

Isaac G.L. Daviet, M.Sc.

Master of Science researcher in biotechnology with extensive hands-on experience in immunology, antibody discovery, protein engineering, and flow cytometry, spanning both experimental and computational biology. Skilled in developing and optimizing assays, workflows, and analysis pipelines across B-cell biology, NGS, and single-cell immune profiling in fast-paced industry and academic research environments. Demonstrated ability to translate complex biological data into actionable insights through strong experimental design, data analysis, and scientific communication. Additional experience includes extensive development & QC/QA of novel phage display products, ML/LLM model optimization and analysis, and protein structural modeling via x-ray crystallography & cryoEM. Supported by an interdisciplinary academic background in biochemistry, history, and biotechnology, to bring clear writing, critical analysis, and cross-disciplinary collaboration skills to applied research.



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PROFESSIONAL EXPERIENCE

Imprint Labs, New York City (NY)—Senior Research Associate

October 2024 - April 2026

- Conducted R&D on B-cell analysis platforms supporting antibody discovery, immune profiling, and autoimmune disease research.
- Developed, implemented & optimized immunological assays, B-cell antigen tetramer staining, and flow cytometry workflows to improve detection, recovery, specificity, and downstream sequencing performance.
- Built and maintained automated pipelines for processing and QC of single-cell and BCR sequencing data, improving reproducibility and turnaround time.
- Lead efforts in optimizing phylogenetic inference models and development of synthetic BCR sequence validation datasets.
- Collaborated cross-functionally with experimental and computational teams to troubleshoot workflows and improve data quality.

Pelago Biosciences, Stockholm (Sweden)—Laboratory Technician

November 2022 - June 2024

- Supported drug discovery research using CETSA to assess protein-ligand interactions in cell-based assays.
- Maintained and prepared mammalian cell lines to support assay execution and reproducibility.
- Assisted with assay setup, data collection, and documentation in an industry research environment.
- Contributed to implementation of an electronic lab notebook (ELN) system in collaboration with IT and lab staff.

Antibody Design Labs, San Diego (CA)—Research Associate II

July 2020 - July 2022

- Conducted antibody discovery & engineering through phage display screening, recombinant expression, purification, bioconjugation, characterization and assay development.
- Spearheaded development & production of novel phage, plasmid vector & antibody product lines
- Supported multiple antibody discovery campaigns through assay execution, QC, and data interpretation.
- Developed SOPs and mentored junior researchers, supporting team scalability and experimental consistency.

LANGUAGES & INTERNATIONAL

- English (Fluent)
- French (Fluent)
- Spanish (Conversational)
- USA, EU and Australia work eligibility

SKILLS

Immunology & Wet Lab

- Flow cytometry / FACS (panel design, optimization, FlowJo & in depth analysis)
- Immunological & Biochemical assays (ELISA, western blot, conjugation...)
- Mammalian cell culture & Expression
- Protein and antibody cloning, expression, purification (HPLC/FPLC), and characterization (SDS PAGE, CryoEM & X-Ray crystallography)
- Phage display and library construction
- Molecular biology and DNA techniques
- Bioconjugation
- Liquid chromatography (SEC, Affinity, AKTA systems)

NGS & Single-Cell

- Illumina NGS Sequencing
- Single-cell and BCR sequencing workflows
- Immune repertoire analysis
- NGS data QC and processing

Earlier Roles

2018-19: Schief Lab, Scripps Research Institute (CA) — *Lab Technician* (HIV vaccine research)

2018: Aurora Biolabs (CA) — *Sales Representative* (customer relations, marketing, advert design)

2018: Unlimited Learning (CA) — *Tutor* (Biology & History)

2016-18: Corbett Lab, UCSD (CA) — *Lab Technician* (protein crystallography, molecular biology)

2015-16: Sunahara Lab, UCSD (CA) — *Lab Assistant* (protein crystallization, proteomics)

EDUCATION

M.Sc. of Molecular Techniques in Life Sciences

Karolinska Institutet, KTH Royal Institute of Technology & Stockholm University

August 2022 – June 2024

Interdisciplinary graduate program integrating immunology, bioengineering, bioinformatics, and molecular biology.

- Master's thesis: Applied machine learning and dimensionality reduction to immune repertoire datasets to identify structural and functional patterns relevant to antibody discovery.
- Training across a variety of cutting edge experimental, computational, and engineering approaches to biomedical research, including a 6 month CryoEm research project at the Cryo-EM Swedish National Facility.

B.S. of Biochemistry/B.A. of History (Minor in Archaeology)

University of California – San Diego

September 2014 – December 2018

Dual degree combining rigorous biochemical training with advanced research and writing in the humanities.

- History B.A. awarded with departmental honors and distinction
- Coursework emphasized critical analysis, biochemical techniques, writing, and research methodologies
- Selected coursework at the Rady School of Management in business and management fundamentals

Additional Academic Experience

Institute for Field Research, Andahuaylas (Peru) — *Sondor Bioarchaeology Fieldwork*

University of the Aegean, Phocis (Greece) — *Kastrouli Archaeology Fieldwork*

University of California–Los Angeles, Los Angeles — *Sci/Art Lab Program*

ACADEMIC PROJECTS

- **Master's Thesis (Univ. of Oslo):** *Structural Data Recovery Through Machine Learning Integrated Gradient Analysis* — Applied AI and dimensionality reduction methods to immunological data, expanding potential for antibody discovery & analysis.
- **Cryo-EM Internship (SciLifeLab, Sweden):** Hands-on cryo-electron microscopy project using high-throughput Chameleon System to optimize for Preferential Particle Orientation.
- **History Honors Thesis (UCSD):** *Asgard's Shame; Christianity's Tool; Societal Roles, Seidr Magic and the Paradox of Odin*
- **Staff writer (Under the Scope Magazine):** Science Communication publication adapting complex research into accessible articles, focusing on phage research..
- **Article Contributor (Buck Institute for Research on Aging):** Velarde, M. C., Demaria, M., Melov, S., & Campisi, J. (2015). Pleiotropic age-dependent effects of mitochondrial dysfunction on epidermal stem cells. *Proceedings of the National Academy of Sciences*, 112(33), 10407–10412. <https://doi.org/10.1073/pnas.1505675112>
- **Vice President/Founding Member (Ohlone College Biotechnology Club)**

Computational & Data

Analysis

- Bioinformatics (Python, R, Bash, Git)
- Data visualization and dimensionality reduction
- Biostatistics and applied phylogenetics
- Synthetic antibody dataset modeling
- Cloud-based workflows
- Structural/Protein modeling (AlphaFold, Pymol)

Research & Analysis

- Data analysis & interpretation
- QC Documentation
- Literature review
- Critical analysis

Management & Organization

- Lab management
- Database management
- Project coordination
- Quality Assurance & Control

Communication

- Scientific writing, communication & presentation
- SOP development
- Staff training
- Interdisciplinary collaboration