

# Department of Biochemistry, Microbiology & Immunology

FALL 2019 NEWSLETTER



## IN THIS ISSUE

### MESSAGE FROM THE DEPARTMENT HEAD

FINISH READING ON  
PG. 2

### DEPARTMENT NEWS

FINISH READING ON  
PG. 3-4

### RESEARCH SUCCESS

FINISH READING ON  
PG. 5-6



### TEACHING EXCELLENCE

FINISH READING ON  
PG. 7-8



### UNDERGRADUATE STUDENT ACHIEVEMENT

FINISH READING ON  
PG. 9-11

### GRADUATE & POSTDOCTORAL FELLOW SUCCESS

FINISH READING ON  
PG. 12-13

### SPOTLIGHT ON DEPARTMENT SCHOLARSHIPS

FINISH READING ON  
PG. 14-15

## MESSAGE FROM THE DEPARTMENT HEAD: BILL ROESLER



I am pleased to be sending out this inaugural newsletter from the Department of Biochemistry, Microbiology, and Immunology (BMI) which was formed by the merger of the two parent departments, Biochemistry and Microbiology & Immunology. This merger took place on July 1, 2018 and much has happened in the first year. This newsletter will hopefully give you a glimpse into some of these activities.

Change doesn't usually come easy, and I think that most in the department had some uncertainty as to how the blending of two "cultures" that most departments develop over time would go. I think that I can speak for my colleagues in saying that it has exceeded our expectations in a positive way, and working together this past year on a variety of projects helped us get to know one another and develop the trust that is needed to function as a team. A day-long retreat held at The Glen at Crossmount in May served as a great opportunity to team-build further, and was a day full of great conversation, strategizing, and sampling the various ciders they make on-site.

One aspect that has contributed significantly to the success of the first year is a new administrative structure that was developed as part of the merger process, and the hires that were made into the positions created. **Shannon DeGagné** was recruited to the Department Head Assistant position; **Barb Stuckless** into the Graduate Coordinator role; and **Cindy Elchuk** into the Clerical Assistant position. Not only are they extremely good at what they do, their friendly personalities and "can-do attitudes" create a very positive environment in the office. They make my job so much easier, and I know from numerous conversations that they are appreciated by all faculty, staff and students in the department.

One thing that the two parent departments shared in common was a strong commitment to deliver high quality undergraduate programs and to ensure a positive student experience. Since the disciplines of Biochemistry, Microbiology, and Immunology interconnect with each other and have many areas of overlap, it made sense that we should consolidate our two undergraduate programs. We are anticipating that a new, undergraduate program which integrates the disciplines of Biochemistry, Microbiology, and Immunology will be offered beginning in the fall of 2020. The program has been designed with flexibility in mind, to allow students to tailor-design their program to emphasize one discipline if they so wish. At the graduate level, planning is already underway to merge our two programs. A single graduate program will still allow students to focus in a

specific area of research depending on which lab they train in, but will have the benefit of exposing students to methodologies and current research trends in the other disciplines. We are confident that merging the two graduate programs will provide a very rich experience for our students.

As you can tell from the above, interesting and exciting times lie ahead for our Department. Added to the new undergraduate and graduate programming is the significant faculty renewal that began this year and is anticipated to accelerate due to upcoming retirements. **Kerry Lavender** joined the department this past year and will add significantly to the immunology expertise. Two additional faculty searches were initiated in 2019-20, two more will begin shortly, and more are expected in subsequent years. It is a great opportunity to bring in young scientists with lots of energy, enthusiasm, and innovative research ideas and experimental techniques. The recruitments will also increase undergraduate and graduate research opportunities as all of the new faculty will be looking for trainees to fill their labs and facilitate their research. I look forward to recruiting and mentoring these new faculty and integrating them into the great group of faculty, staff, and students that we have in the department.

I hope you enjoy reading this newsletter where we have captured some of the highlights and success stories of our faculty and students over the past year. I'm already looking forward to sending out the second issue next year!

# DEPARTMENT NEWS

## NEW STAFF MEMBERS

### AMR EL ZAWILY

Laboratory Coordinator

Dr. El Zawily joined the department this year to manage the undergraduate microbiology and immunology lab courses MCIM 390 and 391. Previously, he was a sessional lecturer for BIOL 120.3 in the Department of Biology and also conducted research as a postdoctoral fellow in the area of cancer for 5 years in the College of Medicine .



### SHANNON DEGAGNÉ

Department Head Assistant



Shannon joined the team in September 2018 after 10+ years in the aviation industry. She comes to us with a strong administrative background and has a Business Administration Certificate from Edwards School of Business, and a Bachelor of Arts Degree (Psychology major) from the U of S.

### BARB STUCKLESS

Graduate Administrator



Barb joined the team in December 2018, following many years of providing exemplary support to the industrial sector, from forklifts to fertilizer. Her previous roles have included fleet coordination, invoicing and purchasing. She holds a Business Administration Diploma from Sheridan College in Ontario.

### CINDY ELCHUK

Clerical Assistant



Cindy joined the team in November 2018 after 15+ years in the Department of Community Health & Epidemiology as Graduate Secretary . She comes to us with a strong background of working with students and decided it was time to expand her knowledge in new administrative areas.

## WE ARE MOVING!

The Biomedical Sciences administrative office will be moving to a renovated suite in the A-Wing of the Health Sciences Building. The move is expected to occur during the first week of October 2019. Our new suite number will be **GA20**.

## NEW FACULTY: KERRY LAVENDER



**Kerry Lavender** joined the department on September 1, 2018. She received her Ph.D. from the University of Alberta in 2007, and when recruited, she was a research fellow at Rocky Mountain Laboratories (NIH, NIAID) in Hamilton, Montana. Her research investigates the controversial role of interferon- $\alpha$  in mediating pathogenesis after extended periods of HIV-1 infection.

Kerry received a 2019-2020 SHRF Establishment grant and was ranked #1 among all applicants! She will use a novel humanized mouse model to explore ways to revitalize the immune system that becomes dysregulated in HIV infections.

## RETIREMENT: HUGHES GOLDIE

**Hughes Goldie** retired on June 30, 2019 after 38 years with the U of S.

Hughes obtained his Ph.D. from the University of Western Ontario in 1979, and followed this with a postdoctoral fellowship at MIT, training under Dr. Boris Magasanik. His journey with the U of S began in 1981 when he was recruited as a faculty member into the Department of Microbiology. His research primarily focused on understanding the structure, function and regulation of phosphoenolpyruvate carboxykinase (PCK) in *E. coli*, an enzyme that plays a central role in carbohydrate metabolism. He will be fondly remembered by the many students who took classes from him for his storytelling and his sincere concern for their overall experience while at the U of S. He was recently awarded Professor Emeritus status from the U of S in recognition of his distinguished career as a teacher and researcher.



L-R: Bill Roesler (Head of BMI), Hughes Goldie, Preston Smith (Dean, College of Medicine)



## IT'S ALL ABOUT THE NUMBERS

Did you know?

Within the Department of BMI, there are 28 faculty members, 47 graduate students (23 PhD, 22 MSc, 2 visiting), and approximately 200 undergraduate students.

# RESEARCH SUCCESS

## SCOT LEARY

Research Featured in ASBMB Today



ASBMB Today, a magazine published by the American Society for Biochemistry and Molecular Biology, featured an article highlighting the work of Scot Leary, and his collaborator, Paul Cobine (Auburn University), on copper transport into the cell. This research is

published in the *Journal of Biological Chemistry*. To read the full article, please visit the link below:

<https://www.asbmb.org/uploadedFiles/ASBMBToday/Content/Archive/ASBMBToday-2018-10.pdf>

## MIREK CYGLER

Renewal of Tier 1 Canada Research Chair

**Mirek Cygler** was awarded a renewal of his Tier 1 Canada Research Chair in “Molecular Medicine Using Synchrotron Light”. He and his group are working on aspects of antibiotic resistance by identifying new targets against which new compounds with antimicrobial activity can be developed. Cygler is using the power of the synchrotron to determine the three-dimensional structure of specific proteins that are good target candidates.



## WEI XIAO & YULIANG WU

NSERC Discovery Grant Renewals

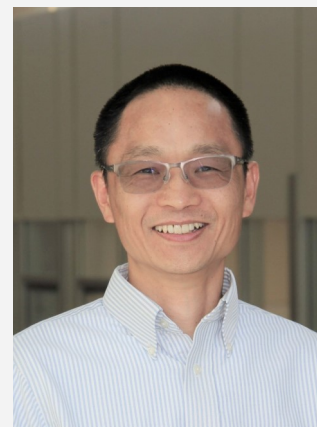
**Wei Xiao** and **Yuliang Wu** both were successful in renewing their NSERC Discovery grants.

**Wei Xiao:** *“Transcriptional regulation of the budding yeast DDI2 gene in response to environmental stresses”*

**Yuliang Wu:** *“Understanding the Role of KH Domain in Helicases “*



Wei Xiao



Yuliang Wu





## TROY HARKNESS

### CIHR Project Grant

Troy Harkness, along with Tara Arnason (Dept of Medicine, U of S) and Chris Eskiw (Dept of Food and Bioproduct Sciences, U of S), were recently successful in securing a CIHR Project grant. The grant, which totals \$872K over 5 years, will explore mechanisms and signaling pathways behind aging processes as well as ways to modify these pathways to improve health. With an aging population in Saskatchewan and across Canada, this research is very much in need and we look forward to the outcomes of their project.

## LINDA CHELICO

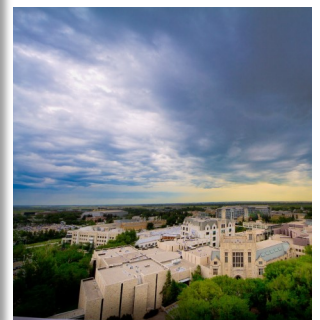
### CIHR Grant Recipient

Linda Chelico renewed her HIV-focused CIHR grant for 5 years, with the total amount awarded being \$865K. She added to this a second CIHR project grant (5 years, \$822K) which is cancer-focused. With this new grant, she will be exploring the role of an enzyme, ABOBEC3, in introducing mutations into the DNA of human cells that can lead to the formation of a cancer cell. Dr. Chelico was also principal investigator on a successful CFI application that will be used to purchase three instruments that will enhance the ability of researchers to explore protein-protein interactions. As if all this wasn't enough, Linda was promoted to Professor effective July 1, 2019. 2018-19 was a great year for Dr. Chelico!



*“The most exciting phrase to hear in science, the one that heralds new discoveries, is not “Eureka!” (I found it!) but “That’s funny ...”*

— Isaac Asimov



# TEACHING EXCELLENCE

## KYLE ANDERSON

### Engage 2018's Top Educator

**Kyle Anderson** received the Top Educator award from Top Hat at the 2018 Engage conference held in Chicago last November. This is awarded to the instructor who uses Top Hat as part of a pedagogical strategy that is particularly original, innovative or outcome-driven. Dr. Anderson, who holds an Academic Programming appointment in the department, also received a USSU Teaching Excellence Award in 2018 and has been nominated several times for this award over the years. Students clearly appreciate the knowledge and innovative teaching methods that he brings into the classroom.



## JOYCE WILSON

### USSU Teaching Excellence Awards Nominee

**Joyce Wilson** was nominated for a USSU Teaching Excellence Award in 2018 by students who enrolled in her Molecular Virology course. Since she began delivering the course in 2008, she has introduced several innovations to enhance student learning. One of the most successful additions was to add a seminar series called "Viruses in the news", where students give a 5-minute presentation on an interesting discovery or story about viruses that make the news headlines. More recently, she has introduced the "flipped classroom" discussion class once a week, which familiarizes students with modern research methodologies and provides opportunity for students to critically examine and discuss recent findings that have been reported in the literature. Students greatly appreciated this innovation as noted by the feedback they provided during the course evaluation. One faculty member who sat in on the course to perform a peer evaluation of Dr. Wilson's teaching noted that *"Dr. Wilson's classroom was a model of a positive learning environment, one that should be emulated in every course delivered in our program. This is what great teaching looks like."* Being nominated for this award shows that students are appreciative of Joyce's effort to enhance their learning experience.



## SCOTT NAPPER

### USSU Teaching Excellence Awards Nominee

**Scott Napper** received two nominations for the USSU Teaching Excellence Award in 2018 by students in both sections of BMSC 200 that he lectured in. Dr. Napper has been nominated for this award in 12 of the last 19 years, and has received the award three times. It is obvious that students very much enjoy and appreciate the way Scott is able to liven up and make practical the subject of biomolecules.



## HAROLD BULL

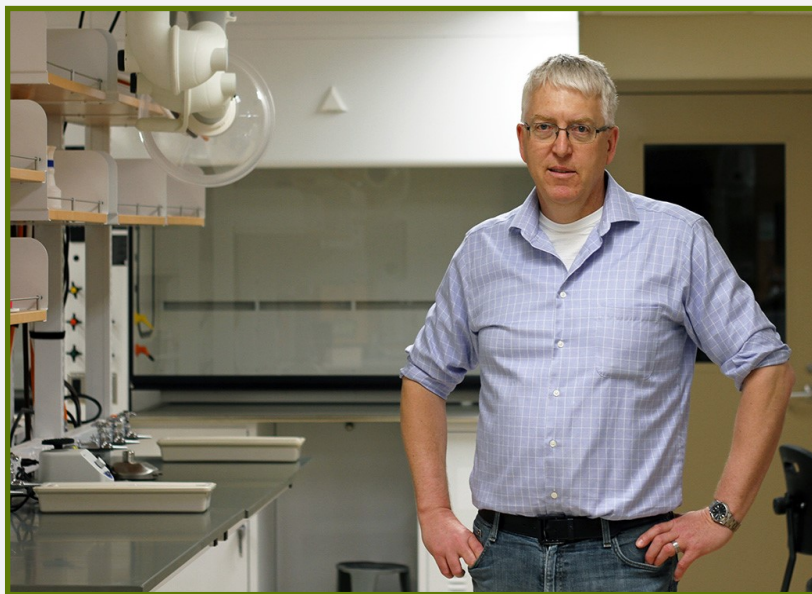
### CURE: Course-based Undergraduate Research Experience

**Harold Bull**, who also holds an Academic Programming appointment, piloted a new course this year called “CURE” for Course-based Undergraduate Research Experience. The goal of the course is to expose students to what performing research is all about, rather than to be technique-driven, which many undergraduate labs are focused on. Students work in teams of 3-4 and develop a proposal for a project they will pursue. The proposal consists of the hypothesis to be tested; experiments to be performed and timelines; reagents required; and a budget for items not available in the lab. Students then write up their findings as a scientific article, which is submitted for “editorial review” by the coordinator. Students performed a reflective self-assessment of their own abilities early in the course, and then again at the end. On the final day of the course, each student wrote a paragraph that reflected on their learning experiences in the course.

When Dr. Bull read the student reflections, he described it as a “Wow” moment! Students commented that they had *“learned more in this class than any of my laboratory classes combined”*; that they felt *“much more confident and apt now in my knowledge”*; *“grown a sense of appreciation for how hard the process actually is”*; and *“feel like in the future I can tackle my own research projects in any area that I was interested in”*. Students appreciated the ownership that they had in their learning experience; the responsibility that was given to them to solve the problems they encountered; the choice they had to decide what to do and when to do it; the freedom to fail without penalty; and the opportunity to work in a team but with individual accountability. A number of students commented on how the learning experience provided by the course spilled over into real life. One wrote: *“Courses like this allow students to grow more than just intellectually. It provides students the opportunity to grow into responsible individuals.”* And another wrote: *“This project essentially became my life; instead of scrolling through Pinterest on my phone at night, I was looking up purification protocols.”*

The department applauds Dr. Bull’s efforts for developing and delivering this course. The extremely positive feedback from students has us now looking at the format of all of our laboratory classes as we begin to revise them as part of the new program we will offer beginning in the fall of 2020.

Dr. Bull was also featured in a recent article in *On Campus News* that highlighted his research into the practice of teaching and his membership in the Scholarship of Teaching and Learning (SoTL) BioMedication cluster. The full article can be read here: <https://news.usask.ca/articles/colleges/2019/microbiologist-refocuses-research-on-the-practice-of-teaching.php>





# UNDERGRADUATE STUDENT ACHIEVEMENT

## BIOCHEMISTRY UNDERGRADUATE SCHOLARSHIPS

Congratulations to the students who were awarded Biochemistry Undergraduate Scholarships! The luncheon to present awards took place on Friday, November 23, 2018.



Rosario Hernandez

### *Scholarships:*

#### **Dr. Louis T.J. Delbaere Memorial Scholarship**

This scholarship is awarded to a fourth-year student majoring in Biochemistry who has demonstrated the potential and interest to pursue a career in Biochemistry. \$2,000 award.

**Recipient:** Rosario Hernandez Barba



Nadia Amir

#### **Manju Khandelwal Memorial Scholarship**

This scholarship is awarded to a fourth-year female Biochemistry student who has demonstrated excellence in Biochemistry courses. \$500 award.

**Recipient:** Kristen Mitzel



Kristen Mitzel

#### **Dr. Dorothy Kline Memorial Scholarship**

This scholarship is awarded to students majoring in Biochemistry with the highest academic averages in BMSC 200 and BMSC 230. Two \$500 awards.

**Recipients:** Erin White & Nadia Amir



Michael Atser



Erin White

#### **The Department of Biochemistry Scholarship**

This scholarship is awarded to students entering their final year of a B.Sc. 4-year or Honours degree program in Biochemistry. It is based on the overall academic achievement in all 300 and 400 level Biochemistry courses. Two \$500 awards.

**Recipients:** Michael Atser & Juan Garcia Rivas



Juan Garcia Rivas

## SUCCESS STORY:

### Undocumented Immigrant Becomes Successful Biochemistry Graduate of the U of S

This article highlights Rosario's experience in immigrating to Saskatoon from Chicago, after she and her family were approved by the Saskatchewan Immigrant Nominee Program. To read the full article, please visit:

<https://news.usask.ca/articles/people/2018/from-the-u.s.-to-usask-the-road-to-citizenship.php>



Photo: James Shewaga

## CONVOCAATION AWARDS

Two of our students were honoured at the annual Arts & Science Convocation Awards Dinner and Ceremony, held on June 3, 2019.

### ELIZABETH HANSEN

Recipient of the J.F. Morgan Memorial Award for the most outstanding graduate in Microbiology & Immunology.

### MICHAEL ATSER

Recipient of the Most Outstanding Graduate in Biochemistry.



L-R: Peta Bonham-Smith (Dean of Arts & Science), Elizabeth Hansen, Photo: Don Selby



L-R: Peta Bonham-Smith (Dean of Arts & Science), Michael Atser, Photo: Don Selby

## FOCUS ON UNDERGRADUATE RESEARCH

Aurora Lepe Zepeda discovers the importance of patience and perseverance

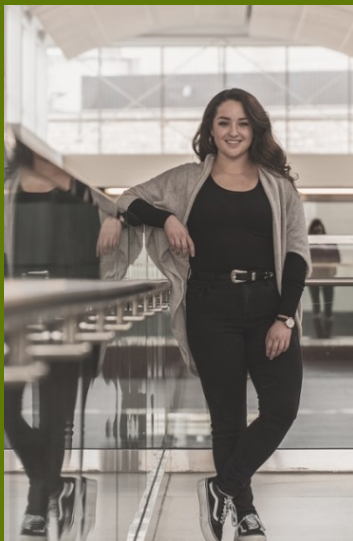
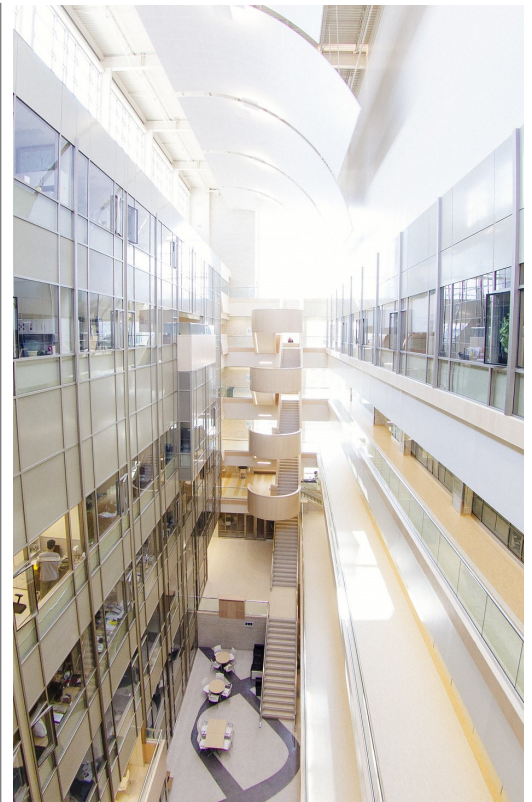


Photo: Aurora Lepe Zepeda

Aurora Lepe Zepeda, a student pursuing an honours degree in Microbiology & Immunology, was recently featured in an article on the Office of the Vice President Research website that highlighted the inspiration and motivation that she found while pursuing a research project under the supervision of Jo-Anne Dillon. Read more here : <https://research.usask.ca/our-impact/highlights/student-success/undergrad/patience-and-perseverance-pays-off-.php>



## UNDERGRADUATE STUDENT ASSOCIATIONS

Our Department is host to two undergraduate student associations, each which provides fun opportunities for students within the same program to connect. With the upcoming merger of our undergraduate programs, the two groups plan to work together to organize joint events during the 2019-2020 academic year.

### MICROBIOLOGY & IMMUNOLOGY STUDENT ASSOCIATION (MISA)

Members of the 2018-2019 Microbiology and Immunology Student Association (MISA) Executive Committee were Ashlie Borisenko (President), Peter Arsanious (Vice-President), Kaelyn Bellamy (Secretary), Elizabeth Hansen (Treasurer), Kezia Fourie (Public Relations), Quinlan Carter (3rd Year Rep), and Kristen Mitzel (4th Year Rep).

You can find the MISA on Facebook at <https://www.facebook.com/UofSMISA/>



L-R: Morgan Galloway-Schan, Kristen Mitzel, Ashlie Borisenko, Delaney Quinn, Elizabeth Hansen, Eryn Gallagher, Kezia Fourie.

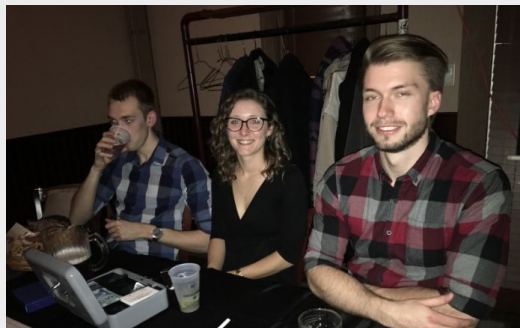


L-R: Ashlie Borisenko, Siobhan McGrath

### BIOCHEMISTRY STUDENT ASSOCIATION (BSA)

Members of the 2018-2019 BSA were Jaclyn Edwards and Kelsey Wyatt (Co-Presidents), Cordell VanGenderen (Treasurer), Jeffrey Usherwood & Stean Kury (Social Directors), Abdelrahman El Barkouky (Secretary), Joshua Dolinski (Third Year Rep), Justina Machnee, Sabrina Zaher, Matthew Lubachowski, Mikky Atser, and Arielle Bagay (4th Year Reps), Emma Grainger (Communications Director), and Maryam Yunis and Tessi Prentice (Student Liaisons).

You can find the BSA on Facebook at: <https://www.facebook.com/UofSBiochem/>



L-R: Cordell VanGenderen, Kelsey Wyatt, Jeffrey Usherwood



L-R: Jaclyn Edwards, Sam Gottinger, Samuel Scribante, Katie Dufresne

# GRADUATE STUDENT & POSTDOCTORAL FELLOW **SUCCESS**

## SUMUDU PERERA

### Irene Grodums Memorial Graduate Scholarship

Sumudu Perera was awarded the Irene Grodums Memorial Graduate Scholarship by the department this past year. Sumudu Perera is a PhD student in the Microbiology & Immunology graduate program under the supervision of Professor Jo-Anne Dillon. The focus of her research is on *Neisseria gonorrhoeae* and antibiotic resistance. Ms. Perera has already published two first-authored publications, has another in revision, and has presented her work at two international conferences and three national conferences, including a Gordon Conference. She is also actively involved in several student organizations on campus and several volunteer activities outside the University. She is a very deserving recipient of this \$1000 scholarship.



## THIRUMALAI ULAGANATHAN Young Scientist & Poster Award Winner

Post-Doctoral Fellow, Thirumalai Ulaganathan attended the Asian Crystallographic Meeting in Auckland, New Zealand in December 2018. Out of 500 participants, Thirumalai was awarded both the Young Scientist and Poster Awards. Please join us in congratulating her on these outstanding achievements!

Thirumalai completed her PhD under Dr. Mirek Cygler and is currently working as a Post-Doctoral Fellow in his lab.



L-R: Thirumalai Ulaganathan, Mirek Cygler

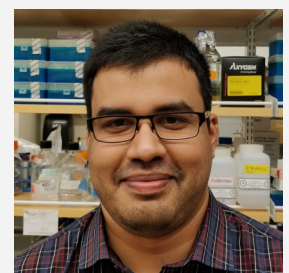
## GRADUATE STUDENT POSTER DAY

A big thank you to all students who participated in the Biochemistry, Microbiology & Immunology Graduate Student Poster Presentations held on June 14, 2019. Congratulations to the winners of the poster prizes:

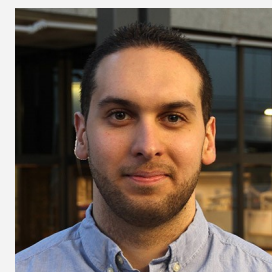
**Mamata Panigrahi (1st), Aditya Mandipati (2nd). Ghassan Al Yassin (3rd).**



Mamata Panigrahi



Aditya Mandipati



Ghassan Al Yassin

## ZOE GILLESPIE

### Promising Research on Treatment of Progeria

The Saskatoon StarPhoenix featured the research of PhD student, Zoe Gillespie, which shows promising results when testing the use of metformin on cells of patients with Progeria, a rare genetic condition causing children to age at a rate 8 times that of normal children. To read the full article, please visit:

<https://thestarphoenix.com/news/local-news/young-innovators-dietary-restrictions-may-benefit-children-with-premature-aging-disease>



Photo: Dave Stobbe for Usask

## SHRF POSTDOCTORAL FELLOWSHIPS

**Milaid Granadillo Rodriguez** and **Amit Gaba**, both trainees in Linda Chelico's lab, were awarded SHRF Postdoctoral Fellowships in 2018/2019.

Milaid's research focuses on the role of APO-BEC3 enzymes in somatic hypermutation.

Amit's research focuses on the ongoing conflict between APOBEC3 host restriction factors and the HIV-1 protein Vif.



Milaid Granadillo Rodriguez



Amit Gaba

## CANADA GRADUATE SCHOLARSHIP MASTER'S (CGSM) AWARDS

Four new graduate students were successful in obtaining the prestigious Canada Graduate Scholarship-Masters award this year. **Nikki Forsberg**, who is working under the supervision of Scot Leary, will identify mitochondrial proteins with previously unknown roles in the regulation and transduction of a redox signal that regulates the trafficking and handling of copper, an essential element. **Kristen Mitzel**, working in the lab of Jo-Anne Dillon, will be exploring a whole genome sequencing approach for the in-depth study of two microorganisms that cause sexually transmitted diseases. **Sean Lipsit** will be conducting research in the laboratory of Scott Napper to identify biomarkers for vaccine responsiveness. And **Michael Palmer**, supervised by Joyce Wilson, will be determining the function of a specific protein in Hepatitis C virus replication.



Nikki Forsberg



Kristen Mitzel



Sean Lipsit



Michael Palmer

## SPOTLIGHT ON DEPARTMENT SCHOLARSHIPS

### DR. DOROTHY K. KLINE AWARD

Dorothy Kline was a professor in the Department of Biochemistry from 1955-65, dying tragically from injuries received in a car accident. Her life story, however, was one of resilience, perseverance, and giving back. Early in her life she trained as a nurse, got married, and had two daughters by the age of 22. Then she contracted tuberculosis, and spent most of the next 12 years in a sanatorium. At the age of 34, with her husband having left her to fend for herself and her two daughters, she moved to Saskatoon and completed a BSc and MSc in Biochemistry. She was encouraged by one of her professors to pursue a PhD, which she did at the University of Western Ontario, and was eventually actively recruited back by the U of S to take up a faculty position in 1955. She became widely respected as a teacher, counsellor, and administrator, and took a particularly keen interest in the welfare of her students. She was known to even take students into her own home when they were in need. This award was established by friends, family, colleagues and students to pay tribute to her courageous life. Two awards are made annually to the students receiving the highest marks in the two introductory biochemistry courses (BMSC 200 and 230) offered by the department.

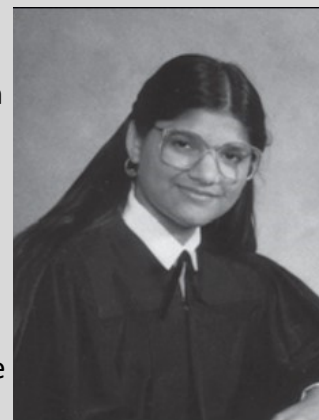


### DEPARTMENT OF BIOCHEMISTRY SCHOLARSHIP

This scholarship was established in 1997 and arose out of the University of Saskatchewan's First & Best fundraising campaign. Faculty, both past and present, as well as staff and friends, have made contributions to this fund over the years, such that we are now able to make two awards of \$500 annually. This scholarship recognizes academic achievement in the study of Biochemistry and is awarded to students in the final year of a four-year or honours degree program.

### MANJU KHANDELWAL MEMORIAL SCHOLARSHIP

On June 23, 1985, Air India flight 182 crashed off the coast of Ireland when a bomb exploded on the plane. Among the 329 people who died was Manju Khandelwal, the daughter of Ramji Khandelwal, a faculty member in Biochemistry, and his wife Vimla. This memorial scholarship, with a value of \$500, was established by the Khandelwal family in honour of her memory, and is awarded annually to a female biochemistry major in the final year of her program who has demonstrated excellence in her biochemistry courses.



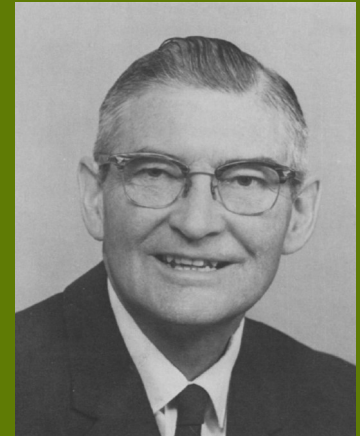
### DR. LOUIS DELBAERE MEMORIAL SCHOLARSHIP



Dr. Delbaere spent 30 years teaching and conducting research in the Department of Biochemistry at the U of S. X-ray crystallography was his career and his passion. He was very active in numerous scientific organizations, played a key role in bringing the CLS to Saskatoon, and was a Tier 1 Canada Research Chair in Structural Biochemistry at the time of his sudden passing. He was a wonderful mentor and was sincerely interested in the lives of the next generation of scientists who trained in his lab. This scholarship (minimum \$1000) was established by family, friends and colleagues in memory of his legacy at the U of S, and is awarded annually to a student in the final year of their program who has demonstrated the potential and interest to pursue a career in Biochemistry.

## DR. J.F. MORGAN MEMORIAL AWARD

This award, given out annually to the most outstanding graduate in Microbiology & Immunology, was established by colleagues in the Microbiology department in 1977 after Dr. Morgan's untimely death a year earlier. Dr. Morgan would have greatly appreciated the recent merger that occurred between the departments of Biochemistry and Microbiology & Immunology, since his own research career and interests bridged these disciplines. He received a MSc in Bacteriology from UBC and a PhD in Biochemistry from the U of T, and served as Head of the Biochemical Research Section in a major government lab in Ottawa. He was recruited to Saskatoon in 1962 as the Director of the Cancer Research Unit at the U of S, but also had a faculty appointment in the department of Biochemistry and served as acting head of Microbiology for a period of time. While he had interests in many scientific fields, his most significant contributions were in the areas of in vitro biology, including cell nutrition, cell culture and growth media requirements, and tumor immunology.



## IRENE GRODUMS MEMORIAL GRADUATE SCHOLARSHIP



This scholarship, valued at \$1000, is provided annually to a student pursuing a graduate degree in Microbiology & Immunology in recognition of academic excellence. The scholarship was established in 2010 by Dr. Harry Vinters as a memorial to Professor E. Irene Grodums, who was a close family friend and mentor. Professor Grodums grew up in pre-Soviet Latvia, emigrated to England during WWII with her family, and eventually she and her husband moved to Saskatoon in the early 1950s. She enrolled at the U of S and obtained her PhD in Anatomy and Pathology, then became a faculty member in the department of Microbiology where she studied viruses and gained a national reputation as an electron microscopist. She died of natural causes at the age of 90 in 2007.

## LET'S STAY CONNECTED!

We welcome your feedback. Please contact us at:  
[bmiadmin@usask.ca](mailto:bmiadmin@usask.ca)

**Department of BMI**  
GA20, Health Sciences Building  
107 Wiggins Road  
Saskatoon, SK S7N 5E5

