

Genentech

Intern – Pharmaceutical Development (Formulation Development)

Start Date Summer or Fall 2021

Work Hours 40 hours per week

Duration 3 months, possibility to extend

Education PhD (pursuing PhD, not completed)

Preferred Majors/Disciplines: Chemistry, Physics, Biophysics, Biochemistry, Engineering (biomedical, chemical), Pharmaceutical Sciences.

Given the current uncertainty of the global pandemic and work from home situation for 2021, this internship will be virtual. For the duration of the assignment, the intern must remain within U.S. Borders.

Pharmaceutical Development seeks to ensure stability of protein therapeutics from the point of drug substance manufacture through administration to the patient.

The internship project involves developing a model to predict osmolality measurements of complex non-ideal buffers in the presence of monoclonal antibodies. The intern will calculate osmolality using chemical equilibrium and interaction parameters. Molecular dynamics may be used to predict interaction parameter for particular antibodies. Theoretical data will be compared against historical data with various osmometers. If predictive, intern will update an existing webtool for osmolality calculation for non-ideal protein formulations.

Requirements/Qualifications • 1+ years experience with Matlab or similar programming tool • Strong knowledge of chemical equilibrium • Molecular dynamics experience considered a plus • Strong interpersonal and oral/written communication skills

If you are interested, please contact Dr. Ann Marie Woys at woys.ann@gene.com.