



EDUCATION

- **University of British Columbia** 2019-2022 / 2023-2024
Computer Science BSc / Mathematics BSc
- **Simon Fraser University** 2018-2019
Biochemistry BSc

TECHNICAL SKILLS

Areas of Expertise: Unix, ETL Infrastructure, Computational & Structural Biology

Languages: Python3, Typescript, Rust, C++17, Lisp

EXPERIENCE

- **Klumpe Lab, IMP/IMBA** 2025-now
Research Technician/Data Steward: CryoBoost (CryoET Orchestartion) Vienna Biocenter
- **CryoCloud B.V.** 2024
Backend: Atomic Model Visualization & Product Utrecht (Remote)
- **KDD Lab, UBC** 2020-2024
Research Technician: Structural Biology, HPC, ML Vancouver, BC
- **Staking Facilities GmbH** 2021-2022
Backend Developer: Kafka/Redpanda/Rust Munich (Remote)
- **Michael Smith's Genome Sciences Center** 2021
Computational Biologist: Variant Databases/Python/TS Vancouver, BC
- **Institute Medizintechnik(IMT), Hochschule Luzern** 2019
Intern: Medical Device Classification, Paraplegia Luzern, Switzerland
- **F. Mirza Beg Lab, Simon Fraser University** 2018-2019
Intern: Medical Image Analysis Vancouver, BC
- **Brinkman, BlueCollar, A&G, Nata** 2016-2018
Treeplanter (Forestry) BC, Canada

PUBLICATIONS

- Yu S., Kushner A. , Teasell E., Zhao W., Srenik S., Dao Duc K., Advanced coarse-grained model of the ribosome exit tunnel for fast simulation of nascent polypeptide chain dynamics, **Nucleic Acids Research**, 2025
- Yu S., Kushner A. , Srenik S., Dao Duc K., Detecting prokaryotic-like ribosome exit tunnel geometries within eukaryotic kingdoms, **PLOS Biology**, 2025
- Kushner A., Petrov A., Dao Duc K., RiboXYZ: a comprehensive database for visualizing and analyzing ribosome structures, **Nucleic Acids Research**, 2022
- Ecoffet A., Kushner A., Poitevin F., Dao Duc K. Using A Transport-Based Metric for Continuous Interpolation Between Cryo-Em Density Maps., **AIMS Mathematics**, October 2021
- Poitevin F., Kushner A., Li X., Dao Duc K. Structural Heterogeneities of the Ribosome: New Frontiers and Opportunities for Cryo-EM. **Molecules**. 2020 Jan 25(18):4262
- Abächerli, R., Kästli, M., Aerni, M.; Kushner, A., Boettger, K., Ljutow, A. Reducing Neuropathic, Chronic Pain in Paraplegic Patients Using a Virtual Walking System, **IEEE Abstract**

REFERENCES

Sven Klumpe *PhD, Principal Investigator*
Khanh Dao Duc *PhD, Assistant Professor*
Geoffrey Woolard
Abächerli Roger *PhD, Professor, Main Lecturer*

IMP, IMBA Vienna
University of British Columbia
Structura Biotechnology
IMT, Hochschule Luzern