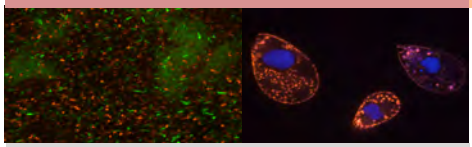
UNIVERSITY of GUELPH

MOLECULAR and Cellular Biology

http://www.uoguelph.ca/mcb/

Summer 2016 Departmental Newsletter



Inside…

MCB Stars of Convocation!

Melanie Wills is the 2016 recipient of the Forster Medal (PhD), the most prestigious University of Guelph graduate award. The medal is awarded to a convocating PhD student who excels both academically and in extra-curricular activities. Well done, Melanie!

David Josephy gave the convocation address (actually 5 of them!) for the spring convocation morning ceremonies. David emphasized the need for diversity and teamwork in science, citing the pioneering work of LIGO in detecting gravitational waves as an example.

Seeing lots of new faces? It's been a record year for graduate student admission to the department: Fall:26; Winter:5; Summer:9

Welcome new Postdocs, Research Associates and Technicians

Tanvir Bashar (Meng)
Christian Castroverde (Nazar)
Marc Champigy (Campbell)
Phil Medeiros (Uniacke)
Abdalla Mohamad (Nazar)
Matiyo Ojehomon (Dawson)
Emine Ozsahin (Krell)
Keith Sherriff (Ryan)
Veronique Taylor (Lam)
Liping Wang (Emes)
Zhenhua Xu (Rothstein)

Now You See Them...

A warm welcome to our new graduate students!

MSc program
Lina Abou Zeid (Mosser)
Cole Anderson (Mathur)
Andrea Brumwell (Uniacke)
Ashley Cheng (Yankulov)
Kirsten Chuli (Khursigara)
Joseph Ciufo (Clarke)
Kathleen Delfosse (Mathur)
Mitchele Demelo (Khursigara/Lo)
Piriththiv Dhavarasa (Yankulov)
Liam Doyle (Whitfield)
Stephanie Gilbert (Seah)
Adam Golding (Jones)
Olivia Grafinger (Coppolino)
Christopher Halloran (Lam/Kimber)
Dendra Hillier (Vessey)
Kayla Humphries (Ryan)
Werdah Iqbal (Colasanti/Husband)
Nicole Kelly (Uniacke)
Hayley Lau (Jones)
Bronwyn Lyons (Merrill)
Danielle MacDuff (Mutharia)
Afreeda Mahesaniya (Jones)
Clayton Moore (Meng)
Sharall Palmer (Graether)
Robin Ralph (Krell)
Connor Randall (Coppolino)
Kevin Rea (Akhtar)
Patrick Ryan (Kimber)
Mehdi Shabanian (Meng)
Manish Singh (Dawson)
Anastasia Smart (Vessey)
Samantha Wear (Whitfield)
Jessica White (Tetlow)

PhD program
Maedeh Darzianiazizi (Lu)
Alison Edge (Nassuth/Tetlow)
Mara Goodyear (Khursigara)
Carys Jones (Clarke)
Karamjeet Singh (Graether)
Afsan Sohail (Bendall)
Jordan Willis (van der Merwe)

The department has been pleased to welcome many visiting scientists this year:

Ines Djeghdir (Nassuth)
Sophie Mockly (Nassuth)
Qiangzeng Sun (Khursigara)
Mohammad Sarhan (Josephy)
Julia Santos (van der Merwe)
Claire Watkins (Allen-Vercoe)
Ping Yu (Rothstein)

Now You don't...

Farewell to those who have moved on from MCB

Erin Bolte (Allen-Vercoe) accepted a prestigious MD/PhD student placement at Baylor School of Medicine (Houston, Texas)
Kyla Cochrane (Allen-Vercoe) is now a postdoc at the BC Cancer Agency (Vancouver)
Reema Deol (Josephy) is now a Research Technician/Analyst in the Tumor Immunotherapy Program, Princess Margaret Hospital, Toronto
Tony Facciuolo (Mutharia) is now a postdoc at VIDO-InterVac (U of Saskatchewan)
Ashley Jaipargas (Mathur) is now working for PlantForm
Tom Keeling (Merrill) recently headed up a new start-up: Protein Innovations (www.proteininnovations.ca)
Lisa Kell (Whitfield) is now a technologist at Labstat in Kitchener
Flavia Lopes (Van Raay) is now a research associate at the University of Toronto
Fushan Liu (Emes) joined J.R. Simplot in Boise, Idaho as a research/regulatory scientist
Yang Liu (Krell) is now a postdoc at Colorado State University
David Marom (Wood) is now a Technical Administration Specialist, LifeGlobal Group (Guelph)
Scott Mazurkewich (Seah) is off to take up a postdoctoral position at Chalmers University of Technology in Sweden
Yfke Pasman (Kaushik) is now a postdoctoral fellow at the University of Toronto
Daniel Pasula (Van Raay) will be starting his Ph.D. at UBC this fall.
Monica Williamson (Whitfield) is off to medical school at the University of Toronto
Charles Wroblewski (Kimber) is now working at the Agriculture and Food Lab, Laboratory Services

New Graduates

Some of our MCB graduates at Spring convocation:

L-R: Chevonne Carlow (inset), Christian Castroverde, Maureen Mundia, Veronique Taylor, Kyla Cochrane, Abdalla Albeely, Scott Mazurkewich, Melanie Wills, Mike Toh

Congratulations to our graduates (and their supervisors!):

Summer 2015
Yang Liu, PhD (Krell)
Ashley Jaipargas, MSc (Mathur)
Reema Deol, MSc (Josephy)

Fall 2015
Elyse Roach, PhD (Khursigara)
Tony Facciuolo, PhD (Mutharia)
Mark Ecclestone, MSc (Clarke)
Yfke Pasman, PhD (Kaushik)
Morgan Lockhart, MSc (Rothstein)
Mike Toh, PhD (Allen-Vercoe/Van Raay)
Brandon Wyse, MSc (Yankulov)
Laura Kell, MSc (Clarke)
Michael Wozny, MSc (Mathur)
David Martinowitz, MSc (Coppolino)
Charles Wroblewski, MSc (Kimber)
Elizabeth Kell, MSc (Whitfield)

Winter 2016
Molly Udaskin, MSc (Meng)
Daniel Pasula, MSc (Van Raay)
Veronique Taylor, PhD (Lam)
Katherine Blake, MSc (Bag)
Kyla Cochrane, PhD (Allen-Vercoe)
Danve Castroverde, PhD (Robb/Mathur)
Melanie Wills, PhD (Jones)
Chevonne Carlow, PhD (Nassuth)
Trent Faultless. MSc (Nassuth)
Maureen Mundia, PhD (Baker)
Scott Mazurkewich, PhD (Seah)
Abdalla Albeely, MSc (Nazar/Bendall)
Zhenhua Xu, PhD (Rothstein)

Summer 2016 (so far)
Will Martin, MSc (Mutharia)
Sanna Abbasi, MSc (Yankulov)
Karen Gonzalez, MSc (Wood)

Honours & Awards

Congratulations to those who have been recognized within the University and beyond!

D.F. Forster Medal (Doctoral):
Melanie Wills (see front page)

CBS Silver medal (Master's):
Brandon Wyse

Cezar Khursigara is the 2016 recipient of the Canadian Society of Microbiologists Fisher Scientific Award in Microbiology, which recognizes excellent new researchers in the microbiological sciences

NSERC graduate scholarships

Mara Goodyear (CGS-D)
Evan Mann (CGS-D)
Carys Jones (CGS-D)
Erin Anderson (CGS-D)
Andrea Brumwell (CGS-M)
Bronwyn Lyon (CGS-M)

Graduate Excellence Entrance Scholarship

Kathleen Delfosse
Sonia Evagelou
Carys Jones
Caitlyn Sande

Queen Elizabeth II graduate scholarship

Danielle Williams

MCB Donald Robert Philips Scholarships

Sean Liston
Evan Mann

Dean's Tri-Council Scholarship

Kiah Barton
Alison Berezuk
Mara Goodyear
Sean Liston
Evan Mann
Mark Minow

Graduate Tuition Scholarship

Liam Doyle
Karamjeet Singh
Hayley Thorpe
Sanna Abbasi
Adam Golding

Ontario Graduate Scholarships and Fellowships

Scholarships:
Kelly Boddington
Alison Berezuk
Ashley Brott
Steven Huszczynski
Kaitlyn Oliphant

Fellowships:
Megan Brasher
Sara Timpano

Note: 2016/17 awards will be reported in the next newsletter

Poster Awards

Dr. O. Ovchinnikova, Canadian Glycomics Symposium

Liam Doyle, Guelph-Laurier-Waterloo Protein Symposium

Undergraduate Awards

Analytical Biochemistry Scholarship: Sabrina Glavota & Stephanie Carlin
Dr. R.A.B. Keates Biochemistry Scholarship: Adena Commisso
Frances Sharom Biochemistry Scholarship & Chemical Institute of Canada (CIC) Silver Medal in Biochemistry : Caitlyn Sande
Honours Biochemistry Scholarship: Simone Renwick & Norman Haller
Kenneth James Berg Memorial Scholarship: Natasha Elms
Pharmacia & Upjohn Scholarship in Microbiology: Milena Music
Shutt Memorial Scholarship: Carys Jones

Committee Reports

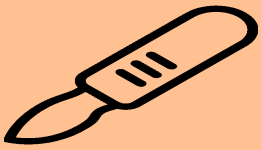
From Marc Coppolino, Chair, Distinguished Speaker Seminar Series: Thanks to all for a well-attended and invigorating 2015-2016 seminar series. No speakers were seriously harmed. We look forward to bringing you a new, expanded seminar series in 2016-2017.

2015-16 MCB Distinguished Speaker Series

1. Dr. Michael Moran, University of Toronto
2. Dr. Tracy Raivio, University of Alberta
3. Dr. Rheal Towner, University of Oklahoma
4. Dr. David Evans, University of Alberta
5. Dr. Malcolm Campbell, University of Guelph
6. Dr. Thomas Wolever, University of Toronto
7. Dr. Dominique Bergmann, Stanford University

From Steffen Graether, Chair, MCB Joint Health and Safety Committee:

We would like to thank the entire department for helping to make safety a priority this past year. Unfortunately, we have learned that despite all possible precautions and warnings undergraduate students and scalpel blades are not always good combinations.



From Nina Jones, Chair, MCB Outreach/PR Committee

It's been another busy year! One of the most exciting events was collaborating with the Let's Talk Science group to host a high school symposium in November 2015.

From Andrew Bendall, Chair, MCB Graduate Committee

Congratulations to the following students who successfully passed their PhD qualifying exams: Steven Huszczynski, Sean Liston, & Evan Mallette (Fall '15); Ashley Brott, Greg MacNeill, Michael Pyc, Manali Tilak, & Sara Timpano (Winter '16); Kaitlyn Oliphant & Kelly Boddington (spring '16).

"At our last meeting, it was unanimously agreed to form a cult that worships coffee and doughnuts."

Committee Reports (Cont.)

From Ashley Brott, MCB Graduate Student Council

Thank you to all of MCB for joining the MCB GSC at several events hosted throughout the year! We had the chance to reach new heights at the AirU Trampoline Park, mix, mingle and talk science at the Senior Seminar Series (with the help of John Vessey and Tariq Akhtar) as well as bi-monthly mixers, and even learned the proper way to throw rocks at houses at the Guelph Curling Club! We hope everyone has enjoyed these and many more activities from the past year and look forward to seeing you at future events!

"Piled Higher and Deeper" by Jorge Cham www.phdcomics.com

Teaching

From John Dawson: I flipped the first 4 weeks of the 4th year Membrane Biochemistry course, focusing on the concepts in the course are applied in a series of primary literature papers. Students completed worksheets in classes as groups and these were reviewed, scanned and uploaded to group Dropboxes on Courselink to provide immediate feedback on progress. On "Fun Fridays" we took the last 10 min to play a game incorporating themes from the course: Pictionary, charades, password ("The password is… amphipathic") — it's incredible how engaged people get when a game's involved! Students were anxious about the change in style from straight lectures to reading for homework sheets before classes, but the majority commented on their increased engagement with the content, being active in class, and how they worked on skills that will be important for when they graduate. It was a lot of work, but it was worth it!

BIOC*4580 Selfie. Me with the class on the last day of teaching. "Selfie Stick!"

COESP

The College of Biological Science Office of Educational Scholarship and Practice (COESP) officially started on March 1, 2016, when I took on the role of its faculty Director. Since that time, we've been very busy behind the scenes discussing who we are and what we will do. We held meetings every morning for a week with Dr. Keith Trigwell, a teaching and learning expert from Sydney, Australia, to discuss the COESP and where it is going. We also hosted the COESP Kick-off event on May 10 including a plenary lecture from Dr. Trigwell, and presentations and participatory sessions for the community of CBS.

We've been busy collecting information from the College about the challenges and needs they see in Biology higher education and plan to report our findings back to the community and address some of the challenges through information releases, seminars and resources.

We have released our seminar series for the summer aimed at some of the challenges. And we are pleased to announce the first COESP BioEd graduate student award that will be selected and celebrated on August 25th.

Our website is up and running with lots of information (uoguelph.ca/coesp) and you can follow us on through our Twitter, Facebook and Insta feeds for news, announcements, and highlights from the literature and meetings.

At the COESP, we say: "We are us." We want to hear from everyone and get everyone involved because we are all in this together!

Teaching (cont.)

From Wendy Keenleyside…

I presented at the 2nd annual Canadian Society of Microbiologists Focus on Microbiology Education (CSM FOME) at UofT this June. The title of the talk was "Team work in the active learning classroom: a great idea, but how can we build teams that work?". The strategies and tools I discussed were those that made the difference in creating positive team experiences in MICR2430 for F15 & W16…for both student and instructor!

I also used a variety of technologies in my classes, any of which I would fully recommend:

-REEFpolling by iClicker, a cloud-based student engagement system that works with students' electronic devices. It's cheap and easy to use (for both instructor & student)

-PEERWise, a free platform that provides a repository for student created multiple choice questions on course content. Students can practice, comment and rank their classmates' questions

-Camtasia for recording (and later editing) lectures (using only a webcam and the laptop's built-in microphone) combined with the streaming function now available on D2L

-2-stage testing (individual followed by a group component) with the group component using IF-AT cards ("scratch & win" cards)

From Janet Wood:

During the W16 offering of Microbial Adaptation, the class discussed the fact that I require students to do simple calculations (e.g. use of the Michaelis Menten Equation and the equation relating ion motive forces to the membrane potential and transmembrane ion gradients). A bright young woman who always occupied a seat immediately in front of me turned to her (also bright) friend and stated emphatically:

"***As micro students, we shouldn't do math!"***

A warm welcome to Elspeth Smith, new Undergraduate Teaching Coordinator, who joined us this spring

REEF Polling by iclicker

From Emma A-V…

I used REEF Polling by iClicker in MICR*2420 (Introduction to Microbiology) this Winter for the first time and highly recommend it.

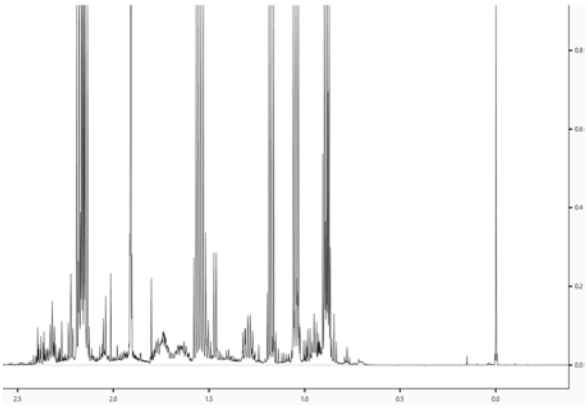
MICR*3420 (Microbial Diversity) in the Fall attracted a large cohort of >70 students. I had fun creating several active teaching exercises including a 'Name that Microbe' game (see photo) with the help of my grad students, and a memorable afternoon of sampling different fermented food from around the world. (Sadly no beer or wine!)

First trial of the "Name That Microbe" game

New Funding

Emma Allen-Vercoe (as co-PI): NIH R21: *"Microbes that Matter: defining optimal formulations for Microbial Ecosystem Therapeutics"*
Emma Allen-Vercoe (as co-investigator): CIHR Programmatic Grants in Environment, Genes and Chronic Diseases *"The impact of the gut microbiome and environment on the development of colorectal cancer"*
Emma Allen-Vercoe (as co-investigator): CIHR Project Grant: "*Mechanisms of Inflammation, Immunity and Islet Dysfunction in Diabetes"*
Mark Baker: NSERC Discovery Grant *"Genetic analysis of early events in mammalian homologous recombination in vivo"*
Anthony Clarke: NSERC Discovery Grant *"Activity, control and inhibition of lytic transglycosylases"*
Steffen Graether: NSERC Discovery Grant *"The in cell structure and function of an intrinsically disordered plant stress protein"*
Nina Jones: CIHR Project Grant "*Molecular regulation of the kidney filtration barrier"*
Cezar Khursigara: NSERC RTI "*Live Cell Imaging Upgrades to Quorum Diskovery Spinning Disk Microscope System"*
Cezar Khursigara: Cystic Fibrosis Canada Research Grant (As co-PI) *"Enhancing the prediction of clinical drug responses using patient-specific, in-vitro assays- Precision Medicine in Cystic Fibrosis*"
Cezar Khursigara: CFI/MRI John Evan's Leadership Fund – New Scanning Electron Microscope
Matt Kimber: Glyconet grant (NCE) with Joe Lam, David Jakeman, Inka Brockhausen, Eric Brown
Peter Krell: Genome Canada grant on cell biosensors for rapid screening of insect attractants (colloquially called "antennae in a dish")
Rod Merrill: NSERC Engage grant (with Syngenta Canada Inc.)
Dick Mosser: NSERC Discovery Grant *"Role of HSP70 in the regulation of miRNA biogenesis in heat stressed cells"*
Lucy Mutharia and Roz Stevenson: OMAFRA U of G partnership grant "*Rapid detection approaches to production-limiting flavobacterial diseases in Ontario fish aquaculture"*
Lucy Mutharia and Roz Stevenson: Ontario Ministry of Natural Resources and Forestry contract: 2016 – 2019 *"Fish Health Laboratory for Fish Disease Diagnostics and Monitoring Services"*
Annette Nassuth: Niagara Peninsula Fruit and Vegetable Growers grant
Scott Ryan: NSERC CRD
Scott Ryan and Jim Uniacke: CIHR Dissemination Grant
Terry Van Raay: NSERC Discovery Grant *"Regulation of Wnt Signaling in Development"*
John Vessey: Scottish Rite Charitable Organization Research Grant "*Investigating the Role of RNA Localization and Splicing in the Development of Autism Spectrum Disorder"*
John Vessey & Scott Ryan: : Ontario Institute of Regenerative Medicine New Ideas Project Grant "*Protein inactivation by agrochemicals as a mechanism underlying development of Autism Spectrum Disorder*"
Chris Whitfield: CIHR Project grant *"A vaccine development platform for Gram- negative pathogens with group 2 capsules"*
Chris Whitfield: CIHR Foundation Grant "*Surface glycoconjugates in bacterial pathogens"*

First Floor Core



New NMR Centre Manager

Hello! My name is Sameer Al-Abdul-Wahid. I started in January, taking over from Valerie Robertson. My graduate studies were in bio-NMR (proteins and lipids), but I later branched out to a wider range of samples while managing NMR labs at McGill and Miami University of Ohio.

I'm thrilled to be at UoG because our NMR Centre is very well equipped. A small sampling of our capabilities: metabolomics, protein structure and dynamics, intermolecular interactions (e.g. protein-ligand), small molecule structure determination, and natural products studies.

If you're looking to add NMR to your lab's research, I'm happy to provide whatever support I can to ease the way. I can be reached at s.wahid@uoguelph.ca or x58914.

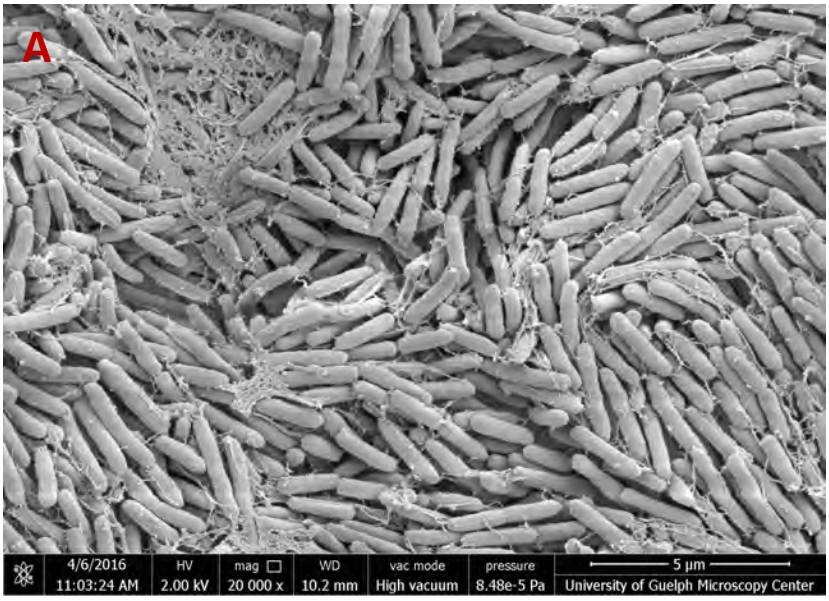
Sample spectrum region from a 1D ^{1}H NMR scan of fecal water prepared by Sandi Yen, (Allen-Vercoe lab). Sameer and Sandi are developing protocols for shotgun metabolomics analysis using NMR as a platform.

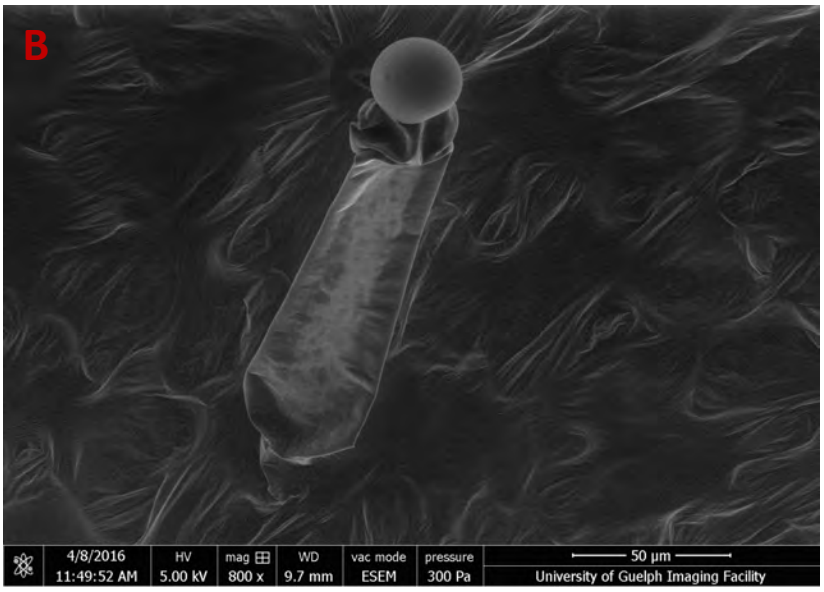
From Angela Holliss, Genomics Facility:

The Genomics Facility is pleased to host two equipment demonstrations in the near future. In August (date to be determined) we will have a new qPCR instrument available for trial, the MIC-QPCR system. This magnetic induction cycler has a wide dynamic range and high quantitative precision which makes it well suited for High Resolution Melt Curve analysis. Interested researchers should contact the facility for scheduling some time on the instrument.

In September we anticipate another demo week for the BioRad QX-200 Droplet Digital PCR System which provides absolute quantification of target DNA or RNA molecules without the use of a standard curve. A seminar will be held to introduce the instrument and highlight its capabilities although a date for this event has not yet been set. Last summer's demo week of this instrument was very busy and we expect this one to fill up quickly.

First Floor Core





From Bob Harris:

These images were taken with the Molecular and Cellular Imaging Facility's new FEI Quanta 250 Field Emission Scanning Electron Microscope, FESEM. Sample A, provided by Dr. A. Park, is of *Pseudomonas aeruginosa* which , prior to imaging, was treated by critical point drying and gold sputter coating allowing for high magnification and high vacuum viewing to provide the maximum resolution. Sample B, supplied by Dr. R.T. Mullen, shows the features on an untreated plant leaf surface, trichome, stoma and waxy cuticle. It was viewed in near ambient pressure using the Environmental Scanning Mode, ESEM.

We have our own Critical Point Drier and Gold Sputtering instruments on order and will be inviting all interested researchers to come for a trial run on their own samples in the very near future.

A photon checks into a hotel.
The bellhop asks, "Can I help you with your luggage?"
It replies, "I don't have any. I'm traveling light."

Milestones and Achievements

News of a more personal nature. Some of it science related, some of it not!

Lucy Mutharia with *Toxoplasma gondii* research team at Jomo Kenyatta University of Agriculture and Technology (JKUAT) gates, Kenya, during a visit in May 2016. Drs. N Maina and S Karanja (on extreme right) visited Dr. Mutharia's lab in 2015. Lucy presented a seminar & was on the examiner panel for research proposal by MSc and PhD in the Pan-African University (PAU) of JKUAT.

Folks from the Dawson Lab participating in this year's Ride for Heart in Toronto. L-R: John Dawson, Love Sandhu, Navneet Sidhu, Matiyo Ojehomon, Haidun Liu, Bernice Lau

From Bertilla Moroni:

In November 2015, we raised **$886** at the 11th annual MCB United Way Raffle, which was just enough money to surpass our goal of $20,000. WOW! Thanks to our United Way volunteers for making it happen and to everyone who bought tickets and donated items. Special thanks to Jaspreet and Parmalat Canada for the huge Dairy Basket donation, to Frances for getting us the CN Tower tickets yet again, to Doreen for her famous butter tarts (left), to Ian and his honey, to Tony and his wood crafts, to Astley-Gilbert Printing, to Nina and Emma for clearing out their cupboards, and of course, to those who provided baked items or donated from their liquor cabinets. Extra special thanks to Christian for the beautiful tunes. We hope to see you all at the 12th annual raffle, which will be held sometime in November. If you have items to donate, they can be dropped off anytime with Bertilla Moroni, Jaspreet Kaur, Michelle Daigneault or Erin Anderson. Thank you!

Milestones and Achievements (cont.)

News of a more personal nature. Some of it science related, some of it not!

There's been a bumper crop of MCB babies! Congratulations to:

Claire Martin (Jones lab) on the birth of her son, Rylan Michael John Currie, on January 31st 2016

Joe Lam on the birth of his first grandson Ravi Jin-Lam Pandit, on April 4th, 2016 (see photo below)

Sandra Good on the birth of her first grandchild, Gabrielle (Gabby) Good on April 24th 2016

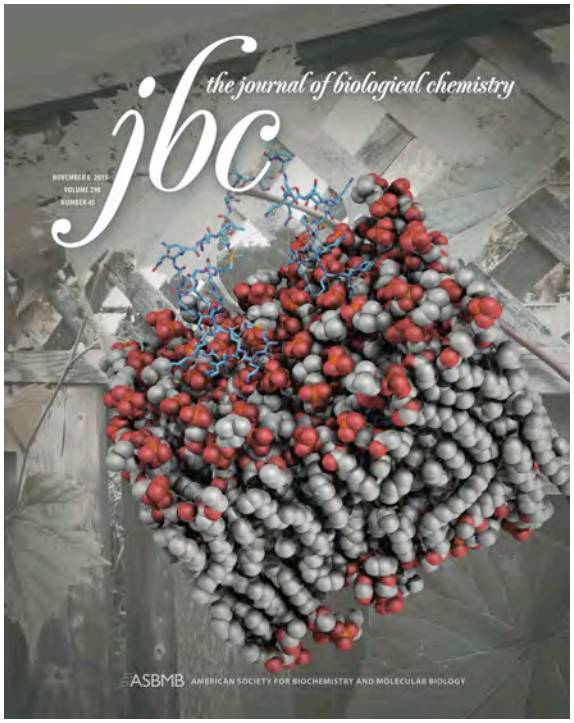
Jim Uniacke on the birth of his son, Nicholas Eric Uniacke, on May 12th 2016

Anthony Clarke on the birth of his first grandson, Evan John Blinn, on June 8, 2016

Erin Brouwers (Uniacke lab) on the birth of her son, Elliot Joseph Specker, on June 20th 2016

Joe Lam, daughter, Jennifer, grandson, Ravi, and son, Chris on the occasion of Chris' PhD convocation ceremony in June

Beautiful cover art from the Graether lab selected by the Journal of Biological Chemistry (see Publication Depot for details). Shown is a view of *Vitis riparia* (wild grape) dehydrin bound to a membrane surface. These proteins are able to prevent membrane fusion after freezing and thawing, and keep the membrane fluid at low temperatures. The background image shows leaves from *V. riparia* (the source organism of the dehydrin protein gene) and part of Steffen's backyard fence.



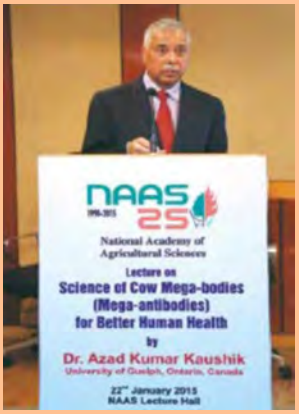
Milestones and Achievements (cont.)

News of a more personal nature. Some of it science related, some of it not!

David Josephy notes that he can't even walk across Union Station without being greeted by a former student or lab member - last time he tried, he met Sarah Batty, who worked in the lab as a technician at the turn of the century; Sarah is pursuing her career as a lab technologist in Toronto. A summer student from those days, Darrell Boverhof (co-author on a 2001 publication with Batty and Josephy), is now the Director of Product Sustainability Consulting, Toxicology & Environmental Research and Consulting, at Dow Chemical Company in Michigan, and was an invited speaker at the Annual Symposium of the Society of Toxicology of Canada in Ottawa, in December.

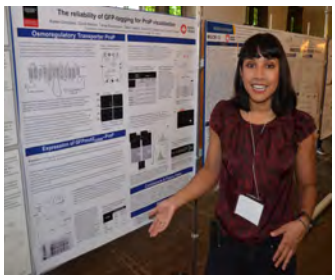
Meghan Lambie, who did a 4th year Toxicology research project in the Josephy lab last year, and is now a graduate student at U. of T. Another Josephy lab research project student, Sara Latour, graduate at the recent Convocation and is entering the Masters of Bioinformatics program at Guelph, this fall.

Annette Nassuth has given several talks in Europe this year, including Verona, Italy and Heraklion, Greece. At right, Annette in Crete with a friend she had not seen in over 20 years!



Azad Kaushik gave a special lecture entitled "Science of cow mega bodies (mega-antibodies) for better human health" at The National Academy of Agricultural Sciences, New Delhi. Azad also contributed to the American Association of Immunologists Storybooth 2015 in New Orleans, LA: http://aai.org/OHP/StoryBooth/index.html

The Canadian Society for Microbiologists annual meeting was held in June, in Toronto, and was well attended by MCB students and faculty. Above, Karen Gonzalez (Wood) presents her poster.



Steffen Graether and Matt Kimber organized the Guelph Protein Symposium 2016. This is a continuation of the tri-university (Laurier, Guelph, Waterloo) Protein Symposium started last year. The one-day symposium had over 100 attendees, which included 46 graduate students and 23 undergraduate students, and there were talks from PIs and students in the morning and early afternoon, as well as a keynote from Julie Forman-Kay from Sick Kids. Matt and Steffen thank the generous financial support from eight vendors, Glyconet, our department and CBS.

Poster winners from the symposium were Liam Doyle, Francesca Herlihey and Jenelle Patterson (right, with Steffen)

Milestones and Achievements (cont.)

News of a more personal nature. Some of it science related, some of it not!

Chris Whitfield has given many seminars over the course of the year, including talks at McMaster University; University of Chicago, USA; Genentech, (San Francisco, USA); and The National Research Council (Ottawa). He has also given the "Paranchych Lecture" at the Banff Conference on Infectious Diseases (BCID), Banff AB; a presentation at the 16th International Symposium on Glycosyltransferases (GlycoT 2016), Toronto ON; and the Keynote Lecture at XXVIII International Carbohydrate Symposium (ICS 2016) New Orleans LA .

George Harauz reports that he spent his sabbatical in MCB, doing reading, writing, and arithmetic. In June, he went to visit a collaborator in Halle/Saale, Germany, to discuss ongoing projects and to plan for new ones. He also visited several former students now working in Braunschweig and Göttingen (below).

George also celebrated his 60th birthday. Congrats, George!

Mike Emes notes he is greatly enjoying the freedom to focus on his research and not having to worry, as in his previous role as Dean, about which of 500 balls he was juggling would shortly crash to the floor. Mike recently attended the World Science Festival in New York.

Rod Merrill's oldest son, Cody, graduated from Queen's University (Jun 2016) with first-class honours in Mechanical Engineering. He was a lead member of their Formula car racing team. He accepted a position in May 2016 as an Engineer with Haakon Industries.

Ray Lu was invited to give an oral presentation at the 2015 Society for Neuroscience annual meeting, primarily on his PhD student Jenna Penney's work on animal stress responses.

Joe Colasanti was in Japan in late September/ early October '15 to teach a course to undergrads at Shizuoka University and he also gave a research seminar and visited Nagoya University. The photo above shows Joe in a bamboo forest somewhere in Kyoto.

Milestones and Achievements (cont.)

News of a more personal nature. Some of it science related, some of it not!

Peter Krell is completing his second year as President of the Society for Invertebrate Pathology and presided over the annual meeting in Tours, France July 17 to 21. In addition to the routine duties as President, overseeing the various committees, cajoling the treasurer to get his budget in on time so the auditors can check it out, ensuring that the next meeting is coming along well, Peter also instituted an Early Career award directed to postdoctoral fellows and new scientists early in their career. He also established an Ambassador Program for the Society to improve global outreach and enhance collaboration, especially with invertebrate pathology in less developed countries.

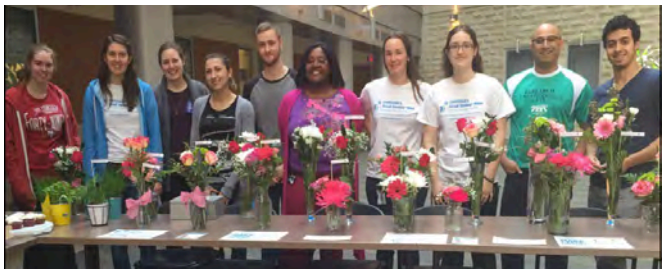
President Peter Krell presenting Dr Grant Stentiford, 2015 the most prestigious Society for Invertebrate Pathology award, the "Founders' Lecturer" award and Dr. Jimmy Becknel, Chair of the Awards Committee (Vancouver, August 2015)

The Khursigara Lab participated in the Carstar Walk to Make to Make Cystic Fibrosis History on Sunday May 29th, 2016 at the Toronto Zoo with hundreds of walkers from across the GTA. The nation-wide event took place in 70 communities across Canada and raised over $3.4 million for Cystic Fibrosis Canada. These vital funds will go towards cystic fibrosis research, care and advocacy. Prior to the walk day members of the Khursigara lab (Team MCB) raised $2205.30 through a variety of events on campus including a bake sale, Mother's Day flower sale, 50:50 lotto, and a pizza lunch. Team MCB consisted of (L to R): Sabrina Glavota, Mara Goodyear, Kirsten Chuli, Nicole Garnier, Matt Surette, Sherise Charles, Amber Park, Alison Berezuk, Cezar Khursigara and Mitch Demelo. (Missing: Erin Anderson)

Emma A-V made several trips this year to give seminars, the most memorable being a talk about poop, over lunch, for the very proper clinicians of the British Society of Gastroenterologists, at a posh venue in London, UK, in September 2015. While in London, she coincidentally bumped into her brother who happened to just be in the area, and also caught up with former PhD student, Julie McDonald (above), now a postdoc at Imperial College.

Jim Uniacke and Scott Ryan co-chaired the 9th meeting of the Canadian Oxidative Stress Consortium on June 1-3, 2016. This is a national conference held every two years in locations across Canada to support excellence in research in the field of oxidative stress. Topics included metabolism, plants, cancer, neuroscience, DNA repair, kidney disease, and transcriptional regulation. This three day meeting had 100 attendees including 40 trainees. There were talks from PIs and trainees in Rozanski Hall, a reception in the Science Complex atrium, and a banquet dinner in Creelman Hall. The two international keynote speakers were Alicia Kowaltowski from Sao Paolo, Brazil and Christine Foyer from Leeds, United Kingdom.

Jim and Scott thank the generous financial support from four vendors, CIHR, Carleton University, CBS, OVC, OAC, the Office of Research, the Office of Graduate and Postdoctoral Studies, and MCB. Jim and Scott also thank the local organizing committee that included Nina Jones, David Josephy, Gale Bozzo and Bettina Kaelisch.



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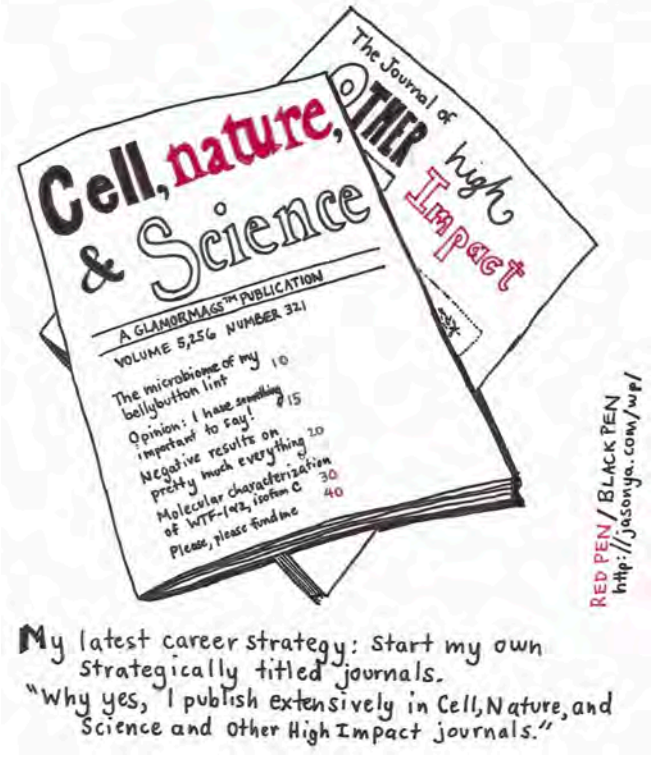

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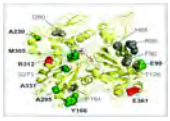

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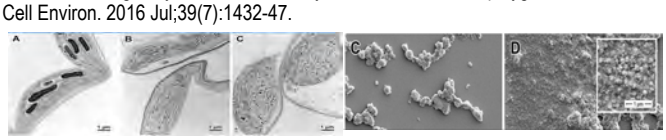

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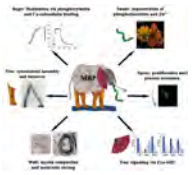

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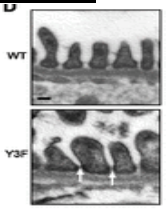

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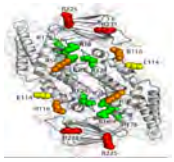

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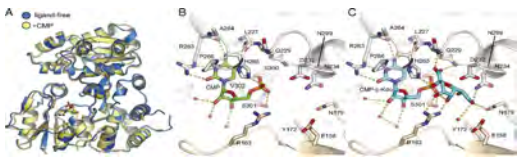

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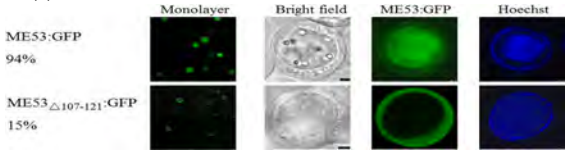

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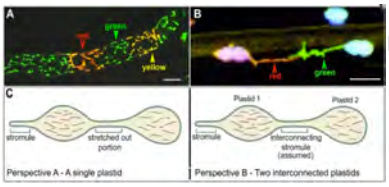

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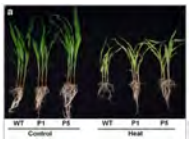
Publication depot*

*Manuscripts published or in press since July 2015; for space reasons only manuscripts **not** reported in the last newsletter (July 2015) are included.

ROTHSTEIN LAB



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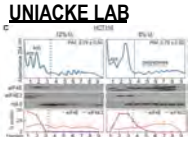

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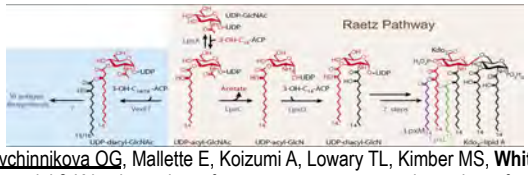

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Publication depot*

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WOOD LAB

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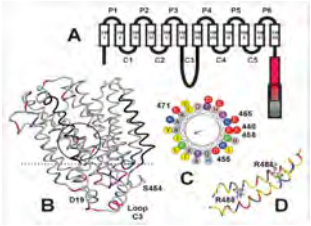

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YANKULOV LAB

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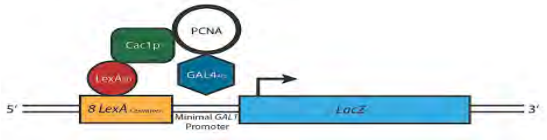

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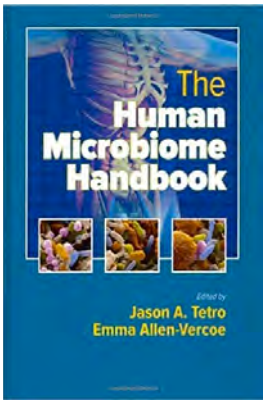
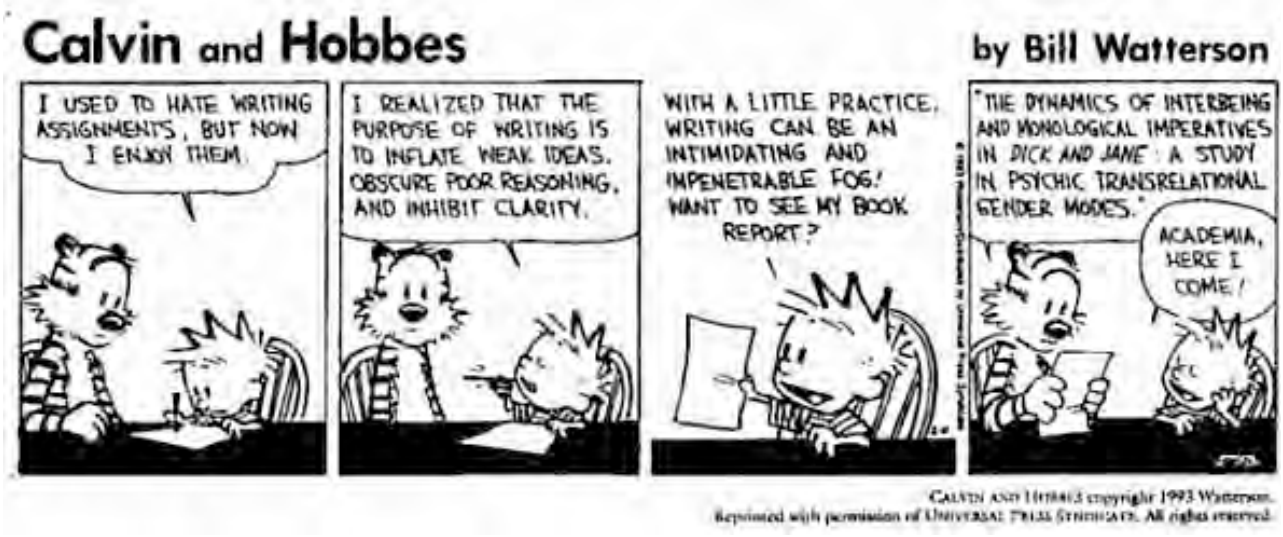
On the bookshelf…

Baozhong Meng serves as lead editor with three others for a 31-chapter book entitled "Grapevine viruses: molecular biology, diagnostics and management" for publication by Springer. The book is scheduled for final submission for production in August 2016.

Emma Allen-Vercoe together with Jason Tetro (MCB visiting scientist 2015), are co-editors of a new book entitled "The Human Microbiome Handbook", published in March 2016 by DesTECH. Dr. Sydney Finegold, widely considered the father of modern anaerobic bacteriology, wrote the foreword. Emma notes the book is ranked #986,071 on Amazon.com, and that gift wrap is available.





The Final Word

We thank Robert Mullen, outgoing department chair, for all of his hard work!

Best Wishes for a well deserved retirement…

Dr. Jnanankur (Gan) Bag

B.Sc., M.Sc., Ph.D.
University of Calcutta, India

Kim Kirby: Kim Kirby retired from the department of Molecular and Cellular Biology last year, but her contributions over her 30 some years at the University of Guelph will not be forgotten. Kim played many roles as a teaching staff member within the department. These included her long time coordination of BIOL*1090 as well as contributing to MBG*2040 and MCB*2050 during her last year here at Guelph.

Kim's efforts, carefulness and hard work have touched undergraduates, graduate students and faculty alike and she will be greatly missed as she pursues her personal hobbies such as hiking and photography during her retirement.

We wish Kim all the best in her future endeavours!

Editorial team: Emma Allen-Vercoe and Terry Van Raay, with thanks to Bertilla Moroni for her proof-reading skills!

Electronic copies of the departmental newsletter are stored on the MCB website: www.uoguelph.ca/mcb/news_events/news.shtml

Please come out and support our inaugural MCB Seminar Series!
Lots of great speakers with free coffee, tea and Timbits!!!
Wednesday's 10:30AM in SSC 1511.

Semester Week	Date	Speaker	From
Fall 2016			
2	Sept 21	Dr. Linda Parker	Psychology
3	Sept 28	Dr. Peter Krell	Molecular and Cellular Biology
4	Oct 5	Dr. Keiko Yoshioka	University of Toronto
5	Oct 12	Dr. Byram Bridle	Pathobiology
6	**Oct 19**	**Dr. Roger Lévesque**	**Université Laval**
7	Oct 26	Dr. Azad Kaushik	Molecular and Cellular Biology
8	**Nov 2**	**Dr. Peter L. Davies**	**Queen's University**
9	Nov 9	Dr. Olivia Rissland	Sick Kids
10	**Nov 16**	**Dr. Phil Hieter**	**University of British Columbia**
11	Nov 23	Dr. Ian Scott	Sick Kids
12	**Nov 30**	**Dr. Lynne Maquat**	**University of Rochester**
Winter 2017			
2	Jan 18	Dr. Cezar Khurisgara	Molecular and Cellular Biology
3	Jan 25	Dr. Emma Allen-Vercoe	Molecular and Cellular Biology
4	**Feb 1**	**Dr. Paul Lasko**	**McGill**
5	Feb 8	Dr. Joe Lam	Molecular and Cellular Biology
6	**Feb 15**	**Dr. Lynne-Marie Postovit**	**University of Alberta**
7	**Mar 1**	**Dr. Jim Woodgett**	**University of Toronto**
8	Mar 8	Dr. Nick Bernier	Integrative Biology
9	Mar 15	Dr. David Josephy	Molecular and Cellular Biology
10	Mar 22	Dr. Nina Jones	Molecular and Cellular Biology
11	**Mar 29**	**Dr. Harry Brumer**	**University of British Columbia**

Distinguished Seminar Speakers are in highlighted in **Red.** Last updated: August 15, 2016