

JULY

OFFICIAL NEWSLETTER OF THE DEPARTMENT OF
PHYSICAL AND ENVIRONMENTAL SCIENCES

BY EOR E ARHONDITSIS

Congratulations are in order for Professor Johann Bayer for

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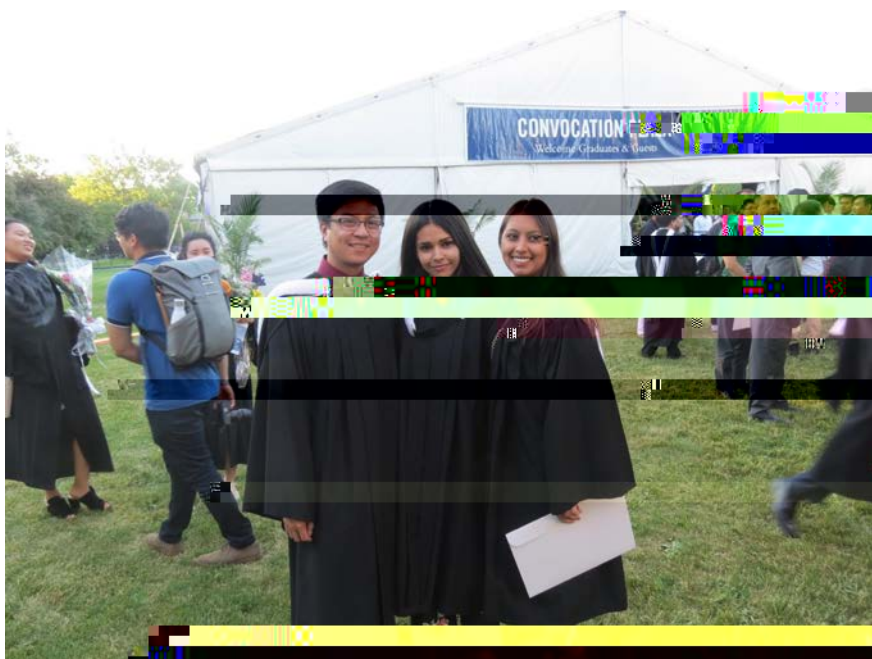
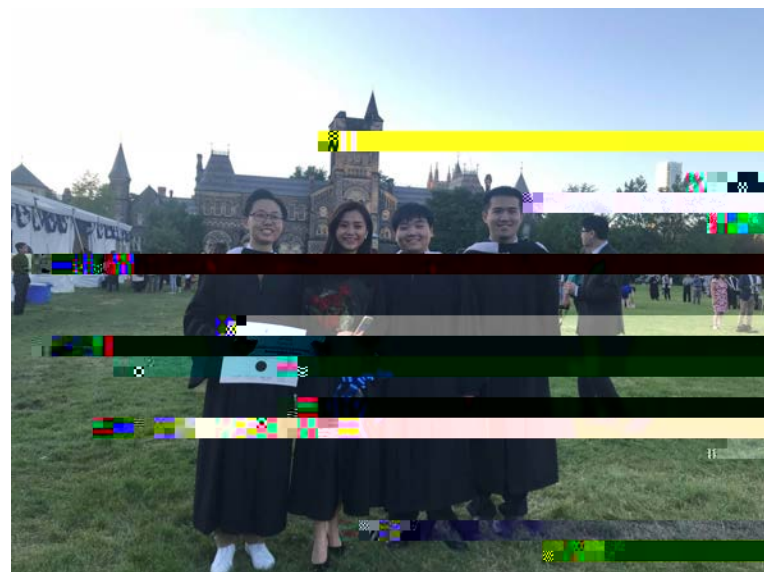
This article serves to celebrate the long academic career and 38 years of service of our colleague Professor Gyula Lorincz. Professor Lorincz received his BSc and MSc degrees in Physics from the University of Toronto. The title of his thesis was "Magnetic Phase Diagram of Antiferromagnetic Chromium near the Spin Flip Transition", supervised by Prof Eric Fawcett. He was first hired as an Instructor in Physics at the Physical Sciences Division (an academic unit from which our department evolved) on July 2, 1980. In 1986, he was promoted from Instructor to Tutor. While reviewing his promotion portfolio, I found dozens of (handwritten) letters of support from his students at that time, who praised him for his deep knowledge of Physics, his admirable patience, and unwavering commitment to their education. It was also very inspiring to read a number of enthusiastic comments from his colleagues.

BY SHADI DALILI

This past June, we had many students graduate from our department and many of them are continuing on to various graduate and professional programs both here at TSC and across Canada. We are so proud of all their accomplishments and with to congratulate them on this major milestone of their lifetime. We wish them the best of luck in their future studies and careers, and hope they will always remember their time here at TSC with fond memories.

Below are some quotes and parting words from our graduates:

"After four years of undergrad, you learn a lot about yourself. I look up to those who live to take care of others, and I look forward to doing the same. I will be starting the Doctor of Pharmacy Program at of T in September 2018! One of the highlights of my undergraduate studies was CHMD90. I would like to express my deepest gratitude to my co-supervisors Dr. Kraatz and Dr. Dalili, and my mentor eorge Luka for their guidance and support throughout the project.



"Special thanks to Dr. Dalili who has had, and continues to have a huge impact on my life, being the role model that inspires me everyday to become a passionate and caring individual."

-Felicia Leung

"Words can't describe my time here at TSC in DPES for the past 4 years. Special thanks to Jim for his support!"

-Maria Esguerra

BY SHADI DALILI

"I'm starting a Master's in Environmental Science Programme at the University of Guelph starting September 2018. My hope is that further education in the Natural Sciences will allow me to educate others more effectively on living sustainably and responsibly in a high school setting further in my career."

-Caleb McCarroll-Butler

"Caitlin Dao, a former CHMD90 student working with Prof. Xiao-an Zhang and Prof. Bernie Kraatz, will be studying photochemical reactions involving main group compounds under the supervision of Prof. Suning Wang at Queen's University as a Master's student. She sincerely thanks her supervisors for their support and her mentor, Maryam Abdinejad, for her unwavering guidance and advice."

-Caitlin Dao

"My undergrad started off in turmoil. However, I have met some of the most amazing professors and students who have continually supported me throughout the years at TSC. After having graduated, I can now look back on my time as an undergrad and be proud with what I've accomplished. Things don't always work out the way you want it to, but you learn to just keep on pushing through and everything will turn out alright. Special thanks to Dr. Zhang and everyone in the Zhang lab for being the best supporters during my undergrad."

-Edmond Wong

"I am going to obtain my doctorate degree in chemistry in McGill University from Sept. Thank TSC for my amazing undergraduate education. I miss every professor, TA and classmate. They are all very friendly and helpful. We are just like a family."

-Lida Tan



BY PROFESSOR KARAN KERMAN & SOHA CHHIL

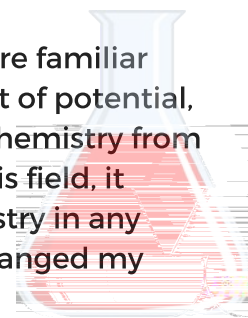
"Summer 2018 has been an exciting term for our CHMD92 students! They explored the applications of electrochemical biosensors for the first time in this course. Having a section for electrochemical biosensors in CHMD92 was proposed by Professor Lana Mikhaylichenko last year. The new CHMD92 syllabus was a great opportunity for students to get familiar with developing and designing electrochemical biosensors, which is an attractive field of research in chemistry. The electrochemical biosensors are one of the most powerful sensors due to their portability, simplicity, low-cost and the suitability for miniaturization. Students learned the importance of miniaturization, which follows the many principles of Green Chemistry, reducing the size of analytical systems, sample size and reagent/waste volume and provides a low-cost experiment.

"I am so glad that we were able to introduce "electrochemistry" to our undergrad students for the first time ever in CHMD92. I should thank Soha for all of her time and talent to prepare and bring this course to our undergrad students in such a perfect way. I was very impressed during my discussions with the students, when I visited them in the lab. I was able to observe their genuine interest and excitement about these new topics of electrochemistry that they were learning for the first time. I sincerely hope that electrochemistry can become a more integral part of our undergraduate curriculum in the upcoming years, as this has always been my dream!" Professor Kerman wrote.

"I had the privilege to design electrochemical experiments for 12 sessions of the CHMD92 as a lab instructor with the help and support of Prof. Mikhaylichenko, Prof. Thavarajah and Prof. Kerman. I would also like to thank Tony Adamo, Koneswary Patkunaranjan and Alexandra Morrissey who kindly helped and supported me during this course. It was challenging and exciting experience for me, which helped me to learn essential skills to develop a career in academia. I should mention that the improvement of new CHMD92 syllabus has been funded by Department of the Chemistry through the "Chemistry Teaching Fellowship Program-2018" under supervision of Prof. Kerman." Soha commented

"CHMD92 has been one amazing course for me, I learned so much about electrochemistry that was hardly ever explored in any undergraduate course. I had no prior experience in researching and this course really motivated me towards research." Harsmeet Malhotra commented..

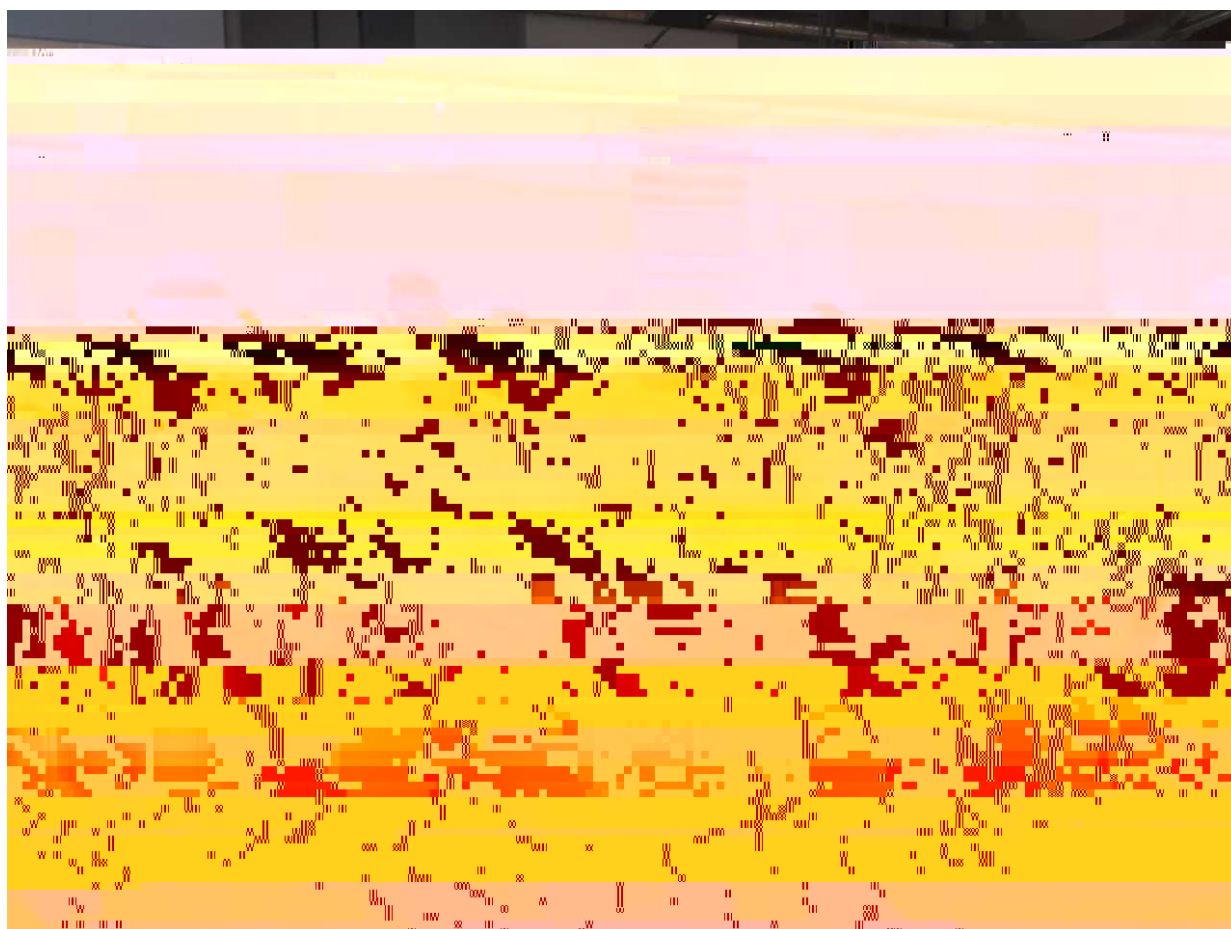
"I thought the labs were interesting and seemed to progress logically as we became more familiar with electrochemistry. I feel as though the electrochemistry portion of CHMD92 has a lot of potential, but the only way it can be brought out is with more education earlier on about electrochemistry from an analytical standpoint. Due to the many professors at TSC conducting research in this field, it seems rather odd that there are few undergrad courses offered regarding electrochemistry in any serious capacity. I've learned a surprising amount about electrochemistry (which has changed my overall opinion of it) in only a matter of weeks." Peter Fairfield Checko commented.



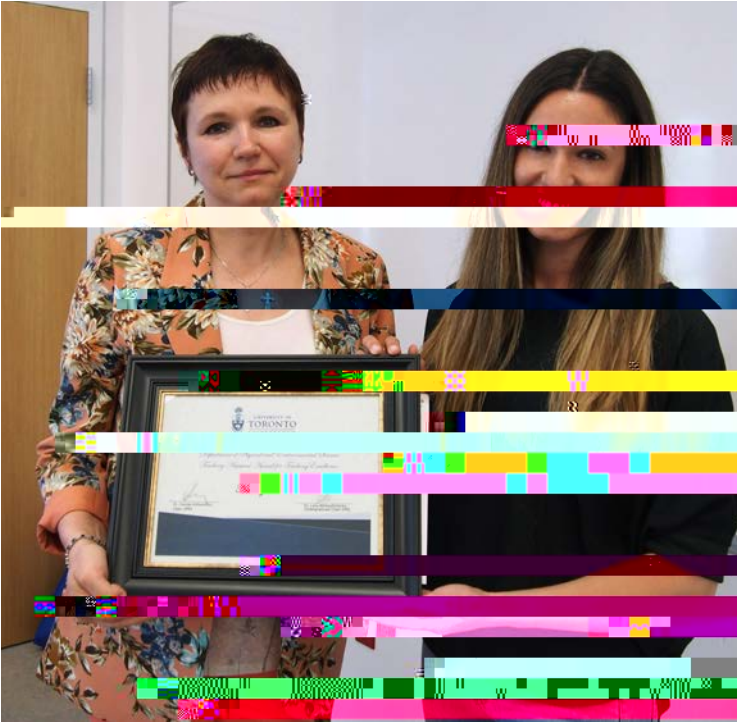
"I truly believe that CHMD92 offers a unique experience in that we were able to design and conduct our own experiments in accordance to the curriculum. I am delighted that we could pilot a masters level course and learn more in-depth applications of electrochemistry, as it broadened our arsenal of analytical techniques." Jeffrey Yu commented.

"Soha has delivered a very fruitful knowledge and techniques in electrochemistry. The assignments and the experiments had nicely coordinated together to enrich our acknowledgment in electrochemistry." Jeffrey Cheung commented.

"We learned what real chemical journals publish and what to expect somewhat if we go into research. Critiquing the article gave us some good experience too about how to write a good article." Shajid Rahman commented.



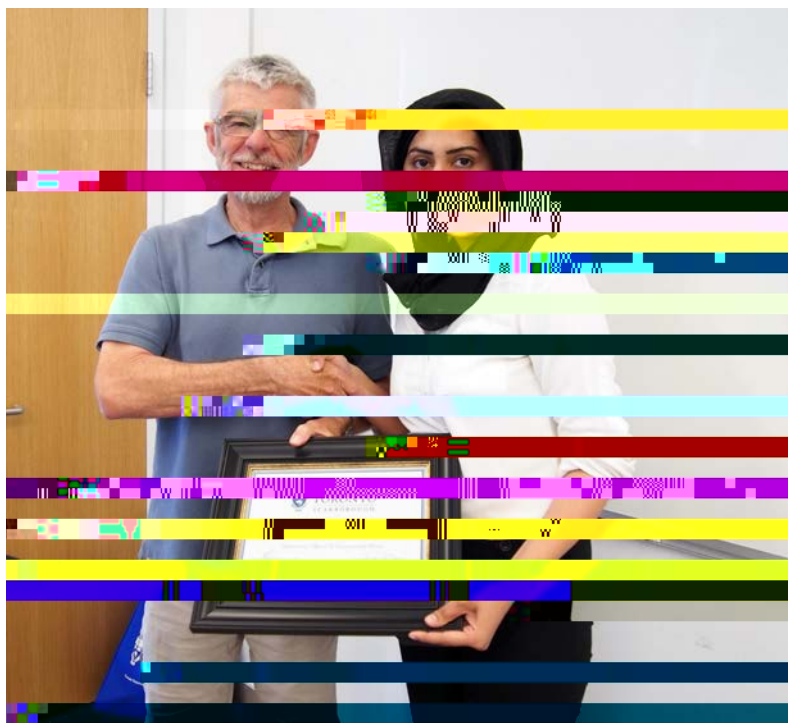
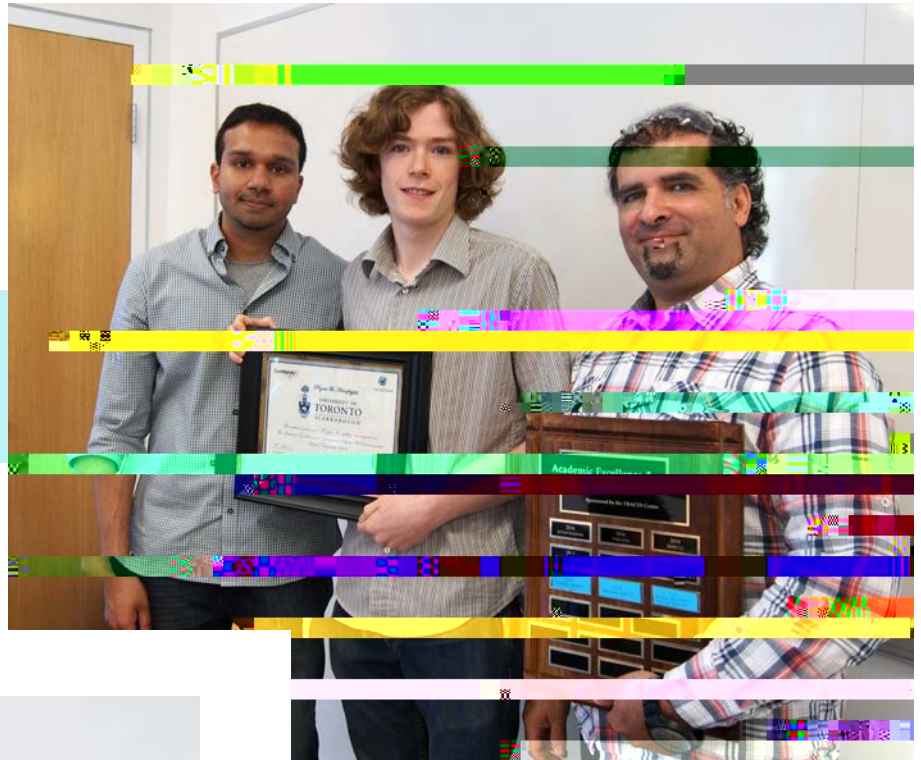
On June 8th, the DPES faculty and staff held an end-of-the-year party in the EV atrium. Students and DPES staff celebrated the achievements of this year's DPES TA, Undergrad Research, and DPES Leadership & Excellence Award recipients. In addition, everyone celebrated an end to a great year!





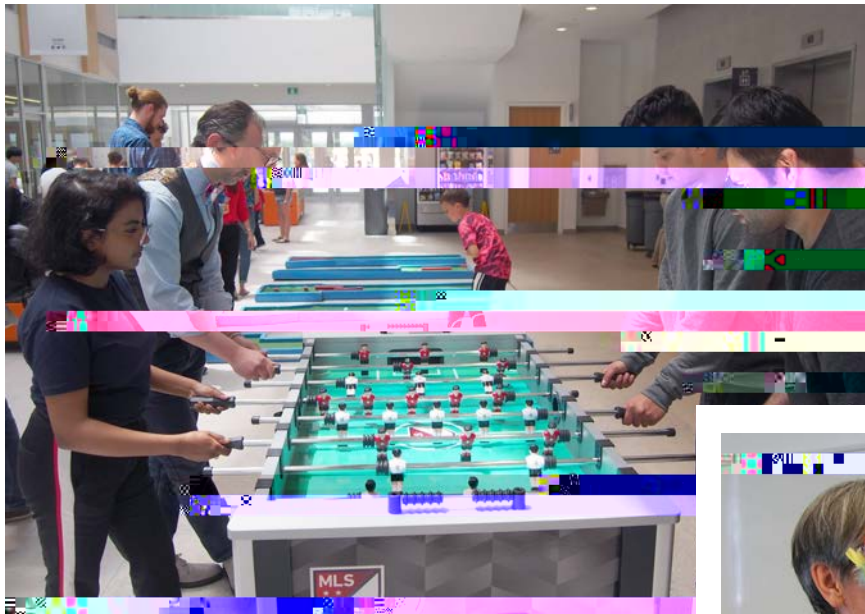
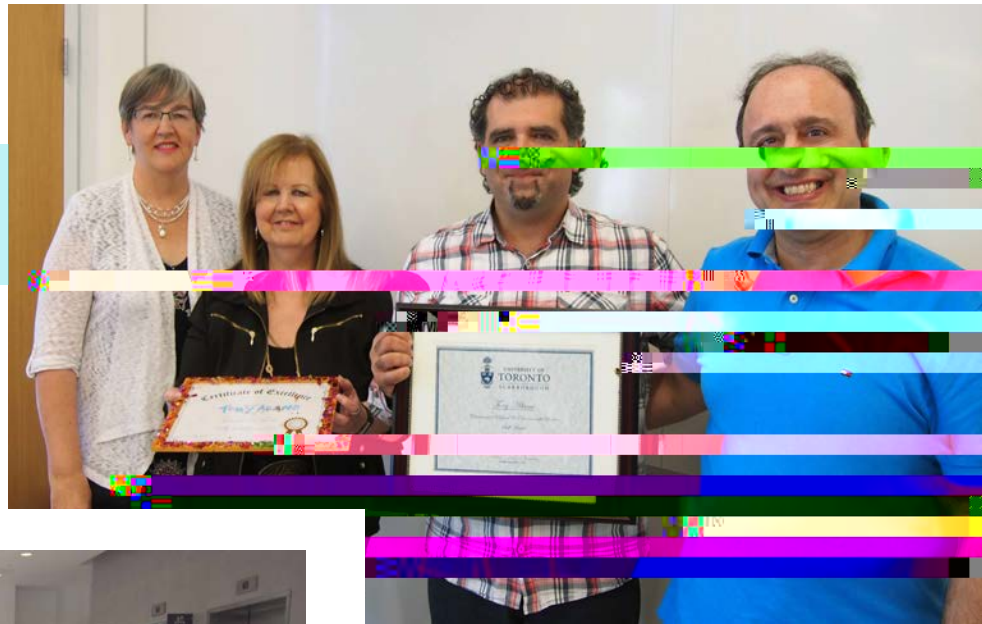
Congratulations to Celia Ferrag on her Senior Undergraduate Research Award for Chemistry!

Congratulations to Fergus Horrobin on his DPES Excellence and Citizenship Award!



Congratulations to Aisha Javed on her Senior Undergraduate Research Award for Environmental Sciences!

Congratulations to Tony Adamo on his Staff Award!



A friendly game of foosball

Prof Wanda (Chemistry) giving Tony (TRACES Manager) a makeover!



DPES Faculty enjoying a nice meal together in the Catalyst Center

