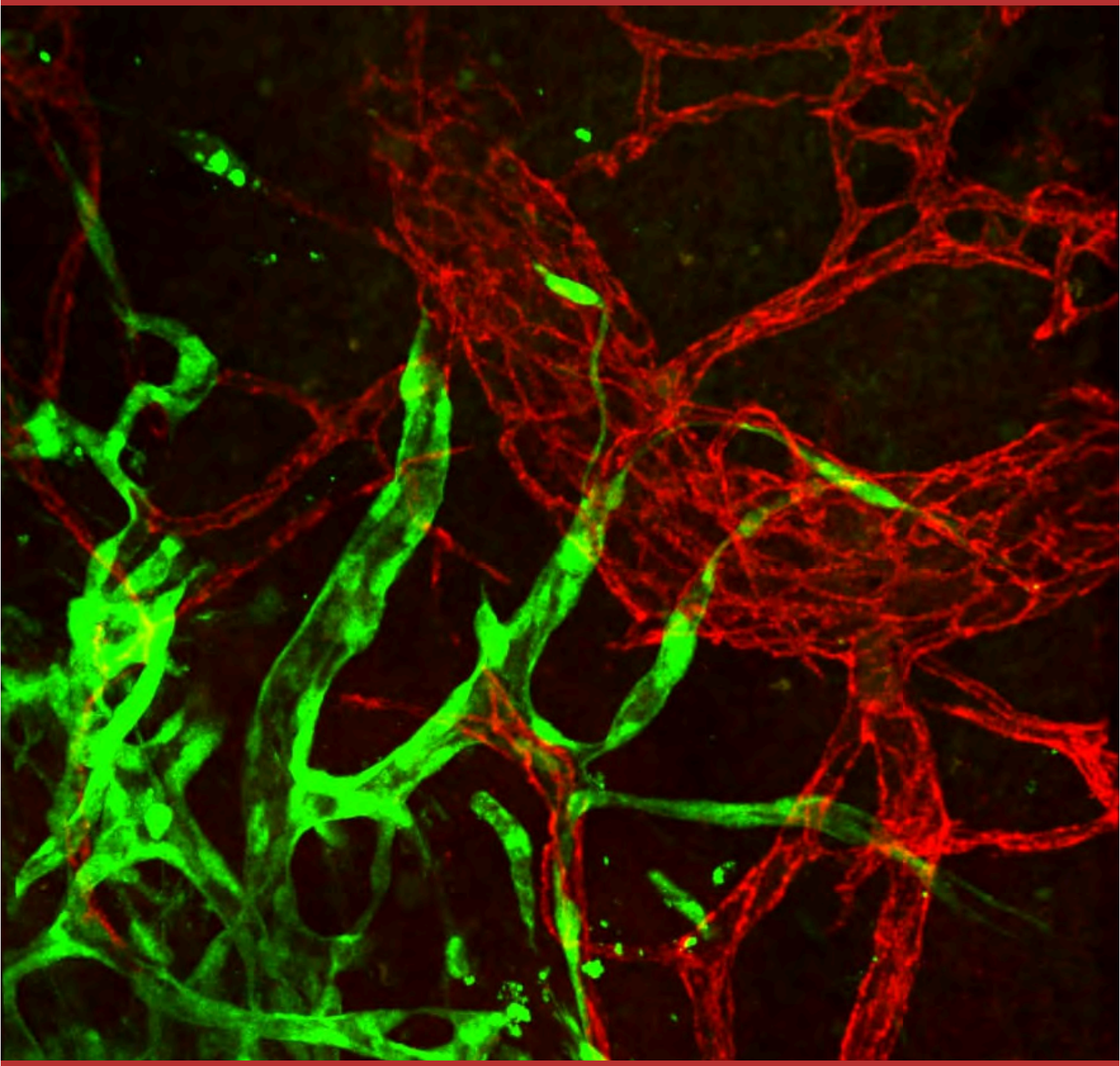
MDPhDeets

December 2024

Presented by MD-PhD Class Council
University of Toronto



Cover Art by Angela Zhou
Blood Vessels

Message from the Director:

Dr. Nicola Jones

As Director of the Integrated Physician Scientist Training Program at the Temerty Faculty of Medicine, I am delighted to invite you to read about all the exciting things happening within the MD PhD program which are highlighted in the latest MDPhDeets. This edition was skillfully curated by two of our current MD PhD students: Anita Hu and Jasmine Ryu Won Kang.

We are in an exciting time for clinician scientist trainees at The Temerty Faculty of Medicine. The breadth of research our learners are engaged in is remarkable and reflects the University of Toronto as a global leader in health research and innovation. We have expanded our curriculum and skill development programs to support the growing skill set required for navigating a changing landscape including the launch of a new physician scientist mentorship program engaging both early career researchers, MD PhD students and Clinician Investigator trainees. In addition, we offer community building programming which encourages identity formation such as our highly anticipated retreat. You will learn about mentorship in our MOments column, a regular feature that commemorates our former MD PhD student Mohammad Asadi Lari.

We welcome our new Dean Dr. Lisa Robinson and thank her for providing a thought provoking and engaging interview. Training the next generation of physician scientists continues to be a major focus for the Temerty Faculty of Medicine and is one of the Dean's strategic priorities

The program also welcomes a new manager! We thank the former program manager Kendra Hawke for her incredible contributions to the program and welcome Andrew McLeod who brings a wealth of talents and expertise to further enhance our program.

You will also read about both our current students' and recent graduates achievements and noteworthy life events. I am certain you will be inspired by their academic excellence, diverse talents, and interests, as well as the support they provide for one another.

I hope you will find this edition of MDPhDeets an interesting and entertaining read that connects you with our learners and the program.

Nicola L. Jones, MD, FRCPC, PhD
Director, Integrated Physician Scientist Training Program
University of Toronto Temerty Faculty of Medicine.

Message from the Editors:

Anita and Jasmine

Dear MD/PhD community,

We are thrilled to introduce ourselves as the editors of the MD-PhDeets Newsletter for 2024-25. It has been an absolute pleasure putting this edition together, and we want extend a huge thank you to everyone who contributed their insightful thoughts and sense of humour. We especially want to thank Erica W. and Angela Z. for their incredible support as last year's editors.

We hope that this edition will help to shine a light on even just a small part of the exciting and inspiring work being done by our community. And if you find yourself with some extra time this holiday, give the crossword a shot or flip to the Social section for some tried-and-true recommendations on things to do in the city.

Whatever you're up to this holiday season, we wish you a warm and restorative break, and we look forward to seeing you in the New Year.

Anita and Jasmine

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Program Updates

Congratulations to Safa Majeed, winner of the 2024 Ruggles Innovation Award!

Congratulations to Falan Bennett and Allysia Chin, winners of the 2024 MD-PhD Changemaker Award!

2024-2025 MD-PhD Class Council Members:

Class Presidents.....Andrew and Safa
VP Finance.....Richard and Alex B.
VP Student Affairs.....Allysia and Erica
VP Mentorship.....Anglin and Armaan
VP Communications.....Adina
VP Admissions & Recruitment....Mathepan and Angela
VP Systems Advancement.....Jonathan
MSRD Representative.....Martin
First-Year Representative.....Ava
Returning Student Representative.....Camilla
Clerkship Committee Representative.....Hannah
Pharm-You-See Representative.....Yashar
MDPhDeets Editors.....Anita and Jasmine

New Tuesday Seminars/Workshops to look out for:

Workshop: Physician Scientist Career Pathways
Drs. Bryan Coburn and Sheila Singh
Tuesday, January 7, 2025

Asadi Lari Memorial
2024 Ruggles Innovation Award Winner: Safa Majeed
Community Town Hall
Tuesday, January 28, 2025

Workshop: Physician Scientist Career Pathways:
Drs. Slava Epelman and Astrid Guttmann
Tuesday, March 4, 2025

Workshop: Artificial Intelligence (Dennis Shung)
Tuesday, March 25, 2025 - 4-5PM

Launch of New Physician-Scientist Mentorship Program

This fall, the MD/PhD program and Clinician Investigator Programs within the Temerty Faculty of Medicine saw the launch of the new Integrated Physician Scientist Training Program (IPSTP) mentorship academy. This program is designed to foster meaningful relationships between trainees and faculty throughout physician-scientist training. The program recognizes the unique challenges faced by physician scientists and aims to address the need for diverse mentoring relationships.

The mentorship program pairs trainees with experienced faculty mentors who can guide them in their medical, clinical, and research pursuits. Participants will engage in regular meetings, workshops, and group discussions to facilitate knowledge exchange and networking. The goal is to create a supportive environment where both mentors and mentees can thrive, fostering professional relationships that last well beyond the program's duration.

Through structured interactions within mentorship “pods”, participants will have the opportunity to learn from each other’s experiences, share insights, and collaborate on various endeavors. This initiative not only supports individual development but also strengthens the collective mission to provide support and mentorship in academic medicine.

The kickoff event on September 24th was a resounding success, setting the stage for a vibrant community of learning and growth.

As we move forward, we encourage all interested physician scientists to get involved. Whether you are a trainee seeking guidance or a faculty member looking to share your expertise, this program offers an invaluable opportunity to connect. Stay tuned for more updates!

By **Angela Zhou**

Meet the First Years

Adina Borenstein

Previous studies: University of Guelph, Bio-Medical Science with a minor in neuroscience

Favorite game: The New York Times mini crossword; let me know if you do it too so we can battle it out on the leaderboard

What would your alternate career path have been had you not pursued the MD/PhD program? I would have either been a journalist or children's book author, I have always enjoyed telling/writing stories

What do you do on a typical Sunday? I have (synchronized) swim practice & land workout!

Oluwatobi (Tobi) Agbede

Previous studies: BSc. Biomedical Science and MSc. Biology (Cell and Molecular) at York University

Favorite game: Scrabble and PacMan

What would your alternate career path have been had you not pursued the MD/PhD program? I would consider pursuing a career in politics and leadership, including the possibility of running for Parliament as an MP or serving as a minister in the cabinet.

What song or album could you listen to on repeat? I listen to Lungu Boy by Asake most days (>5d/week) on repeat!

Kaitlin Lees

Previous studies: Honours Bachelor of Medical Sciences with an Honours Specialization in Microbiology and Immunology at Western University, Master of Science in Medical Science at University of Toronto

Favorite game: President (the card game)

What are your research interests? I am currently interested in pursuing wet-lab cellular immunology research with a translational focus.

What do you do on a typical Sunday? I usually wake up on Sundays and go for a walk, then have brunch with my roommates. I also like to go to a pilates class and do a reset before the week ahead!

Julia Wiercigroch

Previous studies: Undergrad - BASc in Engineering and Applied Mathematics - Systems and Robotics Specialization - Queen's University, Masters - MSc Computer Science - University of Toronto

Favorite game: Uno

What are your research interests? Development and translation of ethical AI systems that improve procedural care and patient health outcomes

What food can you not live without? Chocolate milk

Daniel D'Souza

Previous studies: BHSc Biomedical Engineering and MEng Biomedical Engineering at McMaster

Favorite game: Chess… but I also like the game of life

What are your research interests? I am super interested in clinical epidemiology and artificial intelligence.

What song or album could you listen to on repeat? If it's not Ariana Grande, I'm not listening to it.

Daeun (Diane) Kim

Previous studies: Integrated Biomedical Engineering & Health Sciences, McMaster University

Favorite game: Badminton

What are your research interests? I am interested in research to identify novel molecular targets involved in various cardiovascular diseases for future therapeutic development.

What food can you not live without? I could not live without spicy noodle soups like Bun Bo Hue and Malatang.

Ava Kavianpour

Previous studies: Undergrad at Western in Biochemistry, Masters at UofT in biochemistry with supervisor Dr. Spencer Freeman (Cell Biology Department at SickKids)

Favorite game: Scrabble, honourable mention: Avalon

What would your alternate career path have been had you not pursued the MD/PhD program? I am interested in anything space related so in my dreams I would be an astronaut.

What song or album could you listen to on repeat? My favourite albums are Coldplay's X&Y and Speak now (Taylor's Version)

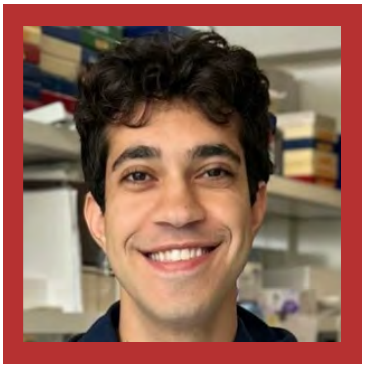
Braeden Hill

Previous studies: Undergrad at Queen's, Bachelor of Health Sciences, Class of 2023

Favorite game: Hockey or soccer

What are your research and clinical interests? Super interested in cardiovascular medicine and research!

Where did you grow up? I grew up in a village called Maitland, about 4 hours east of Toronto. Living in the city is quite new to me!



Yashar Aghazadeh Habashi

Previous studies: Interdepartmental Honours Immunology at McGill 😊

Favorite game: Tennis

What would your alternate career path have been had you not pursued the MD/PhD program? Civil Engineering. I love infrastructure and city planning.

What song or album could you listen to on repeat? More Life by Drake…truly a timeless classic

Gathered By **Adina Borenstein**

MD-PhD Fall Retreat 2024:
A Wifi-less Weekend of Collaborative Science

UofT MD-PhD Group Photo at Ecology Retreat Center in Mono, ON.

The MD-PhD program retreat took place this September in a cozy retreat centre in Mono, ON. With the retreat theme being *Nature Communications* (inspired by the scientific journal itself), students engaged in collaborative workshops and team-building activities that strengthened our communication skills and our MD-PhD student community—all while being immersed in the peace and calm of the forest around us.

Ryan, Armaan, and Safa pitching their MCAT Mouse Research Model to Dragons' Den judges, Drs. Nicola Jones and Jim Dowling.

One of the retreat's standout moments was the Dragon's Den-style pitch competition, where students from different research backgrounds had just 3 minutes to propose a new research project combining all their knowledge. It was amazing to see how different fields came together, with each presentation uniquely blending basic science, clinical medicine, engineering, and more into compelling healthcare solutions.

The weekend was filled with meaningful discussions, creative problem-solving, and the kinds of innovative collaborations that remind us why we chose this path. Students engaged in peer mentorship workshops, tackling personal challenges they have been facing, sharing insights, and developing new approaches to problem-solving.

Karlo and Yashar win the Dragons' Den Pitch Competition!

A special thank you goes out to Dr. Nicola Jones for her unwavering support and for stepping up with Dr. Dowling to judge during the pitch competition. And of

Jenn, Bryan, and Adina preparing for their Dragons' Den pitch.

course, her HOT-TO-GO dance by the campfire was a showstopper—thank you for bringing such fun and positive energy to the retreat!

Also, thank you to our MD-PhD Program Nanager, Andrew McLeod, whose behind-the-scenes logistical expertise helped make this retreat possible.

As one of the co-organizers, I am so grateful to everyone who attended and actively engaged in making this retreat such a rewarding experience for everyone. Surviving a wifi-less Saturday (thanks, Bell tower) may have been the unplug we needed from the bustle of our daily academic lives in the city! (Or, it was a burden, and for that, we apologize…)

Lastly, a massive thank you to Jonathan Monteiro, my co-organizer. Thank you for helping bring all the pieces together for this retreat!

Here's to more weekends of learning, growing, and supporting one another as we continue our journey together.

Saim and fellow students roasting marshmellows around the campfire.

Applause for Day 2 of the MD-PhD Retreat, an eventful day of workshops, a guest lecture from Dr. Jim Dowling, and team bonding activities.

By **Anita Hu**

Keeping up interests outside the lab: An interview with Alexandra Florescu

On starting a photography business alongside her pursuits in medicine and research

Would you mind introducing yourself?

I'm Alexandra Florescu, or Alex is how people usually call me. I am in my seventh year of the program and I just started clerkship. I finished my PhD this summer and it was in neuroimmunology, specifically in multiple sclerosis research.

How did you get interested in photography?

I fell into photography because I adopted a dog, who's the love of my life, in my first year of my PhD. She's a rescue and I started taking photos of her because my friend had a camera, and would take photos of her dogs. Then, from there, I borrowed my dad's camera because he had upgraded his camera, so he had an old one lying around. I kind of just started getting into taking photos of rescue dogs for their adoption profiles, because it really helps get dogs seen.

I really started volunteering with that and kind of fell into the photography world in that way. People started asking me to take photos for them, like couple photos or engagement photos. It took a few people just kind of believing in me and wanting to have me take their photos and it grew from there. That was three years ago or more, and now I take wedding photos, engagement photos, family photos, couple photos, and kind of all over the gamut. And I still do a lot of dog photography for rescues.

I think the biggest thing that I've really enjoyed about it is advocacy, which is really important to me. That's been true in multiple spaces, and I've been able to collaborate with other people in the dog world to host fundraisers for organizations like Working for Change, which is an organization that works to combat homelessness and empower people with job opportunities and vocational training.

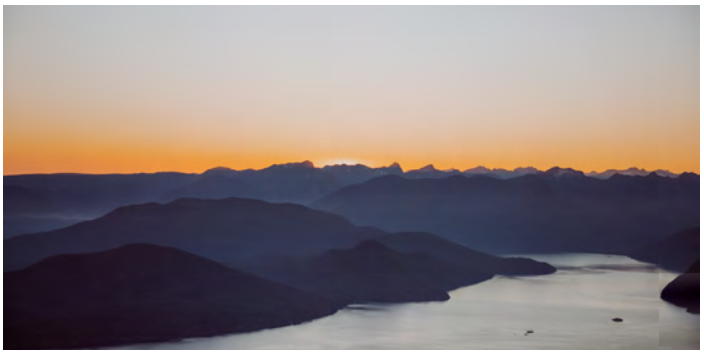
It sounds like there might be a lot of synergy in terms of the skills that you use in photography, and in research and medicine. Did you find that there was a lot of self-directed learning involved as well?

It was very much self-directed. There's so many levels to photography - you can shoot in automatic modes where you basically just point and shoot, and the camera will adjust settings for you. You can shoot in modes that allow you to change one parameter at a time, but it'll adjust the rest for you. So I started shooting like that at the beginning for a month or two. And then I got into manual, which is a lot harder.

It was a lot of watching YouTube tutorials or reading manuals to figure out what the best settings for things were. And then the editing piece as well, there's so many different ways you can edit, and my style changed over time.

What does photography mean to you, as an MD/PhD student?

Photography is a way for me to creatively express myself. It really does feel like an art form to me. Last summer I went to Iceland after I finished my PhD, hiked out on the glacier and did some ice climbing and got to bring my camera with me. Things like that that I can look back on and lets me relive those moments again.



Especially for engagements and wedding pieces, these are such beautiful moments in people's lives and I don't know that I would have been there otherwise. It's just something so special to be a part of that with them. And also being able to fundraise in ways that I would never have imagined.

It must be tricky fitting photography into your busy schedule – what is your approach to time management?

I think it looked very different during my PhD to now in clerkship. In my PhD, it was honestly up to me, and every week looked so different. My demands in the lab were different, so sometimes I had 12+ hour experiments three times a week, and I had a lot less time to take photos. But then there were a lot of moments in the PhD where things were a little slower and so I could take more time to edit.

The way I approached things with the PhD was based on a week-by-week basis, asking whether I got all the things I needed to get done, rather than on a day-by-day basis, because I think the days looked so different. Sometimes that meant even just during incubations in the lab, I'd edit some photos if it was late at night.

Now in clerkship, my schedule is very regimented. It's been more the weekends that I've done photography now. I feel like during the week, I just focus on going to clinic, making sure I'm ready for my patients, coming home, taking care of my dog and myself, and then it's really the weekend that I have more time.

How do you imagine photography will fit into your life in the future, after graduating from the program?

I've thought about it a lot because transitioning out of the PhD into clerkship, I was almost grieving the fact that I wouldn't be able to do photography at the level that I had been doing it during my PhD. With all these weddings I had to say no to, I felt sad because I was going to miss out on those moments. I think it was kind of hard initially transitioning into clerkship to let go of what I could have done during PhD but maybe it wasn't feasible at that level anymore in clerkship. And I feel like that might remain true for a while; that said, I still think I do quite a lot, just not at the level of a part-time job, which is kind of what it was becoming in PhD.

I think I'll always take photos. I have no idea if it'll start being more just like for my family and friends casually, because we're out on a hike or we're because they asked me to, versus something that is more planned and like a side job. I think it depends what specialty I end up going into and how much free time I have there. I can't imagine it would ever completely disappear from my life though.

Any advice for folks starting or currently in their PhDs on keeping up interests outside the lab?

The PhD is a really amazing time to do things outside of school because of the flexibility it provides. You still get a lot done and you still do your PhD, and also you can do all these things that you didn't have time for before. So I just encourage people to really think about that for themselves. And I know some people really want to spend every hour in the lab, and that's totally fair. But I think it's a very unique time in your life where you have the time to do things. I know so many people in graduate school take up rock climbing, and I had my own little stint with that. Just really immerse yourself in something else in a way that you may not have time for once the reality of clerkship hits, which is not to say you can't do those anymore after. But it's just a really unique time in your life. I would just say I highly encourage people to get out there and have fun.

Photos by **Alexandra Florescu**
Interview conducted by **Jasmine Ryu Won Kang**

MOments in Mentorship

By: Mathepan J. Mahendralingam

Although I never met him, I have heard and learned a lot about the brilliant, driven, and kind nature of Mohammad Asadi Lari. One of the many things I have come to admire about him was his keenness to help anyone and everyone. He would take the time to get coffee and offer advice about the MD/PhD program. I think that these small acts of kindness to help others out are the heart of mentorship and the MD/PhD community. In line with previous issues of the "*MOments in Mentorship column,*" below I share what I have learned from being a mentor and mentee.

When I started the program in 2020, I was paired with 3 mentors: Steven Botts, Robert D'Cruz, and Sydney McQueen. All of them were fantastic mentors with different perspectives. They listened to my naïve ideas and were not afraid to share their opinions. In addition to my student mentors, I was connected with Dr. Adam Durbin, a UofT MD/PhD Program alumnus and clinician-scientist at St. Jude Children's Research Hospital. He had just started his position there, and his infectious energy made me excited about being a physician-scientist. These past and present UofT MD/PhD students quickly made me feel like a part of the community and supported my goals wholeheartedly.

Repay kindness. Over the years, I have tried to pay it forward to incoming and future MD/PhD students. Inspired by Mohammad, I volunteered for outreach events with Community of Support, offered advice to prospective MD/PhD students, and mentored first year MD/PhD students. When I first signed up to be a mentor, I thought my sole job was to give advice to new students. But I was quickly proven wrong when Glenn Walpole and I were co-mentors for Jasmine Kang. I learned so much about different research fields and hobbies from both of them. I was always finding out new things and felt more like a mentee than a mentor whenever I got the chance to talk to our classmates.

Go to seminar and dinner. At the keynote talk for the 2024 CITAC AJM, Dr. Marco Marra described how being a supervisor puts you in this incredibly privileged position where you watch a student grow from not knowing much about a topic to being one of the world's leading experts. This refreshing take on mentorship is how it feels to be in the MD/PhD program. We all start at the same starting line but take such unique paths. We get to witness this growth from hearing our classmates' initial ideas at their first-year seminars, getting updates from them at seminar dinners or random bump-ins on the street, to their eventual triumph in their PhD and MD years. We are lucky to be in the UofT MD/PhD program and to sit beside future leaders of medicine and research. Lend an ear and be the support for your classmates as they accomplish amazing feats.

There isn't one right way. My class council role as VP Admissions for the past two years has exposed me to various definitions of what it means to be clinician-scientist. You learn the various definitions by reading applicants' applications and hearing clinician-scientists argue over applicants at the file review. The latter part I found surprising, as I thought the staff clinician-scientists would have a unified perspective on what a clinician-scientist is, but they do not. This simply means that, although we are in the same program, we use our MD and PhD training so uniquely in our future careers. There is no single right way to be a clinician-scientist. In fact, you cannot be a good mentor to prospective or current MD/PhD students if you do not support their own unique paths to becoming clinician-scientists. All diverse perspectives are needed; all we can do is listen and elevate each other.

Mentorship, exemplified best by individuals like Mohammad Asadi Lari, is why the UofT MD/PhD community is strong. Mentorship can come in various ways: getting coffee with friends, helping them brainstorm potential supervisors, and listening to their life problems. Now that I am in my 5th year of the MD/PhD program, I can say that I would not be here without the mentorship of my classmates: both those who started before and after me.

Interview with Dr. Lisa Robinson

A conversation about her vision for physician-scientist training as the Dean of the Faculty of Medicine

Broadly, what are your goals and priorities as they relate to physician-scientist training?

Overall, my main goal is to work collaboratively with Dr. Nicola Jones and other leaders within the MD program, the PGME programs, and our scientific spaces as well, together with students, to think about how we can enhance support for trainees in the physician-scientist training program. So that's not just the MD/PhD program, the CIP program, and other programs - when I' m thinking about support, I'm thinking about sustained and and even more robust funding so that we can support the number of trainees enrolled in these programs and the financial resources to try to enhance the experience of students in these programs.

The other thing that I think a lot about is mentorship - the power of mentorship and working really with Dr. Jones and helping her to realize her really important vision around mentorship for students, so that they can connect with trainees who were just ahead of them in the pathway and to physician-scientists in all of our spaces.

What are some of the challenges in physician-scientist training that you envision will be exacerbated over the next 5-10 years, and how can we best address them?

These challenges are very real and as you well know, this is not an easy training program and it's not an easy career. You're training for careers that also feel as though that they're uncertain and so even when the training part is done, it's hard to imagine what life is going to look like afterwards and what the career will be like as well. The longer training program means that at the time people finish and they're ready to launch their independent careers, they're older than many of their counterparts that they started medical school with and they're ready to launch their independent careers.

Then, of course, there's all the challenges of balancing your professional life and and with maybe starting a family. So all of those things mean that fewer people are choosing this career, and I think we have lots of evidence around that fact as well. There are obviously challenges with respect to grant funding - we know that it's hard to secure funding in a sustainable way, and those challenges aren't getting better, so we need to think creatively about other ways in which we can help to fund people who pursue these careers.

And of course, once you're a clinician-scientist, there are so many challenges with respect to integrating the demands of patient care at the same time as doing research at the top level. That requires very dedicated time, focused attention, resources, and financial infrastructure to allow research to be done in the way that it needs to be done.

And so, in terms of solutions, we need to think about how we can smooth the path for people who are pursuing these kinds of careers. That really involves trying to think about how we can streamline the training using some of the tools at our disposal. So, for example, using a competency-based framework as compared to a strictly time-based framework. And of course, you know, funding is incredibly important and especially at key times.

So during transitions, as people are launching their independent careers, we need to make sure we're thinking about ways in which we can use philanthropy and other tools to try to support the work that's being done by brilliant clinician-scientists to allow them to free up their time so that they can really focus on research. And again, I think another incredibly important tool that we need to be thinking about and paying attention to is the power of mentorship.

How is physician-scientist training at Temerty different from that of other institutions? What sets the program apart?

I am completely biased, but in my view, this program is one of the best in the world. We are so fortunate here that we have an incredible breadth and depth of excellent science that's being done in all areas of research. We are also incredibly fortunate here in that we have amazing research that's happening across our tri-campus framework, and we are so lucky to be integrated with TAHSN, so the Toronto Academic Health Science Network.

We have some of the best hospitals in the world, and some of the top-performing research institutes in the world. And so it's a little like being a kid in a candy shop here. We are so lucky. We have incredible resources. We also have lots of role models. I think, you know, at some estimate, we have about 700 clinician-scientists in our spaces. And so all of these are people who can serve as role models, who hopefully can inspire people who are pursuing careers like they are doing.

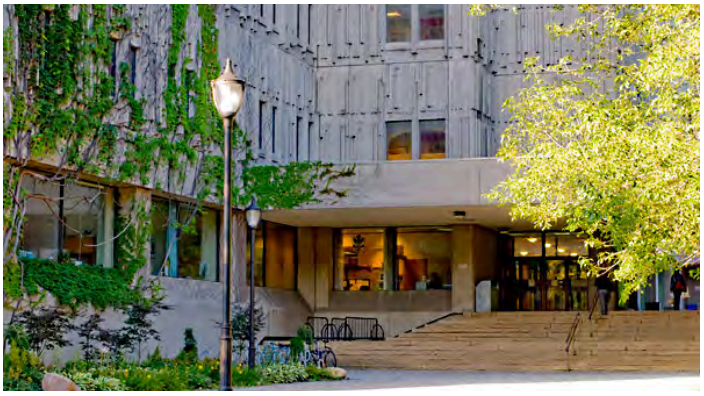
How can we best streamline communication between the MD and MD/PhD programs? How can we support students during transition periods between graduate studies and medical school?

We do pay a lot of attention to this because this is such an important issue. And Dr. Jones, as the director, and the MD leadership, are always in communication. So they sit at many of the same leadership meetings and the same tables. Dedicated programming and mentorship regarding transitions, not just from the director but also from peers, is needed. We've also developed individual development plans to help with goal-setting, priority-setting, and the practical aspects of transitioning between different phases of training.

How has mentorship shaped the legacy of the physician-scientist training programs at UofT? How do alumni stay connected with the MD/PhD program?

Mentorship, as I've said before, is critical. If you don't see it, you don't imagine that you can be it. And it's so important, mentorship in all of its forms. So not just peer-to-peer mentorship, but near-peer mentorship, meaning mentorship from people who are just a little bit further along the path than you are. And then mentorship between faculty and students as well. Again, we are so lucky in that we have many clinician-scientists within our spaces who are hungry and eager to act as mentors for the people who are just beside them and who are just following along. And so, this is obviously an important focus of our program here at Temerty Medicine, and there's specific learner-directed programming and also faculty-directed programming. I'm really excited about the new mentorship program that Dr. Jones has just developed to connect learners with each other and also to connect learners with faculty, including the Mentoring Academy.

Taking advantage of the fact that we have people conducting this amazing research, not just across the tri-campus, but within our TAHSN and research spaces. Mentorship is critical, not just during the training phase, but also as you're launching your independent career, and I would say throughout your career as well. Just having really smart people who have done this before, thinking about the science that you want to do, and helping to connect you with networks, maybe put you in spaces that you didn't even know exist or that you wouldn't have imagined to connect you with other scientists who can be very important as you develop your ideas and with whom you might want to collaborate as well. So I think the mentorship piece is one of the most important aspects.



Interview conducted by **Jasmine Ryu Won Kang**

Social Updates
Summer and Fall 2024

Halloween social hosted by Erica and Allysia, featuring fun pumpkin carving!

Rob presenting his work entitled "Reducing the Risks of Complex Pediatric Cardiovascular Surgery using Glucagon-Like Peptide 1 Peptides" at 2024 American Heart Association Conference.

Camilla and Pamela at the November 2024 convocation ceremony! Congrats to these newly minted PhDs!

First-year MD-PhD Meet-and-Greet Social!

Maaz presenting his work entitled: “Exact sensitivity analysis of Markov reward processes via algebraic geometry” at 2024 Society for Medical Decision Making Conference

Toronto's Epic Sports Scene

From major league games to dynamic fan culture, Toronto is the ultimate sports city. Here is a non-exhaustive list of teams that you may catch a game most nights:

1) Toronto Maple Leafs 

The Toronto Maple Leafs are one of the oldest and most storied franchises in the National Hockey League (NHL). Known for their iconic blue-and-white uniforms and the maple leaf logo, the Leafs currently play their home games at Scotiabank Arena. With a passionate fan base and a rich history, the Maple Leafs have won 13 Stanley Cup championships, though their last title came in 1967. Despite this drought, the team remains a symbol of pride and tradition in Canadian hockey.

Where they play: Scotiabank Arena
Time of year: October to April
Pro tips: The Leafs have one of the highest ticket price in major league sport, at an average of $180. If you check ticketmaster on the day of the game, single seats are usually released under "Selfie Offer," which may bring the ticket price down to double digits. Alternatively, you can catch the Toronto Marlies hockey game at the nearby Coca-Cola Coliseum for as low as $10. The Marlies are the developing team for the Leafs.

2) Toronto Raptors 

The Toronto Raptors, established in 1995, are Canada's only NBA team and a symbol of basketball's growing popularity in the country. The Raptors play their home games at Scotiabank Arena. Known for their passionate fan base, dubbed the "North," the team made history in 2019 by capturing their first NBA Championship. The Raptors are celebrated for their dynamic play, cultural influence, and role in making Toronto a global basketball hub.

Where they play: Scotiabank Arena
Time of year: October to April
Pro tips: Tickets are from $50 for upper bowl and $100 for lower bowl depending on who the Raptors are facing. Like the Leafs, keep an eye out for "Selfie Offer" on gameday. Their developmental team, Raptors 905, compete at the Paramount Fine Foods Centre in Missisauga with ticket price starting from $15.

3) Toronto Blue Jays 

The Toronto Blue Jays, founded in 1977, are Canada's only Major League Baseball (MLB) team and a source of national pride. Based in Toronto, Ontario, the Blue Jays play their home games at Rogers Centre, known for its iconic retractable roof. The team achieved international acclaim with back-to-back World Series championships in 1992 and 1993, becoming the first and only Canadian team to win the title.

Where they play: Rogers Centre
Time of year: April to October
Pro tips: Keep an eye out on the Promotions and Events Schedule. You may be able to score a free jersey, Hello Kitty bobblehead or challenge your friends on Loonie Dog nights. Tickets are as low as $20. Don't forget to checkout their brand new Outfield District during your ballgame experience.

4) Toronto Sceptres

The Toronto Sceptres is part of the newly established Professional Women's Hockey League (PWHL), launched in 2023 to elevate women's professional hockey globally. Representing Toronto, the team embodies the city's deep hockey roots and commitment to advancing the sport. As one of the league's six inaugural franchises, the Toronto Sceptres features elite talent, showcasing the best women's hockey players from around the world.

Where they play: Coca-Cola Coliseum
Time of year: January to May
Pro tips: The arena is easily accessible by the TTC or GO transit at Exhibition station. Ticket price starts from $40. There is a wide variety of concessions available, including Tim Horton's, Smoke's Poutinerie, and also the regular ones selling the usual hot dogs, nachos, popcorn, and candy.

5) Toronto Rock

The Toronto Rock, founded in 1999, is a professional box lacrosse team competing in the National Lacrosse League (NLL). Known for their fast-paced play and championship pedigree, the Rock have won six NLL titles, establishing themselves as one of the league's most successful franchises. With a passionate fan base and a commitment to growing the sport, the Toronto Rock is a cornerstone of professional lacrosse in Canada.

Where they play: Paramount Fine Foods Centre
Time of year: December to April
Pro tips: With ticket price starting from $40, you are guaranteed a great night watching a fast-paced game full of action. Make sure to cheer for our classmate, Mitch De Snoo #12. Mich was named Defensive Player of the Year in the 2021-2022 season.

Mitch De Snoo, MD-PhD student, playing on the Toronto Rock lacrosse team!

6) Toronto Argonauts

The Toronto Argonauts, founded in 1873, are the oldest professional football team in North America still operating under its original name. Known for their storied history and passionate fan base, the Argonauts have won a record 19 Grey Cup championships, making them one of the most successful franchises in CFL history.

Where they play: BMO Field
Time of year: June to November
Pro tips: BMO Field is easily accessible by public transit at Exhibition station. Argonauts tickets start from $40. Make sure to pack sunscreen when attending the game on a hot summer day.

Honorary mentions to other sports teams in Toronto: Toronto FC (Major League Soccer), Toronto Nationals (Global T20 Canada Cricket), Scarborough Shooting Starts (Canadian Elite Basketball League), York United FC (Canadian Premier League soccer), etc.

By **Paul Tieu**

Hometown Tourist
Toronto's Winter Wonderland 2024

By: Camilla Giovino

Ah, winter in Toronto. The days are short, the wind is bitter, and the countdown to warmer days begins. But fear not! This **Hometown Tourist** has rounded up a few of Toronto's best winter activities to help you get through the season with some cheer. Grab your mittens, scarf, and, of course, your favourite hot beverage—because these experiences will make you appreciate the beauty of the season in our chilly city!

1. The Magic of the Nutcracker: A Toronto Holiday Tradition

If you're looking for a festive way to embrace the season, consider catching a performance of *The Nutcracker* at the **National Ballet of Canada**. This annual holiday classic transports you to a world of sugar plum fairies, toy soldiers, and a magical journey through the Land of Snow. The production is a stunning spectacle, featuring exquisite choreography and breathtaking sets. Tickets tend to sell out fast and can be pricy, but Standing Room tickets are $12 and go on sale at 11:00 am on the day of the performance.

What: The Nutcracker ballet
Where: Four Seasons Centre for the Performing Arts (Queen St. W and University Ave.)
When: December 6th - December 31st, 2024
How: Visit National Ballet of Canada for tickets, or try Standing Room tickets for a last-minute deal.
Why: The twinkling lights, the music, and the magical atmosphere—The Nutcracker will have you feeling like a kid again.

Tips: Plan for a festive dinner nearby before the show! There are many excellent options in the surrounding Entertainment District.

2. Skating at Harbourfront Centre

For a quintessential winter experience, lace up your skates and hit the ice at Harbourfront Centre's Natrel Rink. Located right by Lake Ontario, this outdoor rink offers a beautiful view of the waterfront and downtown Toronto. After you've glided around the rink, stop by the rinkside café for a warm drink or snack while you take in the views of the city skyline.

What: Ice skating at Harbourfront Centre
Where: Harbourfront Centre (235 Queens Quay W)
When: Open daily, November through February (weather permitting)
How: Bring your own skates, or rent a pair on-site. Every Saturday enjoy FREE skate rentals.
Why: Skating with a view of the lake and city skyline makes for the perfect winter escape.

Tips: After skating, head to The Watermark Irish Pub, located right on the waterfront with a fantastic view of Lake Ontario and the Toronto skyline. It's cozy, laid-back, and perfect for warming up with comfort food, whether you're craving a hearty Irish stew, fish and chips, or just a hot drink by the fire. The pub has large windows overlooking the water, so you can still enjoy the stunning view of the lake and city skyline.

3. Holiday Shopping at St. Lawrence Market (and a Festive Food Crawl!)

'Tis the season for a little holiday shopping—and what better place than the historic St. Lawrence Market? Wander through this iconic marketplace and discover artisanal gifts, homemade candles, and unique treats from local vendors. Once you've finished shopping, don't miss out on the chance to sample seasonal eats. From holiday-themed pastries at St. Urbain Bagel to hot mulled wine, the market is a foodie paradise. A perfect spot to tick off your holiday list while satisfying your cravings.

What: Holiday shopping and festive food finds
Where: St. Lawrence Market (Front St. E and Jarvis St.)
When: Open every day except Monday, but expect the market to be extra festive in the weeks leading up to Christmas!
How: Browse the local stalls for everything from gifts to gourmet bites.
Why: Combining holiday shopping with delicious food = win-win!

4. Snowshoeing and Cross-Country Skiing at the Toronto Islands

For those who want a more outdoorsy adventure, try snowshoeing or cross-country skiing on the Toronto Islands. It's a little-known winter activity that gives you a quiet, serene way to enjoy the beauty of nature without leaving the city. Pack your snowshoes or skis (or rent them at the Toronto Islands Ski and Snowshoe Centre) and explore the pristine paths along the islands. Afterward, head to the Toronto Islands' Restaurant for a warm meal with a gorgeous view of the city skyline—truly a perfect winter day.

What: Snowshoeing or skiing on the Toronto Islands
Where: Toronto Islands (accessible via ferry from the Jack Layton Ferry Terminal)
When: Snowshoeing and sking is best after a good snowfall, from December through February.
How: Rent from the Toronto Islands Ski and Snowshoe Centre (located near Hanlan's Point).
Why: A peaceful winter escape right in the heart of the city.

Tips: Dress warmly, as the islands can be windy, and don't forget to bring a thermos of hot chocolate for an extra cozy experience!

Toronto has plenty to offer this holiday season, from the dazzling lights and performances to outdoor activities that let you embrace winter in all its glory. Whether you're skating by the lake, exploring the holiday markets, or cozying up with some classical music, there's something to lift your spirits until spring's return.

Advice Column:
Dear Doctor Doctor

Need Taylor Swift Tickets ASAP!!!

From Delulu Swiftie

To Doctor Doctor

Dear Doctor Doctor,

How do I get tickets to the Taylor Swift concert?

RE: Need Taylor Swift Tickets ASAP!!!

Dear MD-PhD Student,

Why get tickets when you can CRISPR-Cas9 your own Taylor?

If they can clone a sheep, they can clone Taylor Swift. All we need is an accomplice who can get close enough to Taylor to get a strand of hair or teardrops (on her guitar)... To achieve this, well, delulu is the solulu. Divide and conquer: one person refreshing Ticketmaster 24/7, one person on the Gardiner Express waiting for the motorcade, and one person who knows someone who knows someone who might be pushing that custodian's cart hiding Taylor as she migrates to centre stage. Just be careful, 'cuz Karma is the guy on the Chiefs… Seriously, Travis Kelce is a tight end, watch out, he can tackle you at any moment. Once you have all of that genetic code, take it to your favourite stem cell lab on campus and let the cloning begin. …Are you ready for it?

With loverrrr,

Doctor Doctor

Am I inadequate?

From Disheartened Clinical Skills Student

To Doctor Doctor

Dear Doctor Doctor,

My clinical skills tutor gave a grade of 'Inadequate' on my case report. What do I do?

RE: Am I inadequate?

Dearest MudPhud,

It's not about the grade, it's about the journey. Don't focus so much on what one tutor thinks of you, but instead remember that what reflects your clinical skills is how cool you look with a stethoscope on. So walk into the patient's room, dressed to impress, prepared to FIFE, and hold that bell of your stethoscope up to the patient's heart! Just kidding, use the diaphragm for heart sounds. I cannot be held accountable for spreading misinformation about the use of the bell vs. diaphragm on a stethoscope. That's unethical. But just like your stethoscope, YOU can also do a 180-degree turn to gain better clarity of the chief concern in front of you. Sure, you got an 'inadequate,' but you can be the better student by turning the other cheek and taking all the advice you can to get stronger.

Stay ICE-y,

Doctor Doctor

In Pursuit of a PI

From Heartbroken Student who cannot face another rejection

To Doctor Doctor

Dear Doctor Doctor,

How do I find the PI of my dreams?

RE: In Pursuit of a PI

Dear Pre-PhD MD-PhD Student,

First, dreams are nice but remember that PI stands for 'principal investigator' and not 'pretty incredible'... just kidding, obviously it stands for 'performance index', and you'll have a good one in the right lab.

After watching enough Grey's Anatomy (up until season 11 before things go south), you are surely empowered enough to find a PI that's McDreamy and won't make you McSteamy(ing) in anger. Besides, the stars have to align to get into the MD-PhD program, so why can't they just align again? If your horoscopes shows that Mercury is not in retrograde, and if it's a waning gibbous moon, a PI that won't drive you insane is in your future.

However, if luck isn't your thing, I'd recommend our new Doctor Doctor PI-student matching app, called LivLabLuv. It takes your research interests, everything that makes you annoying, and your snack preferences, then matches you with the most compatible PI. It will even give you real conversation prompts and can respond just like your PI would.

You: "Hey, can we meet sometime next week to discuss my progress?"
PI: "Why?"

Tag us at #LivLabLuv,

Doctor Doctor

Failing to succeed

From Confused PhD Student

To Doctor Doctor

Dear Doctor Doctor,

My experiment has failed 4 times. What do I do?

RE: Failing to succeed

Dear young scientist,

If the experiment has already failed 4 times, it's likely bored of failing and will work on the 5th try. I would suggest having a conversation with your protocol. Really try to figure out why it's been struggling lately. FIFE is a very effective tool to allow protocols to express their concerns involving their issues. If FIFE doesn't give adequate details, try probing for the protocol's social history and ask about its habits. Everything should also become clearer with a thorough physical exam. I wish your protocol well with its recovery!

Happy FIFE-ing,

Doctor Doctor

Doc Doc Jokes

Doc doc!

Who's there?

Cindy Lou!

Cindy Lou who?

No, the patient is not a Who from Whoville. Now can we carry on with your OSCE?

Doc doc!

Who's there?

AlphaFold!

AlphaFold who?

AlphaFold the chocolate chips into the cookie batter! We need to get to the Holiday Party!

Doc doc!

Who's there?

Elvis!

Elvis who?

Aren't you feeling Elf-ish on the wards this holiday season?

Doc doc!

Who's there?

Eras!

Eras who?

Erase the fact that I couldn't get tickets from my memory!

By **Safa Majeed** and **Erica Wennberg**

A Christmas Carol:

Double Docs are Coming to Town

Oh, you better watch out,
You better not cry,
You better not pout, I'm tellin' you why,
Double Docs are coming to town!

We're writing our drafts,
revising them twice,
Gonna find genes
expressed in our mice,
Double Docs are coming to town!

On lab benches, we're sleeping
On call, we stay awake
Is the MRI scan bad or good?
We hope it's good for the patient's sake!

Oh, you better watch out,
You better not cry,
You better not pout, I'm tellin' you why,
Double Docs are coming to town!

With mini pipettes
and stethoscope drums,
We engineer cells and
hear hearts lub-dub,
Double Docs are coming to town!

From genetic disease
to viral flu,
We innovate treatments—
creative and new,
Double Docs are coming to town!

The trainees in our program
Are living out their dreams,
Research along with medicine
In a great community!

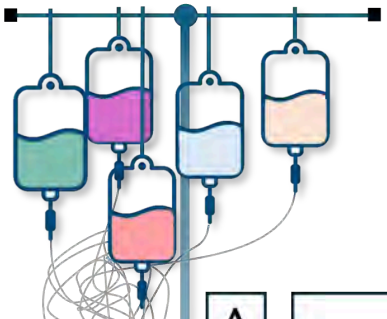
Ooh, you better watch out,
You better not cry,
You better not pout, I'm tellin' you why,
Double Docs are coming to town!

Parody by **Anita Hu**

Word Puzzle

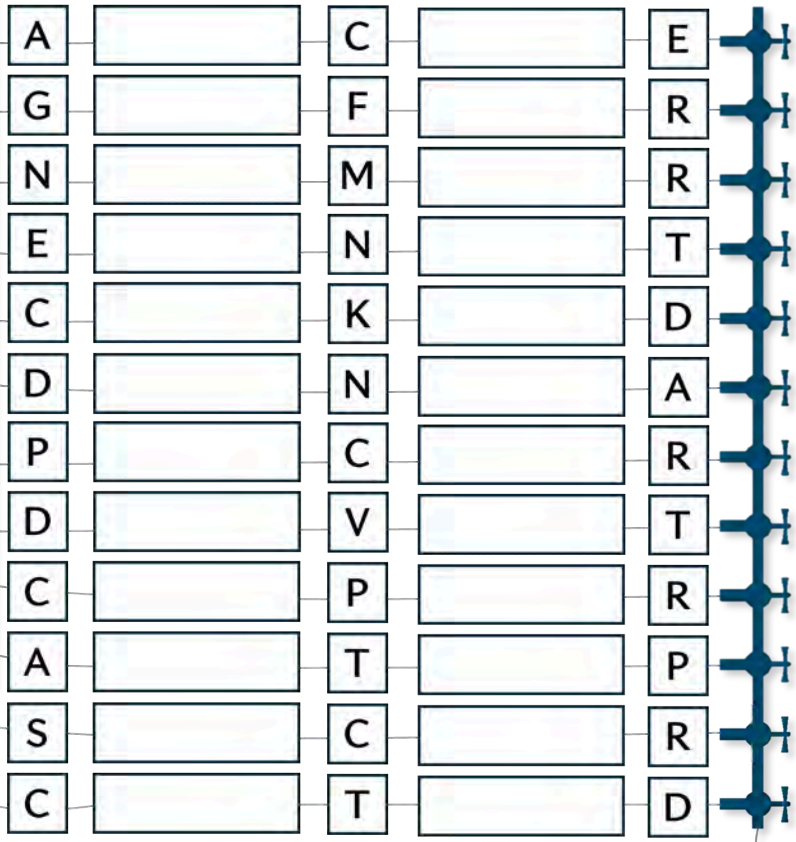
Puzzle idea inspired by Puzzled Pint
Designed by **Alex Dhaliwal**

Transfusion Confusion



Uh-oh! When rounding on your patient this morning, you saw that all of their medical lines have been tangled! Luckily, the nursing staff have labelled each of the lines, but you'll have to decipher their coding system.

Complete the IV connection for each of these twelve IV lines by placing word bits into the blanks to form words. Some of the bits are missing a letter, which you will need to fill in. The twelve "IV" words each match to the clues provided, but are not in the order given. Finally, unmix the missing letters to decipher the secret phrase!



- ❑ Port city of Belgium
- ❑ Seeker of a guilty verdict
- ❑ Half a maestro, so to speak
- ❑ Top part of a fraction
- ❑ Ready for burial
- ❑ Loving and tender
- ❑ Financial system where physicians are paid per patient
- ❑ Altair 8800 was the first commercial one
- ❑ Departed from accepted norms and standards
- ❑ Pink category in Trivial Pursuit
- ❑ Syndrome of poor nervous regulation
- ❑ Mother's uncle's brother's son's paternal figure

I□N	ATHE	OM□A	EM□	□RATO	ETE
U□O	ONDUCTO	N	F□E	E	U□E
A□I	U	YSAUTO	WE□	TIONAT	OM
MEN	A□	RA□D	NTER□AI	ATE	ROSE

What is the code phrase? _ _ _ _ _ _ _ _ _ _ _ _ _

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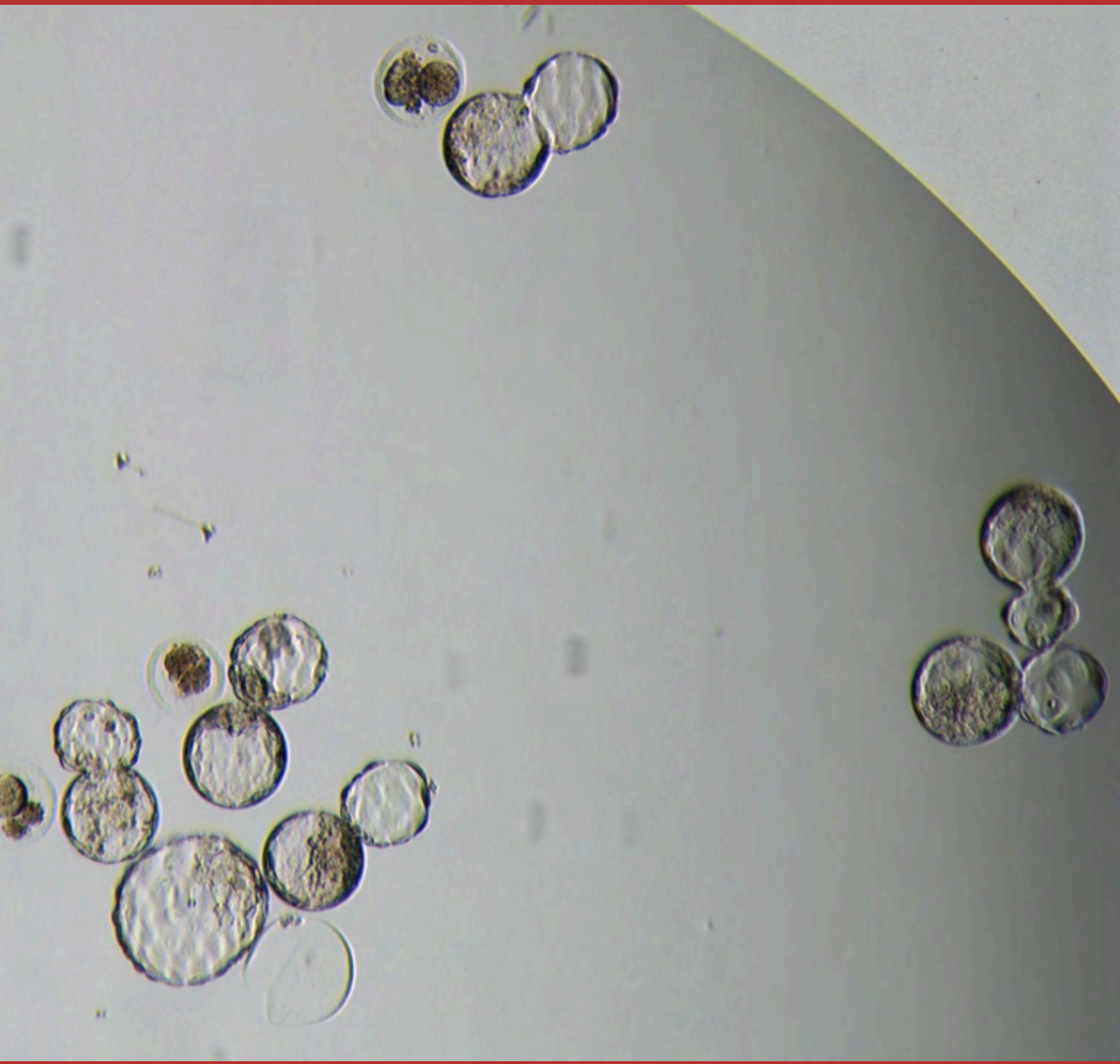
Cover Art by Anglin Dent
AI for Tumor Segregation

UofT MDPhDeets



Cover Art by Andrew Mazzanti
Embryos Hatching