



RAPHAELLA W. L. SO

(647) 893-3718 | swlraphie@gmail.com

EDUCATION

Hong Kong University of Science and Technology, BSc in Biochemistry and Cell Biology 2013 – 2017

University of Toronto, PhD Candidate in Biochemistry 2017 – Present

EXPERIENCE

University of Toronto Department of Biochemistry PhD Candidate | 2017 – Present

- To improve therapeutic approaches and current mouse modeling for Parkinson's disease, created distinct α -synuclein aggregates that produce different disease symptoms and pathology when injected into mice, resulting in three first-author publications, eleven local presentations, four national presentations and three awards, five international presentations, as well as over CA\$140,000 in funding including the Croucher Scholarship for Doctoral Study.
- To enrich the scientific learning of the department and build a collegiate network with other universities, invited, hosted, and designed the itineraries for four famous senior scientists to speak at the University of Toronto, resulting in positive feedback from professors on event organization and guest introduction.

Let's Talk Science Classroom Outreach Volunteer | 2017 – 2023

- To cultivate public STEM interest, optimized and delivered Crime Lab, Biotechnology, and science literacy workshops to local schools and after school programs, providing over 300 teenagers fun hands-on science experiments and career information, resulting in consistent positive feedback from teachers and students and winning the Volunteer of the Month award in November 2019 and June 2021.

SELECTED AWARDS

Life Science Final Year Research Project – Best Poster Award 2017

Hong Kong University of Science and Technology Academic Achievement Medal 2017

University of Toronto Fellowship 2017 – 2018

Croucher Scholarship for Doctoral Study 2018 – 2020

Ontario Graduate Scholarship 2020 – 2021

Peterborough K. M. Hunter Charitable Foundation Graduate Award 2020 – 2021

Parkinson Canada Graduate Student Award (Ranked 1st of 30) 2021 – 2023

SELECTED PUBLICATIONS

- So, R.W.L. [4th Author] (2018). *Frontiers in Molecular Neuroscience* 11, 62. [doi:10.3389/fnmol.2018.00062](https://doi.org/10.3389/fnmol.2018.00062)
- So, R.W.L. [7th Author] (2019). *Nature Neuroscience* 22, 1806–1819. [doi:10.1038/s41593-019-0505-1](https://doi.org/10.1038/s41593-019-0505-1)
- So, R.W.L. [1st Author] (2019). *Molecular Neurodegeneration* 14, 41. [doi:10.1186/s13024-019-0343-3](https://doi.org/10.1186/s13024-019-0343-3)
- So, R.W.L. [co-1st Author] (2020). *Nature Neuroscience* 23, 21-31. [doi:10.1038/s41593-019-0541-x](https://doi.org/10.1038/s41593-019-0541-x)
- So, R.W.L. [5th Author] (2022). *Translational Neurodegeneration* 11, 7. [doi:10.1186/s40035-022-00283-4](https://doi.org/10.1186/s40035-022-00283-4)
- So, R.W.L. [1st Author] (2023). *Journal of Molecular Biology* 435, 168011. [doi: 10.1016/j.jmb.2023.168011](https://doi.org/10.1016/j.jmb.2023.168011)
- So, R.W.L. [3rd Author] (2023). *Acta Neuropathologica Communications* 11, 72. [doi: 10.1186/s40478-023-01570-5](https://doi.org/10.1186/s40478-023-01570-5)
- So, R.W.L. [2nd Author] (2024). *Nature Communications* 15, 375. [doi: 10.1038/s41467-023-44005-4](https://doi.org/10.1038/s41467-023-44005-4)
- So, R.W.L. [1st Author] (2024). *PLoS Pathogens* 20, e1012517. [doi: 10.1371/journal.ppat.1012517](https://doi.org/10.1371/journal.ppat.1012517)

SELECTED CONFERENCE PRESENTATIONS

- So, R.W.L.**, Lau, A., Lau, H.H.C., Stuart, E., & Watts, J.C. (2019, October). *Comparison of recombinant α -synuclein fibrils created through continuous shaking or periodic sonication*. Poster presented at Society for Neuroscience 2019, Chicago, USA.
- So, R.W.L.**, Lau, A., Lau, H.H.C., Stuart, E., & Watts, J.C. (2020, May). *Studying α -synuclein diseases in the context of conformational strains*. Seminar presented at Parkinson's Postdoc Program, an online international seminar series organized by Van Andel Institute and Cure Parkinson's Trust.
- So, R.W.L.**, Lau, A., Lau, H.H.C., Stuart, E., & Watts, J.C. (2020, August). *Studying α -synuclein diseases in the context of conformational strains*. Poster presented at Canadian Student Health Research Forum 2020, online due to COVID-19. Won Honorable Mention in the CIHR National Health Research Poster Presentation.
- So, R.W.L.**, Lau, A., Lau, H.H.C., Stuart, E., & Watts, J.C. (2021, June). *Studying α -synuclein diseases in the context of conformational strains*. Poster presented at Proteostasis Researchers in Canada (PRinCE), online. Won Best Poster Award.
- So, R.W.L.**, Silver, N.R.G., Stuart, E., Watts, J.C. (2022, June). *Distinct conformational strains of α -synuclein aggregates can form in identical experimental conditions*. Poster presented at Canadian Student Health Research Forum 2022, Winnipeg, Canada. Won Honorable Mention in the CIHR National Health Research Poster Presentation.
- So, R.W.L.**, Silver, N.R.G., Stuart, E., & Watts, J.C. (2023, March). *Distinct conformational strains of α -synuclein aggregates can form in identical experimental conditions*. Seminar presented at AD/PD 2023, Gothenburg, Sweden.