Cleveland Clinic

October 2024

Lerner Trainee Newsletter

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This newsletter is written by members of the Lerner Trainee Association Communications Committee. We welcome your questions and suggestions!

Email <u>LRITraineeAssoc@ccf.org</u> connect with us. Welcome to the October issue of our Lerner Trainee Newsletter! From recent events to research highlights, we're here to keep you informed and inspired. Stay tuned for important updates and resources to help you succeed on your journey as an LRI trainee!

In *Recent Events*, we're thrilled to announce the winners of the Molecular Medicine PhD Student Showcase. We also thank all the finalists of the Cleveland Clinic Research Day who presented their work, with the winner revealed at the main event. A huge thank you to everyone who made National Postdoc Appreciation Week a success, and congratulations to the Postdoctoral Fellow Leadership & Service Awardees! Save the dates for *Upcoming Events*, including the Career Development Seminar, Science Slam, and many others.

In the *Meet your* sections, learn about Zaida Laventure's journey to becoming a PhD student. Additionally, we highlight alumna Dr. Shilpa Rao and her advice to current trainees on the importance of networking.

Be sure to visit our *Recent Accomplishments* section and congratulate your colleagues who have recently achieved awards, publications, talks, and career milestones. Want to get featured? One way is to check out the *Opportunities* section and start applying for funding and grant opportunities – deadlines are approaching fast $\textcircled{\begin{subarray}{ll}{ll}}$

This month, *CCF Innovations* introduces Dr. Christina Buzzy, who shares her perspectives on working with the Digital Health team and the impact of digital health on patient care. Lastly, trainees can find *Wellness Resources* that provide Yoga, Meditation, Fitness, and Culinary Medicine sessions.

If you would like to contribute to the newsletter, please reach out to us at LRITraineeAssoc@ccf.org.



Join our LinkedIn Group

The Lerner Postdoc and Grad Student Alumni Network on LinkedIn is a group of current and former postdoctoral fellows, research scholars and graduate students at Cleveland Clinic Lerner Research Institute. We share opportunities for career development, networking and highlighting our scientific achievements. We also post reminders about upcoming events, so be sure to turn on notifications! <u>Request to join here.</u>

Molecular Medicine PhD Program Annual Student Showcase

Thank you to everyone who attended and participated in the showcase! Congratulations to our 2024 winners:

Best second year student poster: Dalya Khalife

- PI: Jennifer Yu
- Dept: Cancer Biology
- Poster title: PIKFYVE/PIP4K2C Inhibition Impairs Autophagy in GBM

Best third year student poster: Nour Mouannes

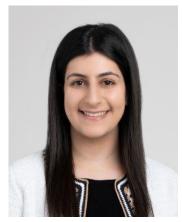
- PI: Mark Brown
- Dept: Cancer Biology
- Poster title: The Ability of Dietary Polyunsaturated Fatty Acids to Protect Against Non-Alcoholic Steatohepatitis (NASH) is Dependent on Gut Microbes

Best fourth year student poster: Kala Mahen

- PI: Mark Brown
- Dept: Cancer Biology
- Poster title: The impact of current non-melanoma skin cancer (NMSC) therapeutics on the cutaneous microbiome

Best fifth year student oral presentation: John Sturgis

- PI: Vera L. Bonilha
- Dept: Opthalmic Research
- Talk title: The Foundation Of Decay: Modeling aging and retinal degeneration with mitochondrial DNA mutation burden



Dalya Khalife



Nour Mouannes



Kala Mahen



John Sturgis

44th Annual Cleveland Clinic Research Day

F. Merlin Bumpus Junior Investigator Awards Finalist Presentations

The F. Merlin Bumpus Junior Investigator Awards highlight research excellence in graduate students and postdoctoral fellows. They are named after F. Merlin Bumpus, PhD, who served as Chair of the Lerner Research Institute from 1966-1985.

Congratulations to all Finalists! The winners were announced at Research Day on October 30, 2024, and will be highlighted in the next issue of the Trainee Newsletter.

Basic Science Finalists

Debora Familiar Rodrigues Macedo

Infection Biology

Syed Hassan Ahmed Bukhari, PhD

Quantitative Health Sciences

Natasha Ingles Cancer Biology

Noah Lorincz-Comi Genomic Medicine

Rachel Tinkey Neurosciences

Clinical Finalists

Madeleine Blazel Quantitative Health Sciences

Syed Hassaan Ahmed Bukhari, PhD

Quantitative Health Sciences

R. Sky Jones Lerner College of Medicine

Deepthi Mallela, MD, MPH Cardiovascular & Metabolic Sciences

Benjamin Mittman Center for Value-Based Care Research

National Postdoc Appreciation Week

Each year, during the third week of September, universities and research institutes across the United States join in celebrating National Postdoc Appreciation Week (NPAW), an event dedicated to honoring the critical role that postdoctoral scholars play in advancing research and innovation. Spearheaded by the National Postdoctoral Association, this week emphasizes the significant contributions postdocs make to scientific progress, mentorship, and interdisciplinary collaboration. Through a variety of activities, including workshops and networking opportunities, institutions come together to show their appreciation and highlight the impact postdocs have on driving the future of academia and research.

RETC Career Development Panel



The NPAW 2024 kicked off with a RETC Career Development Panel discussion titled "Getting Funded as an Early Career Scientist." The panel consisted of early-career scientists sharing their experiences and strategies for securing grants, navigating the funding landscape, and building successful research careers, providing valuable insights and guidance for postdocs and young researchers looking to advance in their fields.





Midweek, the LTA Open House treated trainees to pizza while introducing them to the four LTA subcommittees: Social Outreach, Mentorship, Career Development, and Communications. Getting involved in LTA provides an excellent opportunity to build new friendships and contribute to the trainee community.



NPAW 2024 closed off with a lively celebration hosted by RETC. The evening was filled with food, drinks, and plenty of fun. We extend our heartfelt thanks to all the trainees who participated throughout the week, as well as to the faculty, staff, and sponsors who made this event possible with their generous support and enthusiasm. Your contributions have made NPAW 2024 a memorable and impactful experience!

Written by Nam Than and photo courtesy of RETC

National Postdoc Appreciation Week Leadership and Service Awards



The Research Education & Training Center was pleased to receive a recordbreaking 24 nominations for the 2024 Postdoctoral Fellow Leadership & Service Award. We are pleased to announce this year's five winners. Awardees were presented with a framed certificate during the National Postdoc Appreciation Week Town Hall and will receive \$500 for their service.



Rowan Barker-Clare, PhD THOR department Jacob Scott Lab



Lavanya Jain, PhD GMI department Lynn Bekris Lab



Joydeep Nag, PhD FRIC department Emily Speranza Lab



Bryan Raubenolt, PhD CLS department Daniel Blankenberg Lab



Sepideh, Khazaie, MD I&I department William Baldwin Lab

To see more photos from 2024 NPAW events, please visit <u>bit.ly/24NPAWPics</u>





Research Education & Training Center

2024 Career Development Series

PANEL

Medical Science Liaison Careers with Novartis

November 7th 1:30 – 3:00PM In person: NE1-205

Meet with Novartis' Medical Science Liaisons to learn about what a career in this field with a PhD looks like. We'll talk about the transferable skills you can develop while training at LRI and how to leverage your network for career development.

Speakers:

Annie Dickerson, DNP, APRN, FNP-C Jordon Dunham, PhD (LRI alumnus) Michael Hensel, PhD Yannis Koukounas, PharmD, BCOP Iyad Manaserh, PhD (LRI alumnus) Dyan Pace, MSN, APRN-BC Nina Sonbolian, PharmD, MBA

Networking

This year's series will incorporate discussions on the <u>importance of</u> <u>networking</u>. Speakers will share professional networking stories and attendees will participate in short guided self-reflection and group-networking activities.

Register to attend at https://forms.office.com/r/ ZTyzwz9Raw

- Light refreshments will be served.*
- Florida trainees may register by 11/6 to receive a link for a virtual option.

*This program is not financially supported in any way by Novartis.

All postdocs, research scholars, and PhD students welcome!

Cleveland Clinic Town Hall

Join Drs. Serpil Erzurum, Geoff Vince and Jamie Stoller for key updates on our operating model.

Thursday, November 7 4:00 – 5:00 p.m. EST Bunts Auditorium* & Webex

*Sign up required for in-person attendance in Bunts Auditorium:

> Sign up for Bunts Auditorium

Or watch livestream (no sign up required):

<u>Click to join via Webex</u> Meeting number (access code): 2447 309 7753 Meeting password: research

Questions? CRAO@ccf.org



The 2024 Accessibility & Inclusion Equity Summit is designed to shine a spotlight on the barriers that can inhibit full accessibility within the postdoctoral community as well as pathways to increase accessibility and inclusion. The summit amplifies messaging from the lived experiences of neurodiverse individuals or people with disabilities that many in the postdoctoral space may be unfamiliar with. Join us on Friday, November 8 for discussions about specific issues and actions toward achieving justice and equity for everyone in the postdoctoral communities.

The summit will include American Sign Language (ASL) translation services throughout the event.

Sign up now





2025 National Postdoctoral Association Annual Conference Registration is Now Open!

Don't miss out on the largest national conference and networking event dedicated to the postdoctoral community! Register now for the 2025 NPA Annual Conference, brought to you by Seattle Children's Research Institute, in Boston on March 21 & 22, and gain access to two days of valuable sessions, networking opportunities, and professional development.

Nicholas Dirks, Ph.D., president and CEO of The New York Academy of Sciences, will deliver the keynote on Friday, March 21.

Connect with grad students, postdocs, postdoc office administrators, faculty members, and representatives from associations, corporations, and government agencies. This is your chance to expand your knowledge, grow your professional network, and take your career to the next level!

Members must **log in before** registering to receive member pricing on fees. If you would like to become a member to save on fees, you must do so **before** registering. To join, follow <u>this link</u>.

Early-bird registration ends **Friday**, **November 15**, so don't wait - secure your spot today!

Register now

Meet your Graduate Student

Zaida Laventure



Where are you from?

I am from Port-au-Prince, Haiti.

What is your educational background?

I earned my BS in Biology Pre-med with a minor in Chemistry at Delta State University, Cleveland, Mississippi. As an undergraduate, I had the invaluable opportunity to shadow physicians in the US and back in my home country. I also had the chance to tutor mathematics and chemistry. After graduating early, I decided to dive into research by pursuing a master's in Biology and Natural Sciences where I joined an immunology-oncology lab and researched the role of arginine metabolism in cancer metastasis and how its demethylation may enable these cells to evade the immune system.

Which lab do you work in and for how long have you been a part of this team?

This summer, I started my third year as a PhD candidate in the Molecular Medicine program in the lab of Dr. Yogen Saunthararajah. I joined this lab not only for its innovative science but for its compelling vision. Our team is dedicated to advancing cancer patient care by developing non-toxic therapies aimed at effectively treating cancer while avoiding severe side effects often associated with traditional chemotherapy. By prioritizing patient comfort and experience, we strive to enhance treatment outcomes and overall quality of life for those affected by cancer.

How did you decide on the Cleveland Clinic?

As I was wrapping up my MS, my PI encouraged me to apply for PhD programs. Drawing on my previous shadowing experiences and newly acquired research skills, I knew I wanted to join a highly translational research program. During the Annual Biomedical Research Conference for Students (ABRCMS), the former Cleveland Clinic's PhD program manager, Dr. Jason Ross, noticed my poster and informed me about the program. He prompted me to apply, and I am grateful that I did because the work the clinic undertakes amazes me every day. The growth in my scientific knowledge and development as a young scientist over the past three years has been remarkable.

What is your current research focus?

My thesis project focuses on developing novel noncytotoxic therapies to treat chemorefractory leukemias. The hypothesis, which my lab has intensively published, is that rather than inducing apoptosis in cancer cells, we aim to "reset" these cells to a normal state. This process encourages them to differentiate into their intended cell lineage, thereby halting their uncontrolled proliferation. One way to do so is by using small-molecule drugs. Thus, I had the pleasure of screening 50,000 small molecules against a chemorefractory leukemia cell line to find a compound that fulfills our criteria: noncytotoxic and reduced leukemia burden via differentiation but not apoptosis. This project has required me to learn a lot about the drug discovery and development process. By combining biology and chemistry, I expanded my understanding of both disciplines and their interactions.

What do you like to do outside of the work?

I grew up in a family that prioritized school and the arts. Outside of work, you might find me at a dance studio or one of the Cleveland Orchestra or Blossom Music Center concerts. I also enjoy being involved in the community. You might find me volunteering at Cleveland events such as Little Italy's Feast of the Assumptions earlier this year. Furthermore, my boyfriend and I enjoy making pizza from scratch. If you are interested in learning how or tasting some, reach out to me at <u>laventz@ccf.org</u>.



Meet your Alum Shilpa Rao PhD Interviewed and written by Alan Chen

Shilpa Rao graduated in December 2022 with a PhD in Molecular Medicine. At Lerner, she was mentored by Ignacio Mata from the Genomic Medicine Institute. As a graduate student, her work focused on women's health and Parkinson's disease, where she looked at whether women's health-specific factors play a role in Parkinson's severity. Specifically, disease her dissertation is on 'Elucidating the role of factors in sex-specific the sex differences of Parkinson's disease'. She also previously served as a co-president of the Lerner Trainee Association.

Rao's passion for Parkinson's disease did not just end with graduate school. She is currently the Director of Strategic Operations at the Parkinson's Foundation. In her current role, she engages in clinical research and also manages various departmental goals and strategies.

She advises current trainees to network with as many people as they can during their time at Lerner. For example, she mentioned that her current position might have come through a networking session with members at the Parkinson's Foundation at a conference she attended as a graduate student. She suggests that trainees could use these networking experiences, as well as other opportunities at Lerner, to improve their conversational skills for future job prospects, interviews, talks, etc. Finally, In addition to networking, she also advises trainees to attend meaningful events that can help build up their CVs, and to start early.

Dr. Rao current position is remote/hybrid, and she sometimes finds it difficult to bond with co-workers. That said, she misses bonding with her lab and classmates the most from when she was working at Lerner.

Accomplishments

Congratulations to Amanda Ifft from the Schumacher-Bass Lab in the Department of Cardiovascular and Metabolic Sciences!

PhD student Amanda Ifft received the <u>2024-2025 ASPET Washington</u> <u>Fellows Program Award</u>. As a fellow, Amanda will participate in policy training focusing on an introduction to government and science policy, including drug policy and animals in research, gain advocacy experience during Hill Day by attending meetings with legislative officials and/or staff on Capitol Hill in 2025, and attend a writing workshop with an opportunity to publish a policy brief.





Congratulations to Dr. Awodutire from the Kattan Lab in the Department of Quantitative Health Sciences!

The recent article by Dr. Phillip Awodutire titled "Development and validation of accelerated failure time model for cause-specific survival and prognostication of oral squamous cell carcinoma: SEER data analysis" was published in *PLoS One*.

https://doi.org/10.1371/journal.pone.0309214

Congratulations to Dr. Jain from the Bekris Lab in the Genomic Medicine Institute!

Dr. Lavanya Jain was selected to give a talk at the Dementia with Lewy Bodies Consortium annual meeting 2024 in Cleveland, Ohio. The title of the talk was "ATN Cerebrospinal Fluid Biomarkers in Dementia with Lewy Bodies: Initial Results from the United States Dementia with Lewy Bodies Consortium".



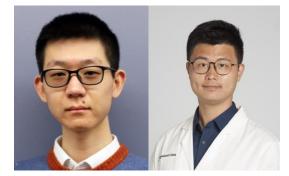
We love celebrating trainee accomplishments! To submit your own news or to recognize someone else, email

Accomplishments

Congratulations to Dr. Singh from the Heemers Lab in the Department of Cancer Biology!

Dr. Nidhi Singh received the Early Investigator Research Award (EIRA) in Prostate Cancer Research Program (PCRP) by the Department of Defense (DOD) as Principal Investigator for the project titled "Targeting Citron Kinase in Castration-Resistant Prostate Cancer: From Mechanistic Insights to Therapeutic Opportunities." The goal of this project is to investigate citron kinase (CIT) as a potential target for treating aggressive prostate cancer by defining the signaling pathways that regulate its expression and activity as well as understanding its multimeric structure.





Congratulations to Drs. Yang and Qiu from the Cheng Lab in the Genomic Medicine Institute!

The recent article by Drs. Yuxin Yang (Data Scientist, left photo) and Yunguang Qiu (Postdoctoral Fellow, right photo) titled "A deep learning framework combining molecular image and protein structural representations identifies candidate drugs for pain" was published in *Cell Reports Methods*. https://doi.org/10.1016/j.crmeth.2024.100865

Congratulations to Dr. Gupta from the Cheng Lab in the Genomic Medicine Institute!

Dr. Amit Kumar Gupta won the 2024 Best Postdoctoral Poster Award (Design and Data Analytics PIA) at the <u>Alzheimer's Association</u> <u>International Conference (AAIC) 2024</u> in Philadelphia, Pennsylvania, USA. The title of the talk was "Genomic landscape of RNA editing and genome regulatory signatures in aged human brains with Alzheimer's disease"



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Opportunities

Professional Development

- Fall 2024 CITI Bioinformatics Workshop Series: October 28th December 13th. Each workshop consists of 1-2 hands-on, 2-hr sessions, as well as some 1-hr online sessions. Workshops will be hybrid in the designated locations and/or online. <u>See flyer</u> for the lists of courses.
- Learn how to advance your research with the Center for Computational Life Sciences (CCLS). Whether you're looking to expand your research through biospecimens or high-performance computing, CCLS offers a variety of opportunities to learn and collaborate across the enterprise. With state-of-the-art resources and facilities including the Cleveland Clinic BioRepository and the Discovery Accelerator, we can advance our research like never before. Find more information, including a video about the progress made in CCLS programs, <u>here</u>.
 - Lara Jehi, MD, Director of CCLS and Chief Research Information Officer, recently shared more about how clinicians and researchers can get involved with the CCLS's programs. Topics covered in her webinar included:
 - How institutes across CCF are collaborating on Discovery Accelerator projects
 - Funding opportunities as an entry point to implementing high-performance computing in research projects
 - Bio-R growth and sample availability, as well as new tools to search biospecimens
 - How Bio-R co-enrollment can support future studies
 - Discover the progress each program has made and all the ways you can get involved in the video <u>here</u>.
 - For more questions, feel free to contact <u>ccls@ccf.org</u> or visit these pages:
 - BioRepository intranet
 - DA internet/website
 - CCLS intranet

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Opportunities

Funding and Grant Writing

- November 15, 2024 (Letter of Intent): Crohn's & Colitis Foundation <u>Research</u> <u>Fellowship Awards</u>, up to \$210,000/3yrs. To support individuals in the postdoctoral phase of their career, to develop skills related to basic research investigation in the field of inflammatory bowel disease (IBD), or Crohn's disease and ulcerative colitis.
- November 15, 2024 (Anticipated Deadline): Terri Brodeur Breast Cancer Foundation <u>Fellowship</u>, \$125,000/2yrs. Intended to support PhD, MD/PhD and MD physician scientists at earlier stages of their careers to enable them to establish/develop independent programs and compelling careers in breast cancer research. Focus areas can include basic, pre-clinical, clinical research and clinical care.
- The POSTDOCKet | A Personal Guide to Applying for the NIH K99/R00 by Debosmita Sardar, PhD: The NIH's K99/R00 Pathway to Independence Award provides up to five years of grant support in two phases two years of mentored postdoctoral training (K99) and additional funding for up to three years of independent research support (R00). This prestigious and highly competitive award can fund up to approximately 1 million dollars and is the only NIH funding available for international postdocs. This article aims to discuss the overlooked aspects of the K99/R00 award in two parts. Part I will focus on the period before and during the preparation of the application; while Part II will delve into what happens after the submission and the potential of resubmission.

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Opportunities

Career

- NIGMS article | "What Careers Can Biomedical Scientists Have?": On September 9th, the NIH released <u>this post</u> as part of a miniseries on becoming a biomedical scientist. The post highlights the different jobs that biomedical scientists do across various industries and the level of education required to succeed in each role.
- Cancer Pathobiology Tenure-track Assistant Professor | University of Pennsylvania Perelman School of Medicine: The Children's Hospital of Philadelphia is seeking an outstanding individual who will establish and maintain an independent, extramurally funded research program at the intersection of some of the most dynamic areas in experimental oncology, including but not limited to: functional cancer genomics and transcriptomics | genome editing | metabolism and proteomics | chemical biology | precision medicine | cancer immunotherapy. Find more information and apply <u>here</u>.
- Assistant, Associate, or Full Project Scientist | UC San Diego School of Medicine Department of Cellular & Molecular Medicine: Seeking candidates who will be responsible for performing studies and experiments. In addition, the successful candidates will analyze and prepare presentations and reports, summarizing results from experiments and research data. The selected candidates will teach and mentor postdocs and students in the laboratory. Find more information here.
- Tenure-track Assistant/Associate Professor | University of Massachusetts Chan Medical School: The Division of Cardiovascular Medicine is seeking promising scientists to establish and lead an independent research program within a dynamic academic research and clinical environment. We are particularly interested in candidates with potential in basic/translational cardiovascular research. Our division has a strong tradition of excellence in research, education, and clinical care, and we are eager to support the next generation of investigators in this critical field. Learn more and apply <u>here</u>.

We love celebrating trainee accomplishments! To submit your own news or to recognize someone else, email **LRITraineeAssoc@ccf.org**



CCF Innovations

<u>Cleveland Clinic Innovations (CCI)</u> is the commercialization arm and tech transfer office of the Cleveland Clinic.

We hope all of you had a great summer, LRI Trainees! For this issue, we wanted to introduce and highlight CCI's Christina Buzzy, PhD. Christina is an Associate Director, Innovations Development specializing in Digital Health. She did her graduate work at Case Western Reserve University in immunology and devoted her early working career in clinical and translational research as a research operations and research administrative manager. The below Q&A dives deeper into her journey that led her to Cleveland Clinic Innovations, what she finds inspiring about her role and what innovation means to her.

As always, if you would like to connect on anything innovations related, please reach out to your LRI Engagement Partners (Morgan Carter, PhD and Matt Koletsky, MS as leads for Therapeutics and Diagnostics, <u>Nicole Byram</u> as lead for Medical Device, and <u>Michelle Leung</u> as lead for Digital Health). We are here for any questions and/or to discuss the innovations process or ideas you may have. Also please check our <u>Inventor Portal</u>. This page also has lots of information and resources for you.



Q&A with Christina Buzzy, PhD

Associate Director, Innovations Development, Digital Health

What brought you to Cleveland Clinic and how long have you been here?

I've been working at Cleveland Clinic for two years, one of those years being with Innovations. Before joining Cleveland Clinic, I worked at Case Western Reserve University for about eight years. I had also done my graduate work there in immunology for five years and devoted my early working career in clinical and translational research as a research operations and research administrative manager. I joined Cleveland Clinic due to its excellence in world class research. My work in biomedical engineering and Artificial Intelligence (AI) medical imaging at Case Western prepared me for a role in guiding the development of clinical decision support tools for medical imaging and oncology-specific applications. When the opportunity arose to join the digital health development team with Innovations, it naturally felt like a return to the track I had been on at Case Western.





I find personal alignment with my internal core values and those of the Cleveland Clinic, specifically, empathy, integrity, and teamwork. I do not interact with patients directly, but I continue to value the importance of working with colleagues and inventors in an empathetic and understanding manner.

Could you please explain your role within Cleveland Clinic Innovations?

One of my personal hobbies is running and having watched the 2024 Olympic Games, the best analogy I can provide is that there are a lot of "staggered relay races", taking the baton from our Engagement Partners and passing it on to various teams within the organization. We have a transition zone (two to three months) to pass the baton. Every year, our Engagement team brings in hundreds of Invention Disclosure Forms (IDFs), so we have a continual influx of new relay races to run.

Specifically, I work with our Innovations Assessment group early in the transition zone to understand the market and patentability potential of the disclosed invention. I also spend time scoping the technology and having open conversations with inventors to relay our team's diligence. Additionally, I shadow clinical observations to understand the clinical workflow better and mediate conversations between inventors and contracted external legal counsel for patent applications. In the digital health domain for some projects, I also collaborate with the Information Technology division to integrate and test launch proposed digital workflow solutions. Moreover, I work in parallel with the Business Development and Licensing (BDL) team to support licensing and commercialization efforts. My role is to ensure a smooth handover of the baton at each stage from receipt to handoff and beyond.

In the grand scheme of Cleveland Clinic Innovation's vision statement, "We empower inventors, educate healthcare professionals, and drive commercialization to improve patient outcomes through innovation," we incorporate all these aspects to position identified assets for commercial development. Often, we do this with education embedded into the conversation.

Could you describe what the process of technology moving forward looks like versus it being reevaluated?

Understanding the potential commercial success of a new product involves considering various factors. As previously mentioned, we rely on our Assessment team's analysis of existing market and patentability of the invention as well as potential business targets. This initial phase, occurring in the two to three months leading up to the decision on whether or not to proceed, is

CCF Innovations

crucial. This information is used to ascertain the competitive landscape and the size of the opportunity. The patentability assessment informs our decision to file a patent application. Simultaneously, we consider the practical steps required for development, which often necessitate additional resources. Additionally, we explore potential funding opportunities and assess how such funding can contribute to the progress of the product. All of this information influences the cross-institutional Go/No-Go Committee's decision to continue further in investing time and resources. Each decision to advance an invention disclosure involves a multifactorial evaluation, with the market, patentability, future steps, and available resources all playing significant roles. While we strive to pursue every innovative idea, we must be strategic and utilize neutral criteria to evaluate each product. Ultimately, our goal is to determine how best to bring these innovations to patients and the market, recognizing that each product will have its unique journey.

What made you interested in working in Innovations?

Technology translation in digital health. My current focus on digital health solutions and product development feels like a natural next step after years of experience in the research administrative space. The skills I acquired in project management and working with diverse teams on translational research projects and clinical trials have proven to be valuable in my current position. On a more personal note, I have seen how medical devices and mobile software have changed my life by automating the delivery of insulin via a closed-looped insulin pump system tethered to a continuous glucose monitor to manage my autoimmune diabetes. Innovations seemed to be the sweet spot for me in digital health in terms of aligning personal and professional trajectories.

What do you find inspiring about your role?

There are many inspiring aspects to my role. One thing that truly inspires me is the diversity of expertise within our office, all working together towards the common goal of commercial development. It's taken me 15 years post-college to reach this point, and I'm surrounded by a wealth of resources and expertise, not just within my team, but throughout the entire office. Being able to walk down the hall and have conversations with individuals specialized in patent expertise, new-company spinoffs, medical device prototyping, and regulatory frameworks is truly incredible. Any professional would be lucky to have access to the concentrated area of resources available here.



CCF Innovations

Could you elaborate more on the specific skills and expertise of your team members and the distinct roles each one of you play within the team?

Currently, our team consists of eight individuals split into three domains. We have two team members in the digital domain, three in therapeutics and diagnostics, and three in the medical device domain. Mohamed Ramadan, PhD, MBA, General Manager, Innovations Development, supervises all these domains, and we rely on his innovation development expertise, professional guidance, and deep knowledge of how to best position and create value for an asset. As a newer member of the team, my office is located right across from the medical device team, which has provided me a glimpse of exposure to their day to day. I've been intrigued by their discussions about prototypes, vendor selection, and cost-effective ways to create initial prototypes. I've also had the opportunity to learn about the exciting molecules and clinical trials from the therapeutics and diagnostics domain during our Development team meetings. It seems like there are several advanced therapeutic developments on the horizon.

Our team uses standardized project management rubrics to evaluate the risk associated with each technology. These rubrics, which consist of market and technology scores, help us prioritize and rank all the cases in our portfolio across domains. Mohamed has done a great job of bringing together the different domains by aligning the evaluation processes on a quarterly basis, so we all have a common ground for assessing each case. This standardized approach has been essential for ensuring that all team members are moving in the same direction.

What does innovation mean to you?

Innovation, to me, means doing something in a new and systematic way that improves upon the status quo while enhancing desired measurable outcomes, designing a new product, or taking an existing product and using it in an alternative way. For digital health specifically, innovation means moving the needle forward by expanding options for care, methods of care, and operational transactions involving healthcare delivery.

Is there a particular technology that you are excited about?

TactIO, a combination of technologies that enables a robot to perform human-like tactile tasks using hybrid force control and adaptive compensation parameters, is a fascinating concept. I'm a strong advocate of preventative medicine and care, and I believe that integrating robots for automating dangerous tasks can significantly enhance worker safety, well-being, and retention,

CCF Innovations



as well as improve manufacturing sales production, especially considering the current workforce shortages in many industries. TactIO might not be ready for partnership yet, but it's undergoing a trial to customize its capabilities for specific workplace safety automation tasks. It's a part of the portfolio of cases that I find very exciting, despite the potential challenges in understanding its direct healthcare applicability for those not directly involved in preventative medicine and care.

Are there any innovative trends that you're following in your space right now?

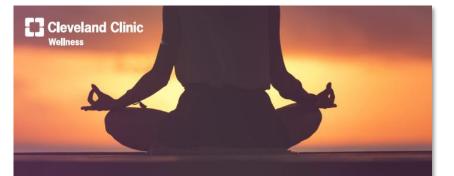
One of the main sources of information that I follow is <u>Andriy Burkov's newsletter</u> on LinkedIn, this follows trends, specifically with AI. Lately, there has been a lot of discussion about large language models and retrieval augmented generation products. I believe Andre does an excellent job of acting as a central repository for AI advancements, making it convenient for those who are short on time to stay updated. <u>Michael Spencer's Artificial Intelligence Report</u> is another great source that I follow on LinkedIn.

What advice would you give to someone interested in inventing who may be intimidated by the process?

Continue to engage, always question, and be relentless!

Wellness Resources





Daily Wellness Tools for YOU Program

Weekly, live and virtual. Ongoing self-help support.

Meditation Monday 12:15 – 12:45 pm Fitness Friday 10:00 - 10:30 am

Yoga - Therapeutic Chair 12:15 - 12:45 pm Tuesday - Level 1 Wednesday - Level 2 Thursday - Level 3 Culinary Medicine/Nutrition Friday 12:15 - 12:45 pm two times per month (see event page for dates)

All sessions will be held via the Webex platform, registration is required at: clevelandclinic.org/CILMevents

Join in on live virtual Yoga, Mediation, Fitness and Culinary Medicine sessions. These are available for free to all caregivers. All sessions will be held via the Webex platform, registration is required at:

http://clevelandclinic.org/CILMevents

Graduate Students are welcome to join!

Well-Being, Self-Care and Emotional Support for Caregivers

Please note: A connection to the Cleveland Clinic network is required to access many of these resources.

Caregiver Experience Wellness Portal: disconnect, unwind or say thank you virtually

Caring for Caregivers: confidential services that preserve, restore and enhance wellbeing of our caregivers. Available at 1-800-989-8820 (including new Boost telephone appointment).

Cleveland Clinic Office of Caregiver Experience on Facebook and Instagram.

Connect Today/Learner Connect: resiliency resources to help you manage complex, changing times (virtual meetings, change and stress management, and communication)

Occupational Health: If you have further questions about COVID-19 please contact the COVID-19 Caregiver Hotline at 216-445-8246.

OneClick to Well-Being: well-being information and resources for staff

Spiritual Care and Healing Services:

information for the religious and spiritual needs of CCF patients, their families and loved ones, and Cleveland Clinic caregivers. (216) 444-2518

CCPD Victim Advocacy: resource to help educate and support the CCF community on domestic violence. Email the committee at: dvcommittee@ccf.org

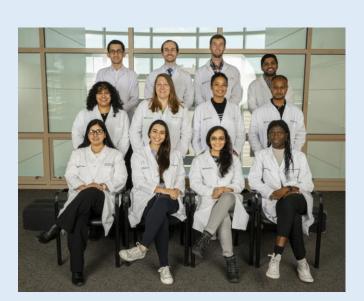
Behind the Scenes

This newsletter is written by the Communications teams of the Lerner Trainee Association Leadership Council and fellow trainees. We welcome your questions and suggestions!

Email <u>LRITraineeAssoc@ccf.org</u> to connect with us.

LTA Communications Team

Jason Ross, Nam Than, William (BJ) Massey, Swapnil Dey, Susan Afolabi, Julia Myers, Lavanya Jain



Lerner Trainee Association Leadership Council

Executive Board Co-Presidents: Jia Liu, Hope Zehr Coordinator: Molly Guthrie Treasurer: Noah Dubasik Advisors: Edward Carson, Lavanya Jain, Kelsey Bohn

Career Development and Resources Co-Chairs: Ujjwal Dahiya Members: Pooneh Koochaki, Mary Vincent Advisor: Sumit Bhutada

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Co-Chairs: Daniela Duarte Bateman, Kristen Kay Members: Zaida Laventure, Naoko Uno, Mary Jo Talley, Maximilian Strobl, Rachel Hohe, Lavanya Jain Instagram: ClevelandPetriDish