

Yi-Chen Vanessa Sung

<https://ca.linkedin.com/in/sungvanessa>

EDUCATION

McGill University, Montreal, QC, Canada Jan 2012 – Dec 2018

Doctor of Philosophy, Biochemistry (Breast Cancer Molecular Oncology)

- Dissertation: Mechanisms of MET-dependent tumour initiation and progression
- Supervisor: Dr. Morag Park (Director, Goodman Cancer Research Centre (GCRC), McGill University)

McGill University, Montreal, QC, Canada Sept 2005 – Apr 2009

Bachelor of Arts and Science, Major in Cell and Molecular Biology

Minor in Social Studies of Medicine, Minor in World Religions

- Graduated with Great Distinction (CGPA 3.75)

RESEARCH AND WORK EXPERIENCE

Office of the Chief Science Advisor, Ottawa, ON, Canada Sept 2018 – present

Policy Analyst (Feb 2019 – present)

Intern (Sept – Nov 2018)

- Work on files related to science diplomacy, early career researchers, women in science, and international affairs

University of British Columbia, Vancouver, BC, Canada Nov 2009 – 2011

Research Technician, Pieter Cullis lab, Department of Biochemistry and Molecular Biology

- Conducted research on using lipid nanoparticles to deliver therapeutics against cancer, diabetes, and immune-related diseases

Genetic Pathology Evaluation Centre, Vancouver, BC, Canada Jun – Dec 2008

Tissue Microarray Technician

- Prepared clinical samples and built tumour tissue microarrays for histopathological analysis

McGill University, Montreal, QC, Canada Sept 2007 – Apr 2008

Undergraduate Research Assistant, François Fagotto lab, Department of Biology

- Conducted research to characterize key cellular mechanisms required for embryonic development

University of British Columbia, Vancouver, BC, Canada May – Aug 2007, 2008

Summer Research Student, Pieter Cullis lab, Department of Biochemistry and Molecular Biology

- Synthesized a novel lipid for lipid nanoparticle formation and conducted mouse immune response studies

LEADERSHIP AND VOLUNTEER EXPERIENCE

Circles of Support and Accountability (CoSA) Ottawa Feb 2020 – present

Volunteer

- CoSA is a reintegration initiative, operating on restorative justice principles, that assists individuals who have served a prison sentence for a sexual offence(s) in their effort to re-enter society and to avoid re-offence

Research Canada June 2018 – present

Trainee representative on Policy Engagement Committee

- Bring the student perspective to the committee's consideration of policy issues relevant to the health research and innovation sector

Science & Policy Exchange (SPE), Montreal, QC, Canada Jan 2015 – Sept 2019
Internal Director (June 2017 – Sept 2019)
Co-president (June 2017 – Aug 2018)
VP External Relations (Oct 2016 – June 2017)

- SPE's mission is to promote the student voice in science policy, and to bring together experts from academia, industry, and government to engage students and the public on issues at the interface of science and policy
- Spearheaded and co-organized #Students4theReport campaign in support of the Fundamental Science Review, launched July 2017 <http://sp-exchange.ca/students4thereport/>

Win4Science Committee Jan 2018 – Aug 2018
PhD Representative

- WIN4Science is an initiative to support and increase the presence of women in the Life Sciences
- Organized a large-scale consultation of PhDs students, post-doctoral fellows, and faculty members about the challenges women face while pursuing careers in the Life Sciences, as well as in STEM fields more broadly

Research Information Outreach Team (RIOT), Montreal, QC, Canada Jan 2017 – Aug 2018
Member

- In affiliation with the Canadian Cancer Society, RIOT is a group of graduate students and post-doctoral fellows who work to communicate cancer research to the public through blogs, videos, and community speaking events

Communitas, Montreal, QC, Canada Jan 2012 – Aug 2018
Board of Directors (May 2017 – Aug 2018)
Steering Committee Member (Jan 2012 – Mar 2017)
Volunteer Coordinator (Jan 2012 – Mar 2016)

- Communitas is a non-profit organization that works within the principles of Restorative Justice to reduce recidivism through the accompaniment and reintegration of previously incarcerated individuals
- Awarded the 2015 Peter Huish Award of Merit for outstanding individual whose contributions reflect the values on which Communitas is based (nominated by community)

Goodman Centre Student Society (GCSS), Montreal, QC, Canada Jan 2014 – Dec 2017
Co-chair (Jan 2016 – Jan 2017)
VP Fundraising (2014 – 2015)

- GCSS represents the interests of trainees at the GCRC and organizes scientific, professional, and social activities
- During the 2015 federal election, spearheaded GCRC Votes 2015, an initiative aimed at ensuring all eligible GCRC members are registered to vote and have access to balanced information regarding key elections issues
- Team captain of the Goodman Cancer Research Centre for the 2015 Terry Fox Run – partnered with a local business to help the centre raise nearly \$14,000

TEACHING AND MENTORING EXPERIENCE

Guest lecturer

Knowledge Translation workshop, Centre for Research on Brain, Language, and Music (Aug 2, 2019)

- Deliver workshop titled "Building the bridges between science and policy" in Montreal

Skillsets Survival Skills for Scientists workshop, McGill University (Mar 9, 2018)

- Moderated panel titled "Discover your career options"

CCOM314 Communicating Science, McGill University (Feb 12, 2018)

- Gave presentation on science policy - the importance of communicating science to the public and policymakers

Meaningful Science, Skillsets, McGill University (Nov 8, 2017)

- Led student discussion about science advocacy, and the role of science and evidence in policy

Mentor to undergraduate student

Goodman Cancer Research Centre, McGill University

- Provide research guidance and training to undergraduate project students in Park lab
 - 2nd year undergraduate Biochemistry project student (Jan – Apr 2018)
 - 4th year undergraduate Anatomy and Cell Biology project student (Sept 2013 – Apr 2014)

AWARDS AND RECOGNITIONS

Principal's Prize for Public Outreach Through Media McGill University	March 2018
Rosalind Goodman Commemorative Scholarship Goodman Cancer Research Centre, McGill University	Sept 2017 – Aug 2018
Marilyn Wener Excellence Award Défi Corporatif Canderel	May 2017
FRQS Doctoral Training Award Fonds de recherche du Québec – Santé	Sept 2015 – Aug 2017
La Vie En Rose Fellowship Award Roses of Hope Foundation	Dec 2014 – Nov 2015
Mensa Canada Scholarship Award Mensa Canada	Jan 2014
Samuel S. Lerner Memorial Award Faculty of Medicine, McGill University	Sept 2013
McGill Faculty of Medicine Studentship Faculty of Medicine, McGill University	Sept 2013 – Aug 2014
McGill Integrated Cancer Research Training Program M.Sc. Studentship Goodman Cancer Research Centre, McGill University	Jan 2012 – Dec 2012

PEER-REVIEWED PUBLICATIONS

Vanessa Y.C. Sung, Jennifer F. Knight, Radia Johnson, Sadiq Saleh, Anie Monast, Paul Savage, Dongmei Zuo and Morag Park. MET and FGFR1 signalling cooperate to promote tumorigenesis through maintenance of mesenchymal pathways and are potential therapeutic co-targets in a subset of triple negative breast cancer. *Submitted*.

Thompson, C., Lai, A.Z., Chenard, V., Gravel, S.-P., Golendar, T., Monast, A., **Sung, VYC.**, Bridon, G., Johnson, R., Zuo, D., Zahr, S., Gigoux, M., Avizonis, D., St-Pierre, J., Park, M. Inhibition of GLUT1-mediated glycolysis promotes lactate oxidation and OXPHOS dependency in drug resistant MET-amplified gastric cancer. *Manuscript in preparation*.

Knight JF, **Sung VYC**, Kuzmin E, Couzens A, De Verteuil DA, Johnson RM, Grusso T, Saleh SM, Zuo D, Guoit MC, Davis RR, Zhao H, Gregg JP, Gingras AC, Park M. (2018) Kibra (WWC1) is a metastasis suppressor gene affected by chromosome 5q loss in human triple negative breast cancers. *Cell Reports* 22(12): 3191-3205.

Justin B. Lee, Kaixin Zhang, Yuen Yi C. Tam, Ying K. Tam, Nathan M. Belliveau, **Vanessa Y.C. Sung**, Paulo J.C. Lin, Eric LeBlanc, Marco A. Ciufolini, Paul S. Rennie and Pieter R. Cullis. (2011) Lipid nanoparticle siRNA systems for silencing the androgen receptor in human prostate cancer in vivo. *International Journal of Cancer* 131(5): E781-790.

Cheng-Han Lee, Dmitry Turbin, **Vanessa Sung**, Inigo Espinosa, Kelli Montgomery, Matt van de Rijn and C Blake Gilks. (2009) A panel of antibodies to determine site of origin and malignancy in smooth muscle tumors. *Modern Pathology* 22(12): 1519-1531.

OTHER SELECT PUBLICATIONS

Sung V. and Sung M. (2019) Do we have enough scientists in Parliament? *iPolitics*. <https://ipolitics.ca/2019/11/28/do-we-have-enough-scientists-in-parliament/>

McGuirk S.* and **Sung V.*** (2018) Science & Policy Exchange Pre-Budget Consultation 2019. *House of Commons, Government of Canada*. <https://www.ourcommons.ca/Content/Committee/421/FINA/Brief/BR10007494/br-external/ScienceAndPolicyExchange-e.pdf>

Bradley-Gill M.R. and **Sung V.** (2018) Finding our voice in advocacy. *SisterSTEM*. <https://sisterstem.org/2018/08/21/finding-our-voice-in-advocacy/?fbclid=IwAR2FenFB9d0DWJxxwoMGhEyMKKAzQqlw4sb361CvrvO66nEA5AdtPe22lwo>

Sung V. (2018) Let your stars shine. *Science Magazine*. <http://science.sciencemag.org/content/361/6400/422>

Bradley-Gill M.R., **Sung V.**, Ferwati S., Fromont L., George N., Tiv M. (2018) Breaking gender barriers in STEMM – Whose responsibility is it? http://sp-exchange.ca/images/reports/SPE_cafe_report_gender.pdf

McGuirk S.* and **Sung V.*** (2017) The Case for Taking Student Advice in Science Policy. *Hill Times*. <https://www.hilltimes.com/2017/11/29/case-taking-student-advice-science-policy/127088>

McGuirk S.* and **Sung V.*** (2017) Science & Policy Exchange Pre-Budget Consultation 2018. *House of Commons, Government of Canada*. <http://www.ourcommons.ca/Content/HOC/Committee/421/FINA/Brief/BR9073407/br-external/ScienceAndPolicyExchange-e.pdf>

McGuirk S.*, **Sung V.***, Bradley-Gill M.R., Garnett S., Grusso T. (2017) #Students4theReport: An open letter on the student perspective of the Fundamental Science Review. <http://sp-exchange.ca/students4thereport/>

Science & Policy Exchange. (2016). Student perspective of STEM education in Canada: Strategies and solutions from an expert-led working group. <http://sp-exchange.ca/news/STEM-White-Paper/>

*authors contributed equally

SELECT INTERVIEWS AND PRESENTATIONS

(upcoming May 2020) *Leaders Overcoming Gender Inequality in Chemistry (LOGIC) Conference*. <https://cwicnetwork.com/invited-speakers/>

(2019) *Science Sucks* podcast. <https://anchor.fm/sciencesucks/episodes/Science-Meets-Policy--with-Dr--Vanessa-Sung-e3ul8p>

(2018) *Montreal March for Science*. https://www.youtube.com/watch?v=xPS4B_Olezo

(2017) *Superwomen in Science* podcast. <https://superwomeninscience.wordpress.com/2017/11/16/episode-8-science-policy-with-vanessa-sung/>

(2017) *Canadian Science Policy Conference 2017*. <https://www.youtube.com/watch?v=qzwnTdy2kHw&index=17&list=PLH11uvaw1HH1tM2OhdF2IB9VC5qXd9HjH>

Shen A. (2017) Science minister discusses progress on Naylor report, lays out priorities. *University Affairs*. <https://www.universityaffairs.ca/news/news-article/science-minister-discusses-progress-naylor-report-lays-priorities/>

Cusi VS. (2017) Universities Canada finds ally in public to support Naylor agenda. *Research Money*. <https://researchmoneyinc.com/articles/universities-canada-finds-ally-in-public-to-support-naylor-agenda/>

SELECT SCIENCE POLICY PANELS

Canadian Science Policy Conference. Acting for equity, diversity, and inclusion in Canadian science and research. *Panelist*. Ottawa, Canada. Nov 13, 2019.

ComSciConCAN. The Communicating Science workshop for graduate students. *Panelist*. Hamilton, Canada. July 19, 2019.

National Science Policy Network. Annual Science Policy Symposium. Presenter. New York, USA. Nov 10, 2018.

Science & Policy Exchange public forum. From pain relief to crisis: What is the place of opioids in 2018? Organizer. Montreal, Canada. Aug 29, 2018.

Science & Policy Exchange public forum. Higher Learning: Lessons learned from medical cannabis in Canada. Organizer. Montreal, Canada. June 18, 2018.

Research Canada Annual General Meeting. Morning panel presentation: What's next in health research advocacy? Panelist. Ottawa, Canada. June 13, 2018.

Win4Science forum. The gender gap – what is the cause? Organizer/facilitator. Montreal, Canada. May 24, 2018.

Science & Policy Exchange conference. Students as stakeholders in science diplomacy: Outlook for today and tomorrow. Organizer. Montreal, Canada. May 17, 2018.

Canadian Science Policy Conference. Engaging the public where they live: perspectives from media personalities and strategists for better science communication. Organizer. Ottawa, Canada. Nov 3, 2017.

Science & Policy Exchange public forum. Gene Editing: Rewriting your DNA. Organizer. Montreal, Canada. June 6, 2017.