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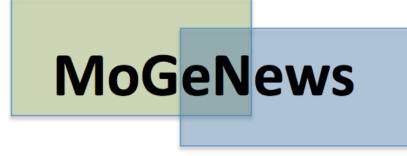
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From: Molecular Genetics

To: MoGen News







Issue 14 - Dec 2019

Editor's message

Welcome back! This has been a big year for Molecular Genetics as we celebrate our 50th anniversary in 2019. The symposium on May 31 was a great success, with over 500 registered participants including alumni and current members of the MoGen community (details below). We welcome new many members, both students and faculty, to the Department this fall. And we wish everyone a happy, healthy and productive new year as we move into our second half-century, in 2020!

As always, please keep us posted on discoveries, awards and achievements. Your input is crucial as we continue to build an engaged community.

Barbara Funnell

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Department of Molecular Genetics 50th Anniversary Symposium - May 31, 2019



The 50th Anniversary Symposium was a tremendous success! Our goals were to **celebrate** our great history, **engage** with the MoGen community, and **inspire** the next generation of Molecular Genetics graduates.

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We met at the Carlu in downtown Toronto for a day of talks, games,



and great conversation. The program included an exceptional lineup of speakers, a career development workshop and lunch, and a dinner reception with exciting entertainment organized by the graduate students. The event introduced us to new friends as well as reconnected us with

friends and colleagues who have gone on to other pursuits, institutions, and positions. We were incredibly pleased at the overwhelming response from our community; over 500 of us registered for the day! It is clear that the time that our faculty, staff and trainees spend in Molecular Genetics has lasting positive and rewarding effects on our lives.



The symposium highlighted the exceptional science and scientists that are and have been part of our MoGen community over the last 50 years. Our two keynote speakers, **Dr. Lap-Chee Tsui** (Hong Kong Academy of Sciences) and **Dr. Roderick**

McInnes (McGill University), both former faculty, reminisced about their time in the Department and important events in our history. Three eminent faculty, Dr. Jim Friesen, Dr. Steve Scherer, and Dr. Brenda Andrews introduced sessions with personal reflections about (and a claymation history of!) the Department. We invited 11 PhD alumni speakers to illustrate the variety of science pursued by our graduates after they completed their time in MoGen: Dr. Angela Anderson (Life Science Editors), Dr. Anastasia Baryshnikova (Calico Life Sciences), Dr. Cheryl Birmingham (Sanofi Pasteur), Dr. Joe Bondy-Denomy (UCSF), Dr. Arvin Dar (Icahn School of Medicine), Dr. Scott Dixon (Stanford University), Dr. Kristin Hope (McMaster University), Dr. Christopher Koth (Genentech), Dr. Tina McDivitt (Spindle), Dr. Pleasantine Mill (University of Edinburgh), and Dr. Liz Patton (University of Edinburgh).

A dinner reception followed the talks well into the evening, with excellent food and drinks supplied by the Carlu. Entertainment organized by the grad students took the form of lab olympic games such as "pipette pong" to challenge our mental and physical coordination!

Please visit the MoGen 50th Anniversary website to see our photos of the event! A complete program as well as reminiscences from our alumni can also be found on these pages.

We are very grateful for all the hard work from the organizing committee, MoGen admin staff, and the Faculty of Medicine Advancement team, who collaborated to make the day so successful. To see the members of our 50th anniversary team, please click here.

With thanks to our Platinum, Gold and Bronze sponsors:



Career Development in Molecular Genetics

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We will resume the **Molecular Genetics Career Alumni Development Symposium** in 2020: **Save the date: Monday, June 15, 2020** Chestnut Conference Centre, 89 Chestnut St.Toronto, ON M5G 1R1. Details will be posted on the Molecular Genetics website early next year.



Community News and Events

MoGen Retreat 2019.

We gathered for our 2019 Molecular Genetics Retreat at Geneva Park YMCA, on September 18th-20th. The retreat was organized by Dr. Julie Lefebvre, Dr. Daniel Schramek, and Dr. Leah Cowen, along with GSA leaders Reuben Samson, Nicole Revie, Kali Iyer, and their GSA team. Our Chair, Leah Cowen,

organized an excellent scientific program comprising 15 faculty talks that captured the diversity and excellence of the research in MoGen.

The retreat kicked off on Wednesday evening for first-year students and faculty for Power Hour night. PowerHour is our beloved tradition for student recruitment. Despite a tighter time limit, the faculty were creative and effective in extolling the virtues of their research and lab life in a 2-minute/1 slide pitch.



The main retreat began on Thursday morning with 266 attendees, including 38 PIs, 68 rotation students, 121 graduate students, 10s post-docs/staff, and 12 undergraduate MGY specialists. The day began with opening remarks from Leah Cowen, followed by 2 sessions of presentations. In the afternoon, attendees were on

the field for the annual trainee-against-faculty soccer match, or transformed their retreat T-shirts with colourful tie dye. The poster session was buzzing with lively interactions among MoGen members. The session featured 116 posters presentations that showcased the diversity and excellence of research being performed by our trainees. We capped off our day with a fantastic line-up of dinner entertainment organized by the GSA. The celebrations went into the night at the fire pits, and with music and dancing in the Barn. We were up and at it early for the morning session. Thanks to all for a successful retreat! Hope to see you at Geneva Park for our 2020 retreat, which will be held on Wed. Sept. 23rd- Fri. 25th, 2020.



The Amgen Scholars Program at U of T enjoys an extremely successful first year!

This summer the University of Toronto hosted the inaugural cohort of the Amgen Scholars Program to great success. Fifteen outstanding students from across Canada joined research groups in the Faculties of Medicine and Pharmacy,

including several labs in the Department of Molecular Genetics, to participate in cutting-edge research conducted at the University of Toronto. The Program Director is Dr. Jessica Hill, Assistant Professor, Teaching Stream, in Molecular Genetics.

The program was met with strong praise by the enthusiastic Scholars. Sabrina Wang, a McMaster University student who worked with Dr. Jim Dowling, said of her experience: "The Amgen Scholars Canada Program has been an incredible experience that has strengthened my passion for research and curiosity for discovery... I am incredibly grateful for this experience and the lasting impact it has made for my personal growth and my career aspirations." Likewise, the Amgen Scholars were universally well-received by their supervisors.

The Amgen Scholars Program is a 10-week summer research program that is fully funded by the Amgen Foundation. The goal is to help students develop the skills necessary for graduate school and for careers in science through a combination of hands-on research, participation in lab and professional development activities, and relationship building.

The program is now recruiting for Summer 2020! Applications are now open on the Amgen Scholars Program website. We particularly encourage applications from students who are members of groups underrepresented in science. More information can be found here or by contacting <u>amgen.scholars@utoronto.ca</u>.



Paint Night 2019!

The MoGen GSA organized a paint night so that scientists-intraining could bring out their artistic side (who ever said you could only be good in one or the other?). Some students copied off a template while others improvised and let the paintbrush

carry them away. The subjects on the canvass ranged from landscapes to tardigrades, and even to abstracted cells (you can never take the scientist away). All in all, it was a relaxing and enjoyable experience that will surely make a comeback!



Welcome to our new Student Services Assistant, Mr. Kwame Diko. Kwame joined our administrative team in Nov 2019, moving from the Department of Family and Community Medicine at UofT. Prior to that, he was an Administrative Assistant at the Hospital for Sick Children. Kwame has experience providing support to academic and research programs. The Student Services portfolio includes the MGY undergraduate programs, Summer Undergraduate Research Program,

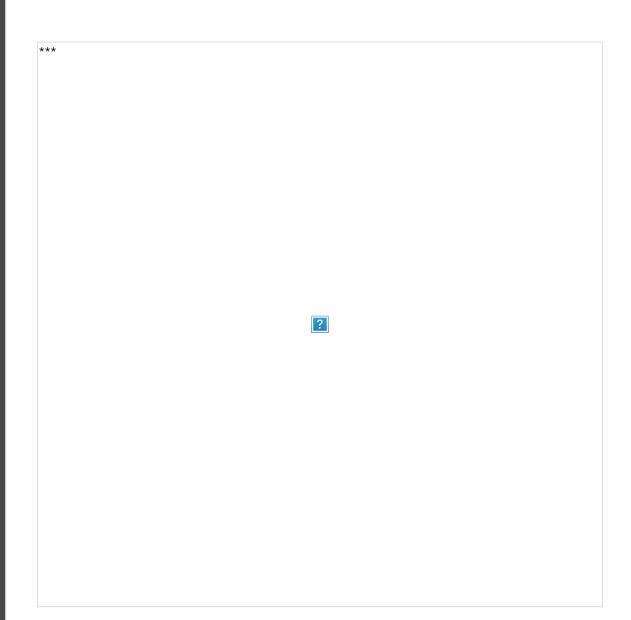
Communications, and Teaching Assistants. You can find him in MSB, Rm 4396, or contact him via email, <u>mgy.info@utoronto.ca</u> (nb: a new email address for student services).



The Association of Genetic Counseling Program Directors (AGCPD) annual Outstanding Supervisor Award recognizes one outstanding clinical supervisor from each genetic counselling program. The 2019 winner for the University of Toronto is Brittney Johnstone, who is also an alumna of the program. Each graduating student can nominate one supervisor who has demonstrated excellence in one or more of the domains of the genetic counseling supervision competencies. Examples of these competencies include relationship building and maintenance, student evaluation, student centered supervision,

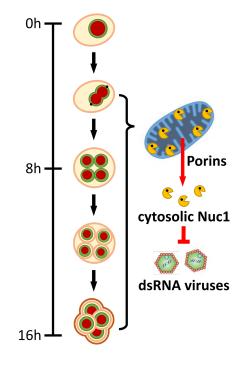
guidance and monitoring of patient care, and the ethical and legal aspects of

supervision. In order to be nominated for the award students must submit in writing a description of how their chosen supervisor demonstrates excellence in one or more of these domains. Winners of the award are honored by both the AGCPD and the National Society of Genetic Counselors (NSGC).



Research Highlights

In addition to sculpting development, apoptotic programmed cell death (PCD) purges virus-infected cells in humans, and it has been hypothesized that viral defense underlies the puzzling evolutionary origins of PCD. Although PCD is widely observed in unicellular organisms, its roles in them are



considered controversial. A recent study led by Dr. Marc Meneghini describes a conserved apoptotic-like pathway that functions to protect the single-celled yeast S. cerevisiae from catastrophic activity of viruses that are endemic to this organism. The paper, published in PNAS, showed that the Nuc1, a homolog of the apoptogenic mitochondrial DNA/RNA nuclease endonuclease G, attenuated double stranded viruses during meiotic development (known as sporulation). Meiotic viral attenuation by Nuc1 was associated with its regulated release from the mitochondria into the cytosol, where the viruses reside. Moreover, Nuc1 mitochondrial release accompanies PCD of the meiotic mother cell that the Meneghini lab previously discovered to

invariably occur during sporulation. The study points towards a provocative model where the regulated mitochondrial release of apoptogenic proteins from mitochondria may have arisen as a survival strategy against viruses, indicating new potential targets of endonuclease G in humans. (*PNAS 2019*, doi: 10.1073/pnas.1900751116)

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A new tool for quick retrieval of gene and gene product information.

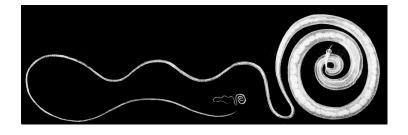
As much of modern experimental biology uses discovery-based tools that return long lists of genes or proteins that are modulated under the experimental conditions tested, quickly retrieving information about these targets becomes critical. With this in mind, James Knight, working with **Dr. Anne-Claude Gingras**, recently designed a browser extension called GIX (Gene Information eXtension), which provides information on genes and their protein products directly on any webpage. Selecting a gene

name (or other supported identifiers) by double-clicking will return user-specified information that can include protein-protein interactions, subcellular localization, protein domains and regions, Gene Ontology terms, pathways, and disease associations. Eleven species are currently supported, and information is retrieved from multiple databases.

GIX is available for Chrome and Firefox (see gene-info.org for details and download

links and gene-info.org/media/tutorial.mp4 for an instructional movie) and the manuscript was published in *Nature Methods*. The extension has already been adopted by over 650 users, demonstrating the demand within the scientific community.

Nature Methods 2019, doi: 10.1038/s41592-019-0477-9



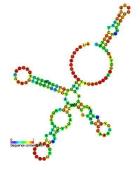
Parasitic worms are a global health problem, infecting more than a billion people worldwide. A new study, led by Dr.

Andy Fraser and

published in *eLife*, has identified a key molecule necessary for worm metabolism but not for that of human cells. The molecule, rhodoquinone (RQ) is necessary for worms to grow in low oxygen environments, such as the human gut. Using the non-parasitic worm *C. elegans*, which also produces RQ, researchers identified a gene called *kynu-1* necessary for an early step in the synthesis of RQ. The results raise the possibility that the genes and gene products responsible for synthesis of RQ could be exploited as drug targets to kill the worms but not harm the people infected.

Read the full story here.

eLife 2019, doi: 10.7554/eLife.48165



Discovery of a new cancer-driving mutation in the "dark matter" of human DNA.

Cancers are driven by mutations that lead to increased and uncontrolled cell proliferation, and the vast majority of the driver mutations that have been identified are in genes that code for proteins. Less is known about the contributions of non-coding DNA, which makes up 98% of the human genome and has been referred to as human

"dark matter" because it has been difficult to study. A new study led by **Dr. Lincoln Stein** and published in *Nature* has identified a specific cancer-driver mutation in U1 snRNA that affects the specificity of RNA splicing and alters the splicing pattern of multiple genes. The mutation, found in several types of tumours, disrupts normal transcription of a variety of other cancer-driving genes. The results suggest that targetting the mechanisms of aberrant splicing may lead to new ways to treat cancers carrying the mutation. Click here to read more.

Nature 2019, doi: 10.1038/s41586-019-1651-z



Computationally testing the genetic basis for human evolution.

A study led by **Dr. Tim Hughes** and published in *Nature Genetics* has found that dozens of genes, previously thought to have similar roles across different organisms, are in fact unique to humans and could help explain how our species came to exist. These genes code for a class of transcription factors (TFs) called C2H2 zinc finger TFs,

which control gene activity. Previous studies suggested that similar TFs bind similar DNA sequences and thus control similar genes; the current study directly challenges those predictions. The team developed software to analyze key residues involved in DNA specificity, with surprising results. "Even between closely related species there's a non-negligible portion of TFs that are likely to bind new sequences," says Sam Lambert, former MoGen graduate student and lead author of the study. The results raise the possibility that these differences are responsible for unique features of human physiology and anatomy.

Read the full story here.

Nature Genetics 2019, doi: 10.1038/s41588-019-0411-1



Identifying brain cells responsible for nicotine aversion in mice.

Nicotine generates both feelings of reward and aversion, but the latter typically diminish with time. A new study by Taryn Greider in **Dr. Derek van der Kooy**'s lab, and published in *PNAS*, has identified two different populations of brain cells that sense reward or aversion, and that reside in the ventral tegmental area, or VTA, which is a key player in the brain's reward system. Although the two cell populations are intermingled in the VTA, the researchers used genetics to create mice with

nicotine receptors on only one or the other of the two main types of neurons – dopamine or GABA neurons. Using this approach, they showed that dopamine neurons are responsible for nicotine aversion, even though dopamine has been thought to be the main reward signal. The key difference is whether the brain has become dependent on nicotine. Dopamine neurons signal aversion in non-dependent mice, but signal both reward and aversion once dependence, ie addiction, is established. These observations may lead to new ways to treat addition to smoking by, for example, developing new aversion therapies. Read the story in **UofT News**.

PNAS 2019, doi: 10.1073/pnas.1908724116



Advancing therapies for invasive fungal infections.

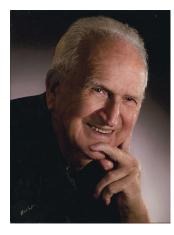
Antifungal resistance is a growing and global health problem, and there are only a few approved drugs to treat invasive fungal infections. **Dr. Leah Cowen** is co-Founder and Chief Scientific Officer for **Bright Angel Therapeutics**, which has just announced major new funding that will enable continued advancement of their lead program targeting invasive and drug-resistant fungal infections. A major initiative by the company targets the fungal Heat Shock Protein 90 (Hsp90), which is an important mediator of stress responses, and has been

shown to be central to the emergence and maintenance of fungal drug resistance. Read the detailed announcement here.

Faculty Highlights and Awards

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50th Anniversary Spotlight



Dr. Lou Siminovitch founded the department in 1969 and was our first Chair. At that time, we were the Department of Medical Cell Biology in the Medical Sciences Building. Fifty years and several name changes later we have expanded to over 100 faculty members in multiple locations, both on and off campus. Lou is now Professor Emeritus at U of T, and Director Emeritus at the Lunenfeld-Tanenbaum Research Institute (LTRI). In honour of Lou's contributions to the Department and to science in Canada, and as part of our 50th Anniversary celebrations, grad students Laura Hergott and Sabrina Hyde interviewed Lou, who reminisced about science and family in his career. Read the full interview here.

Welcome to New Faculty



Dr. Sagi Abelson is an Investigator at the Ontario Institute for Cancer Research (OICR), and joined the Department as an Assistant Professor in September 2019. He completed his PhD at the Technion-Israel Institute of Technology, and his postdoctoral training at Princess Margaret Cancer Center (UHN), Toronto. His work focuses on the analysis of genomics and other age-related quantitative factors to understanding the aetiology of cancer. To improve patient care and outcome, the team

seeks to develop and bring advanced sequencing methodologies and bioinformatics tools into clinical use.



Dr. Kieran Campbell is an Investigator at LTRI and an Assistant Professor in MoGen, effective January 2020. His research focusses on Bayesian models and machine learning for high dimensional biomedical data, including single-cell and cancer genomics. Most recently, he was a Banting postdoctoral fellow at the Dept of Statistics, University of British Columbia and Dept of Molecular Oncology, BC Cancer Agency. He obtained his D. Phil in computational and statistical genomics at the University of Oxford under the supervision of Christopher Yau.

Honours and Awards

Dr. Stephen Scherer has been awarded a *2019 Killam Prize* for his significant contributions to Health Science; in recognition of his outstanding work in genomics, genetics, and towards our understanding of autism. The \$100,000 Prize is one of five awarded annually by the Canada Council for the Arts, the country's public arts



funder, and is the organization's top annual award. Read the story in **UofT News**.



Dr. Mikko Taipale is the inaugural recipient of the *David Dime and Elisa Nuyten Catalyst Award in Molecular Genetics*. Chemistry alumnus and business founder David Dime has generously established the catalyst fund in Molecular Genetics to support research into novel approaches to combat diseases. The \$50,000 award will allow Taipale's team to further develop a new technology called PROTACs, for Proteolysis Targeting Chimeras, to reveal therapeutic targets in cancer cells. Click here to read more.



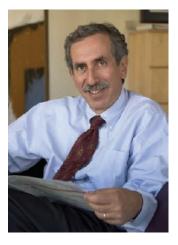
Dr. Bruce Seet has been honoured with a *2020 Life Sciences Ontario (LSO) Community Award*, one of five awards awarded annually by LSO to recognize individuals who have made outstanding contributions to the life sciences community in Ontario. Bruce is Director, Medical Affairs at Sanofi Pasteur, and an Adjunct Professor in Molecular Genetics, where he teaches and supports graduate professional development in the department.

Read the LSO announcement here.

Dr. Benjamin Blencowe has been elected a fellow of the Royal Society, the United Kingdom's national academy of sciences. He is recognized for his pioneering work in the development and application of highthroughput RNA profiling technologies.



Read the full story here.



Dr. Alan Bernstein has been awarded an honorary degree, Doctor of Laws, *honoris causa*, from the University of Toronto. Alan has held many leadership positions in science in Canada, including as the inaugural President of the Canadian Institutes of Health Research. He is currently President and CEO of CIFAR. Read the full story in **UofT News**.

Canada Research Chairs

Six faculty from Molecular Genetics are 2019 recipients of Canada Research Chairs:



Dr. Sabine Cordes - *Tier 1 Canada Research Chair in Molecular Mechanisms of Mood and Mind.* The Cordes lab combines mouse genetics with molecular analyses *in vitro* and in other model organisms to understand the molecular mechanisms that govern neurodevelopment, neuronal function and angiogenesis (blood vessel branching).



Genetic Models of Human Disease. Research in the Derry lab studies the mechanisms by which the cerebral cavernous malformation (CCM) proteins control excretory canal development. In addition, the lab is interested in cell autonomous and cell-nonautonomous mechanisms of apoptosis and DNA repair in the nematode worm *C. elegans*.



Dr. Philipp Maass - *Tier 2 Canada Research Chair in Non-Coding Disease Mechanisms*. The Maass lab studies inter-chromosomal interactions and how they regulate gene expression, with particular focus on those of the noncoding genome that impact development and disease mechanisms.



Dr. Julien Muffat - *Tier 2 Canada Research Chair in Stem Cell Bioengineering and Synthetic Neuroimmunology*. The Muffat laboratory studies interactions of the nervous and immune systems, using an in vitro approach capitalizing on the advent of human induced pluripotent stem cells, directed differentiation in 2D and 3D, and genetic engineering.

Dr. Christopher Pearson - *Tier 1 Canada Research Chair in Disease-associated Genome Instability.* The Pearson Lab studies the molecular mechanisms involved in genetic mutations in and instability of trinucleotide repeat sequences, which are responsible for numerous neurological, neurodegenerative, and neuromuscular disorders such as myotonic dystrophy and Huntington's



disease.



Dr. Hannes Rost - *Tier 2 Canada Research Chair in Mass Spectrometry-based Personalized Medicine*. The Rost lab studies systems-level molecular changes in health and disease using bioinformatic methods. They develop open-source algorithms to analyze mass spectrometric data and integrate it with other omics data using network analysis, machine learning and signal processing.

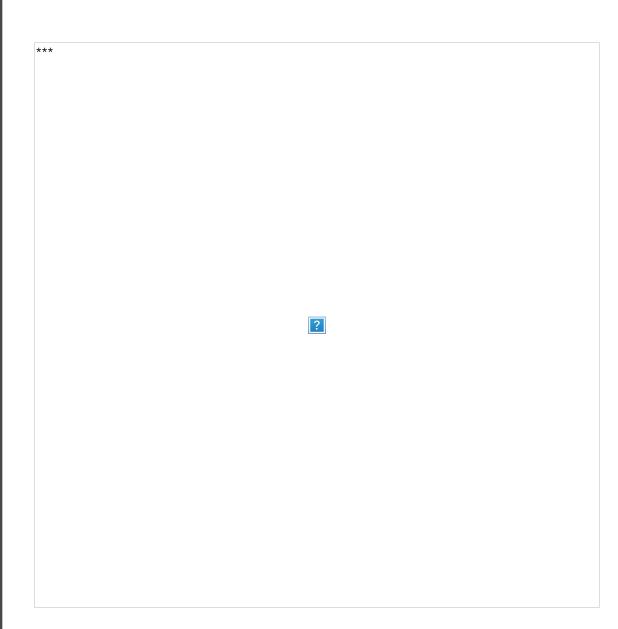
In Memoriam



Dr. John L. Penner passed away on July 9 at the age of 90. Dr. Penner was a Professor and Chair of the former Department of Microbiology, and retired in 1995. In 1996, Microbiology merged with Medical Genetics (now Molecular Genetics). John had a long and productive career as a researcher in microbiology and immunology. In recognition of his achievements, the bacterium *Proteus penneri* was named in his honour.

Dr. Ricky Chan, Professor Emeritus in Molecular Genetics, remembered John: "I met Dr. John Penner in 1976, when I first joined the Department of Microbiology.

He was a warm, friendly and highly respected colleague and scientist. Dr. Penner developed a typing system for *Campylobacter jejuni* species that was used and appreciated world wide by clinical bacteriologists and researchers in the field. He made major and fundamental findings and generated invaluable knowledge on *Campylobacter*, now recognized as a common and significant pathogen in gastrointestinal infections. Dr. Penner is recognized as a pioneer in the field of *Campylobacter* and he will be sorely missed." Read Dr. Penner's obituary here.



Trainee Highlights and Awards

Welcome to new students

We have a large cohort of new students in our graduate programs for fall 2019 (*pictured below*). We welcome 68 PhD/MSc students to our research labs, 20 MHSc students to the MHSc Masters of Health Science program (our 2nd incoming year!), and 6 MSc students to the Genetic Counselling program.

In addition, we welcome 25 Specialist and 44 Major undergraduate students to the 2nd year of Molecular Genetics & Microbiology (MGY; undergrads join our program

in their 2nd year in Arts & Science). This brings total undergraduate enrollment to over 200 MGY students!



PhD/MSc students



MHSc students



MSc Genetic Counselling students

Awards



Dr. Eric Chapman has been awarded the **2019 Barbara Vivash Award** for his PhD thesis, entitled "Elucidating the Mechanism by which KRI-1/CCM1 Regulates Apoptosis Cell Non-Autonomously in *Caenorhabditis elegans*".

Eric's PhD work, in the lab of Dr. W. Brent Derry, focused on characterizing molecular pathways regulated by the KRI-1/CCM1 protein. In humans, aberrant CCM1 function leads to the disease known as Cerebral Cavernous Malformations (CCM), characterized by the

formation of anomalies in the cerebral vasculature that can lead to seizures and stroke. Since the mechanisms by which CCM1 promotes normal cell function were unclear, no treatments had been developed for patients. Thus, Eric was determined to identify how this protein functions, by harnessing the power of the model organism C. elegans. Using cell death as a readout, Eric was able to utilize high-throughput screening approaches and hypothesis-driven experimentation to identify that the ERK5 MAPK pathway is overactivated in the absence of CCM1. Eric then demonstrated that the ERK5 pathway alters the function a KLF transcription factor that is required for the proper expression of a zinc transporter. This zinc transporter promotes the storage of zinc in cellular vesicles and loss of CCM1 results in the failure of cells to properly store zinc. As a result, zinc redistribution occurs and inhibits critical processes such as apoptosis. To determine if proper zinc storage is related to CCM disease, Eric collaborated with international teams in Berlin and Chicago to validate these findings in zebrafish vasculature and resected CCM patient lesions. As the search for CCM therapeutics remains an intense focus in the scientific community, Eric and the Derry lab hope that their work will help to identify druggable targets.

The Barbara Vivash award is given annually to the graduating student with the best PhD thesis in Molecular Genetics. It includes a significant monetary award, a certificate, and an invitation to present a full Departmental seminar. The date for Eric's seminar will be announced on the MoGen website.

Owen Whitley (Bader lab) has been awarded



the **David Stephen Cant Graduate Scholarship in Stem Cell Research**. This scholarship is granted annually to a Molecular Genetics graduate student in the M.Sc. or Ph.D. program demonstrating excellence and commitment in the area of stem cell research. Owen's research project is part of a large collaboration with Dr. Peter Dirks to interpret a large multi-omics data set measured for glioblastoma (GBM) cancer stem cells and associated tumours, including whole genome

sequence, RNA-seq, miRNA-seq, two epigenomic layers, proteomics, metabolomics, CRISPR and drug screens, and single cell genomics for over 50 tumours.

Graduate Student Awards 2019

Molecular Genetics has a number of competitive awards and fellowships given annually to our graduate students, and announced at the retreat by our Chair, Dr. Leah Cowen. Congratulations to all students!!



L.W. MacPherson Award Jaime Yockteng



Hannah Farkas-Himsley and Alexander Himsley Memorial Prize Nicole Revie

Norman Bethune Award

Swathi Jeedigunta



Roman Pakula Award Sam Salamun





Eric Hani Fellowship Jie Guo

MoGen Retreat Poster Awards 2019



Nine students received awards for their posters at the MoGen retreat this year, shown (with Daniel Schramek and Julie Lefebvre) from left to right:

Back row:

David Pompili, Hala Tamim, Kristina Sztanko, (Daniel), Jessie MacAlpine, Denise Rebello, Kali Iyer

Front row:

(Julie), Julia Kitaygorodsky, Laura Hergott, Michael Liang



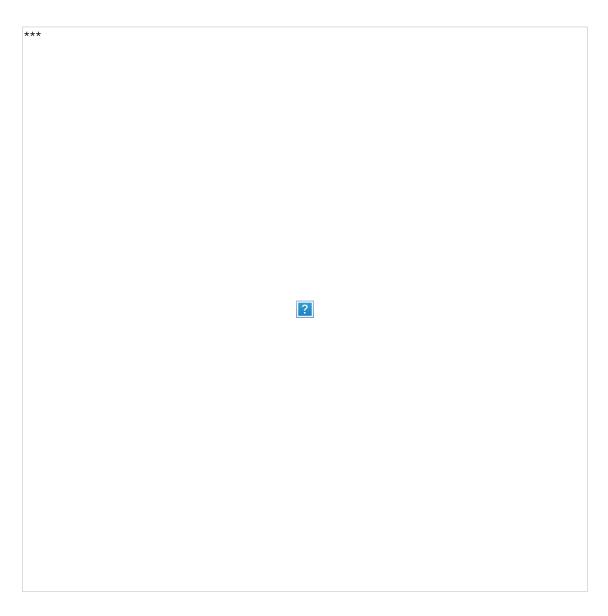
Four students received Junior poster awards, which are given to students in the first two years in the program. The recipients, shown with Kali Iyer and Nicole Revie, copresidents of the MoGen GSA, are: *From left to right:* Afrin Bhattacharya, Matthew Rok, (Kali, Nicole), Sylvia Almeida, and Vernon Monteiro.

Undergraduate Student Awards 2019



Ning (James) Fu (MGY Specialist) was awarded the **2019 Clarence** Fuerst/DTL Award as the best student in the MGY Genetics lab courses, MGY314 and MGY315. The award comes with a certificate and cheque for \$250. It is administered by the Division of Teaching Labs (DTL) in the Faculty of Medicine, and is given to honour the late Dr. Clarence Fuerst. Clarence was a lambda geneticist, recruited by Lou

Siminovitch to the Department, and was responsible for setting up our original lab course experiments in the (then) MGB program. The photo shows Jamy's TA, Erin Wong, presenting him with the certificate.



This newsletter would not be possible without contributions from our community. Thanks to Jessica Hill, Sabrina Hyde, Laura Hergott, Ceryl Tan, Julie Lefebvre, Susan Armel, Jovana Drinjakovic, and Julie Claycomb for commentary and photos for this issue.

Links to previous editions of MoGeNews

To access previous issues of MoGeNews, please click on the relevant link:

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