CURRICULUM VITAE

Jeffrey D. Blume, PhD

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Address:	Department of Biostatistics
	Vanderbilt University School of Medicine
	2525 West End Ave, Ste. 11000
	Nashville, Tennessee 37203

Education

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

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 – April 2020	Associate Professor (with tenure)
	Department of Biostatistics
	Vanderbilt University, School of Medicine

October 2016 – April 2020	Associate Professor (secondary appointment)
	Department of Biomedical Informatics
	Vanderbilt University, School of Medicine

December 2017 – present	Vice-Chair for Education
	Department of Biostatistics
	Vanderbilt University, School of Medicine

April 2020 – present	Professor (with tenure)
	Department of Biostatistics
	Department of Biomedical Informatics (secondary appointment)
	Vanderbilt University, School of Medicine

May 2020 – present	Professor (secondary appointment)
	Department of Biochemistry
	Vanderbilt University

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 – August 2017 | Executive Faculty Committee |
| | Department of Biostatistics, Vanderbilt University SOM |

| August 2008 – August 2018 | 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 – August 2017	Faculty Leadership Committee
	Department of Biostatistics, Vanderbilt University SOM
August 2017 – present	Senior Faculty Executive Committee
	Department of Biostatistics, Vanderbilt University SOM
June 2018 – present	Director, Graduate Education
	Data Science Institute, Vanderbilt University

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)
	Member, American Assoc. Advancement of Science (since 2015)

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
August 2008 – Present	Graduate Committee and Admissions Committee, Department of Biostatistics, Vanderbilt University
January 2009 – Present	Quarterly Basic Science Education Group Vanderbilt University
February 2009 – July 2014	Establish, Launch & Direct (est. August 2009) Biostatistics Collaboration Center (core shared resource) Department of Biostatistics, Vanderbilt University
August 2012 – August 2015	Faculty Senator, Vanderbilt University
August 2011 – Present	Graduate Faculty Delegate Assembly, Vanderbilt University
August 2017 – June 2018	Special Task Force of the Data Science Visions Working Group: Trans-institutional Masters in Data Science, 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 – 2023	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, Clinical Trials: Journal of Society of Clinical Trials

July 2009 – 2014	Member, Education Committee, Society of Clinical Trials
NIH Study Sections	NIDDK Special Emphasis Panel (June '05, Dec. '05, June '06)
	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	NIH Study Section Charter Member: Biostatistical Methods and Research Design (BMRD) (3 meetings per year)
March 2016 – Present	Editorial Board, Diagnostic and Prognostic Research
June 2018 – Present	Member, ASA Committee on Law and Justice Statistics
January 2020 – 2023	Co-Chair, Clinical Trials Methodology Workshop Radiological Society of North American (RSNA)
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
	PloS One

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

2016   High Impact Research Award for *Simultaneous control of error rates in fMRI data analysis in NeuroImage, 2015*. Vanderbilt Center for Quantitative Sciences, Vanderbilt University

2017   Biostatistics Research Advancement INitative (BRAIN) Award. *Promoting novel methods in mediation modeling, statistical inference, and experimental design.* Department of Biostatistics, Vanderbilt University

2017   Golden Apple Award for excellence in teaching
                  Department of Biostatistics Student Association, Vanderbilt University

2019   Selected for Vanderbilt's Mid-Career Leadership Program
                  Vanderbilt University Medical Center

2019   Golden Apple Award for excellence in teaching
            Department of Biostatistics Student Association, Vanderbilt University

2019   Spinoza Chair in Medicine
            University of Amsterdam, The Netherlands

2020   Chancellor's Award for Research on Equity, Diversity and Inclusion
            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 involved weekly two-hour lectures.

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 – Aug 2018	Establish, Launch & Direct (est. 2011) Graduate Program in Biostatistics Department of Biostatistics, Vanderbilt University
June 2018 – Present	Establish, Launch & Direct Graduate Program in Data Science Data Science Institute, Vanderbilt University

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)
Spring 2017   Biostatistics 6342: Contemporary Statistical Inference (16)
Spring 2017   Biostatistics 8370: Foundations of Inference (10)
Spring 2018   Biostatistics 6342: Contemporary Statistical Inference (15)
Spring 2019   Biostatistics 6342: Contemporary Statistical Inference (9)
Spring 2019   Biostatistics 8370: Foundations of Inference (8)
Spring 2020   Biostatistics 6342: Contemporary Statistical Inference (14)

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
Derek Smith, DDS	PhD in Biostatistics	2016
Christina T. Saunders	PhD in Biostatistics	2018
Valerie Welty	PhD in Biostatistics	2021 (Expected)
Megan Hollister	PhD in Biostatistics	2022 (Expected)
Yi Zuo	PhD in Biostatistics	2023 (Expected)

E. Theses Committees

Steven Deppen	PhD in Epidemiology	2013
Liping Du	MS in Biostatistics	2013
Molly Olson	MS in Biostatistics	2017
Carissa Iverson	PhD in Human Genetics	2017
Zhijun Yin	MS in Biostatistics	2017
Minchun Zhou	PhD in Biostatistics	2018
Allison Hainline	PhD in Biostatistics	2018
Jonathan Chipman	PhD in Biostatistics	2019
Matthew C Lenert	PhD in Biomedical Informatics	2020 (Expected)

F. Oral PhD Qualifying Examination Committee

Laurie Samuels	Spring 2014	Christina M. Tripp	Spring 2015
Sarah Fletcher Mercaldo	Spring 2014	Derek Smith	Spring 2015
Qi Liu	Spring 2014	Allison Hainline	Spring 2016
Nathaniel Mercaldo	Spring 2014	Jonathan Chipman	Winter 2016
Minchun Zhou	Spring 2015	Valerie Welty	Spring 2019

G. Academic and Research Assistantship Advising

Sarah Fletcher Mercaldo	Academic & Research Advisor	2011 – 2017
Jacob VanHouten	Academic Advisor	2011 – 2013
Valentine Wanga	Academic Advisor	2011 – 2013
Christina M. Tripp	Academic & Research Advisor	2012 – 2018
Derek Smith	Academic & Research Advisor	2013 – 2016
Lucy D'Agostino McGowan	Academic Advisor	2014 – 2016
Hannah Weeks	Academic Advisor	2015 – 2017
Jonathan Chipman	Academic Advisor	2015 – 2017
Valerie Welty	Academic & Research Advisor	2017 – Present
Megan Hollister	Academic & Research Advisor	2018 – Present
Yi Zuo	Academic & Research Advisor	2019 – Present
Rebecca Irlmeier	Research Advisor	2019 – 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, **Blume** Deputy Director 2005 -2008)
Role: Provide scientific and methodological expertise; Deputy Director of 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)
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.

BRAIN Award (PI **Blume**)   12/20/17-12/20/18
Promoting novel methods in mediation modeling, statistical inference, and experimental design
Total Costs: $ 50,000
The Biostatistics Research Advancement Initiative (BRAIN) Award is a competitive award that provides funds to advance methodological research initiatives in the department of Biostatistics at Vanderbilt University. This project is focused on promoting the PIs novel methods in mediation modeling, statistical inference (second-generation p-values) and experimental design.

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 Gynecolology.* 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, Meinz 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; 92:32-8.

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 Trial.s* 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.

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Book Chapters (peer-reviewed)

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.

2. **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.

3. **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.

Letters to the Editor and Other Original Publications

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).* 2011.

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5. Aldrich MA, Blot WJ, **Blume JD.** Letter in Reply: Defining Equity in Eligibility for Cancer Screening. *JAMA Oncol.* Nov 7, 2019.

6. Sandler KL, Aldrich MC, **Blume JD**. Disparities in Meeting Eligibility Criteria for Lung Cancer Screening. IASLCnews, April 16, 2020.
   https://www.lungcancernews.org/2020/04/16/disparities-in-meeting-eligibility-criteria-for-lung-cancer-screening/

Scholarly Work Published in Other Media

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.

2. **Blume JD**. Adaptation in Likelihood Trials, in Shyr Y. (ed.), Adaptive Clinical Trial Design, The Biomedical & Life Sciences Collection, *Henry Stewart Talks Ltd*, London.

Software

1. Welty V. and **Blume JD**. R-package: SGPV. Tools for computing second-generation p-values, displaying results, and estimating SGPV false discovery rates.
   `https://CRAN.R-project.org/package=sgpv`

2. Murray MH. and **Blume JD**. R-package: FDRestimation. Tools for computing false discovery rates, estimating the null proportion, and graphing results.
   `https://github.com/murraymegan/FDRestimation`

Manuscripts Submitted for Peer Review

1. Mercaldo SF, **Blume JD**. Bagged Empirical Null p-values: A Method to Account for Model Uncertainty in Large Scale Inference. ArXiv.org preprint available at https://arxiv.org/abs/1707.05833. *Submitted*.

2. Smith DK, Smith LE, Kroncke B, Billings FT, Meiler J, **Blume JD**. An Empirical Bayes Approach to Regularization Using Previously Published Models. ArXiv.org preprint available at https://arxiv.org/abs/1710.03866. *Submitted*.

3. Maiga AW, Deppen SA, Mercaldo SF, **Blume JD**, Aldrich MC, Montgomery C, Dickerson A, Vaszar LT, Williamson C, Regis S, Mckee BJ, Isbell JM, Rickman OB, Pinkerman R, Lambright ES, Nesbitt JC, Massion PP, Grogan EL. The TREAT model 2.0: Expanding lung cancer prediction to high-risk clinics. *Submitted*.

4. **Blume JD**, Choi L. Likelihood based study designs for time-to-event endpoints. ArXiv.org preprint available at https://arxiv.org/abs/1711.01527. *Submitted*.

5. Funke, BE, Jackson KE, Self WH, Collins SP, Saunders CT; Wang L, **Blume JD**, Wickersham N, Brown R, Casey JD, Bernard GR, Rice TW, Siew ED, Semler MW, for the SMART Investigators** and the Pragmatic Critical Care Research Group. Effect of Balanced Crystalloids versus Saline on Urinary Biomarkers of Acute Kidney Injury in Critically Ill Adults. *Submitted*.

Manuscripts in Preparation

1. Smith DK, **Blume JD**. Bootstrap calibration of likelihood support intervals. *In revision.*

2. Jambusaria LH, Davenort AP, Saunders CT, **Blume JD**, Hill RA, Adam RA, Ward RM. Urinary Tract Infection Rates After Active versus Passive Trial of Void. *In preparation*.

3. Lin YC, Welty V, **Blume JD**, Albert K, Boyd BD, Taylor WD, Kang H. Second-Generation *p*-values for functional magnetic resonance imaging.

4. Murray MH and **Blume JD**. False Discovery Rate Computation: Illustrations and Modifications. https://arxiv.org/abs/2010.04680

Invited Seminars

1. 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.

2. On the probability of observing misleading evidence in sequential trials. Food and Drug Administration, Center for Devices and Radiological Health, October 2000.

3. The law of likelihood and the strength of statistical evidence. Harvard School of Public Health, Department of Biostatistics Colloquia, May 2001.

4. A theory of statistical evidence. University of Cincinnati Medical Center, Department of Biostatistics, October 2001.

5. 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.

6. Measuring statistical evidence about a regression parameter. 65th Annual meeting of the Institute of Mathematical Statistics; Banff, Alberta, Canada, July 2002.

7. How to efficiently and coherently measure the strength of statistical evidence. National Cancer Institute, Biometry Division, June 2003.

8. Measuring the strength of statistical evidence with likelihood ratios. University of California at Irvine, Department of Statistics, November 2003.

9. Measuring the strength of statistical evidence with likelihood ratios. University of Chicago, Department of Health Studies, November 2003.

10. Measuring the strength of statistical evidence with likelihood ratios Part 1 and 2. Novartis Pharmaceuticals, June 2005.

11. Why likelihood is on the critical path. FDA, Center for devices and Radiological Health, June 2005.

12. The Importance of p-values in the drug approval process - Pros & Cons. Joint statistical meetings to be held in Minneapolis, August 2005.

13. Measuring the strength of statistical evidence with likelihood ratios. Pfizer Pharmaceuticals, January 2006.

14. Measuring the strength of statistical evidence with likelihood ratios. Inspire Pharmaceuticals, April 2006.

15. Why likelihood is on the critical path. FDA, Center for Drug Evaluation and Research, May 2006.

16. Likelihood methods for measuring statistical evidence. Statistics Collaborative, June 2006.

17. A pure likelihood approach for adaptive clinical trials. Center for Clinical Trials, Johns Hopkins University Bloomberg School of Public Health, November 2006.

18. Why likelihood is on the critical path. University of Pittsburgh, Department of Biostatistics, November 2006.

19. Follow the likelihood principle and observe misleading evidence less often: Implications for studies with multiple endpoints. ENAR, March 2007.

20. Likelihood methods for measuring statistical evidence. Vanderbilt University, Department of Biostatistics, June 2007.

21. Likelihood methods for measuring statistical evidence. MUSC, Department of Biostatistics, Bioinformatics, and Epidemiology, October 2007.

22. Critical design elements: Studies of diagnostic imaging. RSNA Annual Meeting (Radiological Society of North America), November 2007.

23. Interventional cancer treatment: Development of device trials. RSNA Annual Meeting (Radiological Society of North America), November 2007.

24. Statistical considerations for clinical trials of imaging. RSNA Annual Meeting (Radiological Society of North America), November 2008.

25. Assessing evidence of non-inferiority: A likelihood approach. (With SJ Wang) ENAR, March 2008.

26. Likelihood methods for measuring statistical evidence. UC Davis, Department of Biostatistics, March 2008.

27. Likelihood methods for measuring statistical evidence. Department of Information, Operations and Management Sciences, NYU Stern School of Business, Feb 2010.

28. Likelihood methods for measuring statistical evidence. Short course presentation. EMMES Corporation, June 2010.

29. The Likelihood paradigm in action: an application to fMRI data and evaluation of performance, ENAR, March 2011.

30. Likelihood designs for a phase II cancer trial with a time-to-event endpoint. Society of Clinical Trials, May 2011.

31. Fisher's likelihood inference: coming of age. Statistical Society of Canada, June 2011.

32. Likelihood study design proposal: 'Just do it'. Society of Clinical Trials, Vancouver, May 2011.

33. An evidential approach to non-inferiority trials. FDA-Industry Statistics Workshop, Washington, D.C., September 2012.

34. 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.

35. Navigating multiple comparisons in scientific research: origins & solutions. Health Services Research Seminar, Vanderbilt University, Nashville, TN, November 2014.

36. Likelihood concepts for statistical evidence and clinical trials. Janssen Pharmaceuticals Inc., New Jersey, May 2014.

37. Assess the strength of statistical evidence, not the p-value. NIAID, NIH, Rockville, MD, June 2014.

38. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Joint Statistical Meetings, Boston MA, August 2014.

39. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Department of Biostatistics, University of Minnesota, Minneapolis, MN, April 2015.

40. Multiple comparisons, fMRI imaging and one brave (but dead) Atlantic salmon. Department of Biostatistics and Epidemiology, University of Pennsylvania, Philadelphia, Sept. 2015.

41. Second generation p-values. Center for Quantitative Sciences Workshop Series, Vanderbilt University, Nashville, TN, September 2016.

42. Likelihood methods in clinical trials. Statistical Practice in Cancer Conference, Moffitt Cancer Center, FL, March 2017.

43. Second-generation p-values. University of North Carolina, Chapel Hill, September 2017.

44. Second-generation p-values. American Statistical Association Symposium on Statistical Inference, Bethesda MD, October 2017.

45. Statistics in Image-Guided Therapy. Radiological Society of North America (RSNA) Annual Meeting, Chicago Illinois. November 2017.

46. Second-generation p-values. Stanford University, Palo Alto, CA, January 2018.

47. Second-generation p-values. University of San Francisco, San Francisco, CA, January 2018.

48. Second-generation p-values. Western North American Region (WNAR) of the International Biometric Society. Edmonton, AB Canada, June 2018.

49. An introduction to second-generation p-values. Center for Health Services Research, Vanderbilt University Medical Center, September 2018.

50. Second-generation p-values. Department of Epidemiology & Biostatistics. Memorial Sloan Kettering Cancer Center. New York, New York. November 2018.

51. Statistics in Image-Guided Therapy. Radiological Society of North America (RSNA) Annual Meeting, Chicago Illinois. November 2018.

52. An introduction to second-generation p-values. Department of Biostatistics, Duke University, Durham NC. December 2018.

53. An introduction to second-generation p-values. Division of Biostatistics, University of Pennsylvania, Philadelphia Pennsylvania. January 2019.

54. An introduction to second-generation p-values. Division of Biostatistics, UC Davis, Davis CA, March 2019.

55. The p-value Controversy: Where do we go from here? – Invited Panel. Joint Statistical Meetings, Denver Colorado, July 2019.

56. Second-generation p-values: Introduction and applications. University of Amsterdam, Amsterdam, Netherlands, November 2019.

57. Missing data in prediction models: Pattern mixture kernel submodels. Utrecht University, Utrecht, Netherlands, November 2019.

58. Missing data in prediction models: Pattern mixture kernel submodels. Liden University, Liden, Netherlands, November 2019.

59. Spinoza Lecture: The evolution of the p-value in medical research: How science can improve statistics. University of Amsterdam, Amsterdam, Netherlands, November 2019.

60. Estimating causal mediation effects from a single regression model. University of Amsterdam, Amsterdam, Netherlands, November 2019.

61. An Introduction to Second-generation p-values. Epidemiology Grand Rounds, Vanderbilt University, School of Medicine, June 2020.