source: National Institute of Diabetes and Digestive and Kidney Diseases R01 DK 082447-01A1

Direct Costs:

Funding Period: 2010-2013

Role: PI on subcontract (PI: Andrew Levey)

Title: *Modernizing Meta-Analysis to Facilitate Comparative Effectiveness Reviews*

Funding Source: Agency for Healthcare Research and Quality R01 HS 018574

Direct Costs: \$778,325

Funding Period: 2009-2013

Role: Principal Investigator

Title: *Semi-Automated Abstract Screening for Comparative Effectiveness Reviews*

Funding Source: Agency for Healthcare Research and Quality R01 HS 018494

Direct Costs: \$727,722

Funding Period: 2009-2013

Role: Co-Investigator (PI: Thomas Trikalinos)

Title: *A Network Meta-Analysis of Pharmacological Interventions for Knee Osteoarthritis*

Funding Source: Agency for Healthcare Research and Quality F32 HS 021396

Direct Costs: \$100,000

Funding Period: 2012-2013

Role: Sponsor (PI: Ravi Bannuru)

Title: *Standards in the Design, Conduct and Evaluation of Diagnostic Testing For Use in Patient Centered Outcomes Research*

Funding Source: Patient Centered Outcomes Research Institute PCORI-SOL-RMWG-001

Direct Costs:

Funding Period: 2012

Role: Member (PI: Constantine Gatsonis)

## Professional Service

### *Brown University*

2012-	Director, Masters Program in Biostatistics
2012-	Chair, Masters Program Admissions Committee
2012-	Member, Public Health Graduate Program Steering Committee
2012-	Member, Biostatistics Academic Programs Committee
2013	Member, Biostatistics Faculty Research Track Search Committee
2013	Member, Committee Public Health Faculty Awards
2013	Reviewer of abstracts, Public Health Research Day
2014	Member, Tenure, Promotions and Appointments Committee
2014-	Member, School of Public Health Faculty Appointments Committee
2015	Member, Biostatistics Faculty Tenure Track Search Committee
2015	Member, Biostatistics Faculty Teaching Track Search Committee
2015	Interim Director, PhD Program in Biostatistics
2015	Member, Committee Public Health Faculty Awards
2015	Member, Committee Brown Faculty Seed Awards
2015-	Member, Human Resources Advisory Board
2015-	Chair, Biostatistics promotion committee
2016	Member, Health Services, Policy and Practice Tenure-Track Faculty Search Committee

### *Editorial Boards*

2006-	Statistical Editor, <i>American Journal of Kidney Diseases</i>
2008-2014	Co-Editor-in-Chief, <i>Research Synthesis Methods</i>
2009-	Editorial Board, <i>BMC Medicine</i>
2011-	Editorial Board, <i>Systematic Reviews Journal</i>
2015	Associate Editor, <i>Research Synthesis Methods</i>

### *Elected Offices*

2005	Program Chair-Elect, American Statistical Association (ASA) Section on Health Policy Statistics
2006	Program Chair, ASA Section on Health Policy Statistics
2008-2010	Health Policy Statistics representative to ASA Council of Sections
2011-2013	Chair-Elect, Chair, Past Chair, Health Policy Statistics Section, American Statistical Association

### *Conference Program Committees*

2005	Scientific Planning Committee, 6 <sup>th</sup> International Conference on Health Policy Research
2007-2008	Program Chair, 7 <sup>th</sup> International Conference on Health Policy Statistics
2009-2010	Scientific Planning Committee, 8 <sup>th</sup> International Conference on Health Policy Statistics
2010	Scientific Planning Committee, Joint Colloquium of the Cochrane and Campbell Collaborations
2010-2011	Scientific Planning Committee, 9 <sup>th</sup> International Conference on Health Policy Statistics
2010-2011	Steering Committee, FDA/Industry Statistics Workshop
2012	Abstract review, AcademyHealth Annual Meeting
2012-2013	Advisory Board, 10 <sup>th</sup> International Conference on Health Policy Statistics
2013	Co-Chair, Planning Committee 8 <sup>th</sup> Meeting of Society for Research Synthesis Methodology
2014-2015	Chair, Local Organizing Committee, 11 <sup>th</sup> International Conference on Health Policy Statistics

### *Grant Review*

1994	Special Reviewer for Biomedical Library Review Committee, Nat. Library of Medicine
------	--

1995 Special Reviewer for Health Services Research Dissemination Study Section, Agency for Health Care Policy and Research (AHCPR)

1998-2002 Member, Health Quality and Effectiveness Research Study Section, Agency for Healthcare Quality and Research (AHQR), formerly AHCPR

2003 Special Reviewer for BBBP-1, Biobehavioral and Behavioral Processes IRG

2011 Special Reviewer for Special Emphasis Education Panel of the National Center for Complementary and Alternative Medicine, National Institutes of Health

2012 Chair, Patient Centered Outcomes Research Pilot Project Grant Review Study Section

2014- Member, Health Care Research Training Study Section, AHRQ

*Tufts Hospital, Medical School, or University Committee Assignments*

1993-1999 Advisory Committee, Fellowship in Clinical Care Research, ICRHPS

1999-2009 Epidemiology/Biostatistics Concentration Leader, Clinical Research, Sackler School, Tufts

1999-2012 Advisory Committee, Clinical Research, Sackler School, Tufts

1999-2012 Admissions Committee, Clinical Research, Sackler School, Tufts

2000-2006 Member, Scientific Advisory Committee, Tufts-NEMC GCRC

2001-2004 Member, Clinical Research Review Committee, T-NEMC Research Fund

2004-2009 Member, Executive Committee Tufts Medical School Summer Research Program

2004-2006 Member, Sackler School Education Programs Task Force, Tufts

2005-2007 Member, Mentorship Committee, ICRHPS, Tufts Medical Center

2005-2008 Member, Sackler Student Awards Committee, Tufts

2009-2011 Associate Director, Clinical and Translational Science Program, Sackler School, Tufts

2009-2012 Programs and Faculty Committee, Sackler School, Tufts

*External Committees and Working Groups*

2003-2007 Consultant to the Circulatory System Devices Panel of the Medical Devices Advisory Committee, Center for Devices and Radiological Health, Food and Drug Administration

2004- Member, External Advisory Committee ECRI Health Technology Assessment Program

2006-2009 Member, Working Group on Meta-analysis in Ecology: Lessons, challenges and future, Meta-Analysis in Ecology, National Center for Ecologic Analysis and Synthesis

2007 Member, Medical Devices Dispute Resolution Panel, US Food and Drug Administration

2007 Member, Orthopaedic and Rehabilitation Devices Panel, US Food and Drug Administration

2009-2015 Member, Working Group, CONSORT Extension for N-of-1 Trials (CENT)

2009-2010 Member, Centre for Population Biology Workshop

2009-2010 ASA Council of Sections nominating committee

2009-2011 Member, Institute of Medicine Committee on Standards for Systematic Reviews of Clinical Effectiveness Research

2010-2012 Co-Convener, Multiple Interventions Methods Group, Cochrane Collaboration

2010-2011 Co-Chair, Comparative Effectiveness Research Key Function Committee Methods Workgroup, Clinical and Translational Science Award Consortium

2011-2016 Member, Working Group Single Case Experimental Designs CONSORT extension

2011- Member, Data Safety Monitoring Board, Effects of Health-Promoting Programs on CVD Risk: the Jackson Heart Study

2012-2015 Member, Working Group, Network Meta-analysis extension of PRISMA statement

2012 Member, Workshop on the use of individual participant data (IPD) in systematic reviews

2013-2015 Member, Working Group, Individual Participant Data Meta-analysis extension of PRISMA

2013-2015 Member, Data Safety and Monitoring Board, Development and Evaluation of a Clinic-Based

2013 Screening and Brief Intervention for Changing Behaviors Related to Cytomegalovirus  
Transmission in Pregnant Women, Brown University, Women's and Infants Hospital  
2013 Panelist, Meta-Analysis of Randomized Controlled Clinical Trials for Safety Evaluation, FDA  
2014- Chair, Lester Curtin Award committee, American Statistical Association  
2014- Member, External Advisory Board, (b) (4), (b) (6), Tufts U  
2014- Member, FDA Drug Safety and Risk Management Advisory Committee  
2014- Member, AHRQ Technical Expert Panel: Diabetes Medications for Adults with Type 2 Diabetes

### **Awards and Honors**

1988-1991 National Research Service Award, National Institute of Health  
2000 Drug Information Association Donald E. Francke Award (best paper of year)  
2006 Elected member, Society for Research Synthesis Methodology  
2009 Letter of commendation for peer review from Annals of Internal Medicine  
2009 Travel award, Statistical Consulting Section of American Statistical Association  
2010 Fellow, American Statistical Association  
2010 Dean's Outstanding Sackler Faculty Mentor Award, Tufts Medical School  
2010 Tufts University School of Medicine Distinguished Faculty Award

### Teaching (at Harvard and Tufts)

1985-1986	Introduction to Statistics, Teaching Fellow, Department of Statistics, Harvard University
1987-1988	Introduction to Biostatistics, Teaching Fellow, Department of Statistics, Harvard
1989-1991	Statistical Instructor/Consultant, BBN Software Products
1991-1996	Statistical seminars and short courses at NEMC and Newton-Wellesley Hospital
1993-	Faculty of Health Services Research fellowship program, Tufts Medical Center
1993-1996	Statistical advisor to Think Tank seminar series, Newton-Wellesley Hospital
1996-1999	Clinical Epidemiology/Introduction to Clinical Care Research, Tufts School of Medicine
1996-	Study Design Seminar, Sackler School of Graduate Biomedical Sciences
1997, 1999	Predictive Models for Health Outcomes, Tufts School of Medicine
1997-2002	Intermediate Biostatistics: Regression, Sackler School of Graduate Biomedical Sciences
1998-2002	Scientific Manuscript and Grant Writing, Sackler School of Graduate Biomedical Sciences
2000	Introduction to Biostatistics, Sackler School of Graduate Biomedical Sciences
1998-2005	Introduction to Evidence-Based Medicine, Sackler School of Graduate Biomedical Sciences
2001	Advanced Biostatistics: Longitudinal Data Analysis, Tufts School of Medicine
2003, 2005	Genetic Epidemiology, Sackler School of Graduate Biomedical Sciences
2006-2007	Intermediate Biostatistics: Regression, Sackler School of Graduate Biomedical Sciences
2007	Advanced Topics in Biostatistics, Sackler School of Graduate Biomedical Sciences
2008	Topics in Statistics, Sackler School of Graduate Biomedical Sciences
2008-2010	Introduction to Biostatistics, Sackler School of Graduate Biomedical Sciences
2010	Intermediate Biostatistics: Regression, Sackler School of Graduate Biomedical Sciences
2010-2011	Advanced Biostatistics, Sackler School of Graduate Biomedical Sciences
2011	Machine Learning in Predictive Medicine, Sackler School of Graduate Biomedical Sciences

### Teaching (at Brown)

2013 (spring)	PHP 2690A	Advanced Topics in Biostatistics: Statistics in Interdisciplinary Research [8 students]
2013 (fall)	PHP 2690D	Advanced Topics in Biostatistics: Practical Data Analysis [15 students]
2014 (spring)	PHP 2690F	Advanced Topics in Biostatistics: Statistical Computing [11 students]
2014 (fall)	PHP 2550	Practical Data Analysis [21 students]
2014 (fall)	PHP 0100	First Year Seminar: Statistics is Everywhere (co-instructor) [7 students]
2015 (spring)	PHP 2511	Applied Regression Analysis [36 students]
2015 (spring)	PHP 2980	Seminar in Meta-Analysis [2 students]
2015 (fall)	PHP 0100	First Year Seminar: Statistics is Everywhere (co-instructor) [20 students]
2015 (fall)	PHP 2550	Practical Data Analysis [22 students]