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High School Students Look to SOAR With Help of New UVA Program

There probably aren’t too many second-graders who could tell you what an OB-GYN is, but KaTia Whindleton was well-versed at the time. Whindleton had her father, in part, to thank for that.

“My dad used to talk about how much he loved babies,” Whindleton said. “We would be in the store or something and he’d be like, ‘Oh my gosh – look at the baby over there!’”

Whindleton started appreciating the adorableness as well, but she also became intrigued by the entire birth process – so much so that she looked up what kind of doctor delivers babies. And when she learned that it was an obstetrician-gynecologist, she made up her mind to someday go into the profession.

Read the rest here: https://news.virginia.edu/content/high-school-students-look-soar-help-new-uva-program
The iTHRIV Research Data Commons is Now in Phased Roll Out

The Informatics Core of the integrated Translational Health Research Institute of Virginia (iTHRIV) builds software and system solutions to support team science and accelerate scientific discovery and innovation. The iTHRIV Research Data Commons is a new solution that provides health researchers and data stewards with a single interface to manage, share and use research data throughout its lifecycle, from initial design and approval through data collection and analysis, and ultimately publication. The product facilitates access while enhancing compliance, making it a win for both research teams and administrators at our institution.

This product has been designed as a scalable research data infrastructure with a web interface in the iTHRIV Research Concierge Portal that enables secure and compliant interactions between iTHRIV users and data assets located behind institutional firewalls. The first successful deployment of the Research Data Commons at UVAHealth was made possible by close partnership in developing these tools between the School of Medicine, School of Data Science and Medical Center.

Tracey Hoke, UVA Health Chief of Quality and Performance Improvement and iTHRIV Co-Investigator, remarked, “This type of collaboration across the Health System is what will take our research from prominent to pre-eminent, and will allow for resource sustainability beyond any funded grant period.”

Don Brown, iTHRIV Co-Director and Informatics Core Lead, described the importance of this milestone, saying, “This initial iTHRIV deployment of the Commons is a critical first step to providing a data infrastructure for UVA researchers that can support data management, transfer, sharing, and, analysis.” Foundational features of Version 1 of the iTHRIV Research Data Commons that demonstrate the transformative nature of this new tool include the following:
Granular permissions are defined at the project and individual dataset level allowing principal investigators and data administrators to share stewardship.

Increased compliance and alignment with IRB approvals by automatically restricting highly sensitive data permissions to active study personnel via an interface with the UVA IRB-HSR database.

Limited datasets or de-identified datasets can be exposed to the appropriate team members at partner institutions while still allowing UVA team members to work with identified data. This helps ensure that researchers are aligned with Office of Sponsored Programs requirements and regulations around data sharing outside of our institution.

Manual and automated population of project and dataset descriptions and characteristics (metadata) to support data organization, discovery, and compliance so that research data can be systematically characterized and indexed for the first time at our institution.

Integration with research databases, such as REDCap, allows periodic, scheduled extracts that can then be shared with the appropriate project stakeholders. This allows project owners to expose certain elements of their data to a broader audience while maintaining control and protection over the source data.

The Research Data Commons is embedded in the iTHRIV Research Concierge Portal, ensuring that researchers working with data have easy access to relevant educational materials and the integrated concierge service which provides consuls regarding regulatory requirements, data acquisition, analysis, and sharing.

**PHASED PRODUCT LAUNCH**

iTHRIV has initiated a phased roll-out of this product and use is currently limited to a small set of initial UVA projects. By working closely with research teams on these early Research Data Commons projects, with team members spanning the UVA School of Medicine, School of Data Science, School of Education and School of Arts and Sciences, the iTHRIV team can continue to test and refine system features, monitor system activity, and work to enhance the existing security model. “We could not be more excited about this early success of the Commons,” said Dr. Karen Johnston, Associate Vice President for Clinical & Translational Research and iTHRIV co-PI. “We recognize that development of such an infrastructure is extremely complex and we could not have done it without the commitment across the health system and other schools. We are thrilled that our team is being recognized nationally as leaders in this space in the CTSI network. This is true team science and another opportunity for iTHRIV to facilitate and accelerate the research success of our clinical and translational workforce.”

iTHRIV plans to expand use of the system to all UVA researchers conducting clinical and translational research around August of this year. By the end of 2021, once the appropriate data governance has been established, they expect to allow limited public access to certain project and dataset descriptions and published datasets. iTHRIV partner institutions (Virginia Tech, Inova Health, and Carilion Clinic) will be adding their own branches to the federated iTHRIV Research Data Commons later this year, thereby integrating this
product with their own local data environments and demonstrating the potential for further cross-state expansion.

"Even smaller labs are now unable to fully analyze and explore the large volumes of biomedical data that they are generating, and the analysis gap gets larger as we move up to center- and programmatic-level research", said Dr Joe Mychaleckyj, Assistant Dean for Biomedical Data Sciences Research in the School of Medicine. "With this new infrastructure in place, researchers in the School, and later, in our partner organizations, will be able to discover data sets and projects that would otherwise remain siloed and hidden, potentially generating new and exciting opportunities for collaboration. Many congratulations to the whole iTHRIV team in accomplishing this huge first milestone for the Research Data Commons."
**Inova to Host Third Annual Healthcare Disparities Conference**

*The title for this year’s Annual Healthcare Disparities Conference is A Call for Transformation: Impactful Strategies for Sustainable Change.*

*by: Anne-Marie O’Brien, PhD, WHNP-BC, Nursing Research Scientist, Inova and Leigh Guarinello, MPH, Community Relations Director, Inova*

The virtual conference is scheduled for Tuesday, October 5th, 2021: 12:30 p.m. - 3:15 p.m.

The impact and reach of this annual conference has grown tremendously over the past 2 years. The first conference, held in 2019, was spearheaded by Dr. Alita Mishra, Director of Education and Program Director for Inova’s Internal Medicine Residency Program, in an effort to highlight the significance of health disparities and advance research and practice related to health disparities and social determinants of health. This inaugural conference inspired an interdisciplinary group of healthcare professionals and community members to establish an annual event in partnership with iTHRIV.

Planning for the Second Annual Health Disparities Conference began in late 2019, but was nearly cancelled due to COVID-19-related public health restrictions. However, the Planning Committee was convinced that the conference was more critical than ever with health disparities being further exacerbated by COVID-19 and the public demonstrations in response to George Floyd’s death. The committee quickly arranged to pivot from a live conference to a virtual event. The response was tremendous, and more participants were able to attend the virtual conference than had been in the prior year, resulting in record registration. The conference also served as a catalyst for bringing groups together to partner in serving the needs of their communities. Feedback was overwhelmingly positive with requests to continue to offer related programming but with a focus on successful strategies for transformational change.

The planning committee* has expanded over the past 2 years and now includes a team of healthcare professionals, educators, and team members from Inova, UVA, and Virginia AHEC, as well as iTHRIV. Given the unpredictability of the COVID-19 pandemic and the need to reach a broad audience, the committee decided to maintain the virtual conference format for 2021.
The significance of this conference cannot be understated. The Kellogg Foundation (2018) estimated that health disparities annually cost the U.S. $93 billion in excess direct healthcare expenditures and 3.5 million “lost life years” from premature death.

This online, half-day symposium for healthcare professionals will discuss strategies for implementing individual, team, community, and systemic change to address health disparities and improve the health and wellbeing of culturally and ethnically diverse patients.

In order to provide this essential information to the widest audience, the program is being provided free of charge, with the goal of reaching and engaging as many as stakeholders as possible.

The program will provide attendees with a discussion on key strategies for advancing health equity and implementing change in their practice settings and communities. Participants will learn how to be a community ally by supporting practice and policy changes that promote health equity. The planning committee is excited to announce our Invited Speakers who are experts in creating change:

- **Dayna Bowen Matthew, JD, PhD** (Keynote Speaker) Dr. Matthew is the Dean and Harold H. Greene Professor of Law at the George Washington University Law School. Dean Matthew is a leader in public health and civil rights law who focuses on racial disparities in health care. She is a former RWJF Health Policy Fellow and is the author of the book “Just Medicine: A Cure for Racial Inequality on American Health Care”.

- **Sandra Davis, Ph.D., DPM, ACNP-BC, FAANP** Dr. Davis is an Associate Professor and the Associate Dean for Diversity, Equity, and Inclusion at the George Washington School of Nursing. In 2016, Dr. Davis was selected as an AACN/Wharton Executive Leadership Fellow. Her research focuses on healthcare disparities and social determinants of health.

In addition, there will be presentations focusing on case studies and organizational strategies for promoting diversity, equity, and inclusion.

* **Diversity Conference Planning Committee**

  * Alita Mishra, MD, Director of Education and Program Director, Inova
  * Mary Ann Friesen, PhD, RN, CPHQ Nursing Research & Evidence Based Practice Coordinator, Inova
  * Leigh Guarinello, MPH, Community Relations Director, Inova
  * Anne-Marie O’Brien, PhD, WHNP-BC, Nursing Research Scientist, Inova
  * Elyssa Wood PhD, RN, MPH, RN, FAEN, CPEN, TCRN Nursing Research Scientist, Inova
  * Leon Ransome, BBA, Diversity and Inclusion Manager, Inova
  * Kristin Miller, Partnership Manager, University of Virginia
  * Karen Brown, MAEd, Center Director, Northern Virginia AHEC
  * Tijani Musa, MPH Student, George Mason University
Eugenie Charles, MD, Chief Diversity Officer, Commonwealth Emergency Physicians, Medical Director, Inova Loudoun Concussion

Kelley Sanchez, Director of Continuing Medical Education, Inova

Carilion Clinic Celebrates Clinical Trials Day, Launches New Clinical Trials Landing Page

On May 20, Carilion Clinic providers highlighted their research as part of National Clinical Trials Day, securing media coverage across television, print and radio platforms and raising community awareness about their more than 100 clinical trials currently offered across 24 different disease areas. As stressed by Andrea Bidanset, Carilion’s director of clinical trials, seeing advancements in patient care requires active participation in clinical research. In observance of the day, Carilion clinicians shared their incredible work, emphasized the importance of clinical research and showed community members how they can get involved. Carilion also used this push to promote their new Clinical Trials landing page.

Read the full statement here: https://www.carilionclinic.org/news/clinical-trials-finding-tomorrows-treatment-today/
iTHRIV Seeks to Inspire Diverse Researchers in Virginia

The Integrated Translational Health Research Institute of Virginia (iTHRIV) with support from the University of Pittsburgh (UPitt) is participating in the “Building Up a Diverse Workforce for Biomedical Research” study. Building Up is a national study led by the University of Pittsburgh (UPitt) and aims to test the effectiveness of a career development intervention developed for postdocs and junior faculty who are underrepresented in health-related sciences.

The program aims to provide education and professional development through coaching, mentoring and sponsorship and is led locally by Dr. Sana Syed. The primary goals are to improve career outcomes and work culture for those persons underrepresented in biomedical sciences, thus diversifying and improving the quality of the research workforce.

The curriculum consists of 12 monthly 1.5-hour collaborative sessions. Topics include practical skills such as finding research resources, giving effective presentations, and writing productivity. The program also educates and advises on softer and more specific skills like networking for inclusion, promoting oneself on social media, and handling difficult conversations. Each session is a mix of presentations and panel discussions with opportunities for the participants to share their own experiences. Participants are also
required to take a proposal development course and a medical writing course and are given opportunities to network with faculty from all over the University.

This year's Building Up Scholars included 8 female participants (1 Assistant Professor, 2 postdoctoral Research Associates, 4 Fellows and 1 Research Associate). Participants have expressed appreciation for the program, “I really appreciate this program. I feel it’s helped me a lot to grow and know more about how to prepare a good career”, stated Ruoding Shi, PhD in Public Health Sciences.

Patricia Lozano, MD adds that the program "changed my life in a lot of ways…this program has helped me a lot in the sense of trying to have a balance and be efficient so at the same time I don’t get burnt out. It really has helped me a lot.”

Going forward, UVA will offer a similar program known as “Inspiring Diverse Researchers in Virginia” or iDRIV for short, thanks to support from iTHRIV and the UVA School of Medicine Departments of Medicine, Pathology, Pediatrics, Public Health Sciences, and Surgery. The program plans for up to 10 new scholars and will begin early this fall. Ultimately, the program will seek NIH R25 funding to expand the program to include all iTHRIV partner sites.
2020-2021 Biomedical Data Science Innovation Lab: Challenges in Brain Analytics and Data Integration

by: Hannah Rishel, Education and Outreach Coordinator for the Biomedical Data Science Innovation Lab

The Foundations of Biomedical Data Science at the University of Virginia hosted its fifth annual Biomedical Data Science Innovation Lab (BDSIL): Challenges in Brain Analytics and Data Integration on June 21-25, 2021. The BDSIL is an intensive program lead by its Director Jack Van Horn and Research Program Officer, Jeana Kamdar. The program is partially sponsored by iTHRIV and NIH Grant #R25GM139080 that has virtual and in-person components designed to foster the development of multidisciplinary teams.

This year 26 competitively-selected early-career biomedical and data science researchers with experience in a range of biomedical and quantitative sciences participated in the BDSIL to tackle the complex challenges that make-up the many facets of brain research. In addition, a team of chosen, experienced mentors shared their wisdom and insight to support participants throughout the workshop. Mentors met with teams throughout the event to provide helpful feedback, guidance, and direction to the projects that were formed.

Leading up to the 5-day Innovation Lab, participants completed an academic year-long series of engaging “microlabs” that examined the neurological research domain, evaluated potential data science solutions to issues, and fostered creative thinking. Further, participants engaged in our weekly live Seminar Series that featured lectures presented by guest neuroscientists from across the country. There were a diverse range of topics including Data Structure, Disease Risk, GXE, and Causal Modeling, Big Neuroscience, Data Sharing & Predictive Health Analytics, and Investigating Mechanisms of Exercise-Induced Neuroplasticity in Cog-Motor Systems in Parkinson’s Disease, among others. All of our past Seminar Series recordings can be found on The Foundations of Biomedical Data Science YouTube Channel.

The 2021 Biomedical Data Science Innovation Lab 5-day event was fully virtual due to COVID-19 travel restrictions. Though there was a physical barrier between participants, the collaboration towards the development of novel or significantly adapted models, methods, and approaches for overcoming challenges within brain analytics and neuroscience could not have been stronger! “The best part was meeting all the incredibly smart and motivated participants, each bringing ideas and different expertise to the table” said participant Ignacio Fernandez Mata of the Cleveland Clinic. Mentor Chongzhi Zang of the University of Virginia added “It is a really exciting experience to get to know a lot of peers, colleagues working on different backgrounds and working on these common interesting topics.” Participants formed integrative teams and worked together throughout the program to develop pilot projects for addressing their selected topics within the neurological domain. “I was really amazed to see how quickly they went from the very initial idea to a very strong proposals here it is very interesting and amazing experience for me” said Zang. Five interdisciplinary teams were formed compromising of 3-11 participants. We are looking forward to seeing how the diverse range of project topics take shape in the coming months!

In the coming weeks, teams formed at the BDSIL will continue to work together to collectively develop and submit grant proposals and/or publications through the NIH and NSF funding opportunities highlighted at the end of the workshop. The BDSIL cannot wait to see the wonderful research and relationships that will continue to manifest post lab!
2021-2022 Biomedical Data Science Innovation Lab: Ethical Challenges of AI in Biomedicine

Applications are open for the 2021-2022 Biomedical Data Science Innovation Lab: Ethical Challenges of AI in Biomedicine! This event will take place in-person on June 13-17, 2022 at Boar’s Head Resort in historic Charlottesville, Virginia. This facilitated and mentored workshop will create multidisciplinary teams that tackle the challenges of ethically working with data types in support of AI systems and how AI might be made ethical against best practices recommendations. The collaborations formed during the next BDSIL will result in new peer-reviewed publications or NIH/NSF grant proposals. Virtual Events October 1, 2021; April 8, 2022; May 13, 2022; June 3, 2022 - In-Person Event June 13-17, 2022. Applications are still open! We will be accepting applicants on a rolling basis with final applications due by 11:59PM ET, January 31, 2022.
**iTHRIV Under the Microscope**

Bhruga Shah is a certified Senior Clinical Research Nurse at Inova Health System.

Bhruga joined the Inova Team in year 2015. Previously she collaborated with the pharmaceutical industry in bench side research studies and held a leadership role with the Department of Defense and Center for Disease Control's Influenza laboratory diagnostics surveillance efforts in the Pacific Rim.

At Inova, Bhruga supports the clinical research trials team housed within the Cardiology Research Program and provides clinical care to cardiac patients. As the iTHRIV Program Manager of at Inova, she facilitates and promotes clinical and translational research efforts not only in Northern Virginia, but also statewide. Bhruga is passionate about equity and inclusiveness; she co-chairs Inova’s Diversity Action Team. This team empowers clinical researchers with tools and information to help enroll under represented populations in to a clinical research trials.

In her free time Bhruga likes to hike and travel around the world.
A Brief Guide to the Updated NIH Biosketch Requirements

iTHRIV would like to help inform the research community that National Institutes of Health (NIH) has updated its Biographical Sketch (biosketch) requirements. This is to foster full transparency and disclosure of all research activities, foreign and domestic.

The NIH wishes to support strong collaboration between Federal research agencies. Accordingly, they aim to align the Biosketch Application Form Instructions with the guidance issued by the Office of Science and Technology Policy Joint Committee on the Research Environment.

The updated forms and instructions will be required for use for applications and Research Performance Progress Reports (RPPR) submitted for due dates on or after May 25, 2021.

According to the NIH, the revisions serve as updates to the Biosketch templates currently used as attachments in NIH Forms-F application packages and RPPRs. Please note, the updates do not change the policies for Biosketch.

As part of iTHRIV’s Learning Shot Series, Assistant Director for Operations at UVA’s Office of Grants and Contracts, Lauren Armstrong has provided a helpful guide to updated the NIH Biosketch guidelines.

Watch the video here: https://youtu.be/n8j9NQlG52s