# Dr. JESÚS E. SERRANO-NEGRÓN, PhD

U.S. citizen | Vancouver, BC | +1 (778) 837 6214 | jesus.esn@gmail.com | www.linkedin.com/in/jesusesn

## SUMMARY


- Mechanistic wet-lab scientist taking questions from design to quantitative answers across proteins, cells, and microbes (cloning, expression, perturbations, assay readouts).
- Built quantitative assay pipelines (enzyme kinetics, high-throughput screening, protein biophysics: CD, intrinsic tryptophan fluorescence, stopped-flow) to separate true effects from artifacts.
- Deliver reproducible workflows, SOPs, and decision-ready data packages; comfortable bridging lab execution with cross-functional handoffs.


## RELEVANT EXPERIENCES

**Research Associate** & R&D **Project Manager**, Lite-1
Vancouver, BC, Jun 2025 – Jan 2026

- Executed end-to-end microbial pigment R&D: construct design, cloning, expression, strain engineering/mutagenesis, screening, assay development.
- Built/validated biochemical and metabolite assays with controls/QC; designed screening workflows (hit triage, retest, prioritization).
- Summarized results into clear tables/figures/brief writeups for scientific and leadership audiences; coordinated handoffs with chemistry, fermentation, and downstream processing.
- Authored SOPs/templates; maintained documentation continuity; trained/onboarded team members; supported lab operations and equipment upkeep.

**Research Assistant,** Simon Fraser University
Burnaby, BC, Jan 2018 – Jan 2025

- Led protein glycosylation tool/workflow development across detection, enrichment, and biophysical characterization.
- Engineered and validated an IgG-derived scFv (construct design, cloning, expression optimization, purification troubleshooting, immunoassay validation).
- Developed and validated a reversible chemoenzymatic enrichment workflow; ran enzyme activity/kinetic assays; led high-throughput enzyme screening.
- Quantified glycan effects on folding/stability/aggregation via CD and fluorescence denaturation; characterized folding/unfolding kinetics using stopped-flow; integrated structural/MD interpretation and collaborations.

## EDUCATION

- **PhD in Molecular Biology**, Simon Fraser University, 2025
  (Advisor: David Vocadlo; Thesis: Tools and methods for biochemical and biophysical analysis of *O*-GlcNAc-modified proteins.)

## TRAINING/CERTIFICATIONS

- **Project Management Training**, IBM, 2025; **Project Management Training**, MITACS, 2020; **Mx Data Collection School**, Canadian Light Source, 2019

## LANGUAGES

- **English** (Professional), **Spanish** (Native)

## SELECTED PUBLICATIONS


1. **Serrano-Negrón JE** et al. "Tunicamycin-Induced ER Stress in Breast Cancer Cells Neither Expresses GRP78 on the Surface nor Secretes It into the Media." *Glycobiology*, vol. 29, no. 7, 2019, p. 599. https://doi.org/10.1093/glycob/cwz030.
2. King DT, **Serrano-Negrón JE** et al. "Thermal Proteome Profiling Reveals the O-GlcNAc-Dependent Meltome." *J Am Chem Soc*, vol. 144, no. 9, 2022, pp. 3833–3842. https://doi.org/10.1021/jacs.1c10621.
3. Escobar EE, Seeley EH, **Serrano-Negrón JE** et al. "In Situ Imaging of O-Linked β-N-Acetylglucosamine Using On-Tissue Hydrolysis and MALDI Mass Spectrometry." *Cancers (Basel)*, vol. 15, no. 4, 2023, article 1224. https://doi.org/10.3390/cancers15041224.


## REFERENCES

- **Roya Aghighi**, CEO, Lite-1, roya@lite-1.bio, +1 (778) 877-3181
- **David Vocadlo**, Distinguished Professor, Simon Fraser University, dvocadlo@sfu.ca, +1 (778) 782-3530
- **Dipak Banerjee**, Professor, University of Puerto Rico, dipak.banerjee@upr.edu, +1 (787) 281-0155