

Naomi Straub

Biotechnology graduate student

EDUCATION

Aug. 2025 -
May. 2027

University of Pennsylvania | Msc

Biotechnology graduate student in with a focus in biopharmaceuticals |
Sugi and Millie Widjaja Entrepreneurship Fellow 2026

Sep. 2021 -
Sep. 2024

ETH Zürich | Bsc

Bachelor's Degree in Pharmaceutical sciences, completed in the minimum of allotted years

Aug. 2015 -
Jun. 2021

Gymnasium Immensee | Matura

Student at higher education preparatory high school, with a focus in biochemistry.

LAB EXPERIENCE

Sep. 2025 -
Now

Student Researcher | Gao Lab University of Pennsylvania

Developing and implementing genome-editing tools for the exploration of novel-small molecule drugs.

March. 2025 -
May. 2025

Lysando innovations Lab

Internship in protein purification using the ÄKTA prime plus and pure systems, implementing chromatography techniques such as IMAC and IEX.

May. 2024

Pharmaceutical Biology Lab

Microscopic analysis of plant material. Chromatographic analysis of medicinal plants; qualitative/quantitative determination of ingredients in medicinal plants; isolation of natural substances; determination of the identity and purity of medicinal drugs/natural substances by microscopic, spectroscopic, chemical and chromatographic methods.

Apr. 2024

Biopharmacy Lab

Experimental determination of pharmacokinetic parameters using in vitro models: Biotransformation reactions (phase I and II) with rat liver microsomes; partition coefficient in the octanol/buffer system; protein binding and displacement from protein binding using equilibrium dialysis.

Feb. 2024 -
Apr. 2024

Galenic Pharmacy Lab

Completion of small projects, including the production of diazepam injection solutions and dexamethasone creams. As well as introductions in coating, tablet and suppository production.

Dec. 2023

Medicinal Microbiology Lab

Processing of simulated clinical samples using the methods of classical medical microbiology, specifically the identification of bacterial, mycobacterial and mycological pathogens and the testing of germs for antibiotic resistance.

Dec. 2023

Medicinal Chemistry Lab

Experiments relating to concepts of medicinal chemistry including statistical processing, fitting of experimental data, computer modeling of protein structures, experimental measurement of affinity constants and kinetic dissociation constants for protein ligands. Study of drug stability and introduction to basic gene cloning and protein expression.

Sep. 2023 -
Nov. 2023

Pharmaceutical analytics Lab

Application of the following analytical methods for the purpose of identity, purity and stability testing of drugs and dosage forms: Chromatography (TLC, HPTLC, HPLC and GC), spectroscopy (UV, IR spectroscopy), mass spectrometry (MS).

Feb. 2023 -
Jun. 2023

Physical Chemistry Lab

Practical introduction to fundamental experimental methods in physical chemistry in the fields of molecular dynamics, infrared spectroscopy, ultraviolet-visible spectroscopy and calorimetry.

SKILLS

- ✓ GC, HPLC, IMAC, IEX, TLC Chromatography
- ✓ SDS-PAGE, Western blot, ELISA
- ✓ Office 365
- ✓ Analysis of MS, IR- and UV spectroscopy data
- ✓ R script
- ✓ Python