In collaboration with the Faculty of Medicine, the Postdoctoral Association organized its 7th Annual PDF Research Day on May 1st, 2015. Drawing on a large number of PDFs, research associates, Faculty, and students from across the University, the day featured 3 oral presentations from postdocs, a keynote address from Dr. Julie Fradette (Université Laval), and a poster session. The event was deemed a great success, enabling communication, learning and networking opportunities for the group of aspiring researchers alongside a showcasing of the high quality and breadth of research undertaken at the institution.

Spanning the circle from alveolar epithelial cell therapy (Dr. Shafa), to skeletal mitochondrial respiration (Dr. Thrush) and virtual reality training (Dr. Sheehy), the excellent oral presentations provided a glimpse into the variety of cutting edge research endeavours undertaken at the Faculty of Medicine and affiliated Institutes.

The poster session featured submissions from multiple areas of health research that were judged by Faculty, under the stewardship of Drs Julie Fradette and Katey Raynor. With the support of a number of sponsors, including the Faculty of Medicine itself and the Canadian Society for Molecular Biosciences (CSMB), represented by Dr. Kristen Baetz, our researchers were awarded prizes for oral and poster presentations.

We would like to thank all participants, Faculty members, and the Faculty of Medicine Graduate and Postdoctoral Studies and CSMB for the generous contribution. We look forward to seeing you at the 8th Annual PDF Research Day in the Spring of 2016.
PDF Seminars
By Fiona McMurray

A huge thank you to everyone that participated in the FacMed PDF seminar series 2014/15. We have had some fantastic speakers covering a range of topics from synaptic plasticity to brain computer interfaces, and from patient end of life care to mitochondrial remodelling. Thank you as well to our audience; with the variety of talks it is great that so many people have been attending the seminars regardless of the topic. The seminar series will be restarting on Sept. 29th in RGN 2021 and all future seminars will be held on the last Tuesday of the month at 3:30 – 4:30 pm. Everyone is welcome, so spread the word! They even include free coffee, tea and cookies, so come along and mingle with your fellow Fellows, it’s a great chance to meet new people and potential collaborators. We are still looking for volunteers, so if you want to tell us all about your research, need to practice a talk for an upcoming conference or job interview please email us to be added to the schedule. PDFmedAssociation@uottawa.ca

NEXT PDF SEMINAR
Date: September 29th 2015
Presenter: Anne-Laure Nivet
Time & Place: 3:30 pm, RGN 2021

Events
July 29th PDF Summer BBQ & Academic Success Workshop
(11 am-1 pm; RGN TBD)

Aug 6th PDA monthly meeting (4:00 pm; RGN 2008)

Talks
July 6th Dr. Elisa Bergamin (3:00 pm; RGN TBD)
July 9th Dr. Shawn Beng (3:00 pm; RGN TBD)
July 20th Dr. Benjamin Rotstein (3:00 pm; RGN TBD)
July 22nd Dr. Hong Ding & Prof Christopher Triggl (1:00 pm; RGN 2149)
“Metformin: An old drug but with promising new therapeutic indications”
July 22nd Dr. Rafael Namanovich (3:00 pm; RGN 2149)
July 23rd Dr. Michael Murphy (12:30 pm; RGN 2149)
"How mitochondria produce ROS during heart attacks and strokes"
Oct 16th Dr. Ross Feldman (1:30 pm; RGN 2149)
“Female sex: a newly appreciated risk factor for heart disease-from cellular biology to population genetics"
From PhD to MD: The value of a postdoctoral fellowship in undergraduate medical education  By Zach Ferraro, PhD

Science can be described as the pursuit for lawful relations. We, as scientists and researchers, organize knowledge and attempt to test our understanding of nature through the scientific method. This is the cornerstone of research and pivotal to applying the concepts of evidence-based medicine. However, gaining insight to such proprietary knowledge is, for the most part, unique to graduate school and significantly augmented as a postdoctoral fellow.

Understanding how knowledge is generated, having the ability to critically appraise medical research, and being able to triage scientific evidence to ensure high quality, reproducible findings get the attention they deserve, are just some of the skills that postdoctoral fellows acquire as they advance their training. These fundamentals will prove to be invaluable as an MD candidate inundated with high volumes of information; especially when a decision needs to made quickly and carefully.

Efficient communication is necessary for building a trusting relationship and community of support with a patient when they are faced with adversity and asked to make difficult decisions that affect their health. As a fellow, I regularly spoke at conferences and to public health groups and this helped hone my ability to convey complex messages simply. Getting involved with community outreach and knowledge translation events (e.g., CIHR Café Scientifique) were lessons in teamwork, project management, and public health education. Although I must formally redirect my focus away from research and learn the clinical skills necessary to provide optimal patient care, I firmly believe that 7 years of research training will never be left behind. The technical skills learned (e.g., laboratory, statistical, writing), the friendships forged, and the experiences gained will indirectly help me serve patients by adapting to difficult situations, by engaging in simple, but meaningful dialog, and by providing the best possible evidence-informed care.

To trainees considering a PhD or fellowship, know and understand why you want to do it. This will ensure that your project, responsibilities, and the experiences you are exposed to during your 4+ years align with your career goals. Whether this be a tenure track position, working in industry, government, or a completely different transition all together, the diverse set of skills learned throughout a fellowship are largely transferable and will prove to be assets to many employers. Past are the days of ‘academic silos’. The future of science and medicine requires multidisciplinary teams that engage in collaborative efforts to solve complex problems with human health as the focal point.

My advice: Do not enter graduate school for the sole purpose of ‘spicing up’ your MD application. Rather, embark on a quest for the unknown if your intellectual curiosity organically propels you towards an MSc, PhD and/or Postdoc. This way you are much more likely to enjoy your journey through academia, appreciate the highs (e.g., having your first manuscript accepted, defending your thesis, etc.) and the lows (e.g., responding to that darn 3rd reviewer!). This will help keep you focused on your goal – to enhance your understanding of all that is unknown in the natural world of science and medicine. After all, every one of us pursuing higher levels of postgraduate education are truly life-long learners on a journey to understand.

Zach Ferraro, PhD
CIHR Postdoctoral Fellow, MD Class of 2019
twitter: @DrFerraro

PDA EXECS IN THE SPOTLIGHT

Dr. Fiona McMurray, BMI
My work involves mitochondrial bioenergetics and metabolism in the development of diseases such as diabetes and obesity. I am particularly interested in finding out the impact of the in utero environment on future disease risk. I moved to Canada to start work in the Harper Lab in early 2014 after I finished my PhD. I had always lived in the UK before then and that first winter was hard, but I have been having a great time here in Ottawa ever since. Getting involved in the faculty of medicine’s postdoctoral association has been a brilliant experience, and it is a fantastic way to meet other postdocs and faculty members.

Dr. Anne-Laure Nivet, OHRI
My interests lie in ovarian physiology and infertility. I have completed a PhD focusing on ovarian stimulation protocols and the genomic of the ovarian cells associated to good eggs at Laval University. As a postdoctoral fellow at the OHRI, I’m working on the polycystic ovarian syndrome (PCOS) affecting up to one out of ten women, associated with impaired ovulation and disrupted metabolism, leading to infertility and diabetes/cardiovascular diseases. I think the best part about being an active member of the PDA is the great opportunity to develop leadership and communication skills, and to extend your network.
PDF Achievements....from publications and beyond

By Anne-Laure Nivet

Awards

Zach Ferraro  Best oral presentation at the “4th Canadian Obesity Network National Summit 2015”
Carleton University Co-Op Student co-Mentor of the Year Award from the Ottawa Hospital
Division of Maternal Fetal Medicine

Mireille Khacho  Postdoctoral award for best poster at “Brain Health Research Day 2015”

Chris Klinger  Best oral paper Award at the “2015 Annual Hospice & Palliative Care Conference”

Anne-Laure Nivet  CIHR-ACI travel award for “Society for the Study of Reproduction 2015 Meeting”

Publications


McNeill B, Vulesevic B, Ostojic A, Ruel M, Suuronen EJ. Collagen matrix-induced expression of integrin αVβ3 in circulating angiogenic cells can be targeted by matricellular protein CCN1 to enhance their function. FASEB J. April 2015


Rahim MM, Chen P, Mottashed AN, Mahmoud AB, … Makrigiannis AP. The mouse NKR-P1B:Clr-b recognition system is a negative regulator of innate immune responses. Blood. Apr 2015

Starr AE, Lemieux V, Noad J, Moore JI, … M, Figey D, Mayne J. β-Estradiol results in a proprotein convertase subtilisin/kexin type 9-dependent increase in low-density lipoprotein receptor levels in human hepatic HuH7 cells. FEBS J. Apr 2015


Nothing worth having was ever achieved
without effort
-Theodore Roosevelt
Postdocs and Careers:
A Conversation with Dr. Antoine Hakim

By Aswin Hari

Dr. Antoine Hakim has been a part of scientific research for many years and an integral member of the UOttawa community since 1992. I sat down with Dr. Hakim to seek his thoughts and insights on career choices for PhDs and Postdocs. In my conversations with Dr. Hakim, he mentioned how incredibly lucky he was when he came across an opportunity to do medical school while working on his PhD in biomedical engineering in NY. Prior to that he had moved from an oil and gas job in Alberta to Montreal without an offer in hand but eventually become a high school teacher for a year. Those days are gone he says. It is a whole new world we live in.

What is the current reality for the (obvious) career choice of academia/industrial R and D?
When it comes to tenure track positions, only 4 out of 100 PhD graduates in the UK and less than 15% of PhD graduates in the US make it into academic positions. While the proportion of tenure track positions has been steadily falling, industrial research positions have also been on a steep decline (esp. in North America). The combination has led to a situation where there is an oversupply of fresh PhDs and postdocs, as discussed in a few studies including a highly cited recent article (Alberts B. PNAS, 2014). The term “superdoc” or “permadoc” has become the norm of the day in an era where governments have been cutting basic research funding. While the US congress seems to be making modest budget cuts to the NIH, the Canadian government has over trimmed the basic research budget and promotes industry related work or applications directly affecting patients.

Bottom line: No one wants to talk about the elephant in the room-over-supply of PhDs/postdocs in basic science research.

“You can either complain and not do anything about the issue at hand or be more proactive, it’s after all your own career at stake.”

What are the issues at the mentoring level, university and in the system as a whole?
There are some fundamental issues in the system that have to be addressed. Here are some burning questions that beg for more attention. Should current Professors take on new postdocs knowing well how the job market is? Is it ethically right? Should older Professors stay on in their positions effectively blocking younger researchers from moving up the ladder? Does the university and professors not owe the postdocs information on non-academic options that may be available?

Most research advisors are not in the best position to advise on the non-academic avenues that are available to PhD graduates and postdocs. So why not get people in the relevant areas to come and provide advice to postdocs on different career options? Even if they need to be paid to come and talk!

UOttawa has done a better job than many institutions in relation to offering career services and mentoring to students and postdocs. The Career Development Centre offers career counselling, resume and interview preparation. However the proportion of postdocs using these services appears low and most of them are in fact unaware of such a service available to them (even when those people are available at RGN regularly during the year).

For more information look up sass.uottawa.ca/en/careers for a complete list of services available

Bottom line: The system needs a serious amount of introspection and a complete overhaul, but some services are accessible to you now.

What should Postdocs be doing- wait for something to happen?
As a postdoc, you have few career options in front of you. You can either complain and not do anything about the issue at hand or be more proactive, it’s after all your own career at stake. Try to take a broader view of your career beyond basic research. Don’t get too comfortable and become resistant to change. Each person’s situation is unique. Figure out the path that is right for you based on your life, personal interests, family situation and circumstances. If academia interests you then explore how granting agencies work, go to some workshops (NIH/CHIR) and network. Question yourself constantly to understand the clinical/social/economic applications of the research you are doing. If the non academic route seems more suitable, then look up information on the various professional avenues. Think of all the transferable skills you can assimilate based on where you see yourself in the future. Do not ignore career workshops or events even if you think they are not immediately relevant. You never know when and where an opportunity will present itself. Your resume and cover letters need to be polished and tailored. Use the services available to you through the university to perfect them. There is a need to practise interviewing skills, an aspect that is very much neglected. Have a passion that is not research related -hobbies, art, dance or whatever it maybe. If you want a job you need to be emotionally stable and prove to be a good team player and be willing to learn new things. And when it comes to getting hired outside academia, it’s all about finding a niche you like by doing due diligence (home work) and networking hard. If you are not proactive and work on these things now, you may find yourself in a few years stuck and disappointed!

Bottom line: It’s not as gloomy as it sounds; try to research the career path you want to take- if you don’t do it, no one will do it for you.

The roads less taken....

Loyalty in academia is not sacrosanct anymore; PIs want you to give them papers. This renews their grants and sustains the PIs career but it may not necessarily serve your eventual career, especially if you are not interested in academics. While there is always going to be a minority of postdocs/PhDs who will successfully get into academic positions or industrial research, the enduring over-supply means now is the time to improvise to get ahead in your career. Other than these 2 paths, there are several routes to a successful career that are not even considered as viable options most of the time by postdocs. Some examples include: Intellectual property law/ writing patents, Regulatory affairs programs, Epidemiology, Physicians assistant, Good laboratory practise, Good manufacturing practise, clinical research programs, project management, scientific product sales rep/ technical advisor, medical liaison, technical rep for microscopy companies and even being a high school science teacher. You can of course come up with additional options not listed here! Many of these options may require 6 months to 3 years of additional work to fit in, but the potential to pay off ultimately if you are persistent and put in the effort properly is definitely there.

Do your home work for whatever your goal is. That is the path to get to the finish line!
Interview with a Post-doc

Jessy Livingston-Thomas sits down for a quick-fire interview with a fellow Fellow.

In the hotseat
• Dr Timal Kannangara
• 3rd Year Postdoc
• Neuroscience
• Supervised by Drs Lagace & Beique

JLT: If you weren’t a scientist right now, what would you be?

TK: I’ve injured my back a few times playing sports and perhaps the best thing I ever did was go see an athletic therapist. Ever since, I’ve always been fascinated with the field, so I would probably pursue that. Or maybe I would become a baker. That way I could always smell like fresh baked goods, which is a plus.

JLT: When not in the lab, where are you most likely to be found?

TK: I have a toddler whose favorite game is saying, “Go!” then running away. I am most likely to be found running after her.

JLT: Who was your most influential teacher/mentor (Kindergarten-PhD)?

TK: I had a really great PhD supervisor. He was very supportive and helped harvest ideas from students, no matter how out-there or crazy they were.

JLT: What’s your favourite and/or scariest thing about postdoc life?

TK: Favourite thing: the discoveries - I think that is important for everyone to step back once in a while, look at what you are doing and realize that some of the stuff that you have observed while running experiments has never been seen before by anyone else. It can really help you appreciate how privileged we are as scientists. Scariest thing: Everything else.

JLT: What’s the best piece of advice you have for new post-docs?

TK: Lately, I’ve been trying to pay attention to how supervisors work from a management standpoint. No one really explicitly teaches you how to run a lab, so my advice would be to pay attention to the management aspect. For example, if you like how your lab’s lab meetings are conducted, try and figure out why the meetings work. If you don’t like your lab’s lab meetings, figure out why it doesn’t work. Hopefully, you can implement these notes in the future.

Jessy Livingston-Thomas, PhD
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A new discussion group focused on Fellowship applications  By Lisa Julian

Fellowship application season is right around the corner. This can be an intense time for many PDFs, and it’s often difficult to know if your application package is as strong as possible. The PDA recognizes that many postdocs are likely to have questions while applying for fellowship applications. We would like to hold a discussion group late this summer focused on this issue. We envision having PDFs who have been successful in securing major fellowship awards meet with PDFs who are currently in the fellowship phase to impart tips for preparing a successful application. While there are currently PDA execs who will participate in the discussion group, we are also sourcing additional fellows who would be willing to participate and offer their advice. If you feel this would be of benefit to you, or if you are already funded and would like to participate, please let us know by sending a message to PDFmedAssociation@uottawa.ca.

A note from the PDA presidents
By Lisa Julian & Mireille Khacho

Greetings from the Co-Presidents of your FacMed Postdoctoral Association. In preparing this issue of our newsletter we were struck by the impressive diversity, collective achievements and research excellence of PDFs within our Faculty. The past 15 months during which we’ve held this post together have been extremely rewarding, and we have truly enjoyed getting to know more of our PDF population on both an academic and social level. We would like to take this opportunity to thank all of the PDFs, Faculty and administrative staff within FacMed who have supported and attended our events and contributed to our initiatives, such as our newsletters. The momentum is strong toward enhancing the PDF training experience within our faculty.

During our tenure as Co-Presidents, we have been broadly focused on increasing PDF visibility within the Faculty and University as a whole. Thanks to the dedicated members of the PDA, Faculty and administrative staff, and our extended postdoc community, many important strides have been made. Yet, more work is to be done! If you’re interested in playing a more active role here is your chance. There are a number of PDF positions to be filled, and many ways to get involved. We are looking for postdocs to take on Executive positions on the PDA in late August. In addition, we will be stepping down as Co-Presidents in order to give other postdocs the chance to hold this rewarding leadership position. We will provide more specific information soon. Absolutely everyone is welcome to join the PDA. With that, we hope you enjoy this second edition of our newsletter, and we thank you all for your continued support of the FacMed PDA.