

Xing (Ezra) Yu

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EDUCATION

University of British Columbia (UBC), Vancouver, BC

PhD in Epidemiology and Biostatistics

Sep 2025 - Present

- Supervisor: Dr. Trevor Dummer

Sep 2020 - Sep 2023

MSc in Population and Public Health

- Supervisor: Dr. Hugh Davies, Co-supervisor: Dr. Matilda van den Bosch
- Thesis: *Noise Exposure and Language Acquisition among Vancouver Children: Effect Modification by Residential Greenspace*

Simon Fraser University (SFU), Burnaby, BC

Sep 2014 - May 2020

BA (Hons) in Health Sciences, Extended minor in Linguistics

- Supervisor: Dr. Ryan Allen
- Thesis: *Prenatal Maternal Stress and Effect of Air Purifier Intervention to Predict Infant Wheezing in the First Year of Life*

PUBLICATIONS

Published journal articles

1. **Yu X**, Jarvis I, van den Bosch, M, Guhn M, Sbihi H, & Davies, H. Residential Exposure to Noise, Green Space, and Children's Language Acquisition. *Environment International*. doi: <https://doi.org/10.1016/j.envint.2025.109524>
2. Dummer T. J. B, **Yu X**, Cui Y, Nauta L, Saint-Jacques N, Sweeney-Magee M, & Rainham, D. G. C. Traffic-related air pollution and risk of lung, breast and urinary tract cancer in Halifax, Nova Scotia. *Journal of Occupational and Environmental Medicine*. doi: 10.1097/JOM.0000000000002867
3. Keats M. R, **Yu X**, Sweeney-Magee M, Forbes C. C, Grandy S. A, Sweeney E., & Dummer T. J. B. Use of wearable activity monitoring technologies to promote physical activity in cancer survivors: Challenges and opportunities for improved cancer care. *International Journal of Environmental Research and Public Health*. doi: 10.3390/ijerph20064784
4. **Yu X**, Jarvis I, Davis Z, van den Bosch M, & Davies H. Reductions in community noise levels in Vancouver, Canada, during pandemic lockdown and association with land cover type. *Environmental Research*. doi: 10.1016/j.envres.2023.117064

Published book chapter

1. Kuczynski G., **Yu X**, Aravindakshan A., Bhatti P., Brook J., Doiron D., Dummer T., Syer J., & White K. (2024). Chapter 6: *Cohort Studies and Context: Infrastructure to Support Cancer Prevention*. In T. Dummer (Ed.), *Understanding Cancer Prevention through Geospatial Science: Putting Cancer in its Place (Global Perspectives on Health Geography, Springer)*. doi: 10.1007/978-3-031-66413-7_5

Journal manuscripts in preparation

1. **Yu X**, van den Bosch, M Guhn, M, Sbihi H, & Davies H. Exploring the effects of noise on language acquisition during early childhood: A scoping review. Targeting *Language Learning*.
2. **Yu X**, Sweeney-Mage M, Harrigan, S, & Dummer T. Neighborhood built environment and its association with physical activity and obesity in BCGP cohort: insights from urban and rural areas. Submitted to *The Journal of Urban Health*.
3. **Yu, X.**, Sweeney-Magee, M., Harrigan, S., Bhatti, P., Brook, J., Doiron, D., & Dummer, T. J. B. Unpacking Residential Mobility: Demographic and Health Factors Influencing Relocation in BC Generation Project. Targeting *Social Science & Medicine*.

PRESENTATIONS

1. **Yu X**. (2023, February). Early Child Development and Impact of Noise on Language Development. Talk presented at the *UBC Occupational and Environmental Hygiene Friday Seminars*, Vancouver, Canada.
2. **Yu X**, Sweeney-Mage M, Harrigan S, & Dummer T. (2023, January). The Impact of the Built Environment on Obesity and Physical Activity in a Cohort of British Columbians. Talk presented at the *Cascadia Symposium 2023 on Environmental, Occupational, and Population Health*, Seattle, USA.
3. Keats M. R, **Yu X**, Sweeney-Magee M, Forbes C. C, Grandy S. A, Sweeney, E, & Dummer T. J. B. (2022, November). Use of Wearable Activity Monitoring Technologies to Promote Physical Activity in Cancer Survivors: Challenges and Opportunities for Improved Cancer Care. Poster session presented at the *BC Cancer Summit - Terry Fox Laboratory Symposium*, Vancouver, Canada.
4. **Yu X**, van den Bosch M, Guhn M, Sbihi H, & Davies H. (2021, November). Reviewing the Effects of Noise on Language Acquisition. Talk presented at the *UBC Language Sciences Graduate Student and Postdoctoral Fellow Research Day 2021*, Vancouver, Canada.
5. **Yu X**, & Haseyama K. (2021, January). Examining Unspoken Challenges Among Immigrant Female Seniors: The Recommendation to Incorporate Cultural Competency in Public Health Education. Round table presented at the *Hawaii International Conference on Education*, Honolulu, USA.
6. **Yu X**. (2020, March). Prenatal Maternal Stress and Infant Respiratory Health: Effect of Air Purifier Intervention. Talk presented at the *SFU Undergraduate Research Symposium* (cancelled due to COVID-19).

SCHOLARSHIPS, AWARDS, HONOURS AND ACHIEVEMENTS

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| • UBC President's Academic Excellence Initiative Award | 2024 |
| • UBC Faculty of Medicine Graduate Award | 2024 |
| • UBC Four-Year Fellowship (4YF) | 2024 |
| • UBC 4YF Tuition Award | 2024 |
| • 2022 Elizabeth Henry Scholarship for Communities and Environmental Health | 2022 |
| • President's Honour Roll, SFU | 2020 |
| • Dean's Honour Roll, Faculty of Health Sciences, SFU (X 4) | 2018- 2020 |
| • Vice President Research - Undergraduate Student Research Award, SFU | 2019 |
| • Paul and Ethel Seifner Linguistics Funds, SFU | 2019 |

RESEARCH EXPERIENCE

UBC School of Population and Public Health (SPPH)

Research Coordinator - Cancer Prevention Group

Jun 2022 – May 2024

- Designed a series of studies examining built environment and cancer risk integrating data analysis and leading to several first-author manuscripts in preparation
- Contributed data analysis and literature synthesis for multiple co-authored publications on cancer risk, long-term air pollution, and cancer survivorship
- Administered research logistics, such as participant recruitment, data management and grant application to support the UBC cancer prevention cluster

Graduate Research Assistant - Born to be Wise

Sep 2020 – Oct 2024

- Published a first-author paper analyzing the health effects of residential noise and greenness on language and cognitive development in 34,000 children in Vancouver
- Drafted a first-author review on environmental noise and language acquisition using Covidence and structured searches across major health literature databases
- Presented findings at *UBC Occupational and Environmental Health Seminar* to advocate health-based noise policy that supports children development in Canada

Project Lead - YVR COVID19-related Lockdown Noise Reduction

Sep 2020 – Sep 2023

- Produced a first-authored paper in a peer-reviewed journal informing urban design strategies for noise control in relation to land use type
- Led spatial analysis using ArcMap GIS to examine geographic disparities in noise distribution by sourcing land cover data via the Abacus system
- Collaborated with YVR noise management team to design the research approach for analyzing noise changes during the COVID-19 lockdown in Vancouver

SFU

Research analyst - Faculty of Health Sciences

May 2019 – May 2020

- Analyzed the association between indoor air pollutants and infant respiratory development using both SAS and R for dissemination at the SFU symposium
- Refined predictive models for indoor PM2.5 exposure estimates contributing to several manuscripts currently under review
- Performed statistical modeling in R to assess the impact of indoor air pollution on cognitive performance with findings included in manuscripts under review

Directed studies - Department of Statistics

Jan – May 2020

- Visualized the outlier detection results using K-cluster graphs to demonstrate the efficacy and sensitivity of the proposed outlier mining approach
- Assisted in the algorithm integrated frequency-grouping based outlier detection and clustered multiple correspondence analysis in R routine for detection

Undergraduate Research Assistant - Department of History

Sep 2018 – May 2019

- Maintained the database integrity by extracting and digitalizing the confidential law enforcement records from microfilm; ensured the progress of the project
- Catalogued the archives and codified them into an index to construct a streamlined archival system, which established a searchable database for the research team
- Composed weekly work reports on the archival collection to maintain a record of database completion and progress

HEALTH-RELATED WORK EXPERIENCE

Rupert Health Centre

Jan – Apr 2018

Chiropractic Office Assistant (Co-op)

- Innovated the clinical website design using HTML and JavaScript by incorporating payment functions on the website to optimize online services for patients
- Coached office fellows on the use of medical reporting systems *Atumn8* and other clinical logistics to ensure the overall efficiency of clinical function
- Mediated the clinical communications with lawyer companies and other public agents (e.g., Ministry of Health, ICBC, and WorkSafeBC) to assist the injury case settlement

TEACHING EXPERIENCE

Workshop Instruction

UBC Library Research Commons

- 2023 Introduction to Covidence

Note: I developed the workshop de novo, attracting 57 registrants in its first iteration.

ACADEMIC SERVICE

Peer Review Activities

- Conference adjudicator in *UBC Multidisciplinary Undergraduate Research Conference 2024*
- *Abstract reviewer in *UBC Language Sciences Undergraduate Research Conference (LSURC) 2023*
- Conference adjudicator in *UBC LSURC 2023*

Covidence (Cochrane Community)

- 2023 Student Ambassador

** Exclusive appointment: Sole adjudicator at the conference without holding a professional rank in the university*

STUDENT GOVERNMENT

Graduate Student Society (GSS) – UBC Vancouver

Chair - AMS Caucus Council

Sep 2021 – Aug 2022

- Advised university-level support for graduate students by proposing and voting decisions in Graduate Student Society council meetings
- Liaised with GSS caucus committee and AMS council to enforce the relationship in both organizations to maximize their support for graduate students

Chair - The Association of Population and Public Health Students (TAPPS)

Oct 2021 – Aug 2022

- Chaired monthly meetings for a group of 21 executives to ensure that the decisions and actions were taken to meet TAPPS's expectations
- Coached organizational leadership teams with constitutional experience to meet event preparation and promotion goals

Simon Fraser Student Society (SFSS) – SFU Burnaby

President - Linguistics Student Union (LSU)

May 2019 – Jan 2020

- Supervised events' design and budgeting, adjusted details based on sizes and expected outcomes to achieve the best possible
- Assigned supervisors for events and promotional activities according to executives' strengths to maximize success for the organization
- Chaired weekly meetings for two LSU cohorts to enforce and update organizational strategies and enhance the growth of the executive teams

Vice President - LSU

Jan - May 2019

- Represented the undergrad community to advise curriculum designs during Linguistics departmental faculty meetings to meet Linguistics students' expectations
- Oversaw all activities within the union to ensure the overall management and wellbeing of the undergrad community in the linguistics department at SFU
- Tracked managerial duties, agenda preparation, regulation of all executives, and general meetings to ensure the union functions in the absence of the president

Event Coordinator – LSU

Jan - May 2019

- Communicated with potential stakeholders (e.g., linguistics experts, faculty members, etc.) event expectations to maximize their contributions
- Designed event plans, budgets, and logistics, aggregating LSU expectations from the executive meetings, to attain the student union's strategic objectives
- Administered events flow, tracking and motivating executives to increase their commitments and participation, to further the organizational achievements

COMMUNITY INVOLVEMENT

SPPH Student Journal Club

Facilitator

Oct 2021 – May 2022

- Coordinated discussions around selected journal articles of interest prompting participants to reflect on their thoughts on the articles
- Supported the technological maintenance in projector configuration and conference call connections; ensured the wellbeing of the events' procedures
- Assisted in the selection of monthly journal articles to be discussed during the club's events to explore contemporary issues and trends in public health

Canadian Cancer Society (CCS)

Assistant - Leadership and Asian Giving

May - Jul 2019

- Collaborated with a team of three CCS staff to prepare banquet plans and conversation agenda, to optimize the quality of donor's conversations
- Organized the team's logistics including cheque presentations and future meeting schedules; maintained the administrative management

Data Entry - Volunteer and Community Engagement

Aug - Sep 2018

- Reported statistical flaws and systematic issues of the internal information system to volunteer managers for their preparations for the CCS executive meetings
- Corrected personnel records in the administrative system to ensure high consistency, accuracy, and completeness in preparing the subsequent data analyses
- Quantified volunteer involvement duration and assigned tasks, according to event coordinators, to complete the records of several events on the internal database

SFU Phonological Processing Lab

Leader - Language Camp

Feb 2019

- Co-instructed a camp class around the topics of ancient and modern language reading as well as dialect decisions to provide linguistics knowledge to campers
- Coached a team of two staff from *SFU phonological processing lab* on modelling behaviour rules to deliver high-quality care for three fellow campers

Chinese Community Policing Centre (CCPC)

Translator

Jul 2018 – Jan 2024

- Translated notices from English to Chinese employing my multilinguistic competency to promote safety knowledge for local residents in the Chinatown community
- Translated newsletters in English to publish the event information in Chinese on the CCPC website and social media to increase local community engagement

RESEARCH SKILLS, TECHNIQUE, and LANGUAGE

Research

- Experienced in hierarchical models, propensity score matching, spatial data analysis
- Experienced in epidemiological study designs and causal inference

Technical

- Strong skills in statistic software in R, SAS and Python
- Proficient in ArcMap for GIS applications
- Advanced web design skills in HTML, CSS, and JavaScript

Interpersonal

- Exemplified leadership and interpersonal skills
- Excellent organization and event planning skills

Language

- Fluent in reading, writing, and speaking Mandarin

CERTIFICATIONS

Certificate in *Key Capabilities in Data Science*, UBC (in progress)

Certificate in *Medical Translation and Interpretation (Mandarin Chinese/English)*, SFU

Certificate in *Speech Science*, SFU

Certificate in *Liberal Arts*, SFU

REFERENCES

References available upon request