CURRICULUM VITAE

Josephine Esposto, M.Sc.

CONTACT INFORMATION

Emails: joscesposto@gmail.com, josephineesposto@trentu.ca
Website: https://josephineesposto.owlstown.net/
LinkedIn: https://www.linkedin.com/in/josephine-esposto-1097/

EDUCATION

Sept 2023 to Present — **Doctor of Philosophy (Ph.D.)**, Trent University
Department of Environmental and Life Sciences, Peterborough, Ontario, Canada
Research Area Specialty: Biochemistry and Molecular Biology
Thesis Supervisors: Dr. Sanela Martic, Dr. Robert J. Huber

Sept 2019 to Sept 2021 — **Master of Science (M.Sc.)**, Trent University
Department of Environmental and Life Sciences, Peterborough, Ontario, Canada
Thesis: Immunotherapies Targeting the Amyotrophic Lateral Sclerosis-Associated Protein TDP-43
Thesis Supervisor: Dr. Sanela Martic

Sept 2015 to April 2019 — **Honours Bachelor of Science (HB.Sc.) Health Sciences**, Wilfrid Laurier University
Waterloo, Ontario, Canada
Health Sciences Specialist; Biology, Chemistry, and Psychology Minors
Thesis Title: Hippocampal Immunohistochemistry: CA1, CA3, Dentate Gyrus of Goto-Kakizaki Rat Brains
Dean's Honour List (2018-2019)

CURRENT POSITION

PhD Student
Environmental and Life Sciences, Trent University, Peterborough, ON, Canada – *September 2023 to Present*

- Co-supervised by Dr. Sanela Martic and Dr. Robert J. Huber
- Graduate Teaching Assistant Department Affiliations: Forensic Sciences, Biology

PROFESSIONAL EXPERIENCE

Laboratory Scientist I, Casual
Alberta Precision Laboratories (APL), Calgary, AB, Canada – *July 2023 to August 2023*

- Assisted in the development of various clinical method validations according to established best practice guidelines.
- Performed higher complexity R&D to identify and resolve clinical sample anomalies and assay interferences in the Immunochemistry department.
- Trained in several clinical immunochemical techniques and instrument analyses.

Research and Development (R&D) Chemist
Excir Works Corp, Calgary, AB – *September 2021 to April 2023*

- Designed, implemented, and conducted both bench-scale and plant-scale experiments for the recycling of precious metals from electronic waste (e-waste) and catalytic converters.
- Developed various precious metal and base metal leaching methods to identify, quantify and change metallic speciation from various types of e-waste and other metallic waste streams.
- Provided accurate and high-quality data collection and analysis using both physical and electronic laboratory documentation, including Microsoft Suite and other statistical analysis software.
- Established, developed, and validated analytical methods; performed maintenance and calibration of various laboratory equipment.
- Extensive knowledge and hands-on experience on the pre-processing methods of e-waste and mining samples, including physical pulverization methods, sieving, concentration methods.

RESEARCH & TECHNICAL SKILLS

Research Skills

- Cell culture protein isolation, and analysis
- Intact protein/peptide digestion and analysis (Gel electrophoresis, Western blotting, Mass spectrometry)
- Biochemical and cellular biology research techniques
- Developed proteomics assays for mass spectrometry (tandem MS, MRM, MS^2)
- Statistical analysis and processing

Analytical Skills

- Microsoft applications (Microsoft Excel, Word, PowerPoint)
- Research and development
- Laboratory and project management
- Fundraising, grant, and report writing
- Social media management
- Strong written and oral English communication skills
- Organizational skills and attention to detail

Computer Software

- X-Calibur Data Acquisition and Interpretation Software
- Roche Cobas 8000 Data Manager Server G9
- QTegra Software for iCAP 6000-7000 Series
- Spectro XRF Analyzer Pro Software
- iTEM Version 5.2 Software
- Vernier Graphical Analysis 4TM Software
- Blender

Instrumentation

- Agilent 4210 MP-AES
- ThermoFisher ICP-OES
- ChemiDoc XRS Imaging System
- Thermo Scientific Q Exactive LC-ESI-MS/MS
- Agilent 8800 Triple Quadrupole ICP-MS
- JEOL 100 CX Transmission Electron Microscope
- DiaSorin Liaison XL Chemiluminescence Analyzer
- Bio-Rad BioPlex 2200 Immunoassay System
- Abbott Architect c8000 Chemistry Analyzer
- Siemens Immulite 2000 XPi Immunoassay System
- Roche Cobas 8000 Modular Analyzer Series
- Particle Size Analyzer (Microtrac Sync)
- X-Ray Fluorescence (XRF)
- Azure c200 Gel Imaging System
- Applied Biosystems (Qtrap 5500) LC-MS/MS
- Hitachi H7500 Transmission Electron Microscope
- Fluoro-Max 4 Spectrofluorometer (Horiba)
- Vernier Mini GC Plus
- Vernier GoDirect® Ethanol Sensor
- Vernier Fluorescence/UV-VIS Spectrophotometer
- Spectra-Max Plus 384 Plate Reader (Molecular Devices)

PUBLICATIONS

Peer-Reviewed Articles

1. Vyshnavy Balendra, Chiara Amoroso, Barbara Galassi, **Josephine Esposto**, Claudia Bareggi, Jennie Luu, Lucia Scaramella, and Michele Ghidini. High-Salt Diet Exacerbates *H. pylori* Infection and Increases Gastric Cancer Risks. Journal of Personalized Medicine. 2023, 13(9) pp. 1325.
2. William Wallace, Meaghan Tabobondung, **Josephine Esposto**, and Sanela Martic. Antibody-Based Electrochemical Sensor for Detection of the Full-Length Phosphorylated TDP-43 Protein Biomarker of Amyotrophic Lateral Sclerosis. Journal of the Electrochemical Society. 2023, 170, pp. 045502.
3. Shailendra Kumar Mishra, Vyshnavy Balendra, **Josephine Esposto**, Ahmad A. Obaid, Ricardo B. Maccioni, Niraj Kumar Jha, George Perry, Mahmoud Moustafa, Mohammed Al-Shehri, Mahendra P. Singh, Anmar Anwar Khan, Emanuel Vamanu, and Sandeep Kumar Singh. Therapeutic Antiaging Strategies. Biomedicines. 2022, 10(10), pp. 2515.
4. Paul Savage, Stephanie Gao, **Josephine Esposto**, Bimalendu Adhikari, Nicole Zabik, Heinz-Bernhard Kraatz, S. Holger Eichhorn, and Sanela Martic-Milne. Self-Assembly of N-C and N-/C-Terminated Val-and Phe-Amino Acid Side Chains of Naphthalene. Journal of Molecular Structure. 2022, 1263, pp. 133116.
5. Sandeep Kumar Singh, Vyshnavy Balendra, Ahmad A Obaid, **Josephine Esposto**, Maria A Tikhonova, Naveen Kumar Gautam, and Burkhard Poeggeler. Copper-Mediated β-Amyloid Toxicity and its Chelation Therapy in Alzheimer's Disease. Metallomics. 2022, 14(6), pp. mfac018.
6. Kwaku Twum, Avik Bhattacharjee, Erving T. Laryea, **Josephine Esposto**, George Omolloh, Shaelyn Mortensen, Maya Jaradi, Naomi L. Stock, Nicholas Schileru, Bianca Elias, Elan Pszenica, Theresa M. McCormick, Sanela Martic and Ngong Kodiah Beyeh. Functionalized Resorcinarenes Effectively Disrupt the Aggregation of αA66-80 Crystallin Peptide Related to Cataracts. RSC Medicinal Chemistry. 2021, 12, pp. 2022-2030.
7. **Josephine Esposto**. and Sanela Martic. Phosphorylated TAR DNA-Binding Protein-43: Aggregation and Antibody-Based Inhibition. Biochimica et Biophysica Acta (BBA) – Molecular Basis of Disease. 2021, 1867(12), pp. 166234.

8. Mohanad Ahmad, **Josephine Esposto**, Camilla Golec, Colin Wu, and Sanela Martic. Aggregation of Gelsolin Wild-Type and G167K/R, N184K and D187N/Y Mutant Peptides and Inhibition. Molecular and Cellular Biochemistry. 2021, 476, pp. 2393-2408.

Book Chapters

1. **Josephine Esposto**, Vyshnavy Balendra. Chapter 3 – Brief About Hallmarks of Aging. Anti-Aging Drug Discovery on the Basis of Hallmarks of Aging. 2022, pp. 41-60.

CONFERENCE PROCEEDINGS AND INVITED ABSTRACTS

1. **Esposto, J.,** Huber, R.J., Martic, S. Biophysical analyses of disease-related proteins: TDP-43, gelsolin and crystallin; The Canadian Society for Analytical Sciences and Spectroscopy (ICASS) 2024; June 26-28, 2024. Oral Presentation.
2. **Esposto, J.,** Huber, R.J., Martic, S. Evaluations of tandem electrospray ionization mass spectrometry (ESI-MS/MS) of neurodegenerative-linked peptides; The Canadian Society for Analytical Sciences and Spectroscopy (ICASS) 2024; June 26-28, 2024. Poster Presentation.
3. Lewis, L., **Esposto, J.,** Hassani, M.E., Bourbonnais, O., Luce, C., Martic, S. Exploring the chemical composition of aerosolized e-liquid throughout the lifetime of electronic nicotine delivery systems; The Canadian Society for Analytical Sciences and Spectroscopy (ICASS) 2024; June 26-28, 2024. Poster Presentation.
4. **Esposto, J.,** Huber, R.J., Martic, S. Biophysical evaluations of phosphorylated TDP-43 protein aggregation and inhibition; Biophysical Society of Canada (BSC) 2024; May 21-24, 2024. Poster Presentation.
5. **Esposto, J.,** Huber, R.J., Martic, S. TDP-43 aggregation and antibody inhibition: Biophysical methodologies used to assess in vitro protein mechanisms; Chemical Biophysics Symposium 2024; April 26-28, 2024. Oral Presentation.
6. **Esposto, J.,** Huber, R.J., Martic, S. Aggregation inhibition mechanisms of pTDP-43: Monitoring protein structures and morphologies using common biophysical techniques; Molecules, Cells & Systems Annual Symposium 2024; April 24, 2024. Oral Presentation.
7. **Esposto, J.,** Huber, R.J., Martic, S. Deciphering structural traits in neurodegenerative-linked proteins: Biophysical and inhibition properties of aggregated pTDP-43; February 29, 2024. RSC Poster Competition (LinkedIn): Poster.
8. **Esposto, J.,** Huber, R.J., Martic, S. Biophysical methodologies used to assess the aggregation, phosphorylation, and antibody inhibition mechanisms of ALS-associated protein, TDP-43; 4th Commonwealth Chemistry Conference (Virtual); October 4-5, 2023. Interactive Poster Presentation.
9. **Esposto J.,** Martic, S. Structural Characterization and Analysis of Full-Length In Vitro TDP-43 Proteinaceous Aggregates; IUPAC-CCCE 2021 Annual Conference (Virtual); August 13-20, 2021. Interactive Poster Presentation.
10. **Esposto, J.,** Martic, S. In Vitro Structural Determination and Analysis of Full-Length Aggregated TDP-43 Protein; Alzheimer's Association International Conference 2021 (Virtual); July 26-30, 2021. Interactive Poster Presentation.
11. **Esposto, J.,** Balendra, V., Reich, N.; Bitter Brain: Hypoglycemia and the Pathology of Neurodegeneration and Dementia; Alzheimer's Association International Conference 2021 (AAIC, Virtual); July 26-30, 2021. Interactive Poster Presentation.
12. **Esposto, J.,** Wu, C., Martic, S. Aggregation Inhibition: Mutant Gelsolin Peptides; 35th Annual Protein Society 2021 Conference (Virtual); July 7-14, 2021. Interactive Poster Presentation.
13. Niazi, A., **Esposto, J**., Wu, C., Martic-Milne, S. The Aggregation Propensity of N184K and D187Y Mutant Plasma Gelsolin Peptides; 35th Annual Protein Society 2021 Conference (Virtual); July 7-14, 2021. Interactive Poster Presentation.
14. **Esposto, J.,** Martic, S. Aggregation and Inhibition Mechanisms of Wild-Type Gelsolin Peptides and Mutants Implicated in Gelsolin Amyloidosis; Canadian Society for Molecular Biosciences (CSMB) Conference 2021 (Virtual); June 14-17, 2021. Poster Presentation.
15. **Esposto, J**., Martic, S. Structural Characterization of Neurodegenerative-Associated Protein Complexes by Transmission Electron Microscopy (TEM); Microscopical Society of Canada (MSC-SMC) Annual Conference 2021 (Virtual); June 2-4, 2021. Poster Presentation.
16. **Esposto, J.**, Martic, S. Mechanistic and Structural Characterization of Full-Length, Aggregation-Prone, TDP-43 Protein; Experimental Biology/American Society for Biochemistry and Molecular Biology (EB/ASBMB) 2021 Annual Conference (Virtual); April 27-30, 2021. Oral Presentation.
17. **Esposto, J.**, Martic, S. Aggregation of wild-type gelsolin peptides and mutants and inhibition; Experimental Biology/American Society for Biochemistry and Molecular Biology (EB/ASBMB) 2021 Annual Conference (Virtual); April 27-30, 2021. Interactive Poster Presentation.
18. **Esposto, J.**, Martic, S. Mechanistic Evaluation of *In Vitro* Aggregation of Full-Length, Human TDP-43 Protein; Biophysical Society (BPS) Annual Meeting (Virtual); February 22-26, 2021. Interactive Poster Presentation.
19. McClelland, P., **Esposto, J**. Forensic Detection of Aspirin and its Metabolite and Challenges Associated with Colourimetric Testing; Canadian Universities for Forensic Sciences (C.U.F.F.S.) (Virtual); April 23-24, 2021. Interactive Poster Presentation.

20. Martic, S., Donaldson, M., **Esposto, J.** Design and Development of Remote Forensic Toxicology Laboratories; Canadian Universities for Forensic Sciences (C.U.F.F.S.) (Virtual); April 23-24, 2021. Interactive Poster Presentation.
21. Niazi, A., **Esposto, J.** Gelsolin Aggregation Mechanisms and Mutations in Varying pH Buffers; ACS Annual Meeting 2021 (Virtual); April 5-16, 2021. Interactive Poster Presentation.
22. **Esposto, J.**, Martic, S. The Pathological Aggregation and Functionality of In Vitro Modifications Within TDP-43; Cold Spring Harbour Laboratories (CSHL): Virtual Neurodegenerative Diseases – Biology and Therapeutics Conference 2020, New York, United States; Dec 2-4, 2020. Poster Presentation.
23. **Esposto, J.,** Martic, S. In Vitro Characterization of TDP-43 Aggregation and Proteinopathy; Alzheimer's Association International Conference (Virtual, AAIC) 2020: Neuroscience Next, Canada; Nov -10, 2020. Interactive Poster Presentation/Published Abstract. https://twitter.com/jos_esposto/status/1323455902356250624
24. **Esposto, J.** Presumptive Testing of Aspirin (ASA): Role of the Storage Period on Drug Stability; Canadian Society for Forensic Sciences Virtual Conference 2020, Canada; May 27, 2020. Poster Presentation. https://twitter.com/jos_esposto/status/1265629006289928194.
25. **Esposto, J.**, Martic, S. In vitro Aggregation of TDP-43 Protein Linked to Amyotrophic Lateral Sclerosis (ALS); LOGIC 2020 Virtual International Conference, Canada; May 18-24, 2020. Flash Talk.
26. **Esposto, J.** Immunotherapies Targeting Protein Pathogenesis of ALS-Associated Protein, TDP-43; 3 Minute Thesis (3MT) Competition, Trent University, Peterborough, Canada; May 21, 2020. Flash-Talk Research Competition. https://www.youtube.com/watch?v=_jwZya_IDc4.
27. Damphousse, C., **Esposto, J**. Social Learning in Japanese Quail; Canadian Association for Neuroscience (CAN-ACN), Toronto, Ontario, Canada; May 22-25, 2019. Poster Presentation. **Funding Sources:** Natural Sciences and Engineering Research Council of Canada (NSERC).
28. Dietze, L., **Esposto, J**. Normal Cognitive Flexibility in the Goto-Kakizaki Rat Model of Diabetes; Southern Ontario Neuroscience Association (SONA); Wilfrid Laurier University, Waterloo, Ontario, Canada; May 2, 2019. Poster Presentation. http://docplayer.net/140171477-Annual-meeting-program-and-abstracts-university-of-guelph-may-4-th-2018.html

INVITED TALKS

1. **Esposto, J.** Structural and functional analyses of pTDP-43 proteins and mutant peptides. ***PRinCE (Proteostasis Researchers in Canada, Eh) Seminar Series***. January 25, 2024. https://twitter.com/CdnProteostasis/status/1749444411652493761
2. **Esposto, J.** In Vitro Aggregation of TDP-43 Protein Linked to Amyotrophic Lateral Sclerosis (ALS). *Brain Science Institute's* Neuroscience Research Symposium hosted by **Rosalind Franklin University,** North Chicago, United States. July 23, 2020. https://twitter.com/jos_esposto/status/1286324530974199811

AWARDS AND GRANTS

2024	**Brain Canada Rising Stars Trainee Award** Brain Canada Foundation: $10,000 stipend + $2,000 for Sex- and Gender-Based Analysis Plus (SGBA+) Support	$12,000
2024	**Graduate Studies, Travel, Conference & Research Support** Alumni Bursary Award	$1,300
2024	**Trainee Travel Award** Chemical Biophysics Symposium	$125
2024	**BMO Future Green Leader Scholarship** Trent University	$500
2023	**Graduate Entrance Award** Trent University	$500
2021	**Graduate Award of Excellence** Trent University	$500
2021	**2021 Diversity Award Recipient** Protein Society	$300
2021	**McLean Foundation Graduate Research Bursary** Trent University	$1,000
2020	**Graduate Award of Excellence** Trent University	$1,000
2020	**Fern A. Rahmel Graduate Bursary** Trent University	$200

2020	**Scotiabank Graduate Bursary** Trent University	$500
2019	**BMO Future Green Leader Scholarship** Trent University	$500
2019	**Graduate Bursary for Excellence** Trent University	$500

TEACHING ASSISTANT

September 2023 to Present	**Trent University, Peterborough, ON** FRSC 2030 Laboratory in Foundation in Forensic Science (2 terms) BIOL 2070 Laboratory in Cell Biology (2 terms)
September 2019 to April 2021	**Trent University, Peterborough, ON** FRSC 3800 Laboratory in Forensic Toxicology (2 terms) FRSC 5007 Laboratory in Advanced Forensic Toxicology (2 terms)
September 2017 to April 2019	**Wilfrid Laurier University, Waterloo, ON** CH110 Fundamentals of Chemistry I (2 terms) CH111 Fundamentals of Chemistry II (2 terms) PC141 Mechanics for the Life Sciences (2 terms) PC142 Thermodynamics and Waves for the Life Sciences (2 terms)

SERVICE

Research Groups

2023-Present	**Lab Member.** Martic Lab Group, Trent University, Peterborough, Ontario, Canada. Dr. Sanela Martic
2023-Present	**Lab Member.** Huber Lab Group, Trent University, Peterborough, Ontario, Canada. Dr. Robert J. Huber
2021-2021	**Research Assistant.** Forensic Toxicology eCampusOntario, Trent University, Peterborough, Ontario, Canada. Dr. Sanela Martic.
2019-2021	**Lab Member.** Martic Lab Group, Trent University, Peterborough, Ontario, Canada. Dr. Sanela Martic.
2018-2019	**Research Team Member**, Movement Disorders Research and Rehabilitation Centre, Wilfrid Laurier University, Waterloo, Ontario, Canada. Dr. Quincy Almeida.
2017-2019	**Research Team Member and Thesis Student**, Collective Cognition Lab (Animal Care Facility), Wilfrid Laurier University, Waterloo, Ontario, Canada. Dr. Diano Marrone.

Committees

2024-2025	**Organizing Committee**, Chemical Biophysics Symposium (CBP) 2025, University of Toronto, Toronto, Ontario, Canada.
2024-2025	**Executive Member**, VP Internal, Ontario Tech-Trent Working Towards Inclusivity in Chemistry (OTT-WIC), Peterborough/Oshawa, Ontario, Canada
2020-2021	**Member/Editor**, Biochemistry Thesis Committee, Trent University, Peterborough, Ontario, Canada.
2020-2021	**Member**, LOGIC 2021: Canadian Women in Chemistry International Conference Organizing Committee, Networking Committee, Ontario, Canada. September 2020.

Volunteering

2024-Present	**Symons Seminar Series Judge**, Trent University. September 2024 – April 2025.
2024-Present	**CSMB Trainee Member-At-Large**, Canadian Society for Molecular Biosciences (CSMB). July 2024 – Present.
2024-Present	**Scientist Mentor,** *I'm a Scientist*, Bath, England, UK. June 2024 – Present.
2024-Present	**VP Internal for OTT-WIC**, Trent University and Ontario Tech University. August 2024 – Present.
2024	**Annual Peterborough Regional Science Fair Judge**, Peterborough Regional Science Fair, Peterborough, Ontario, Canada. March – April 2024.
2019-2021	**Mentorship Program for Undergraduate and Graduate Students**, Trent University, Peterborough, Ontario, Canada. September 2019 – September 2021.
2020-2021	**Canadian Science Policy Conference (CSPC) 2022: *Social Media Committee,*** CSPC, Toronto, Ontario, Canada. December 2020.
2021	**Sanofi Biogenius Canada: Research Judge,** Sanofi Pasteur Canada, Toronto, Ontario Canada. March – April 2021.
2021	**52nd Annual Peterborough Regional Science Fair Judge,** Peterborough Regional Science Fair, Peterborough, Ontario, Canada. March – May 2021.
2020	**Mini-Review Board: Analytical, Spectroscopy, and Forensic Chemistries** (CHEM 2400, 3410, 3720), Trent University, Peterborough, Ontario, Canada. June 2, 2020. Dr. Shannon Accettone.

2017	**Research Assistant**, The Long Lab: Evolutionary Genetics of Sexual Selection in Fruit Flies, Wilfrid Laurier University, Waterloo, Ontario, Canada. Dr. Tristan Long.
2017	**Physiotherapy Assistant**, Waterloo Physiotherapy Clinic, Waterloo, Ontario, Canada

SOCIETAL AFFILIATIONS (MEMBERSHIPS)

2024-Present	Royal Society of Chemistry (RSC) Affiliate Member
2024-Present	Canadian Society for Molecular Biosciences (CSMB) Trainee Member
2024-Present	Canadian National Proteomics Network (CNPN) Student Member
2024-Present	ACS Affiliate Member
2023-Present	Society For Canadian Women in Science and Technology General Member
2023-Present	Canadian Society for Mass Spectrometry (CSMS) Student Member
2023-Present	American Society for Mass Spectrometry (ASMS) Student Member
2023-Present	Canadian Society for Chemistry (CSC) Graduate Student Member
2021-2023	Canadian Institute for Mining, Metallurgy and Petroleum (CIM)
2021-2022	General Member, Biophysical Society (BPS)
2021-2022	General Member, American Society for Biochemistry and Molecular Biology (ASBMB) and Experimental Biology (EB)
2021-2022	General Member, Royal Canadian Institute for Science (RCIScience)
2021-2022	General Member, Science Writers and Communicators of Canada (SWCC) Member, Canadian Women in Chemistry (CWIC): UOIT-Trent Chapter
2020-2022	General Member, Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART)
2020-2022	General Member, American Heart Association (AHA)
2020-2022	Canadian Society for Chemistry (CSC)
2020-2022	General Member, Canadian Society for Chemical Engineering (CCCE)
2020-2022	General Member, Chemical Institute of Canada (CIC)
2018-2020	General Member, Canadian Association for Neuroscience (CAN)

RELEVANT EMPLOYMENT EXPERIENCE / WORKSHOPS

2024	**Research Assistant (RA)**, Trent Summer Work Experience Program (TSWEP), Martic Lab, Trent University, Peterborough, Ontario
2024-2025	**Chemical Safety Training**, Trent University. Peterborough, Ontario.
2024	**Beyond Confocal Microscopy Workshop**, Chemical Biophysics Symposium, University of Toronto Toronto, Ontario
2024	**Coarse-Grained Molecular Dynamics: A Bridge between Physics and Chemistry Workshop** (LAMMPS MD Simulation), Chemical Biophysics Symposium, University of Toronto, Toronto, Ontario
2021-2022	**Virtual Learning Strategy (VLS) Research Assistant (RA)** for eCampus Ontario, Ontario Online Learning Consortium. Research Personnel for the production and creation of a Forensic Toxicology-based virtual e-course.
2020-2021	**Chemical Safety Training**, Trent University. Peterborough, Ontario.
2019-2021	**Laboratory Demonstrator**, Department of Forensic Sciences, Trent University FRSC 3800 Forensic Toxicology (2 semesters) FRSC 5007 Advanced Forensic Toxicology (2 semesters) Peterborough, Ontario.

CERTIFICATIONS

September 2024	**Responding to Difficult Classroom Situations**, Trent University. Micro-Credential.
September 2024	**Gender-Based Analysis Plus (GBA Plus),** Women and Gender Equality Canada (WAGE): Government of Canada. Introduction to gender-based analyses and learning how to recognize the impact of identity and social factors on the experience of federal government initiatives affecting different people in Canada.
May 2024	**BioInnovation Scientist (BIS) Program: Foundations,** adMare Academy Certified 8-week, virtual, cohort-based program (Accepted for Spring 2024) that provides early-career scientists with an overview of the full therapeutics' discovery and development process.
October 2023	**Introduction to University Teaching**, Trent University. Micro-Credential.

May 2023	**Certified Peer Reviewer Course**, Reviewer Academy, Elsevier. Certificate of Excellence for completing a virtual peer reviewer course on how to be a publication reviewer.
May 2023	**How to Learn Faster,** LinkedIn Premium Virtual Learning. Certificate of Completion.
May 2023	**Working More Effectively with Different Personalities,** LinkedIn Premium Virtual Learning. Certificate of Completion.
April 2023	**Conducting Research in a Post-Pandemic World,** LinkedIn Premium Virtual Learning. Certificate of Completion.
April 2023	**Google Analytics Quick Start,** LinkedIn Premium Virtual Learning. Certificate of Completion.
Sept 2023	**WHMIS Specialized Training,** OnlineWHMIS.ca. Workplace Hazardous Materials Information System training updated.
May 2020	**2020 Human Identification Future Trends in Forensic DNA Technology,** ThermoFisher Scientific. Virtual Meeting Completion.
Feb 2020	**Biohazardous Laboratory Safety Training,** Trent University. Certificate of Completion.
Sept 2019	**AODA Customer Service Training,** Trent University. Certificate of Completion.
Sept 2019	**Autoclave Training,** Trent University. Certificate of Completion.
Sept 2019	**Chemical Safety,** Trent University. Certificate of Completion.
Sept 2019	**Information Security Awareness Training,** Trent University. Certificate of Completion.
Sept 2019	**Lab Safety Orientation,** Trent University. Certificate of Completion.
Sept 2019	**Ministry of Labour Supervisor,** Trent University. Certificate of Completion.
Sept 2019	**Ministry of Labour Worker: Health and Safety Awareness Training,** Trent University. Certificate of Completion.
Sept 2019	**Physical Hazards in a Lab,** Trent University. Certificate of Completion.
Sept 2019	**Science Safety Core Principles,** Trent University. Certificate of Completion.
Sept 2019	**Workplace Violence and Harassment Training,** Trent University. Certificate of Completion.
Sept 2016	**TCPS 2: CORE (Course on Research Ethics) – Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans,** Wilfrid Laurier University. Certificate of Completion.

SCIENCE COMMUNICATION AND MEDIA COVERAGE

1. **Published Paper.** ALZFORUM: Networking for a Cure. Posted July 31, 2021. https://www.alzforum.org/papers/phosphorylated-tar-dna-binding-protein-43-aggregation-and-antibody-based-inhibition?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Alzforum-PapersOfTheWeek+%28Alzforum+-+Papers+of+the+Week%29
2. **2021 SWCC Conference Team.** Science Writers and Communicators of Canada. Posted June 2021. https://sciencewriters.ca/2021-Conference-Team
3. **Trent's Biology Imaging Suite – Opening Up a World of Discovery.** Trent News and Events. Posted on April 14, 2021. https://www.trentu.ca/news/story/29985
4. **"Political Polarization: What Does it Mean for Science Communication and Decision-Making?"** Trent University News and Events. Published on January 13, 2021. https://www.trentu.ca/news/story/28959
5. **"Political Polarization: What Does it Mean for Science Communication and Decision-Making?"** Chemical Institute of Canada (CIC) Correspondent**,** Conference Canadian Science Policy Conference (CSPC). Published on December 15, 2020. https://www.cheminst.ca/magazine/article/political-polarization/
6. **"Student Research Spotlight:** Novel Research Examines Neurogenerative Disease". Trent Magazine Fall 2020; Issue 51.1, page 8. Published December 2020. https://mycommunity.trentu.ca/document.doc?id=461
7. **"Safe Re-opening of Trent's Biology Imaging Suite Focuses on Modern-Age Learning."** Trent University News and Events. Published on December 8, 2020. https://www.trentu.ca/news/story/28727
8. **"*In Vitro* Characterization of TDP-43 Aggregation and Proteinopathy."** Published research abstract for AAIC 2020 Conference (Alzheimer's Association International Conference 2020: Neuroscience Next). Published on December 1, 2020. https://alz-journals.onlinelibrary.wiley.com/doi/10.1002/alz.12278
9. **Graduate Student's Corner: *Realistic Tips to Staying Motivated*.** Trent Graduate Student's Association December 2020 Newsletter Article, page 4. Published on December 1, 2020. https://static1.squarespace.com/static/5ac296c5b27e394ba1d24e26/t/5fca64dd1047645eeb2d8880/1607099616152/TGSA+December+Newsletter.pdf
10. **"AAIC Neuroscience Next Conference Round-Up".** *Podcast*: Dementia Researcher. Posted on November 16, 2020. https://open.spotify.com/episode/0D8OQ93V2IHXcqkw3CpEUq
11. **"Trent Graduate Student Shines Light on the Cause of Neurodegenerative Disease".** Trent University News. Published on July 2, 2020. https://www.trentu.ca/news/story/27201

12. **Three (3)-Minute Thesis Competition 2020**, Trent University News. Premiered on May 21, 2020. https://www.youtube.com/watch?v=_jwZya_IDc4&feature=emb_logo