Welcome New Students!

We held our 25th annual New Student Introduction and Reception in August 2018. Faculty, staff and returning students welcomed the following new students:

Matt Carli
Martin Lavallee
Matthew Anderson
Alicia Richards
Xinxin Sun
Fang Yuan
(not pictured)

Congratulations Graduates!

Hebing Liu, PhD, MS
Hao Yu, MD, MS
Kingston Kang, PhD

Biostatistics Reunion

We are currently planning a Department of Biostatistics reunion as part of the School of Medicine Reunion activities, April 17-18, 2020. Please check our departmental web site, as well as our Facebook page, for updates.

ENAR 2019

As we have done for recent ENAR meetings, our graduate program is beginning to plan a reunion of alumni and faculty at ENAR 2019, March 24-27, 2019 in Philadelphia. We will send an email and post information on our Facebook page (VCU Biostatistics Department) closer to the event. If you are interested, please email Russ Boyle at Boyle@vcu.edu.

Alumni Visits to our Department

In previous newsletters, we have reminded our alumni that they are welcome to visit and present in our Biostatistical Consulting class. Our current students enjoy hearing from our graduates about their professional positions, as their advice and experience are always useful. A list of our alumni who have recently talked to our students:

Susie Sinks (PhD, 2013), Mathematical Statistician, FDA/CDER

Todd Coffey (PhD, 2005), Chair and Associate Professor, Department of Research and Biostatistics, Idaho College of Osteopathic Medicine (via Skype)

Mike Fay (PhD, 1993), Mathematical Statistician, National Institute of Allergy and Infectious Diseases

Frank Rockhold (PhD, 1978) Professor, Biostatistics and Bioinformatics, Duke University School of Medicine

Adam Hamm (PhD, 2004), Director and Head of Biostatistics, North Carolina, Cytel, Inc.

Caroline Carrico (PhD, 2013), Assistant Professor, Department of Periodontics, VCU School of Dentistry

Betsy Ripley, MD (MS, 2004), Interim Senior Associate Dean for Faculty Affairs, VCU School of Medicine

Amber Wilk (PhD, 2013), Manager, Research Science, United Network for Organ Sharing

Please contact Russ Boyle at Boyle@vcu.edu if you would like to schedule a return to our program.

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Frank Rockhold presenting

New Students
Shumei Sun,
Professor

It is a pleasure to report that the Department has experienced another successful academic year. The Department has had two recruitment efforts that have brought a new face and the return of a familiar face to the Department. Dr. Leroy Thacker rejoins the Department as an Associate Professor after a four-year sojourn in the School of Nursing. He divides his efforts between the Massey Cancer Center and the Department of Biostatistics. Our second search brought us Dr. Ekaterina Smirnova from the University of Montana at Missoula where she was an Assistant Professor in the Department of Mathematical Sciences. Dr. Smirnova has an interest in research on the microbiome, especially the effect of the vaginal microbiome on pregnancy outcome. She and Dr. Thacker are both well positioned to advance the interests of the Department in a variety of aspects of the overall topic of bioinformatics.

We welcomed 5 new PhD students and 1 new MS student into our Biostatistics family. Combined with our new faculty members, we have many fresh faces around our department.

In research news, VCU was recently awarded a $21.5 million Clinical and Translational Science Award (CTSA) from the NIH to fund the C. Kenneth and Dianne Wright Center for Clinical and Translational Research. VCU is the only academic health center in Virginia to receive a CTSA. This award will support several Biostatistics faculty members at varying levels in the Biostatistics, Epidemiology and Research Design Core of the CTSA. We are anticipating exciting collaborative opportunities with Wright Center investigators.

The Biostatistics Department is proud of its ongoing involvement with the VCU CCTR, headed by Dr. Gerry Moeller. This Center has received funding from the NIH National Center for Advancing Translational Sciences (NCATS) for the past five years at a level of four-to-five million dollars per year. VCU is now embarking on a second five-year period of funding at the same level.

The VCU CTSA is one of 58 research centers across the nation that were funded to enhance translational science. Nine members of the faculty of the Department of Biostatistics receive funding, ranging from 7-20 percent effort, from the VCU CTSA to provide advice on research design, data collection curation, and analysis for any investigator embarking on or conducting a research project through any department or school within VCU. These services are delivered through the Biostatistics, Epidemiology, and Research Design (BERD) of the CTSA as well as the Biostatistical Consulting Laboratory (BCL), an entity that engages PhD and Master’s level students in the Department with solving practical problems that arise in research studies.

The Department is also pleased to report that our involvement with the VCU Center for the Study for Tobacco Products (CSTP) will continue for a second period of five years. The VCU CSTP grant renewal application achieved one of the highest marks in a recent scientific review of the Center’s research activities and plans for future research studies. The Center is housed in the VCU Department of Psychology and is one of nine such centers of tobacco regulatory science across the country. Dr. Tom Eissenberg and Dr. Alison Breland head the Center.

Three members of the Department of Biostatistics will continue to provide biostatistical help with research design, subject recruitment and subject retention, data collection, data curation and statistical analyses. The grant provides salary support for these three biostatisticians of seven-to-fifty percent of their efforts. The total five-year award is close to $20 million, providing funding from the NIH and the FDA, to develop models of regulatory science to assess the consequences for good or for ill of tobacco regulatory actions taken by the FDA and other governmental bodies.

For example, a potential regulatory action that is now being modeled would limit the amount of nicotine delivered by electronic cigarettes (e-cigs) to 20 mg/mL, similar to a regulation promulgated by the European Union. The primary concern is that a reduction in strength would drive consumers to increase the wattage of the e-cig to levels that would deliver the same amount of nicotine or more.

These models have shown that doubling the wattage of the e-cig quadruples the amount of nicotine inhaled. The variety of chemicals produced by the heated liquid in e-cigs includes formaldehyde, a known carcinogen. The modeling provided by the biostatisticians working on the project will be able to predict some of the unintended health consequences of a variety of governmental actions without having to enroll subjects in a clinical trial.

We just passed the halfway point of our fall semester, but we are looking forward to the holidays. Faculty, staff and students will soon enjoy our annual Thanksgiving Potluck, a longstanding tradition. We will cap off the semester with our Student Recognition and Reception, when we celebrate the achievements of our many talented students and send off our graduates into their professional careers.

We wish you a safe, happy holiday season and a prosperous new year.
Featured Faculty

**Dipankar Bandyopadhyay, Professor**

Dr. Dipankar Bandyopadhyay will celebrate his three years with the Department of Biostatistics in Fall 2018. He is a Professor and Director of the Biostatistics Shared Resources of VCU’s Massey Cancer Center. His methodological research interests include spatio-temporal modeling, survival analysis, robust regression, clustered/correlated data, mostly under a Bayesian paradigm, where he develops innovative statistical models with applications to oral and craniofacial epidemiology, substance abuse, cancer, and medical imaging. Throughout the years, his research has attracted federal funding (from agencies like the NIH, CDC, etc), both as a principal investigator, and a co-investigator. Very recently, he has developed an interest in precision medicine and big data analysis collected under a practice-based setting. Under his direction, one PhD student (Jonathan Wu) is working on developing efficient propensity-score based models and measurement error models to predict survival times of kidney transplantation from a nationwide database under clustering and heavy censoring. Another PhD student (Reuben Retnam) is working on likelihood inference for matrix-variate non-Gaussian responses under outcome dependent followup, with oral health applications. Other interesting research areas he is currently working on include proposing the first SMART design (and R software) in oral health, modeling random diffusion tensor matrices using Bayesian nonparametrics (BNP), Bayesian bi-clustering models and spatio-temporal signal detection with shrinkage priors in oral health, nonparametric multiway regression for clustered data, efficient single-index models for asymmetric multivariate data, and a BNP proposal to assess and predict periodontal clinic visits, with an eye towards precision dentistry.

In the summer of 2018, Dr. Bandyopadhyay was inducted as a Fellow of the American Statistical Association (ASA). He serves as an Associate Editor for Journal of the American Statistical Association – Applications & Case Studies (JASA-A&CS; the premier journal in applied statistics), and Statistics in Medicine. PhD students he mentored so far won a number of research awards, which includes the ENAR (East & North American Region of the International Biometric Society) Distinguished Student Paper award, ASA’s Section on Bayesian Statistical Science travel award, ASA’s Health Policy Statistics Section travel award, and the very prestigious 2013 John Van Ryzin award, awarded to the best paper among all ENAR Distinguished Student Paper awardees in any ENAR Spring conference.

**Katia Smirnova, Assistant Professor**

Dr. Smirnova’s primary research interests lie in the area of microbiome research and activity monitoring using wearable devices. Besides these areas, Dr. Smirnova is working on anomaly detection problems in financial networks, forest conservation environmental applications, and examining protein modifications in lung cancer cell lines. Her projects span multiple methodological research areas including longitudinal variability modeling for sequencing count data, multi-omics data integration, topological network analysis, longitudinal modeling for functional data, and development of visualization tools for protein interaction networks. Dr. Smirnova enjoys working with students and collaborators, and promoting a dynamic atmosphere where work-in-progress and future ideas are shared among the members of research groups with common interests. Her future directions include methodology development for merging complex high dimensional data from heterogeneous sources, and building data analytic and software tools, together with thorough documentation and training materials to provide easy-to-understand and use statistical methods to the scientific community.

**Leroy Thacker, Associate Professor**

Dr. Thacker joined, or rather he rejoined, the department returning from a brief sojourn in the VCU School of Nursing. His research interests are in applied topics, with an emphasis on consulting and collaborations; he is a self-described “general practitioner” as opposed to a “specialist”. Dr. Thacker has strong collaborative efforts with the Departments of Hepatology/Gastroenterology on the MCV campus, Psychology on the Monroe Park Campus, and with the Massey Cancer Center where he will have 50% effort for the next 3 years. Currently he is teaching BIOS 572 (Analysis of Biomedical Data I) and in the Spring he will be teaching BIOS 544 (Graduate Research Methods II). In his spare time (when it exists) he spends his time travelling to either the West End of Richmond or to Raleigh to visit his granddaughters or he binge watches college football, college basketball, or the PGA tour.
Featured Student

Victoria Okhomina, PhD Graduate Student
Victoria is originally from Jackson, MS. She received her BSE in Biomedical Engineering from Case Western Reserve University as well as an MPH from the University of North Texas Health Science Center. She is currently working through her second year in the Department of Biostatistics. Since joining the department, Victoria became a fellow for the Southern Regional Education Board Doctoral Scholars Program and recently began serving as the student representative to the faculty.

Victoria has previously worked as a teaching assistant for Biostatistics 543/544 and is currently an associate for the Biostatistical Consulting Laboratory. During her time at VCU, Victoria has worked on projects studying the pain experience in adults with Sickle Cell Disease and patient outcomes following stem cell transplants.

Although she admits to being a homebody, Victoria hopes to volunteer at the Richmond SPCA and explore the East Coast next summer when she has more free time.

Graduate Students Present

Brian Di Pace

Camille Hocheimer

Anny-Claude Joseph

Viviana Rodriguez
Presented her research “Transitioning Statistical Consulting Training Away from the Classroom” at the Joint Statistical Meetings, 2018, Vancouver, BC, Canada (August, 2018). Co-authored with Dr. Adam Sima and Brian Di Pace.

John Stansfield

Kate Stromberg
Honors

Dipankar Bandyopadhyay, Professor, His R03 NIH grant titled *Exploring tooth survival using Bayesian spatial models* was recently selected by NIDCR as an exemplary proposal for productivity, student involvement, and products available through the professional website

- Invited to join the Editorial Board (as an Associate Editor) of the premier biostatistical journal *Statistics in Medicine*
- Selected as a fellow of the American Statistical Association

Brian Di Pace, PhD student, received the Phi Kappa Phi Academic Achievement Award

- Inducted into the Alpha Epsilon Lambda (Graduate Student Honor Society)

Erin Donahue, PhD student, inducted into the Phi Kappa Phi (Honor Society)

Jun He, PhD student, School of Medicine nominated her for the Marion Waller Award

Camille Hochheimer, PhD student, received the Phi Kappa Phi Academic Achievement Award

- Inducted into the Alpha Epsilon Lambda (Graduate Student Honor Society)

Alicia Johns, PhD student, received the Biopharmaceutical Applied Statistics Scholarship

Cristin Kaspar, MS student, awarded a CCTR Endowment Fund Grant with Dr. Sima to conduct a pediatric chronic kidney disease clinical trial

Christine Orndahl, PhD student, received the CC Clayton Award.

Robert Perera, Assistant Professor, received Teacher of the Year Award in the Biostatistics Department (Pictured to the right)

Viviana Rodriguez, PhD student, received the Phi Kappa Phi Scholarship

- Won her section’s best-contributed paper award for the presentation *Transitioning Statistical Consultation Away from the Classroom* at the JSM meeting

Sonja Volker, MS student, received the CC Clayton Award

John Stansfield, PhD student, inducted into the Phi Kappa Phi (Honor Society)

Kate Stromberg, PhD student, inducted into the Phi Kappa Phi (Honor Society)

- Won the R.L. Anderson Student Poster Award for her poster titled *Using a Decision Tree Methodology to Predict Employment after Moderate to Severe Traumatic Brain Injury* at the Southern Regional Conference on Statistics

Announcement

Cristin Kaspar, MS student, had her 2nd baby on 8/18/18 (a palindrome day)!

Adam Sima, Assistant Professor, had his first child on 3/31/18.
Alumni Spotlights

**Don Stablein**, PhD Alumni

Don received his MS in 1977 and his PhD in 1979, all the while providing a formidable inside presence on the departmental intramural basketball team. Don actually began his long career at The Emmes Corporation while an Assistant Professor in our department. At Emmes, he began as a Biostatistician, rose to Vice President then served as President for over 20 years before stepping down in 2013. Don helped grow Emmes from a small entity with only a few employees to an internationally recognized contract research collaborator made up of a staff of over 400, with several of our departmental alumni including the current President, Anne Lindblad (MS, 1981). Among the well-deserved honors Don has earned in his career are Fellow, American Statistical Association and Chair of the National Cancer Institute Intramural Data and Safety Monitoring Board.

Although Don is still involved leading a data coordinating center for a long-term National Heart, Lung and Blood Institute contract, he does find time for other interests. He and Denise share time between Austin, TX (grandchildren) and Rockville, MD (other grandchildren). Don currently serves as a board member for several nonprofit organizations and has taken up birding.

**Rick Rode**, PhD Alumni

Rick Rode came to our program from SUNY College at Oneonta, along with many other Oneonta graduates who matriculated at our program. He received his PhD here in 1986 and started his career at Abbott (later AbbVie) in that same year. Rick began as a Statistician in Nonclinical Statistics, transferred to Clinical Statistics after approximately 10 years where he supported HIV/AIDS drug development and rose to a Research Fellow in Statistical Sciences with AbbVie before he retired in June of last year. Included in his professional accomplishments are over 40 publications – Lancet and the New England Journal of Medicine among these – and service as President of the Northeastern Illinois Chapter of the ASA. As just one example of Rick’s philanthropy, he created an endowed “Richard A. Rode ’82 Scholarship” at SUNY College of Oneonta.

In retirement, Rick has been getting back to more quality time on the golf course and traveling. While he is on the road, Rick is always welcome to visit us in Richmond!

The Department of Biostatistics very much appreciates the continual involvement in and contributions to our graduate program by Don and Rick, and we look forward to working with them going forward.

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