Conferences and programs

Our department is hosting the hybrid Statistical Methods in Imaging (SMI) annual meeting on May 25–27, with on-site sessions in Light Hall. Presenters include PhD candidates Coleman Harris and Kaidi Kang, with keynotes by John Gore and Nicole Lazar and the founder’s talk by Daniel Rowe. Visit vumc.org/biostatistics/smi to read about the sessions and to register.

School of Medicine honors faculty for excellence in teaching

Assistant professor Mario Davidson (center) is the winner of the 2022 Geoffrey David Chazen Award for Innovation in Medical Education. Associate professor Hakmook Kang (left) is the winner of the 2022 Jacek C. Hawiger Award for teaching graduate students and postdoctoral fellows in the classroom, lecture, or small group setting. Kang and assistant professor Thomas G. Stewart (right) have been elected to the Academy for Excellence in Education.

New faculty members

Left to right: Jinyuan Liu, Siyuan Ma, and Panpan Zhang

(see page 4 for profiles)
Our department has been very active in organizing and planning useR! 2022, which will take place online on June 20–23. Instructors include professor Frank Harrell, who will lead a tutorial on regression modeling strategies. Keynote lectures will be presented by Afrimapr, Amanda Cox, Mine Dogucu, Sebastian Meyer, Paula Moraga, and Julia Silge. Visit user2022.r-project.org to view the full slate of programming and to register.

The planning committee of this year’s IR-LHS symposium includes research assistant professor Cheryl L. Gatto and professor Christopher Lindsell. To attend this free event, register by May 9 at vumc.org/implementation/symposium-2022.

The 2022 CQS Summer Institute

The Center for Quantitative Sciences is offering four weeklong courses this August, including a newly designed introduction to cloud computing.

Registration will be open through July 25 for Week 1 courses and August 1 for Week 2 offerings, with a 20% early bird discount for participants who enroll by June 19. For more information and the Eventbrite link, visit vumc.org/cqs/cqs-summer-institute.

**Week 1 (August 1–5)**
- Big Data in Biomedical Research
- Introduction to Causal Inference

**Week 2 (August 8–12)**
- Regression and Modeling in R
- Cloud Computing and Case Studies
Milestones and Opportunities

Graduating on May 13: **Yuqi Tian**

Dissertation: **Semiparametric Cumulative Probability Models for Skewed, Censored, and Clustered Continuous Response Data**

Advisor: Bryan Shepherd

Promoted to Lead Biostatistician: **Yaping Shi**

Promoted to Principal Application Developer: **Will Gray**

*Welcome to the department!*

**Joshua Shaver**, Health Research Services Analyst

See our [Careers page](#) for information on joining us as a bioinformatician, biostatistician, statistical genetic analyst, or postdoctoral fellow. Remote options are available. We are also interested in hearing from and about people who might be a good fit with our department, especially those with expertise in general biostatistics, causal inference, clinical trials, data coordinating centers, and global health.
New faculty (continued from page 1)

**Jinyuan Liu** will join us in July, after earning her PhD from the University of California, San Diego. Her areas of collaboration will include behavioral sciences, psychiatry, and psychology, and her interests include causal inference and longitudinal data analysis. Her presentation to the department was “Semiparametric Regression Models for Between- and Within-Subject Attributes: Applications to High-Dimensional Data, Asymptotic Efficiency and Beyond.”

**Siyuan Ma** will join us in July. He earned his PhD in biostatistics from Harvard in 2020 and has been focusing on longitudinal microbiome statistics and spatial proteomics modeling as a postdoc at the University of Pennsylvania. His presentation to the department was “Modeling the Joint Distribution of Compositional Microbiome Data.”

**Panpan Zhang** will join us in September. He earned his PhD in statistics from George Washington University in 2016 and taught at the University of Connecticut from 2016 to 2018 before beginning postdoctoral work at the University of Pennsylvania. He will be working closely with the Vanderbilt Memory & Alzheimer’s Center (VMAC). His presentation to the department was “Nonparametric Estimation for Time-Varying Missing Covariates in Longitudinal Models.”

Liu, Ma, and Zhang are all coming on board as assistant professors of biostatistics (tenure track). The search committee, led by Jonathan Schildcrout, included Leena Choi, Cindy Chen, Mario Davidson, Robert Greevy, Hakmook Kang, Dandan Liu, Qi Liu, Rameela Raman, Matt Shotwell, Ran Tao, Simon Vandekar, and Yaomin Xu, with administrative support from Jena Altstatt, Audrey Carvajal, Peg Duthie, Jenny Jones, Cierra Streeter, and Janey Wang.

**Shyr inducted into American Association for Cancer Research (AACR) Academy**

In March, the AACR announced the election of professor **Yu Shyr** (front row, third from left) as an AACR fellow, “for leading contributions to the establishment and optimization of statistical and bioinformatic methods by which to collect and analyze genomic sequencing data, and for significant contributions to data science that have led to the establishment of research protocols and methodologies critical for clinical trial design and multi-dimensional genomic data processing.”
Grants

In partnership with the Vanderbilt Institute of Global Health and Aminu Kano Teaching Hospital (right), our department will help build biostatistics capacity in Africa through the Vanderbilt-Nigeria Biostatistics Training (VN-BioStat) program, which recently received D43 funding from the Fogarty International Center of the National Institutes of Health. Professor Bryan Shepherd is co-principal investigator of the project, with Muktar Aliyu and Nafiu Hussaini.

Associate professor Robert Greevy and assistant professor Peter Rebeiro serve on the VN-BioStat Training Advisory Committee.

Associate professor Benjamin French received pilot funding from Oak Ridge Associated Universities to study time-dependent confounders in radiation epidemiology and risk estimates across cohorts.

Assistant professor of medicine April Barnardo will be receiving R01 support to study systemic autoimmune disease in patients with positive antinuclear antibodies. Her co-investigators on this project are senior associate Daniel Byrne and biostatistician Ryan Moore.

Presentations and Talks

On February 18, in the Center for Clinical Quality and Implementation Research’s Scholarly Series, Mario Davidson and Regina Russell delivered “An introduction to qualitative and mixed methods research in medical education.”

On February 24, professor Christopher Lindsell spoke on the design of outpatient COVID-19 platform trials at The World Health Organization Global Research and Innovation Forum.

On March 18, in the Clinical Research Center’s Research Skills Workshop series, Thomas Stewart delivered “What To Say (and Not Say) When P > 0.05?”
Presentations and Talks

Our department members participated in the hybrid ENAR 2022 Spring Meeting (March 27–29) in a wide variety of roles, with representation from students, faculty, and alumni across multiple tiers. This list, while not comprehensive, covers some of the activities:

**Student presentations**

Chiara Di Gravio: "Efficient Design and Analysis of a Two-Phase Study with Longitudinal Binary Outcomes"

Jamie Joseph: "A Two-Stage Least Squares-Based Sensitivity Analysis Approach for Assessing the Role of Engagement with Text Message-Delivered Interventions"

Kaidi Kang: “Accurate Confidence Interval Estimation for Non-centrality Parameters and Effect Size Indices”

Elizabeth Sigworth Westerberg: "Building a Dose Toxo-equivalence Model from a Bayesian Meta-analysis of Published Clinical Trials”

Jiangmei Xiong: “Faster Estimation for Constrained Gamma Mixture Models Using Closed-form Estimators”

**Invited sessions**

Jonathan Schildcrout, organizer/chair: “Regression Models for Ordinal Response Data,” with Bryan Shepherd and Thomas Stewart

Simon Vandekar, speaker in “New Developments in Spatially Resolved Cell Imaging Data”

**Leadership**

Elected member, Regional Committee: Jonathan Schildcrout

Appointed members, Regional Advisory Board: Lucy D’Agostino McGowan, Sarah Lotspeich, Ben Saville, Andrew Spieker

Co-chair, Council of Emerging and New Statisticians, Steering Committee: Hannah Weeks

Do you have a recent or upcoming presentation to celebrate? Send the details to peg.duthie[at]vumc.org to extend its reach!
Presentations and Talks

At the Association for Clinical and Translational Science (ACTS) Translational Science annual meeting in Chicago, on April 20–22, poster presentations by department members included the following:

Marisa Blackman, PhD candidate: “Analysis Methods for Engagement with Digital Health Interventions in RCTs.”

Cara Lwin, PhD candidate: “Proton Pump Inhibitor Use Is Not Significantly Associated with Severe COVID-19 Related Outcomes after Extensive Covariate Adjustment.”

Pingsheng Wu, associate professor, on behalf of epidemiology PhD candidate Lin Ammar: “The Association between Quitting Electronic Cigarette use in Pregnancy and the Risk of Preterm Birth and Low Birth Weight”

On April 12, Inside the Practice aired an interview with Yu Shyr about Cancer-Immu. The episode can be viewed at the Medical World News website. Postdoctoral fellow Jing Yang, assistant professors Shilin Zhao and Quanhu Sheng, and associate professor Qi Liu also served on the team that launched this new data portal.

In demand as a speaker and instructor, Shyr has also recently delivered lectures at the American Association for Cancer Research’s annual meeting (“Decoding Cancer Health Disparities: Integration of Complex Data and Diversity to Achieve Equity”), the 2022 International Symposium on Biomedical Big Data and Precision Medicine (Taiwan), and Bristol Myers Squibb Foundation (BMSF) Scholars Forums (virtual) for the Winn Diversity in Clinical Trials Award Program.

To be featured in our next issue: May 31 graduations, summer interns, recent publications, and more!