In this Issue

Biomedical Data Science Innovation Lab and Seminar Series

Each year the University of Virginia organizes a themed Biomedical Data Science Innovation Lab (BDSIL) workshop that fosters the development of new interdisciplinary collaborations and research project ideas.

In addition to the BDSIL workshop, a seminar series provides essential topic introductions for viewers at all levels of the biomedical and computational sciences community.

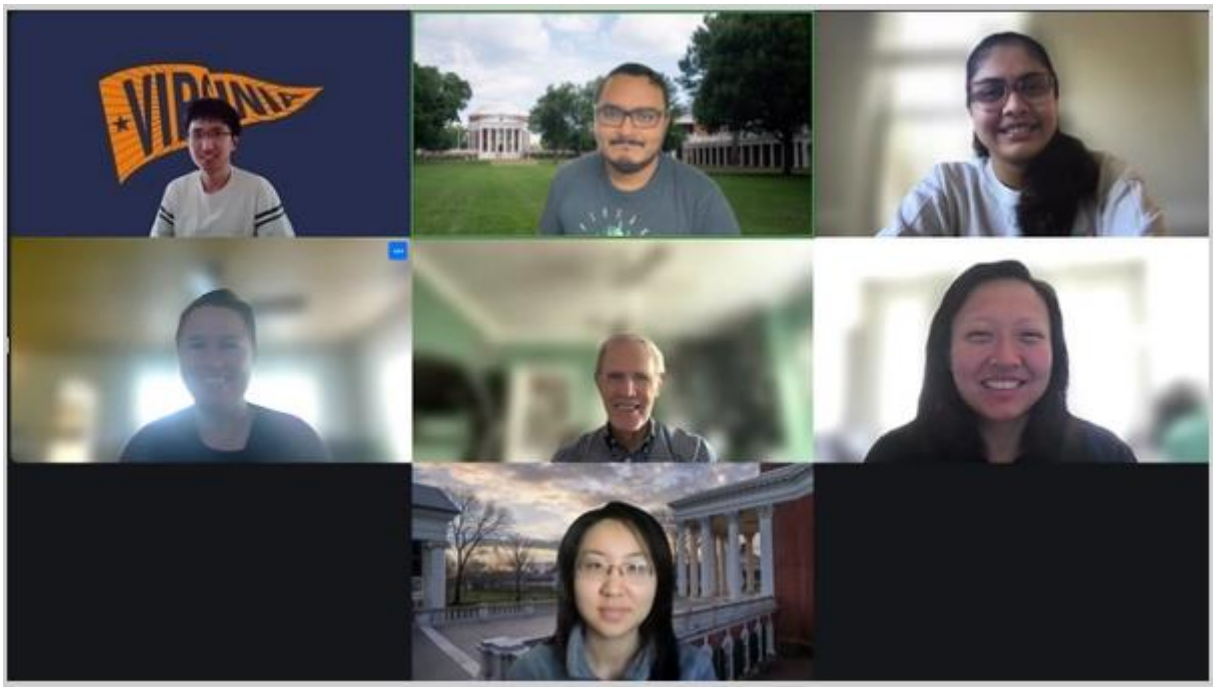
Visit BDSIL Website

Navigating Long COVID: iTHRIV's Role in the RECOVER Initiative

Navigating Long COVID: iTHRIV's Role in Researching COVID to Enhance Recovery Initiative

Researching COVID to Enhance Recovery (RECOVER) is an NIH-supported initiative that "brings together clinicians, scientists, caregivers, patients, and community members to understand, treat, and prevent Long COVID". Areas of research funded by this initiative include autopsy and pathology studies, clinical trials, prospective observational cohort studies, pathobiology studies, and observational studies using "Real World Data" (RWD) from the electronic health records of over 80 institutions.

The iTHRIV informatics team and colleagues in the School of Data Science are contracted to support the National COVID Cohort Collaborative (N3C) arm of the RECOVER RWD initiative. The UVA team provides project leadership, informatics infrastructure support, performs NIH query analytics, co-authors related manuscripts, and supports interactions with policy makers. As one of the N3C RECOVER RWD leads, iTHRIV Director of Informatics Johanna Loomba serves in the query workgroup that shapes high level query topics into executable specifications. Johanna liaises with team members from other participating institutions and co-directs the multidisciplinary UVA team with Professor Don Brown, co-PI of iTHRIV. The UVA analytics team includes staff data scientists (Andrea Zhou and Suchetha Sharma) and graduate students from the School of Data Science (Saurav Sengupta and Isabelle Liu) and Systems Engineering (Sihang Jiang). In addition to executing NIH-prioritized queries, the UVA team has made extensive contributions to core analytic components such as cohort identification, derived fact pipelines, and helping to evolve computable Long COVID subtypes based on common symptom clusters. Careful design and implementation of these logical components is essential to rigorous research when working with Real World Data which is collected through the course of care rather than through controlled prospective research.



Screenshot of the Team

The scientific impact of the iTHRIV and SDS RECOVER work is reflected in our resulting manuscripts that span a range of topics including Long COVID risk factors (1-5), correlation with COVID vaccinations (6) and COVID reinfections (7), drug efficacy in the prevention of Long COVID (8), disparities in Long COVID coding practices (9), and Long COVID computable phenotyping (10,11).

The UVA iTHRIV and SDS team also assisted Virginia Senator Tim Kaine's office in submitting a query to RECOVER and performed the resulting analysis (12). Our team provided support for a January 2024 N3C RECOVER testimony before the Senate Health, Education, Labor, and Pensions (HELP) Committee. The HELP Committee has recently released a draft legislative proposal, the Long COVID Moonshot Act (13), that would provide more funding to support national research in this area. This project is an example of how our iTHRIV data science and informatics expertise is helping to shape health policy and is using data to improve health.

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Learn about iTHRIV Scholars Research

Lora Henderson Smith, a UVA professor and licensed clinical psychologist says more research is needed to know how best to support students returning to school after seeking mental health care at the emergency department.

Learn More

iTHRIV Under the Microscope

Antoinette Ford

What is your current role?
In my current role, I am honored to be the *Grants and Contracts Specialist* for the iTHRIV Scholars Program at the University of Virginia. This transformative two-year career development initiative prepares Scholars to excel in the dynamic biomedical research landscape. Collaborating closely with Scholars, I provide crucial support and guidance regarding grants and contracts while playing a vital role in financial oversight, compliance, and reporting to contribute to the program's overall success and growth.

How does your job relate to the objectives of iTHRIV?
In alignment with iTHRIV's objectives, our competitive Scholar program stands at the forefront of the digital data-driven healthcare era. It shapes Scholars to generate hypotheses and interventions and evaluate health quality in innovative ways. Emphasizing a commitment to fostering a team science culture, the program places a strong focus on clinical translational science. My role is integral to maintaining the program's administrative efficiency and driving forward biomedical research endeavors within the iTHRIV community.

What is something you would like to share that people may not know about you?
I reside in South Georgia, and I am deeply family-oriented. I am a part of several group chats with my four siblings, mom, and numerous cousins and aunts where we talk and share laughs every day. I am also a mother of three children. I am currently pursuing a Master's in Public Administration from Valdosta State University, and I have served the public for over 14 years.

What do you like to do outside of work?
Outside of work, I wear the hat of a realtor, finding joy in assisting people in purchasing real estate. During my free time, I immerse myself in self-development and real estate literature, and I love to day-trade in the stock market. However, the absolute highlight of my life is spending cherished moments with my children.

Meet a Mentor

Randall Moorman, MD

Bicentennial Professor of Advanced Medical Analytics
and Professor of Medicine
Cardiovascular Division
University of Virginia

“Dr. Moorman is a superb researcher and mentor with a long track record of building predictive models across an array of patient populations. His mentorship has been vital to my development as a researcher in this space. I am excited to work with him as I develop new, independent areas for growth.” – Andrew Barros, MD

"Dr. Randall Moorman has genuine enthusiasm for exploration and discovery, which has fueled my passion for research in predictive analytics. He inspires his team to push boundaries and pursue big ideas, while emphasizing the importance of taking the time to give attention to the details that make the science rigorous. Furthermore, he has committed countless hours to the endeavor of imparting his knowledge on the fundamentals of time series analytics to any mentee who is up to the challenge of mastering this discipline." - Sullivan, Brynne, MD

Find Out More

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