

CURRICULUM VITAE

Jeffrey D. Blume, PhD

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Education

1994	BA (Statistics)	State University of New York at Buffalo
1999	PhD (Biostatistics) Advisor Dissertation	Johns Hopkins School of Public Health Richard Royall, PhD <i>On the probability of observing misleading evidence in sequential trials</i>

Academic Appointments

August 1999 – July 2005	Assistant Professor (Research) Center for Statistical Sciences, Department of Community Health, Brown University
August 2005 – June 2008	Assistant Professor Center for Statistical Sciences, Department of Community Health, Brown University
July 2008	Associate Professor Center for Statistical Sciences, Department of Community Health, Brown University

August 2008 – June 2011 Associate Professor
Department of Biostatistics
Vanderbilt University, School of Medicine

July 2011 – present Associate Professor with Tenure
Department of Biostatistics
Vanderbilt University, School of Medicine

October 2016 – present Associate Professor (Secondary Appointment)
Department of Biomedical Informatics
Vanderbilt University, School of Medicine

Leadership Appointments

August 2005 – June 2008 Deputy Director, Biostatistics and Data Management Center
American College of Radiology Imaging Network (ACRIN)
Center for Statistical Sciences, Brown University

August 2008 – Present Executive Faculty Committee
Department of Biostatistics, Vanderbilt University SOM

August 2008 – Present Director, Graduate Studies
Department of Biostatistics, Vanderbilt University SOM

February 2009 – July 2014 Founding Director, Biostatistics Collaboration Center
Department of Biostatistics, Vanderbilt University SOM

August 2013 – Present Faculty Leadership Committee
Department of Biostatistics, Vanderbilt University SOM

Hospital Appointments

March 2002 – July 2005 Assistant Professor (Research; joint appointment)
Division of Research
Department of Obstetrics and Gynecology, Brown University

August 2005 – Nov. 2007 Assistant Professor (joint appointment)
Division of Research
Department of Obstetrics and Gynecology, Brown University

Professional Organizations Member, American Statistical Association (since 1999)
 Member, Biometric Society (since 1999)
 Member, The Institute of Mathematical Statistics (since 1999)
 Member, The Society for Clinical Trials (since 1999)

Professional Activities (Intramural)

Sept. 2000 – June 2008 MPH Curriculum committee, Brown University
 MPH Admissions committee, Brown University
 MPH Steering committee, Brown University

2000 – 2004 George W. Anderson Outcomes Research Unit Steering
 Committee, Division of Research,
 Women and Infants' Hospital, Providence, Rhode Island

2000 & 2006 Organized Statistics Seminar Series
 Center for Statistical Sciences, Brown University

2004 – 2005 Admission Committee (Biostatistics),
 Center for Statistical Sciences, Brown University

2004 & 2005 Organizer
 Brown University Lecture Series in Biostatistics

Sept 2007 – June 2008 Institutional Review Board (IRB), Brown University

August 2008 – Present Quantitative Curriculum Integration Committee
 Epidemiology Graduate Program, Vanderbilt University SOM

August 2008 – Present Graduate Committee and Admissions Committee,
 Department of Biostatistics, Vanderbilt University SOM

January 2009 – Present Quarterly Basic Science Education Group
 Vanderbilt University SOM

February 2009 – July 2014 Establish, Launch & Direct (est. Aug 2009)
 Biostatistics Collaboration Center (core shared resource)
 Department of Biostatistics, Vanderbilt University SOM

August 2012 – August 2015 Faculty Senator, Vanderbilt University

August 2011 – Present Graduate Faculty Delegate Assembly, Vanderbilt University

Professional Activities (Extramural)

September 2002 – Present	Referee, Natural Sciences & Engineering Research Council of Canada
December 2005 – Dec 2010	Chief Scientific Officer and Founder Analytical Edge, Inc., East Greenwich, RI
January 2006 – 2009	Invited Faculty, Clinical Trials Methodology Workshop Radiological Society of North American (RSNA)
January 2012 – 2017	Invited Faculty, Clinical Trials Methodology Workshop Radiological Society of North American (RSNA)
January 2007 – 2009	Member, Statistics Core Curriculum Group, RSNA
June 2009 – 2014	Associate Editor, <i>Clinical Trials: Journal of the Society of Clinical Trials</i>
July 2009 – 2014	Member, Education Committee, Society of Clinical Trials
NIH Study Sections	NIDDK Special Emphasis Panel (June 2005, Dec. 2005, June 2006) NIGMS Special Emphasis Panel (March 2005, March 2007) NICHD Special Emphasis Panel (December 2008) NHLBI Clinical Trials Review (June 2009, June 2010) NIH Biostatistical Methods and Research Design (June 2011, October 2011, March 2012)
October 2012 – 2018	Charter Member, NIH Study Section: <i>Biostatistical Methods and Research Design</i> (BMRD) (3 meetings per year)
March 2016 – Present	Editorial Board, <i>Diagnostic and Prognostic Research</i>
Referee	Annals of Emergency Medicine Biometrical Journal Biometrics Canadian Journal of Statistics Clinical Trials: Journal of the Society of Clinical Trials Communications in Statistics (Theory and Methods) Controlled Clinical Trials European Journal of Human Genetics International Statistical Review Journal of the American Statistical Association Journal of Internal Medicine

Journal of Clinical Oncology
Journal of Statistical Planning and Inference
Journal of Thoracic and Cardiovascular Surgery
Medical Decision Making
Radiology (general and statistical reviewer)
Statistics: A Journal of Theoretical and Applied Statistics
Statistics and Probability Letters
Statistics in Medicine
Statistica Sinica
The American Statistician

Honors

- 1995 – 1999 National Eye Institute Traineeship in Clinical Trials
Center for Clinical Trials, Johns Hopkins School of Public Health
- 1997 Advising, Mentoring, and Teaching Recognition Award
Student Assembly, Johns Hopkins School of Public Health
- 1997 Helen Abby Award for Excellence in Teaching
Department of Biostatistics, Johns Hopkins School of Public Health
- 1998 Travel Award
Society for Clinical Trials student paper competition, Atlanta GA
- 2003 – 2005 NIH loan repayment program recipient (competitive grant award)
Recognized for contributions to cancer clinical trials
(Rumored to be first statistician recipient)
- 2004 ACRIN Certificate of Outstanding Contribution
American College of Radiology Imaging Network
- 2005 – 2007 NIH loan repayment program recipient (competitive grant award)
Re-awarded for outstanding contributions and dedication in cancer research
- 2015 Outstanding Faculty Mentor (awarded by the graduate student body)
Department of Biostatistics, Vanderbilt University
- 2015 *Patrick G. Arbogast Award* for best collaborative publication
Department of Biostatistics, Vanderbilt University

Educational Activities (Brown University)

A. Program Development

Sept 2000 – June 2008 Participated in establishing, launching and accrediting
Master of Public Health (MPH) Program
Brown University

B. Graduate Courses (enrollment)

Fall 1999 BC234: Clinical Trials Methodology (13)
Fall 2000 BC213: Principles of Biostatistics and Data Analysis (8)
Fall 2002 BC213: Principles of Biostatistics and Data Analysis (10)
Spring 2002 BC296: Independent Study: Analysis of ROC curves (1)
Fall 2003 BC296: Independent Study: Likelihood methods (1)
Spring 2003 BC296: Independent Study: Analysis of ROC curves (2)
Fall 2004 BC296: Independent Study: Longitudinal Regression methods (1)
Fall 2005 BC203: Introduction to Biostatistics (60)
Spring 2006 BC207: Introduction to Regression Analysis (1/2 credit) (23)
Spring 2006 BC208: Analysis of Time to Event & Longitudinal data (1/2 credit) (17)
Fall 2006 BC203: Introduction to Biostatistics (50)
Spring 2007 BC207: Introduction to Regression Analysis (1/2 credit) (9)
Spring 2007 BC208: Analysis of Time to Event & Longitudinal data (1/2 credit) (5)
Spring 2007 BC296: Independent Study: Theory and Inference (1)
Fall 2007 PHP2500: Introduction to Biostatistics (55)
Spring 2008 PHP2501: Introduction to Regression Analysis (1/2 credit) (20)
Spring 2008 PHP2502: Analysis of Time to Event & Longitudinal data (1/2 credit) (15)

C. Medical School Courses

Fall 1999 to Fall 2007: Community Health Clerkship
Led small discussion groups (5-8 medical students) concerning statistical issues
in a three-hour discussion session (three sessions a year).

Spring 2006 & Spring 2007: Medical Statistics Education
Co-taught a six-week course on Medical Statistics for Brown medical students,
which involved weekly two-hour lectures and no lab.

D. Theses Directed

Konstantinos Kalogeropoulos	MS in Biostatistics	2001 (Co-advisor)
Rebecca Shackelton	MS in Biostatistics	2004
Farren Briggs	MS in Biostatistics	2005
Parul Aneja	MS in Biostatistics	2005 (Co-advisor)
Hakmook Kang	PhD in Biostatistics	2011 (Co-advisor)

E. Thesis Committees

Annie Gjelsvik	PhD in Epidemiology	2001
Shang-Ying Shiu	PhD in Biostatistics	2006
Li Su	PhD in Biostatistics	2006
Laura Burleson	PhD in Epidemiology	2008
Hong Li	PhD in Biostatistics	2009

F. Academic and Research Assistantship Advising

Konstantinos Kalogeropoulos	Research Advisor	2002 – 2003
Rebecca Shackelton	Academic & Research Advisor	2002 – 2004
Farren Briggs	Academic & Research Advisor	2003 – 2005
Li Su	Academic & Research Advisor	2002 – 2003
Hillary Han	Research Advisor	2005
Regina Rendas-Baum	Research Advisor	2006 – 2007
Hakmook Kang	Academic & Research Advisor	2006 – 2008
Trish Fox	Academic & Research Advisor	2002 – 2003

Educational Activities (Vanderbilt University)**A. Program Development**

August 2008 – Present	Establish, Launch & Direct (est. 2011) Graduate Program in Biostatistics Department of Biostatistics, Vanderbilt University SOM
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B. Graduate Courses (enrollment)

Fall 2009	Lecture in EPI 310: Causal Inference and Logic (5)
Fall 2010	Lecture in EPI 310: Causal Inference and Logic (5)
Spring 2011	EPI 373: Independent Study: Methods for Diagnostic Testing (1)
Spring 2012	Biostatistics 342: Contemporary Statistical Inference (9)
Spring 2013	Biostatistics 342: Contemporary Statistical Inference (10)
Spring 2014	Biostatistics 342: Contemporary Statistical Inference (8)
Spring 2015	Biostatistics 342: Contemporary Statistical Inference (12)
Spring 2015	Biostatistics 370: Foundations of Inference (9)
Spring 2016	Biostatistics 6342: Contemporary Statistical Inference (12)

C. Medical School Courses (enrollment)

Dec. 2008	CRC Research skills workshop: An introduction to ROC curves.
Fall 2009	Lecture in MSCI 524-5009: Biostatistics I (25)

D. Theses Directed

Sarah Fletcher Mercaldo	PhD in Biostatistics	2017 (Expected)
Derek Smith, DDS	PhD in Biostatistics	2016 (Expected)
Christina M. Tripp	PhD in Biostatistics	2017 (Expected)

E. Theses Committees

Steven Deppen	PhD in Epidemiology	2013
Liping Du	MS in Biostatistics	2013
Danielle Nemetz	MS in Biostatistics	2016 (Expected)
Minchun Zhou	PhD in Biostatistics	2017 (Expected)
Carissa Iverson	PhD in Human Genetics	2017 (Expected)
Allison Hainline	PhD in Biostatistics	2018 (Expected)

F. Oral PhD Qualifying Examination Committee

Laurie Samuels	Spring 2014
Sarah Fletcher Mercaldo	Spring 2014
Qi Liu	Spring 2014
Nathaniel Mercaldo	Spring 2014
Minchun Zhou	Spring 2015
Christina M. Tripp	Spring 2015
Derek Smith, DDS	Spring 2015
Allison Hainline	Spring 2016
Jonathan Chipman	Winter 2016

G. Academic and Research Assistantship Advising

Sarah Fletcher Mercaldo	Academic & Research Advisor	2011 – Present
Jacob VanHouten	Academic Advisor	2011 – 2013
Valentine Wanga	Academic Advisor	2011 – 2013
Christina M. Tripp	Academic & Research Advisor	2012 – Present
Derek Smith, DDS	Academic & Research Advisor	2013 – Present
Lucy D'Agostino Mcgowan	Academic Advisor	2014 – Present
Hannah Weeks	Academic Advisor	2015 – Present
Jonathan Chipman, MS	Academic & Research Advisor	2015 – Present

Research Program

A. Grants (Brown University)

Completed – March 1999 through 2007 Total Costs (approx): \$15,300,000

Active – January 2008 through 2012 (continuation) Total Costs (approx): \$ 9,125,000

Biostatistics Data Management Center for ACRIN (supplements not included)

NCI U01 CA79778 (Gatsonis PI/Director, **Blume** Deputy Director 2005 -2008)

Role: Provide scientific and methodological expertise; Deputy Director for the Biostatistics and Data management center; Protocol statistician for eight clinical trials.

Completed – January 2005 through 2007 Direct Costs: \$91,388

Computer-aided Diagnosis Applied to Breast MRI.

P50 CA015704-31 (PI Lehman, Co-PI **Blume**)

Role: Sole Statistician on project; provide methodological and experimental expertise; responsible for the design, conduct, and analysis of a reader study of CAD for MRI.

Completed – November 2006 through November 2010 Total Costs: \$2,432,866
Diabetes Care in American Samoa.
NIH R18-DK075371 (PI McGarvey, Co-PI **Blume**)
Role: Sole statistician on project; provide methodological and experimental expertise; responsible for the design, conduct, and analysis of a trial of an intervention for diabetes management.

Completed – July 2002 through 2007 Direct Costs: \$51,478
Translating ATP III Cholesterol Management Guidelines into Primary Care Practice.
NIH R01. (PI Eaton, Consultant: **Blume**)
Role: Sole statistician on project; Provide methodological and experimental expertise; responsible for the design of the randomized trial, available for statistical consulting.

Completed – July 2001 through 2005 Direct Costs: \$123,462
Puberty, Immunity and Malnutrition in *S. japonicum*.
NIH R01-AI48123. (PI McGarvey/Kurtis, Co-PI **Blume**)
Role: Sole statistician on project; provide methodological and experimental expertise; responsible for the design, conduct, and analysis of a cohort study; developed robust likelihood methods in the regression setting (Blume et. al. 2007).

B. Contracts (Brown University)

Completed – July 2002 through June 2008 Direct Costs: \$930,173
AVON foundation (by way of ACRIN)
Subcontract (PI Gatsonis, Co-PI **Blume**)
Role: Sole Statistician on project; provide methodological and experimental expertise; responsible for the design, conduct, and analysis of ACRIN 6666.

Completed – August 1999 through 2005 Direct Costs: \$188,846
Women and Infants' Hospital, Division of Research
Subcontract (PI **Blume**)
Role: Faculty in the Division of Research; provided scientific and experimental expertise; collaborated on numerous studies, co-authored grants and manuscripts, oversaw the activities of a Master's level statistician, and provided methodological expertise to faculty and residents concerning clinical research involving human subjects.

C. Seed Funding

Completed – December 2005 through December 2008 Total Costs: \$ 250,000
Slater Technology Fund, Providence RI
Seed Financing Grant to Analytical Edge (PI **Blume**)
Role: Founder and Chief Scientific Officer; Guide the company in developing likelihood software for designing and analyzing clinical trials.

D. Grants (Vanderbilt University)

Completed – September 2009 through May 2012

NICHHD (PI Bernard)

The Vanderbilt Institute for Clinical and Translational Research (VICTR) UL1 (Travel Supplement)

Role: Statistician; implement standard and novel interim analysis procedures for all VICTR clinical trials

1R01-HL122010-01A1 (George) 07/01/2014 - 6/30/2019

NIH/Subcontract to Northwestern University

Decrypting Variants of Unknown Significance in Long-QT Syndrome

The goal is to develop a method to reliably predict the consequences of genetic variants of unknown significance discovered in the course of genetic testing in the congenital long-QT syndrome (LQTS), a disease that causes sudden death of children and young adults.

Role: Co-investigator and Statistician

AD-1409-21656 (Collins) 10/15/2015-10/15/2018

PCORI; GWTG Interventions to Reduce Disparities in AHF Patients Discharged from the ED

GUIDED HF will compare 1) standard emergency department (ED) discharge practice (control) with 2) Get with the Guidelines HF (GWTG:HF) in addition to standard ED discharge practice (intervention).

Role: Co-investigator and Statistician

R56DK108352-01 (Koethe) 09/15/15-08/31/17

NIDDKD

Innate and Adaptive Immunity in HIV-Associated Impaired Glucose Tolerance and Diabetes Study designed to define the pro-diabetic immunologic phenotype in HIV+ persons on ART. Findings could lead to the integration of markers relevant to metabolic disease into routine-care flow cytometry, and identify patients with high-risk immunologic profiles for future mechanistic studies and therapeutic trials.

Role: Senior Statistician and advisor

5U01DK821292-08 (Ikizler) 09/11/08-06/30/18

NIDDKD

Impact of Acute Kidney Injury on Kidney Disease Progression

This is the continuation of the NIDDK-sponsored Assessment, Serial Evaluation, and Subsequent Squeal of Acute Kidney Injury (ASSESS-AKI) Study, which is a prospective cohort study enrolling ~1500 adults and 100 children with and without acute kidney injury (AKI).

Role: Senior Statistician and advisor

U01DK099923-03 (Ikizler)

09/15/13-06/30/18

NIDDKD

Anti-Inflammatory Interventions in Maintenance Hemodialysis Patients

This grant seeks to study the safety, feasibility and efficacy of promising pharmacological and dialytic interventions in maintenance hemodialysis patients through a U01 collaboration mechanism. The goal is to design a study of a suitable intervention for MHD patients using morbidity and mortality endpoints.

Role: Senior Statistician and advisor

1T32LM012412-01 (MPI **Blume**)

02/15/16-06/30/21

BIDS: Vanderbilt Training Program in Big Biomedical Data Science

This is a BD2K training program in Big Biomedical Data Science (BIDS). The goal is to prepare the next generation of investigators and practitioners in the foundations of data science (biomedical informatics, computer science, statistical science, biomedical science) so they are prepared to take advantage of readily available large-scale complex biomedical data and the specialized tools and analysis techniques needed to properly interpret them. The program leverages Vanderbilt's exceptional and wide-ranging faculty expertise in big data analytics, cloud computing, and biomedical applications.

Original Publications (peer-reviewed)

1. Peipert JF, Ness R, **Blume JD**, et al. Clinical predictors of endometritis in women with symptoms and signs of pelvic inflammatory disease. *American Journal of Obstetrics and Gynecology*. 2001; 184(5): 863-4.
2. Phipps MG, **Blume JD**, and DeMonner, SM. Young maternal age associated with increased risk of postneonatal death. *Obstetrics and Gynecology*. 2002; 100(3): 481-6.
3. Crisco JJ, Greenwald RM, **Blume JD**, Penna LH. Batting performance of wood and metal baseball bats. *Medicine & Science in Sports & Exercise*. 2002; 34(10): 1675-84.
4. **Blume JD**. Likelihood methods for measuring statistical evidence. *Statistics in Medicine*. 2002; 21(17): 2563-2599.
5. Boardman LA, Mainz H, Steinhoff MM, Heber W, **Blume J**. A randomized trial of the sleeved cytobrush and the endocervical curette. *Obstet Gynecol*. 2003; 101(3): 426-30.
6. **Blume JD** and Royall RM. Illustrating the law of large numbers. *The American Statistician*. 2003; 57(1): 51-57.
7. **Blume JD** and Peipert JF. What your statistician never told you about P-values. *Journal of the American Association of Gynecologic Laparoscopists*. 2003; 10(4): 439-444.

8. Ertl-Wagner BB, Hoffmann RT, Bruening R, Herrmann K, Snyder B, **Blume JD**, Reiser MF. Multi-slice CT angiography of the brain at various kV settings. *Radiology*. 2004; 231(2): 528-535.
9. **Blume JD** and Peipert JF. Randomization in controlled clinical trials: Why the flip of a coin is so important! *Journal of the American Association of Gynecologic Laparoscopists*. 2004; 11(3): 320-325.
10. Gjelsvik A, Zierler S, Blume JD. Homicide risk across race and class: a small-area analysis in Massachusetts and Rhode Island. *J. Urban Health*. 2004; 18(4): 702-718.
11. Ertl-Wagner BB, Bruening R, **Blume J**, Hoffmann RT, Snyder B, Herrmann KA, Reiser MF. Prospective, multireader evaluation of image quality and vascular delineation of multislice CT angiography of the brain. *Eur Radiol*. 2005; 15(5): 1051-9.
12. Gutman RE, Peipert JF, Weitzen S, **Blume JD**. Evaluation of clinical methods for diagnosing bacterial vaginosis. *Obstetrics and Gynecology*. 2005; 105(3): 551-6.
13. Lehman CD, **Blume JD**, Weatherall P, Thickman D, Hylton N, Warner E, Pisano E, Schnitt SJ, Gatsonis C, Schnall M, DeAngelis GA, Stomper P, Rosen EL, O'Loughlin M, Harms S, Bluemke DA; International Breast MRI Consortium Working Group. Screening women at high risk for breast cancer with mammography and magnetic resonance imaging. *Cancer*. 2005; 103(9): 1898-905.
14. Lehman CD, **Blume JD**, Thickman D, Bluemke DA, Pisano E, Kuhl C, Julian TB, Hylton N, Weatherall P, O'loughlin M, Schnitt SJ, Gatsonis C, Schnall MD. Added cancer yield of MRI in screening the contralateral breast of women recently diagnosed with breast cancer: results from the International Breast Magnetic Resonance Consortium (IBMC) trial. *J Surg Oncol*. 2005; 92(1): 9-15; discussion 15-6.
15. Schnall MD, **Blume J**, Bluemke DA, Deangelis GA, Debruhl N, Harms S, Heywang-Kobrunner SH, Hylton N, Kuhl CK, Pisano ED, Causer P, Schnitt SJ, Smazal SF, Stelling CB, Lehman C, Weatherall PT, Gatsonis CA. MRI detection of distinct incidental cancer in women with primary breast cancer studied in IBMC 6883. *J Surg Oncol*. 2005; 92(1): 32-8.
16. **Blume JD**. How to choose a working model for measuring statistical evidence about a regression parameter. *International Statistical Review*. 2005; 73(2): 351-363.
17. Schnall MD, **Blume J**, Bluemke DA, DeAngelis GA, DeBruhl N, Harms S, Heywang-Kobrunner SH, Hylton N, Kuhl CK, Pisano ED, Causer P, Schnitt SJ, Thickman D, Stelling CB, Weatherall PT, Lehman C, Gatsonis CA. Diagnostic architectural and dynamic features at breast MR imaging: multicenter study. *Radiology*. 2006; 238(1): 42-53.

18. Ertl-Wagner BB, Bruening R, **Blume J**, Hoffmann RT, Mueller-Schunk S, Snyder B, Reiser MF. Relative value of sliding-thin-slab multiplanar reformations and sliding-thin-slab maximum intensity projections as reformatting techniques in multisection CT angiography of the cervicocranial vessels. *Am J Neuroradiol*. 2006; 27(1): 107-13.
19. Berg WA, **Blume JD**, Cormack JB, Mendelson EB. Operator dependence of physician-performed whole breast sonography in detecting and characterizing lesions. *Radiology*. 2006; 241(2): 355-365.
20. Berg WA, **Blume J**, Cormack JB, Mendelson EB, Madsen EL. Lesion detection and characterization in a breast ultrasound phantom: Results of the ACRIN 6666 Investigators. *Radiology*. 2006; 239(3): 693-702.
21. Schleinitz M, DePalo P, **Blume JD**, Stein M. Can differences in breast cancer utilities explain disparities in breast cancer care? *Journal of General Internal Medicine*. 2006; 21(12): 1253-60.
22. **Blume JD**, Su L, Acosta L, McGarvey S. Statistical evidence for GLM parameters: A robust likelihood approach. *Statistics in Medicine*. 2007; 26(15): 2919-36.
23. Peipert JF, Redding CA, **Blume JD**, Allsworth JE, Iannuccillo K, Lozowski F, Mayer K, Morokoff PJ, Rossi JS. Design of a stage-matched intervention trial to increase dual method contraceptive use (Project PROTECT). *Contemporary Clinical Trials* 2007; 28: 626-637.
24. Peipert J, Lapane K, Allsworth J, Redding C, **Blume JD**, Lozowski F, Stein M. Women at risk for sexually transmitted diseases: correlates of intercourse without barrier contraception. *American Journal of Obstetrics & Gynecology*. 2007; 197(5): 474-478.
25. Plante B, Phipps M, **Blume JD**, Lambert-Messerlian G, Shackelton R, Canick J. A multiple marker model to predict pregnancy viability when progesterone is indeterminate. *The Journal of Reproductive Medicine*. 2008; 43(4): 243-9.
26. **Blume JD**. How often likelihood ratios are misleading in sequential trials. *Communications in Statistics, Theory and Methods*. 2008; 37(8): 1193-1206.
27. Hoch J and **Blume JD**. Measuring and illustrating statistical evidence in a cost-effectiveness analysis. *Journal of Health Economics*. 2008; 27(2): 476-95.
28. Peipert J, Lapane K, Allsworth J, Redding C, **Blume JD**, Stein MD. Bacterial vaginosis and incident sexually transmitted infections: Does race modify the association? *Sexually Transmitted Diseases*. 2008; 35(4): 363-367.

29. Peipert J, Redding C, **Blume JD**, Allsworth J, Matteson K, Lozowski F, Mayer K, Morokoff P, Rossi J. Tailored intervention trial to increase dual contraceptive method use: A randomized trial to reduce unintended pregnancies and sexually transmitted infections. *American Journal of Obstetrics and Gynecology*. 2008; 198(6): 630.
30. Kuroki, LM, Allsworth J, Redding CA, **Blume JD**, Peipert JF. "Is a previous unplanned pregnancy a risk factor for a subsequent unplanned pregnancy?" *American Journal Obstetrics and Gynecology*. 2008; 199(5): 517.
31. Ertl-Wagner B, Eftimov L, **Blume J**, Bruening R, Becker C, Cormack J, Brueckmann H, Reiser M. Cranial CT with 64-, 16-, 4-slice and single slice CT scanners – comparison of image quality and posterior fossa artifacts in routine brain imaging with standard protocols. *European Radiology*. 2008; 18(8): 1720-6.
32. Ward R, Hampton B, **Blume JD**, Sung V, Rardin C., Myers D. The impact of multichannel urodynamics upon treatment recommendations for female urinary incontinence. *Int Urogynecol J*. 2008; 19(9): 1235-41.
33. Berg W, **Blume JD**, Cormack J, et al. Combined screening with ultrasound and mammography vs mammography alone in women at elevated risk of breast cancer. *Journal of the American Medical Association*. 2008; 299(18): 2151-2163.
34. **Blume JD**. Bounding sample size projections for the area under a ROC curve. *Journal of Statistical Planning and Inference*. 2009; 139(3): 711-21.
35. Weinreb JC, **Blume JD**, Coakley FV, Wheeler TM, Cormack JB, Sotito CK, Cho H, Kawashima A, Tempany-Afdhal CM, Macura KJ, Rosen M, Gerst SR, Kurhanewicz J. Prostate cancer: sextant localization at MR imaging and MR spectroscopic imaging before prostatectomy--results of ACRIN prospective multi-institutional clinicopathologic study. *Radiology*. 2009; 251(1): 122-133.
36. Ertl-Wagner BB, **Blume JD**, Peck D, Udupa JK, Herman B, Levering A, Schmalfuss IM; Members of the American College of Radiology Imaging Network 6662 Study Group. Reliability of tumor volume estimation from MR images in patients with malignant glioma: Results from the American College of Radiology Imaging Network (ACRIN) 6662 trial. *European Radiology*. 2009;19(3): 599-609.
37. Hartmann KE, McPheeters ML, Biller DH, Ward RM, McKoy JN, Jerome RN, Micucci SR, Meints L, Fisher JA, Scott T, Slaughter JC, **Blume JD**. Treatment of overactive bladder in women. Evidence Report/Technology Assessment No. 187. *AHRQ Publication No. 09-E017; Rockville, MD: Agency for Healthcare Research and Quality*. 2009; (187): 1-120.

38. Berg W, **Blume JD**, Adams A, Jong RA, Barr RG, Lehrer DE, Pisano ED, Evans WP, Mahoney M, Larsen LH, Gabrielli G, Mendelson EB. Reasons women at elevated risk of breast cancer refuse screening breast MRI: ACRIN 6666. *Radiology*. 2010; 254(1): 79-87.
39. Dupuy DE, Liu D, Hartfeil D, Hanna L, **Blume JD**, Ahrar K, Lopez R, Safran H, DiPetrillo T. Percutaneous radiofrequency ablation of painful osseous metastases: a multicenter American College of Radiology Imaging Network trial. *Cancer*. 2010; 116(4): 989-97.
40. Newton MR, Phillips S, Chang SS, Clark PE, Cookson MS, Davis R, Fowke JH, Herrell SD, Baumgartner R, Chan R, Mishra R, **Blume JD**, Smith JA, Barocas DA. Smaller prostate size predicts high grade prostate cancer at final pathology. *Journal of Urology*. 2010; 184(3): 930-937.
41. Kauffmann RM, Norri PR, Jenkins JM, Dupont WD, Torres RE, **Blume JD**, Dossett LA, Hranjec T, Sawyer RG, May AK. Trends in estradiol during critical illness are associated with mortality independent of admission estradiol. *Journal of the American College of Surgeons*. 2011; 212(4): 703-12.
42. **Blume JD**. Likelihood and its evidential framework. In: Dov M. Gabbay and John Woods, editors, *Handbook of The Philosophy of Science: Philosophy of Statistics*. San Diego: North Holland, 2011, pp. 493-511.
43. Orsi MD, Dodd GD, Cardan RA, Head HW, Burns SK, Blakemore D, **Blume JD**, Green TJ. In vitro blood perfused bovine liver model: A physiological model for evaluation of the performance of radiofrequency ablation devices. *Journal of Vascular and Interventional Radiology*. 2011; (10) 1478-1483.
44. Wang SJ and **Blume JD**. An evidential approach to non-inferiority clinical trials. *Journal of Pharmaceutical Statistics* 2011; 10(5): 440-7.
45. Hilton NH, **Blume JD**, et. al. Locally advanced breast cancer: MR imaging for prediction of response to neoadjuvant chemotherapy—results from ACRIN 6657/I-SPY TRIAL. *Radiology*. 2012; 263(3): 663-672.
46. Burns SK, Dodd GD, McManus LM, Cardan RA, Peng Q, Orsi MD, Head HW, Blakemore DL, **Blume JD**, Fullerton GD, Green TJ. 3T magnetic resonance imaging accurately depicts radiofrequency ablation zones in a blood-perfused bovine liver model. *Journal of Vascular and Interventional Radiology*. 2012; 23(6): 801-808.
47. Berg WA, **Blume JD**, Cormack JB and Mendelson EB. Training the ACRIN 6666 investigators and effects of feedback on breast ultrasound interpretive performance and agreement in BI-RADS ultrasound feature analysis. *AJR Am. J. Roentgenol*. 2012; 199(1) 224-35.

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64. **Blume JD**. Methods for studies of diagnostic tests. In: Obuchowski NA and Gazelle Gs eds., Handbook for Clinical Trials of Imaging and Image-Guided Interventions. Wiley-Blackwell, February 2016, pp. 147-168.
65. Dupont WD, Blume Jd, Smith JR. Building and Validating Complex Models of Breast Cancer Risk. *JAMA Oncology*. 2016; 2(10):1271-1272
66. Siew ED, Fissell WH, Tripp CM, **Blume JD**, Wilson MD, Clark AJ, Vincz AJ, Ely EW, Pandharipande PP, Girard TD. Acute Kidney Injury as a Risk Factor for Delirium and Coma during Critical Illness, accepted in *American Journal of Respiratory and Critical Care Medicine*. Accepted, October 2016.

Original Publications Selected for Reprint in Special Volumes

1. **Blume JD**. Likelihood methods for measuring statistical evidence. Selected for inclusion in *Tutorial in Biostatistics: vol. 2*, R. B. D'Agostino (Ed), Wiley Chichester, 2004.

Original Publications (not peer-reviewed)

1. **Blume JD**. Randomization and balance in clinical trials. *American College of Radiology Bulletin*, 58(12), December 2002.
2. **Blume JD**. Methodological review of "Effect of dutasteride on the risk of prostate cancer" by Andriole et. al. *Evidence Based Reviews in Urology (EBRU)*. Available online February 2011.

Scholarly Work Published in Other Media (peer-reviewed)

1. **Blume JD**. Likelihood ratios and the strength of statistical evidence, in Berger, V. (ed.), Design and Analysis of Randomized Clinical Trials: Design, Analysis & Theory, The Biomedical & Life Sciences Collection, Henry Stewart Talks Ltd, London (The presentation can be found online at <http://www.hstalks.com/?t=BL0441524-Blume>).

Publications Submitted to, in Revision, or in Preparation for a Peer-Reviewed Journal

1. Smith LE, Smith Dk, **Blume JD**, Siew E, Billings FT. Latent Variable Modeling improves risk factor identification and prediction of acute kidney Injury. *Submitted*.
2. Smith D and **Blume JD**. Bootstrap calibration of likelihood support intervals. *Submitted*.
3. Tripp CM and **Blume JD**. A classical regression framework for mediation analysis. *Submitted*.
4. Virostko J, Hainline A, Kang H, Arlinghaus L, Abramson RG, Barnes SL, **Blume JD**, Avery S, Patt D, Goodgame B, Yankeelov TE, Sorace SG. DCE-MRI and DW-MRI for predicting the response of locally advanced breast cancer to neoadjuvant therapy: A meta-analysis. *Submitted*.
5. **Blume JD** and Choi L. Likelihood based study designs for time-to-event endpoints. *In revision*.
6. Iverson CG, Fletcher S, **Blume JD**, Wenzlaff AS, Schwartz AG, Chen H, Deppen S., Bush WS, Crawford, DC, Chanock SJ, Blot WJ, Grogan EL, Aldrich MC. Global African ancestry is not associated with lung cancer survival. *In preparation*.
7. Fletcher S and **Blume JD**. Missing data and prediction: The pattern mixture kernel submodel. *In preparation*.
8. Smith DK, Smith LE, Billings FT, Meiler J, and **Blume JD**. An empirical Bayes approach to regularization using previously published black box models. *In preparation*.

Invited Seminars

1. Second generation p -values. Center for Quantitative Sciences Workshop Series, Vanderbilt University, Nashville, TN, September 2016.
2. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Department of Biostatistics and Epidemiology, University of Pennsylvania, Philadelphia, PA, September 2015.
3. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Department of Biostatistics, University of Minnesota, Minneapolis, MN, April 2015.

4. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Joint Statistical Meetings, Boston MA, August 2014.
5. Assess the strength of statistical evidence, not the p-value. NIAID, NIH, Rockville, MD, June 2014.
6. Likelihood concepts for statistical evidence and clinical trials. Janssen Pharmaceutica Inc., New Jersey, May 2014.
7. Navigating multiple comparisons in scientific research: origins & solutions. Health Services Research Seminar, Vanderbilt University, Nashville, TN, November 2014.
8. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Department of Biostatistics, Bloomberg Johns Hopkins School of Public Health, Baltimore, MD, December 2012.
9. An evidential approach to non-inferiority trials. FDA-Industry Statistics Workshop, Washington, D.C., September 2012.
10. Likelihood study design proposal: 'Just do it'. Society of Clinical Trials, Vancouver, May 2011.
11. Fisher's likelihood inference: coming of age. Statistical Society of Canada, June 2011.
12. Likelihood designs for a phase II cancer trial with a time-to-event endpoint. Society of Clinical Trials, May 2011.
13. The Likelihood paradigm in action: an application to fMRI data and evaluation of performance, ENAR, March 2011.
14. Likelihood methods for measuring statistical evidence. Short course presentation. EMMES Corporation, June 2010.
15. Likelihood methods for measuring statistical evidence. Department of Information, Operations and Management Sciences, NYU Stern School of Business, Feb 2010.
16. Likelihood methods for measuring statistical evidence. UC Davis, Department of Biostatistics, March 2008.
17. Assessing evidence of non-inferiority: A likelihood approach. (With SJ Wang) ENAR, March 2008.
18. Statistical considerations for clinical trials of imaging. RSNA Annual Meeting (Radiological Society of North America), November 2008.

19. Interventional cancer treatment: Development of device trials. RSNA Annual Meeting (Radiological Society of North America), November 2007.
20. Critical design elements: Studies of diagnostic imaging. RSNA Annual Meeting (Radiological Society of North America), November 2007.
21. Likelihood methods for measuring statistical evidence. MUSC, Department of Biostatistics, Bioinformatics, and Epidemiology, October 2007.
22. Likelihood methods for measuring statistical evidence. Vanderbilt University, Department of Biostatistics, June 2007.
23. Follow the likelihood principle and observe misleading evidence less often: Implications for studies with multiple endpoints. ENAR, March 2007.
24. Why likelihood is on the critical path. University of Pittsburgh, Department of Biostatistics, November 2006.
25. A pure likelihood approach for adaptive clinical trials. Center for Clinical Trials, Johns Hopkins University Bloomberg School of Public Health, November 2006.
26. Likelihood methods for measuring statistical evidence. Statistics Collaborative, June 2006.
27. Why likelihood is on the critical path. FDA, Center for Drug Evaluation and Research, May 2006.
28. Measuring the strength of statistical evidence with likelihood ratios. Inspire Pharmaceuticals, April 2006.
29. Measuring the strength of statistical evidence with likelihood ratios. Pfizer Pharmaceuticals, January 2006.
30. The Importance of p-values in the drug approval process - Pros & Cons. Joint statistical meetings to be held in Minneapolis, August 2005
31. Why likelihood is on the critical path. FDA, Center for devices and Radiological Health, June 2005.
32. Measuring the strength of statistical evidence with likelihood ratios Part 1 and 2. Novartis Pharmaceuticals, June 2005.
33. Measuring the strength of statistical evidence with likelihood ratios. University of Chicago, Department of Health Studies, November 2003.

34. Measuring the strength of statistical evidence with likelihood ratios. University of California at Irvine, Department of Statistics, November 2003.
35. How to efficiently and coherently measure the strength of statistical evidence. National Cancer Institute, Biometry Division, June 2003.
36. Measuring statistical evidence about a regression parameter. 65th Annual meeting of the Institute of Mathematical Statistics; Banff, Alberta, Canada, July 2002.
37. Hoch J, Blume J. Measuring and illustrating statistical evidence in a cost effectiveness analysis. Presented at the Canadian Health Economist's Study Group (CHESG) held in conjunction with the Canadian Health Economics Research Association Conference, Halifax, Nova Scotia, May 2002.
38. A theory of statistical evidence. University of Cincinnati Medical Center, Department of Biostatistics, October 2001.
39. The law of likelihood and the strength of statistical evidence. Harvard School of Public Health, Department of Biostatistics Colloquia, May 2001.
40. On the probability of observing misleading evidence in sequential trials. Food and Drug Administration, Center for Devices and Radiological Health, October 2000.
41. The law of likelihood, Armitage's paradox and sequential trials. National Center for Ecological Analysis and Synthesis, Workshop on 'The Nature of Scientific Evidence', Santa Barbara, CA, February 1999.