







A COLLABORATIVE LRCP CANCER RESEARCH NEWSLETTER

A collaboration and partnership between the **Cancer Research Laboratory Program (CRLP)**, the **Centre for Translational Cancer Research (CTCR)**, London Regional Cancer Program (LRCP), Western University, Schulich School of Medicine & Dentristry and the Lawson Health Research Institute.



SPOTLIGHT: Dr. Matt Cecchini

The Cancer Research Laboratory Program helps train a new generation of clinician scientists!

What led you to become interested in cancer research?

I have wanted to understand how things work since I was a child and I found science absolutely fascinating. I wanted to be a Scientist so I could dedicate my life to finding out how things work. I was very close with my grandfather and he encouraged me to explore the world and develop a sense of curiosity in life. Unfortunately, I lost my grandfather to lung cancer when I was a child; ever since then I've been drawn to understanding cancer and the mechanisms behind it. As I progressed in my studies I completed an undergraduate degree and subsequently pursued my PhD at the CRLP. During this time, my interest in understanding the foundations of cancer at the most basic molecular level continued to grow. From what I've learned at my time at the CRLP, both in completing my PhD and in my various ongoing projects, I hope to continue to learn and work towards translating this fundamental understanding into a means by which to better diagnose and treat cancer.

Is there an aspect of research you're most interested in?

I am particularly interested in the area of targeted therapies in lung cancer. There have recently been a number of new drugs that have brought new hope to the field of lung cancer. While the initial response to these drugs can be quite dramatic, the majority of tumors over time will eventually become resistant to these treatments and patients will have recurrence of their disease. My interests lie in understanding how these cancers become resistant to these specific therapies, and working towards developing a means through which we can prevent this resistance from developing.



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SPOTLIGHT: Dr. Matt Cecchini

What drives/motivates you?

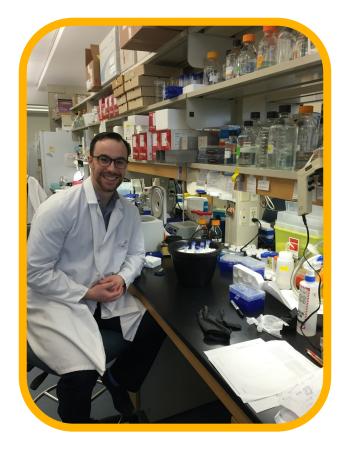
The majority of Canadians have had the unfortunate experience of having close family members develop cancer. Through both my personal and clinical experiences I have seen first-hand the devastating effect that cancer can have. That said, I have also been very fortunate to see the successes that targeted therapies can have when they are given to the right patient with the right type of cancer. I am extremely hopeful that we are entering an era where cancer will become a chronic disease that we can treat with the right cocktail of drugs. Each small advance in understanding it's molecular basis takes us another step closer to the goal of beating cancer.

What kind of research do you hope to pursue in the future?

As a pathologist in training, I hope to continue to pursue translational research that can be directly applied to patients. I plan to pursue research that will optimize the use of targeted therapies with the eventual goal to identifying drugs that can produce long-lasting, durable responses and possibly even cures for specific cancers.

What are some of your career highlights?

Early on in my PhD studies we identified a novel means by which cancer cells could be controlled. I then developed with my PhD supervisor and clinical collaborators in Oncology and Pathology a clinical study to test the relevance of this finding in lung cancer. We identified a striking improvement in overall survival in patients that lost expression of a specific protein. We are currently following up on this initial work with a larger study to validate these findings. This holds the promise to be a simple clinical test that could be applied to identify patients who have increased survival when treated with surgery and chemotherapy.



CONGRATULATIONS AND GREAT WORK, MATT! WE ARE PROUD OF YOUR HARD WORK AND DEDICATION TO CANCER RESEARCH.

To learn more about Pathology and how we play a vital role in patient care, please go to:

www.mypathologist.ca.











Meet Dr. Glenn Bauman, Director and Chair of the CTCR!

Introducing the Centre for Translation Cancer Research (CTCR)

Vision: To foster collaborative multi-disciplinary teams to prevent cancer, detect cancer earlier and develop better cancer treatment. Our vision of the future is to further expand translational research efforts, building on the successes of established translational research teams.

Please visit our website: www.schulich.uwo.ca/CTCR.

Follow us on Twitter: @SchulichMedDent

Contact: Elizabeth Mazza, Project Coordinator | 519.685.8500, ext. 75542

Apply today for the FALL 2016 CTCR Travel Awards!

The CTCR is pleased to offer competitive Travel Awards for graduate students, residents, and clinical and postdoctoral fellows working in the area of translational cancer research.

Who can apply?

Graduate students, residents or clinical/postdoctoral fellows working in the area of translational cancer research.

What is the award?

A total of 5 awards with a value of \$1000.00 each will be available.

When is the deadline?

The deadline to apply is August 1st 2016 to elizabeth.mazza@lhsc.on.ca.

How do I apply?

A short application form must be completed. As part of the application, students can choose to either create a 2-minute video (max.) presenting their research or submit a short abstract (350 words max.). The full application can be found on the CTCR website: www.schulich.uwo.ca/CTCR.

Application Guidelines:

The primary selection criteria will be the scientific/academic merit of the applicant's abstract in the context of translational cancer research.

Please contact Elizabeth Mazza, Project Coordinator of CTCR, for more details: elizabeth.mazza@lhsc.on.ca

CONGRATULATIONS TO CRLP SCIENTISTS AND TRAINEES!



Dr. Sam Asfaha has just been awarded a **CIHR Clinician Scientist Salary Award** (Clinician Scientist: Phase 2)! This is a tremendous success for Sam. It is a highly competitive award (3 + 3 years of salary contribution with research allowance) and recognizes Sam's outstanding talent as a scientist and the significant contributions he has made to his field of research, even at this early stage in his career. We are very pleased to have Sam as one of our CRLP-supported scientists not just because he is an excellent colleague and highly collaborative, but also because he has nucleated a new focus of research within the CRLP in colorectal cancer, which we expect to grow and flourish under his leadership.

We wish you continued success in your research and academic career!



Dr. Fred Dick has just been awarded the **Dr. Joseph Gilbert Research Contribution of the Year Award** by the Lawson Health Research Institute! Fred's Cancer Discovery paper (PMID: 24740996) was submitted for the competition. The first author is Dr. Courtney Coschi who is now in medical school and obtained her Ph.D. in Fred's lab.

This is a great achievement for Fred and speaks to his excellent research program and recognizes the high level of his scientific investigation.



Dr. Alison Allan is part of a successful Canadian Institutes of Health Research and the Natural Sciences and Engineering Research Council of Canada CHRP grant application with Dr. Shana Kelly at U of T for a proposal entitled: "Analysis of Circulating Tumor Cell Heterogeneity Using a Multi-Marker Microscale Capture Approach as a tool in the Management and Treatment of Cancer". This is a tremendous success and obviously builds on Alison's globally recognized expertise in the isolation and characterization of CTC's. The proposal represents a highly translational and novel way of capturing and using CTCs from a number of different disease sites and will serve to push this technology/biomarker into the clinic.

Well done, Alison!



Dr. Anthony Nichols, Surgeon-Scientist, was awarded the **Dean's Award of Excellence in Research (Junior Faculty category)**. Many of you know Anthony as a familiar face in the CRLP as he directs the Head and Neck Translational Cancer Research Program along with his close colleague, Dr. Joe Mymryk.

Congratulations Anthony on this very special recognition which we applaud and whole-heartedly support!



Dr. Ward (located in Baines CRU/Imaging Centre on the 3rd floor) has been awarded a **Dean's Award of Excellence in the Schulich Educator Awards category**. The citation is listed below. CONGRATULATIONS AARON on being recognized by Schulich for your exceptional teaching skills!

Congratulations to Cancer Research Trainees in the CRLP!

Congratulations to ...

Jessica Tong in the successful defense of her PhD thesis entitled, "Oncolytic Virus Therapy for the Treatment of Metastatic Ovarian Cancer." Jessica was supervised by Dr. T. Shepherd in the Translational Ovarian Cancer Research Program. She gave a flawless public lecture followed by a strong oral defense in response to a battery of questions from many different angles. Great work!

Samah Rafehi in the successful defense of her PhD thesis entitled, "Exploring the regulation and function of epithelial-mesenchymal plasticity in ovarian cancer spheroids." Samah was supervised by Dr. T. Shepherd in the Translational Ovarian Cancer Research Program. She did an amazing job with her public lecture and remained calm and poised with her oral defense. Well done, Samah!

Carlie Charlton in the successful defense of her PhD thesis entitled, "The design and synthesis of ghrelin analogues as non-invasive GHS-R1a imaging probes". Carlie was supervised by and worked in Dr. Len Luyt's Lab. Congratulations!

Ali Zhang new MSc. Candidate in Dr. J. Mymryk's Lab, won a prestigious NSERC MSc studentship awarding one year of support at \$17,500! Excellent work.

Charles Ishak a Senior PHD Student in Dr. F. Dick's Lab, was awarded the WOLRDDiscoveries Scholarship for Commercialization/Entrepreneurship for his project on the development of novel cancer biomarkers. Charles is a fifth year PhD student in the lab of Dr. Fred Dick. Great work, Charles.

Martin Prusinkiewicz new MSc. Candidate in Dr. J. Mymryk's Lab, for winning the Alexander Graham Bell Canada Graduate Scholarship-Doctoral (CGS D) Award. This prestigious program allows excellent students to pursue doctoral studies in Canada. Natural Sciences and Engineering Research Council of Canada (NSERC) awards CGS D to the top-ranked applicants based on academic excellence, research ability or potential and other interpersonal and leadership abilities. Congratulations on this achievement!

Mateusz Rytelewski of the Koropatnick lab on receiving the 2015 John A. Thomas award. Matt was recognized by the graduate studies committee of the Department of Microbiology & Immunology for his excellent accomplishments including 9 published papers, multiple scholarship awards including CaRTT, Banting & Best CGS-D, and the Macklin award from the Schulich School of Medicine & Dentistry. Matt recently defended his doctoral dissertation and will be starting work as a postdoctoral fellow at the MD Anderson Cancer Center in Houston, Texas in spring 2016. Congratulations!

If you would like to recognize a trainee or colleague please contact Elizabeth: elizabeth.mazza@lhsc.on.ca

JAMA Oncology

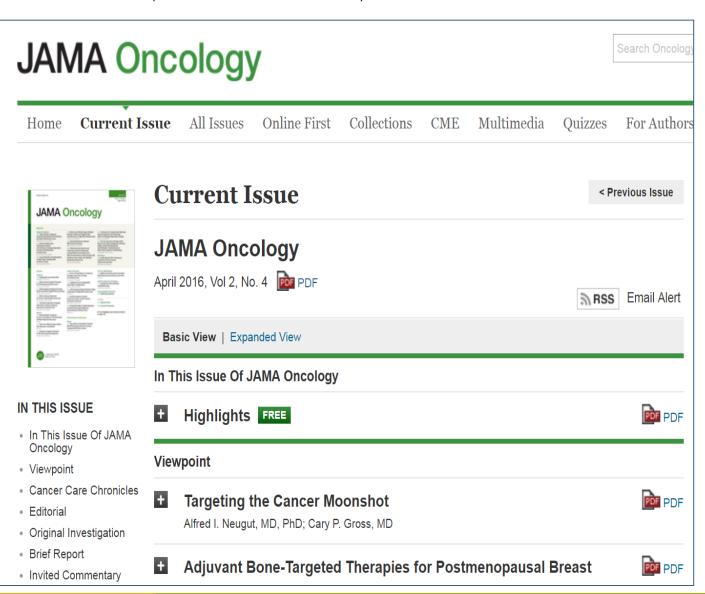
NEWS FROM THE LIBRARY

By Gabe Boldt

JAMA Oncology

The LRCP Health Sciences Library is pleased to announce it has obtained a subscription to **JAMA Oncology**. JAMA Oncology is the definitive journal for scientists, clinicians, and trainees in the field of oncology worldwide. Its original, innovative, and timely scientific and educational content provides a deeper understanding of cancer pathogenesis and recent treatment advances for its readers. JAMA Oncology aims to effectively convey the findings of important clinical research, major scientific breakthroughs, actionable discoveries, and state-of-the-art treatment pathways to the oncology community. Our goal is that successful communication of new knowledge will ultimately translate to clinical benefit for people living with and surviving cancer.

JAMA Oncology is only available to researchers in London through the LHSC Health Sciences Library website located here: http://www.wohkn.ca/lhsclibrary



Recent Research Publications from Our CRLP Scientists

Schenkel, LC., **Rodenhiser**, **DI**, Ainsworth, PJ., Paré, G., Sadikovic, B. (2016). "DNA methylation analysis in constitutional disorders: Clinical implications of the epigenome". Critical Reviews in Clinical Laboratory Sciences (3): 147-165. January 12 2016.

Greenshields, AL., **Shepherd, TG**., Hoskin, DW. (2016). "Contribution of reactive oxygen species to ovarian cancer cell growth arrest and killing by the anti-malarial drug artesunate". Molecular Carcinogenesis, doi: 10.1002/mc.22474. February 15 2016.

Charron, CL., Hickey, JL., Nsiama, TK., Cruickshank, DR., Turnbull, WL., **Luyt, LG**. (2016). "Molecular imaging probes derived from natural peptides". Natural Products Report, doi: 10.1039/C5NP00083A. February 25 2016.

Kirstein JM, Hague MN, McGowan PM, Tuck AB, **Chambers AF**. (2016). "Primary melanoma tumor inhibits metastasis through alterations in systemic hemostasis." J Mol Med (Berl). 2016 Apr 6. [Epub ahead of print] PubMed PMID: 27048169.

Rytelewski, M., Maleki Vareki, S., Mangala, LS., Romanow, L., Jiang, D., Pradeep, S., Rodriguez-Aguayo, C., Lopez-Berestein, G., Figueredo, R., Ferguson, PJ., Vincent, M., Sood, AK., **Koropatnick**, **J.** (2016). "Reciprocal positive selection for weakness - preventing olaparib resistance by inhibiting BRCA2". Oncotarget, doi: 10.18632/oncotarget.7883. March 3 2016.

Rafehi, S., Valdes, YR., Bertrand, M., McGee, J., Préfontaine, M., Sugimoto, A., **DiMattia, GE**., **Shepherd, TG.** (2016). "TGFβ signaling regulates epithelial-mesenchymal plasticity in ovarian cancer ascitesderived spheroids". Endocrine-related Cancer (3): 147-159. March 23 2016.

Westphalen, CB., Takemoto, Y., Tanaka, T., Macchini, M., Jiang, Z., Renz, BW., Chen, X., Ormanns, S., Nagar, K., Tailor, Y., May, R., Cho, Y., **Asfaha, S.**, Worthley, DL., Hayakawa, Y., Urbanska, AM., Quante, M., Reichert, M., Broyde, J., Subramaniam, PS., Remotti, H., Su, GH., Rustgi, AK., Friedman, RA., Honig, B., Califano, A., Houchen, CW., Olive, KP., Wang, TC. (2016). "Dclk1 Defines Quiescent Pancreatic Progenitors that Promote Injury-Induced Regeneration and Tumorigenesis". Cell Stem Cell (18) 4: 441-455. April 7 2016.

Kim, Y., Williams, KC., Gavin, CT., Jardine, E., **Chambers, AF.**, Leong, HS. (2016). "Quantification of cancer cell extravasation in vivo". Nature Protocols, doi: 10.1038/nprot.2016.050. April 21 2016.

Salim, KY., Maleki Vareki, S., Danter, WR., **Koropatnick J.** (2016). "COTI-2, a novel small molecule that is active against multiple human cancer cell lines in vitro and in vivo". Oncotarget, doi: 10.18632/oncotarget.9133. May 2 2016.

Gerarduzzi, C., He, Q., Zhai, B., Antoniou, J., **Di Battista, JA**. (2016). "Prostaglandin E2-Dependent Phosphorylation of RAS Inhibition 1 (RIN1) at Ser 291 and 292 Inhibits Transforming Growth Factor-β-Induced RAS Activation Pathway in Human Synovial Fibroblasts: Role in Cell Migration." Journal of Cellular Physiology, doi: 10.1002/jcp.25412. May 2 2016.

If you would like to recognize a recent publication please contact Elizabeth: elizabeth.mazza@lhsc.on.ca

CRLP newsletter conceived and edited by Dr. Gabe DiMattia, Interim Director, CRLP.

Prepared by Elizabeth Mazza, CTCR.