

JEREMY THOMAS GASKINS

CURRICULUM VITAE

DATE:

7/01/2019

CONTACT INFORMATION

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EDUCATION

PhD in Statistics University of Florida (UF) Gainesville, Florida, USA Dissertation Title: "Bayesian methods for modeling dependence structures in longitudinal data" Advisor: Mike Daniels	2007-2013
BS in Mathematics, BS in Applied Mathematics Auburn University Auburn, Alabama, USA	2003-2007

PROFESSIONAL EXPERIENCE

Associate Professor with tenure	July 2019 – Present
Assistant Professor (tenure-track)	Aug 2013 – June 2019
University of Louisville Department of Bioinformatics and Biostatistics School of Public Health and Information Sciences (SPHIS)	

AWARDS

University of Florida Graduate Alumni Fellowship	2007-2011
Katzoff Fellowship, University of Florida	2011-2013

Statistics Faculty Award for Best Senior Student (UF)	2012
Eastern North American Region of the International Biometric Society (ENAR) Distinguished Student Paper Award	2013
University of Louisville Faculty Favorite Nominee	2016/17
Junior Faculty Travel Grant for Summer Research Conference of the Southern Regional Council on Statistics (SRCOS)	2018

PROFESSIONAL ASSOCIATIONS

American Statistical Association (ASA)	2012-Present
Kentucky chapter of ASA	2013-Present
International Biometric Society (IBS)	2013-Present
Eastern North American Region of the IBS	2013-Present

TEACHING AND MENTORING ACTIVITIES

University of Louisville Teaching Activities by Semester

Fall 2013

PHST 691: Bayesian Statistics (3 hours)
Substantially revised this course

Spring 2014

PHST 602: Biostatistics-Decision Science Seminar (1 hour)

Summer 2014

PHST 703: Biostatistical Consulting Practice (1 hour)

Fall 2014

PHUN 301: Biostatistics Concepts and Methods for Public Health (3 hours)
This was a new course developed as an introduction to statistical methods for the BS/BA Public Health program.

Spring 2015

PHST 691: Bayesian Statistics (3 hours)

Fall 2015

PHST 602: Biostatistics-Decision Science Seminar (1 hour)
PHST 675: Independent Study in Biostatistics (Further study in Bayesian statistics) (3 hours)

Spring 2016

PHST 691: Bayesian Statistics (3 hours)
PHST 602: Biostatistics-Decision Science Seminar (1 hour)
PHPH 679: Public Health Practicum (1 hour)

Summer 2016

PHST 703: Biostatistical Consulting Practice (1 hour)
I managed two sessions of this course during Summer 2016
PHPH 679: Public Health Practicum (1 hour)

Fall 2016

PHST 661: Probability (3 hours)
PHST 650: Intermediate Topics in Biostatistics (3 hours, co-taught with 25% responsibility)
Co-developed and co-taught this service course for non-biostat PhD students in SPHIS along with 3 other faculty members. Responsible to a 3 week session of applied multivariate methods.
PHST 675: Independent Study in Biostatistics (Further study in Bayesian and computational statistics) (3 hours)
PHST 675: Independent Study in Biostatistics (Bayesian analysis of high-throughput data) (3 hours)
PHPH 679: Public Health Practicum (1 hour)

Spring 2017

PHST 662: Mathematical Statistics (3 hours)
PHPH 679: Public Health Practicum (1 hour)

Summer 2017

PHPH 679: Public Health Practicum (1 hour)

Fall 2017

PHST 661: Probability (3 hours)
Substantially revised course and developed online material for 50% of the course
PHST 675: Independent Study in Biostatistics (Biostatistical practice in OB/GYN research) (2 hours)
PHST 602: Biostatistics-Decision Science Seminar (1 hour, co-taught with 50% responsibility)
PHPH 679: Public Health Practicum (1 hour)

Spring 2018

PHST 662: Mathematical Statistics (3 hours)
Substantially revised course and developed online material for 50% of the course
PHST 675: Independent Study in Biostatistics (Biostatistical practice in OB/GYN research) (2 hours)
PHPH 679: Public Health Practicum (1 hour)

Summer 2018

PHST 675: Independent Study in Biostatistics (Biostatistical practice in OB/GYN research) (2 hours)

Fall 2018

PHST 661: Probability (3 hours)

Dual sections of this course were run, one of face-to-face students and one for online students. Developed online material for remaining 50% of the course.

PHST 675: Independent Study in Biostatistics (Topics in Bayesian Analysis of Longitudinal Data) (3 hours)

PHST 675: Independent Study in Biostatistics (Further study in Bayesian statistics) (2 hours)

Spring 2019

PHST 662: Mathematical Statistics (3 hours)

Dual sections of this course were run, one of face-to-face students and one for online students. Developed online material for remaining 50% of the course.

Fall 2019

PHST 661: Probability (3 hours)

Dual sections of this course were run, face-to-face students and online.

PHST 675: Independent Study in Biostatistics (Biostatistical practice in OB/GYN research) (2 hours)

Student Mentoring

PhD students for whom I serve(d) as primary advisor:

Debamita Kundu	Summer 2019
Topic: Novel Bayesian Methodology in Multivariate Problems	
Mike Sekula	Expected Spring 2020
Topic: Bayesian methods for single cell RNA data	
Nazir Uddin	Expected Spring 2021
Topic: TBD	

PhD Biostatistics students for whom I serve(d) as a committee member:

*Designates a student to whom I provided substantial supervision on at least one of their dissertation projects.

*Hyoyoung Choo-Wosoba Spring 2016
 “Inference for a zero-inflated Conway-Maxwell-Poisson regression for clustered count data.”

Chathura Siriwardhna Spring 2016
 “Semi-parametric methods for personalized treatment selection and multi-state models.”

*Jasmit Shah Spring 2017
 “Novel statistical approaches for missing values in truncated high-dimensional metabolomics data with a detection threshold.”

Xiaohong Li Summer 2017
 “Sample size calculations and normalization methods for RNA-seq data.”

*You Wu Summer 2017
 “Bayesian approach on short time-course data of protein phosphorylation, casual inference for ordinal outcome and causal analysis of dietary and physical activity in T2DM using NHANES data.”

Ruiqi Liu Summer 2017
 “Estimation of the three key parameters and the lead time distribution in lung cancer screening.”

Sarah Kendrick Fall 2017
 “Functional data analysis methods for predicting disease status.”

Soutik Ghosal Summer 2018
 “Generalized spatiotemporal modeling and causal inference for assessing treatment effects for multiple groups for ordinal outcomes.”

Jianchao Sun expected Spring 2020
 TBD

External PhD students for whom I serve(d) as a committee member:

Brian Guinn (PhD in Epidemiology) Fall 2018
 “Lead and Crime: An Ecological Study between Lead Contaminated Topsoil and Violent Crime”

T'shura Ali (PhD in Epidemiology) expected Spring 2020
 "Association between Tobacco Smoke Exposure and Fertility-Related Outcomes among
 Females Seeking Fertility Treatment, and Interaction with N-Acetyltransferase 2 (NAT2)"

MS in Biostatistics students for whom I serve(d) as a committee member

John Craycroft Spring 2016
 "Propensity score methods: a simulation and case study involving breast cancer
 patients."

External MS students for whom I serve(d) as a committee member:

Shan Biscette, (MSc in Clinical Investigation Sciences) Spring 2016
 "Adnexal Masses Requiring Reoperation in Women with Previous Hysterectomy with or
 Without Adnexectomy."

Lindsey Wood, (MS in Epidemiology) Expected Summer 2019
 "Probability of conception after fertility counseling and the effects of sexually
 transmitted infection on conception in the LOUSSI Study"

MPH Biostatistics concentration students for whom I serve(d) as advisor:

Joanna Ng Spring 2017
 "Sugar High: A Snapshot of the Status of Diabetes Mellitus in Kentucky"

Shafrin Choudhury Spring 2018
 "Geospatial Analysis: Assessing Radon Levels in Jefferson County"

Other Teaching Activities

Participant in the Delphi Center's Seminar on Teaching for New Faculty Fall 2015 to Spring 2016

Participant in SPHIS Undergraduate Teaching Faculty Learning Community
 Summer to Fall 2018

Co-organizer of SPHIS Teaching Faculty Learning Community Summer 2019 - present

Clinical Biostatistics for OB/GYN Fellows Spring 2017-2019
*Developed and taught this 12 lecture introductory course on basic biostatistical methods
 and practice for fellows in the OB/GYN dept.*

Grand rounds/didactic talks on statistics for Dept of OB/GYN

Sept 2014	“Biostatistics for OB/GYN Research”
Sept 2015	“Research Development: Asking the Right Question”
March 2016	“Statistical Analysis for OB/GYN Research”
March 2017	“Presenting Data and Statistics in your Research”
April 2018	“Some Basic Principles of Statistical Analysis”
Nov 2018	“Research Development: Asking the Right Question”

RESEARCH FUNDING

Currently funded grants

Title: “A Novel Analysis Plan for the Caries and Fluorosis Data from the Iowa Fluoride Study”

Funding Organization: NIH/NIDCR

Grant Number: R03 DE026757

PI: Somnath Datta (University of Florida)

Role: Subcontract PI, Co-Investigator

Effort: 10%

Total Costs: \$51,893 (UofL subcontract)

Direct Costs: \$33,697 (UofL subcontract)

Funding Period: Sept. 2018 to Aug. 2020

Description: The major goal of this project to undertake a comprehensive statistical examination of caries and fluorosis data obtained from the Iowa Fluoride Study and to develop appropriate Bayesian statistical methodology for such an analysis.

Title: “A cohesive statistical approach for missing values in high-dimensional metabolomics data”

Funding Organization: NIH/NCI

Grant Number: 1R03CA222446

PI: Guy Brock (Ohio State University)

Role: Subcontract PI, Co-Investigator

Effort: 15% Yr1, 5% Yr2

Total Costs: \$46,120 (UofL subcontract)

Direct Costs: \$29,948 (UofL subcontract)

Funding Period: Sept. 2017 through Sept. 2019

Description: The major goal of this project is to propose and evaluate statistical methodology for dealing with missing values in high-dimensional metabolomics data.

Title: **“A Novel Approach for Personalized Acute Pain Management Following Injuries and Surgeries”**

Funding Organization: DOD

Grant Number: W81XWH-17-1-0040

PI: Saeed Jortani

Role: Co-Investigator

Effort: 3% Yr1, 3% Yr2, 5% Yr3

Total Costs: \$1,044,770

Direct Costs: \$696,513

Funding Period: Feb 2017 to Jan 2020

Description: The goal of this study is to assess the effects of genetic variation on metabolism of hydrocodone and its efficacy, as well as the contribution of other sources of variability such as polypharmacy, gender and age on its analgesic efficacy and side effects. Further, we will develop a physician interpretation tool that estimates a patient’s potential for hydrocodone sensitivity based on pharmacogenetics testing.

Title: **“4D MR Imaging of Flow and Hemodynamics in Aortic Stenosis”**

Funding Organization: NIH/EBRG

Grant Number: 1R21HL132263

PI: Amir Amini

Role: Biostatistician

Effort: 2%

Total Costs: \$426,888

Direct Costs: \$275,000

Funding Period: June 2017 to May 2019

Description: The major goal of this project is to evaluate the accuracy of new 4D flow imaging techniques relative to conventional MRI and Doppler methods.

Submitted grant work

Title: **“Personalized Medicine Algorithms and Patient Navigators for Medicaid/Medicare Beneficiaries with Type 2 Diabetes”**

Funding Organization: AHRQ

Grant Number: GRANT12864449

PI: Bert Little

Role: Co-Investigator

Effort: 15%

Total Costs: \$1,999,498

Direct Costs: \$1,361,581

Funding Period: 4/1/20-3/31/23

Description: The overarching goal of this project is to use innovative longitudinal predictive analytic data modeling to target patients at highest risk of

disease end stage and demonstrate the efficacy of a predictive analytics algorithm for diabetic nephropathy (renal failure) and peripheral artery disease (amputation).

Previously funded grant work

Title: **“Identification of Proteins from Mass Spectrometry Data: A Statistical Approach”**
 Funding Organization: NIH/NCI
 Grant Number: 1R15CA170091-01A1
 PI: Maiying Kong
 Role: Co-Investigator
 Effort: 7%
 Total Costs: \$463,508
 Direct Costs: \$334,616
 Funding Period: Sept 2015 to Feb 2017
 Description: The goal of this project is to develop Bayesian hierarchical models for protein detection and protein network discovery from mass spectrometry data.

Title: **“Commonwealth Institute of Kentucky”**
 Funding Organization: KentuckyOne Health System
 Grant Number: MOU #20150728-06
 PI: Monica Wendel
 Role: Biostatistician
 Effort: 20%
 Total Costs: \$4,000,000
 Direct Costs: \$4,000,000
 Funding Period: Jan 2015 to Dec 2018
 Description: The goal of the Institute to inform policy and practice that will improve the health of populations in Kentucky and beyond by facilitating and supporting transdisciplinary collaborations for research and data analytics. The institute will build research infrastructure to support a variety of transdisciplinary projects that engage academic partners, clinical partners, and community partners in improving the health of the Commonwealth

Funded contract work

Funding Group: **Dept. of Obstetrics, Gynecology, & Women’s Health, UofL School of Medicine**
 Effort: 12.5% (April 2017 to Present); 10% (April 2014 to April 2017)
 Funding Period: April 2014 to Present

Description:	I collaborate and provide statistical support and analysis for research projects within the department, especially research projects for residents and fellows. I also teach a 12-week introductory statistics course to fellows and provide occasional didactic lectures to residents on statistical methods and concepts. Additionally, I am one of four members of the Research Working Group which pre-approves all research projects within the department.
Funding Group:	Dept. of Radiation Oncology, UofL School of Medicine
Effort:	5%
Funding Period:	August 2015 to Present
Description:	I collaborate and provide statistical support and analysis for research projects within the department.

SERVICE ACTIVITIES

Departmental Service Activities

Online MS in Biostatistics Committee, *Spring 2017 to Present*

Committee to develop an undergraduate minor in statistics, *Spring 2018 to Present*

Recruitment Committee, *Fall 2013 to Present*

PhD Comprehensive Exam Committee, *Summer 2014, 2015, 2016, 2018, 2019*
 Chair for the Bayesian section, *2015, 2016, 2018, 2019*

Committee to Review and Revise PhD Comprehensive Exam, *Spring 2014*

Faculty Search Committee, co-chair, *Fall 2014 to Spring 2016*

Long Range Curriculum Planning Committee, *Fall 2016 to Spring 2017*

Organized Dept seminar series, *Spring 2014, Fall 2015, Spring 2016, (co-organizer in) Fall 2017*

SPHIS Service Activities

Faculty Forum, appointed replacement member, *Spring 2016 to Present*

Undergraduate Advisory Committee, *Spring 2017 to Spring 2018*

Ad hoc Undergraduate Program Curriculum Committee, *Spring to Summer 2017*

Search committee for BA/BS Public Health teaching position, Committee chair, *Summer 2018*

Co-organizer of SPHIS Teaching Faculty Learning Community, *Summer 2019 to present*

University Service Activities

Research Working Group (Dept of OB/GYN, School of Medicine), *Fall 2018 to Present*

Extramural Service

Kentucky Chapter of the ASA
President, *Fall 2018 to Fall 2020*

Secretary, *Fall 2015 to Fall 2016 (appointed to fill vacancy for half term), Fall 2016 to Fall 2018 (elected)*

This role has included serving as the lead organizer for two chapter meetings held at UofL.

ENAR (IBS) representative to the Program Committee for the 2020 Joint Statistical Meetings (JSM)

National Science Foundation, Division of Mathematical Sciences, Statistics Program, Grant Review Panel Member, *2019*

Journal Referee Reports

(Each manuscript refereed is denoted by the year of first submission. Revisions that were also reviewed are denoted by "+R.")

1. Annals of Applied Statistics (2016, 2016+R, 2018)
2. Annals of Biometrics & Biostatistics (2013)
3. Annals of Statistics (2018)
4. Australian and New Zealand Journal of Statistics (2019)
5. Bayesian Analysis (2019)
6. Biometrics (2018+R, 2019)
7. Biometrika (2015+R, 2016)
8. Biostatistics (2014)
9. Journal of the American Statistical Association (2014, 2018+R)
10. Journal of Applied Statistics (2015)
11. Journal of Probability and Statistics (2017)
12. Journal of the Royal Statistical Society: Series C (2017)
13. Journal of Statistical Computation and Simulation (2014, 2016+R)
14. Journal of Statistical Theory and Practice (2015)
15. PLOS ONE (2014+R, 2015+R)
16. Statistics in Medicine (2014+R)
17. Statistica Sinica (2019)

PUBLICATIONS

Refereed Publications - Methodological

*Denotes manuscripts that are the result of student supervision.

‡Denotes joint first authors.

1. **Gaskins, J.T.**, M.J. Daniels. (2013) A nonparametric prior for simultaneous covariance estimation. *Biometrika*, 100(1): 111-124. PMID: 24324281
2. **Gaskins, J.T.**, M.J. Daniels, B.H. Marcus. (2014) Sparsity inducing prior distributions for correlation matrices of longitudinal data. *Journal of Computational and Graphical Statistics*. 23(4):966-984. PMID: 25382958
3. **Gaskins, J.T.**, M.J. Daniels, and B.H. Marcus. (2016) Bayesian methods for non-ignorable dropout in joint models in smoking cessation studies. *Journal of the American Statistical Association*, 111(516): 1454-1465. PMID: 29104333
4. **Gaskins, J.T.**, and M.J. Daniels. (2016) Covariance partition priors: A Bayesian approach to simultaneous covariance estimation for longitudinal data. *Journal of Computational and Graphical Statistics*. 25(1): 167-186. PMID: 27175055
5. *Liu, R., **J.T. Gaskins**, R. Mitra, D. Wu. (2017) A Review of Estimation of Key Parameters and Lead Time in Cancer Screening. *Revista Colombiana de Estadística*, 40(2):263-278.
6. *‡Choo-Wosoba, H., ‡**J.T. Gaskins**, S.M. Levy, S. Datta. (2018) A Bayesian approach for analyzing zero-inflated clustered count data with dispersion. *Statistics in Medicine*, 37:801-812. PMID: 29108124
7. *Wu, Y., **J.T. Gaskins**, M. Kong, S. Datta. (2018) Profiling the Effects of Short Time-course Cold Ischemia on Tumor Protein Phosphorylation using a Bayesian Approach. *Biometrics*, 74(1): 331-341. PMID: 28742267
8. **Gaskins, J.T.** (2019) Hyper Markov laws for correlation matrices. *Statistica Sinica*, 29: 165-184.
9. *Sekula, M. **J.T. Gaskins**, S. Datta. (2019) Detection of differentially expressed genes in discrete single cell RNA sequencing data using a hurdle model with correlated random effects. *Biometrics*, Pre-print available online. PMID: 31009065

Refereed Publications - Collaborative

10. Amsbaugh, M.J., N. Bhatt, T. Hunter, **J.T. Gaskins**, L. Parker, D. Metzinger, A. Amsbaugh, K. Sowards, M. El-Ghamry. (2015) Computed tomography planned interstitial brachytherapy for recurrent gynecologic cancer. *Brachytherapy*, 14(5): 600-605. PMID: 26087686

11. Hunter, R.K., C.D. Nevitt, J.T. Gaskins, B.B. Keller, H.C. Bowler. (2015) Adipose-derived stromal vascular fraction cell effects on a rodent model of thin endometrium. *PLOS One*. 10(12): e0144823. doi:10.1371/journal.pone.0144823. PMID: 27766345
12. Cho, A.H., C.A. Chase, R.L. Koenig, D.D. Treadwell, **J.T. Gaskins**, J.B. Morris, J.P. Morales-Payan. (2016) Phenotypic characterization of sixteen accessions of sun hemp (*Crotalaria juncea* L.) in Florida. *Agronomy Journal*, 108(6): 2417-2424.
13. Shiber, L., E. Gregory, **J.T. Gaskins**, S. Biscette. (2016) Adnexal Masses Requiring Reoperation in Women with Previous Hysterectomy with or without Adnexectomy. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 200:123-127. PMID: 27031192
14. Amsbaugh, M.J., N.H. Bhatt, A.K. Amsbaugh, T. Hunter, **J.T. Gaskins**, L.P. Parker, D. Metzinger, K. Sowards, M. El-Ghamry. (2016) Computed Tomography-Planned Interstitial Brachytherapy for Locally Advanced Gynecologic Cancer: Outcomes and Dosimetric Predictors of Urinary Toxicity. *Brachytherapy*, 15(1):49-56. PMID: 26614237
15. Theisen, J.G., N. Deveneau, A. Agrawal, C. Kinman, **J.T. Gaskins**, K. Meriwether, S.L. Francis. (2017) The accuracy of portable ultrasound bladder scanner measurements of post void residual volume in women with pelvic organ prolapse. *Female Pelvic Medicine Reconstructive Surgery*, In press. Pre-print available. PMID: 29424755
16. Amsbaugh, M.J., M.B. Yusuf, **J.T. Gaskins**, E. Burton, S. Woo. (2017) Patterns of care and predictors of adjuvant therapies in elderly patients with glioblastoma: An analysis of the National Cancer Database. *Cancer*, 123(17):3277-3284. PMID: 28452053
17. Amsbaugh, M.J., M. Yusuf, **J.T. Gaskins**, C. Silverman, K. Potts, J. Bumpous, R. Redman, C. Perez, N. Dunlap. (2017) Neck dissection for unknown cancer of the head and neck in the era of chemoradiation. *American Journal of Otolaryngology – Head and Neck Medicine and Surgery*, 38:588-592. PMID: 28633765
18. Amsbaugh, M.J., M.B. Yusuf, **J.T. Gaskins**, A.E. Dragun, N. Dunlap, T. Guan, S. Woo. (2017) A dose-volume response model for brain metastases treated with frameless single-fraction robotic radiosurgery: Seeking to better predict response to treatment. *Technology in Cancer Research & Treatment*, 16(3):344-351. PMID: 28027696
19. Dondik, Y., N. Virji, T.S. Butler, **J.T. Gaskins**, K. Pagidas, I. Sung. (2017) The value of anti-Mullerian hormone in predicting clinical pregnancy after intrauterine insemination. *Journal of Obstetrics and Gynaecology Canada*, 39(10):880-885. PMID: 28647445
20. Kinman, C.L., C. Lemieux, A. Agrawal, **J.T. Gaskins**, K.V. Meriwether, S.L. Francis. (2017) The Relationship between Age and Pelvic Organ Prolapse Bother. *International Urogynecology Journal*, 28:751-755. PMID: 27766345

21. Krause, M.S., K. Holthouser, **J.T. Gaskins**, H.C.L. Bohler Jr., and S.T. Nakajima. (2017) Initial hCG levels in ectopic pregnancies after embryo transfer: Use of the Bayes classifier for risk assessment. *Journal of Reproductive Medicine*, 62(3):257-264.
22. Hobson, D.T.G., **J.T. Gaskins**, L. Frazier, S.L. Francis, C.L. Kinman, K.V. Meriwether. (2018) Current Practice Patterns and knowledge of InterStim Programming After Implantation Among Gynecologic Surgeons. *International Urogynecology Journal*, 29(8): 1135-1140. PMID: 28975361
23. Kinman, C.L., K.V. Meriwether, C.M. Powell, D.T.G. Hobson, J.R. Stewart, **J.T. Gaskins**, S.L. Francis. (2018) Use of an iPad Application in the Preoperative Counseling of Pelvic Organ Prolapse Surgery Patients: A Randomized, Controlled Trial. *International Urogynecology Journal*, 29(9): 1289-1295.
24. Shiber, L., D.N. Ginn, A. Jan, **J.T. Gaskins**, S.M. Biscette, R. Pasic. (2018) A Comparison of Industry-Leading Energy Devices for use in Gynecologic Laparoscopy: Articulating ENSEAL versus LigaSure Energy Devices. *Journal of Minimally Invasive Gynecology*, 25(3): 467-473. PMID: 29032252
25. Fregosi, N.J., D.T.G. Hobson, C.L. Kinman, **J.T. Gaskins**, J.R. Stewart, K.V. Meriwether. (2018) Changes in the vaginal microenvironment as related to frequency of pessary removal. *Female Pelvic Medicine & Reconstructive Surgery*, 24(2):166-171. PMID: 29474292
26. Martin, A.L., J.R. Stewart, **J.T. Gaskins**, E.E. Medlin. (2018) A systematic assessment of Google search queries and readability of online gynecologic oncology patient education materials. *Journal of Cancer Education*, In press. Pre-print available. PMID: 29353371
27. * Martin, A.L., J.R. Stewart, *H. Girithara-Gopalan, **J.T. Gaskins**, N.J. McConnell, E.E. Medlin. (2018) Trends and complications of vulvar reconstruction following vulvectomy: A study of a nationwide cohort. *International Journal of Gynecological Cancer*, 28(8): 1606-1615. PMID: 30095703
28. McConnell, N.J., J.R. Stewart, A. Martin, **J.T. Gaskins**, E.E. Medlin. (2018) Safety and Feasibility of Gynecological Cancer Surgery Combined with Surgery for Pelvic Floor Dysfunction. *Female Pelvic Medicine & Reconstructive Surgery*, Accepted. Pre-print available.
29. Hosseinejad, K., D.L. Yin, **J.T. Gaskins**, M.E. Stauble, Y. Wu, P. Jannetto, L. Langman, S.A. Jortani. (2018) Lack of influence by CYP3A4 and CYP3A5 genotypes on pain relief by hydrocodone in postoperative Cesarean section pain management. *Journal of Applied Laboratory Medicine*, Accepted. (July 2018)
30. Ito, T., A.L. Martin, E.F. Fredrick, **J.T. Gaskins**, V.M. Vaughn, S.M. Biscette, R.P. Pasic. (2018) Use of Topical Hemostatic Agents in Minimally Invasive Gynecologic Surgery. *Journal of the Society of Laparoendoscopic Surgeons*. 22(4): e2018.00070. PMID: 30662251

31. Hosseinejad, K., T. Yin, **J.T. Gaskins**, J.L. Gailen, S.A. Jortani. (2018) Discovery of the Long Interspersed Nuclear Element-1 Activation product [Open Reading Frame-1 (ORF1) Protein] in Human Blood. *Clinica Chimica Acta*. 487: 228-232.
32. Dondik, Y., Z. Lei, **J.T. Gaskins**, K. Pagidas. (2019) Minichromosome maintenance complex component 8 and 9 gene expression in the menstrual cycle and unexplained Primary Ovarian Insufficiency. *Journal of Assisted Reproduction and Genetics*. 36(1): 57-64. PMID: 30276597
33. Gupta, A.S., C. Cox, G.C. Dunivan, **J.T. Gaskins**, R.G. Rogers, C.B. Iglesia, K.V. Meriwether. (2019) Desire for continued pessary use among women of Hispanic and non-Hispanic ethnic backgrounds for pelvic floor disorders. *Female Pelvic Medicine & Reconstructive Surgery*, 25(2): 172-177. PMID: 30807423
34. Yusef, M., **J.T. Gaskins**, M.J. Amsbaugh, S. Woo, E. Burton. (2019) Survival Impact of Prolonged Postoperative Radiation Therapy for Patients with Glioblastoma treated with Combined-Modality Therapy. *Neuro-Oncology Practice*, 6(2): 112-123.
35. Yusuf, M., **J.T. Gaskins**, E. Trawick, P. Tennant, J. Bumpous, V. van Berkel, M. Fox, N. Dunlap. (2019) Effects of Adjuvant Radiation Therapy on Survival for Patients with Resected Primary Tracheal Carcinoma: An Analysis of the National Cancer Database. *Japanese Journal of Clinical Oncology*, Accepted. (March 2019)
36. Meriwether, K.V., Z. Lei, R. Singh, **J.T. Gaskins**, D.T.G. Hobson, V. Jala. (2019) The vaginal and urinary microbiome in premenopausal women with interstitial cystitis/bladder pain syndrome as compared to unaffected controls: A pilot cross-sectional study. *Frontiers Cellular and Infection Microbiology*, 9:92.
37. Yusuf, M., **J.T. Gaskins**, P. Tennant, J. Bumpous, N. Dunlap. (2019) Survival impact of time to initiation of adjuvant radiation for Merkel cell carcinoma: An analysis of the National Cancer Database. *Practical Radiation Oncology*, 9(4): e372-385.
38. * Hobson, D.T.G., K.V. Meriwether, **J.T. Gaskins**, *N. Uddin, J.R. Stewart, A.S. Gupta, S.L. Francis. (2019) Learner satisfaction and experience with a high-definition telescopic camera system during vaginal reconstructive procedures: A randomized controlled trial. *Female Pelvic Medicine & Reconstructive Surgery*, Accepted. (June 2019) Online version available.

Peer Reviewed Book Chapter

39. Daniels, M.J., **J.T. Gaskins**. (2013) Bayesian methods for the analysis of mixed categorical and continuous (incomplete) data. In *Analysis of Mixed Data: Methods and Applications* (edited by A.R. de Leon and K. Carriere Chough). pp. 189-208. Chapman & Hall/CRC Press.

Submitted/In preparation Publications - Methodological

40. *Ghosal, S. T. Lau, **J.T. Gaskins**, M. Kong. Hierarchical Mixed Effect Hurdle Model for Time and Spatially Correlated Count Data and its Application to Identifying Factors Impacting Health Professional Shortages. Submitted to the *Journal of the Royal Statistical Society: Series C* in March 2018. Invited resubmission submitted in Jan 2019; under revision for 2nd invited resubmission.
41. *Kundu, D., R. Mitra, **J.T. Gaskins**. Bayesian Variable Selection for Multi-Outcome Models Through Shared Shrinkage. Submitted to the *Scandinavian Journal of Statistics* in Nov 2018. Under revision for invited resubmission.
42. **Gaskins, J.T.**, C. Fuentes, R. de la Cruz. A Bayesian Nonparametric Model for Classification of Longitudinal Profiles. Under revision.
43. *Shah, J., G. Brock, **J.T. Gaskins**. BayesMetab: Treatment of Missing Values in Metabolomic Studies using a Bayesian Modeling Approach. Submitted to *ICIBM2019* (associated with BMC journals) in Feb 2019. Conference acceptance and preliminary acceptance to *BMC Bioinformatics* (March 2019).
44. *Sekula, M., **J.T. Gaskins**, S. Datta. A sparse Bayesian factor model for the construction of gene co-expression networks from single-cell RNA. In preparation.

Submitted/In preparation Publications - Collaborative

45. Amsbaugh, M.J., M. Yusuf, **J.T. Gaskins**, E. Burton, S. Woo. The Impact of Timing of Adjuvant Therapy on Survival for Patients with Glioblastoma: An Analysis of the National Cancer Database. Submitted in June 2018 to *Practical Radiation Oncology*.
46. * Hobson, D.T.G., K.V. Meriwether, **J.T. Gaskins**, *N. Uddin, J.R. Stewart, A.S. Gupta, S.L. Francis. Learner satisfaction and experience with a high-definition telescopic camera system during vaginal reconstructive procedures: A randomized controlled trial. Submitted in Feb. 2019 to *Female Pelvic Medicine & Reconstructive Surgery*.
47. * Possel, P., **J.T. Gaskins**, *T. Gu, M. Hautzinger. Migration status, gender, and the effects of depression prevention A cluster-randomized control group study. Submitted in Sept. 2018 to the *Behavioral Research and Therapy*. Under revision for invited resubmission.
48. Hobson, D.T.G., C.L. Kinman, **J.T. Gaskins**, S.L. Francis, C. McKenzie, J.R. Stewart, A.S. Gupta, K.V. Meriwether. Comparative analysis of attitude, knowledge, and recollection of preoperative counseling regarding pelvic mesh among women with or without a mesh-related complication. Submitted in June 2019 to *Female Pelvic Medicine & Reconstructive Surgery*.

49. May, M.E., **J.T. Gaskins**, M. Mezera. Effects of Treatment Planning Factors, Patient & Disease Characteristics on Toxicity in Prostate SBRT. In preparation.
50. * May, M.E., *S. Bhadury, **J.T. Gaskins**, N.E. Dunlap. Assessing the Relationship of Background Lung Density on Outcome and Toxicity after Stereotactic Body Radiation Therapy. In preparation.
51. Mandish, S., **J.T. Gaskins**, N.E. Dunlap. Extrapulmonary small cell carcinoma: epidemiology, prognostic variables, and overall survival. In preparation.
52. Yusuf, M., **J.T. Gaskins**, W. Wall, P. Tennant, J. Bumpous, N. Dunlap. Immune Status and the Efficacy of Radiotherapy on Overall Survival for Patients with Localized Merkel Cell Carcinoma: An Analysis of the National Cancer Database. Submitted in June 2019 to the *Practical Radiation Oncology*.
53. Yusuf, M., **J.T. Gaskins**, W. Wall, P. Tennant, J. Bumpous, N. Dunlap. Optimal Adjuvant Radiotherapy Dose for Stage I, II or III Merkel Cell Carcinoma: an Analysis of the National Cancer Database. Submitted in May 2019 to *Practical Radiation Oncology*.
54. Burton, E., M. Yusuf, M. Gilbert, **J.T. Gaskins**, S. Woo. Failure to complete standard radiation therapy in glioblastoma patients: Patterns from a national database with implications for survival and therapeutic decision making. Submitted in May 2019 to the *Journal of Geriatric Oncology*.
55. * Gupta, A., C. Kinman, D.T.G. Hobson, K.V. Meriwether, **J.T. Gaskins**, *M.N. Uddin, J.R. Stewart, S.L. Francis. The impact of fluoroscopy during percutaneous nerve evaluation on subsequent implantation of a sacral neuromodulator among women with pelvic floor disorders: A randomized, non-inferiority trial. Submitted in June 2019 to *Neurourology and Urodynamics*.
56. *Guinn, B.E., K.B. Baumgartner, S.D. Boone, H. Zhang, **J.T. Gaskins**, K.M. Zierold. Lead and Crime: An Ecological Study Using a Bayesian Sparse Spatial Generalized Linear Mixed Model to Explore the Association Between Lead Contaminated Topsoil and Violent Crime. Submitted in July 2019 to *Environmental Health Perspectives*.

PRESENTATIONS

*Note I am the presenting author on all listed presentations.

Invited Presentations

1. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation." Invited seminar at Department of Statistics, Miami University, Oxford, Ohio, Jan. 2013

2. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation."
Invited seminar at Dept of Bioinformatics and Biostatistics, UofL, Jan. 2013
3. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation."
Invited seminar at RAND Corporation, Santa Monica, California, Jan. 2013
4. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation."
Invited seminar at Department of Statistics, University of Minnesota, Feb. 2013
5. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation."
Invited seminar at Department of Mathematical Sciences, Clemson University, South Carolina Feb. 2013
6. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation."
Invited seminar at Department of Statistics, University of Illinois, Urbana-Champaign, Feb. 2013
7. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation."
Invited seminar at Department of Biostatistics, University of Iowa, Feb. 2013
8. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation for longitudinal data." Invited speaker in session "Methods for Complex Longitudinal Data" at the Summer Research Conference of the Southern Regional Council on Statistics, Galveston, Texas, June 2014
9. "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies."
Invited session at WNAR (Western North American Region of the International Biometric Society) Meeting, Honolulu, Hawaii, June 2014
10. "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies."
Invited seminar at Department of Biostatistics, Indiana University, Indianapolis, Jan. 2015
11. "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies."
Invited seminar at Statistics Department, Oregon State University, Jan. 2015
12. "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies."
Invited seminar at Department of Statistics, Indiana University, March 2017
13. "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies."
Invited session ("New innovations in handling incomplete data in the era of data science") at the Joint Statistical Meetings (JSM), Baltimore, Maryland, Aug. 2017
14. "A Bayesian Nonparametric Model for Predicting Pregnancy Outcomes Using Longitudinal Profiles." Invited talk at Statistics Department, Oregon State University, April 2018

15. "A Bayesian Nonparametric Model for Predicting Pregnancy Outcomes Using Longitudinal Profiles." Invited speaker in session "Bayesian Analysis" at International Indian Statistical Association annual conference, Gainesville, Florida, May 2018
16. "A Bayesian Nonparametric Model for Classification of Longitudinal Profiles." Invited seminar, Research Program in Quantitative Sciences Seminar, Johns Hopkins University Cancer Center, March 2019.

Contributed Presentations

17. "Sparse prior distributions for correlation matrices through the partial autocorrelations." Oral Contributed Paper at ENAR Spring Meetings, Orlando, Florida, March 2013
18. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation." Contributed paper at JSM, Montreal, Canada, Aug. 2013
19. "Sparsity inducing prior distributions for correlation matrices of longitudinal data." UofL Seminar, March 2014
20. "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation for longitudinal data." Topic-contributed session ("Advances in Modeling and Estimating Longitudinal and Time Series Data") at JSM, Boston, Mass., Aug. 2014
21. "Dealing with Missing Data in Public Health Research" EpiHour Seminar at Department of Epidemiology, UofL, Oct. 2014
22. "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies." UofL Seminar, April 2015
23. "Hyper Markov Laws for Correlation Matrices." Contributed paper at JSM, Seattle, Washington, Aug. 2015
24. "Adjusting a Course from Semester to Semester." Lightning Talk, Seminar on Teaching for New Faculty, UofL, April 2016
25. "Disease Classification from Longitudinal Data using Bayesian Nonparametrics." UofL Seminar, Feb. 2017
26. "A Bayesian Nonparametric Model for Predicting Pregnancy Outcomes Using Longitudinal Profiles." Contributed paper at Joint Statistical Meetings (JSM), Vancouver, Aug. 2018