

Postdoctoral Fellow – Structural Biology, Matsumoto Lab

Job ID: 202010-127016

Job Function

Research

Schedule

Full time

Location

South San Francisco, California

Job type

Temporary (Fixed Term)

Company/Division

Pharmaceuticals

Job Level

Entry Level

The Position

The Matsumoto lab, within the Structural Biology Department at Genentech, is seeking an innovative postdoctoral fellow to pursue engineering and structural characterization of immunoglobulins and their interactions with various cellular receptors and antigens. The postdoc will use protein engineering paired with X-ray crystallography and/or cryo-electron microscopy (cryo-EM) to explore various immunoglobulin formats for technology development and potential therapeutic applications. He/she will structurally characterize complexes of immunoglobulins with their receptors to elucidate the molecular mechanisms of recognition and understand structure-function relationships. The successful candidate will spearhead all aspects of his/her projects including antibody engineering, protein purification, biophysical characterization, and structure determination. Our department has state-of-the-art crystallography and cryo-EM facilities along with directed evolution platforms for protein engineering. This is a unique postdoc opportunity to pursue cutting-edge technology development and publication-oriented basic research in a highly collaborative, industrial setting.

Who You Are:

The successful candidate will be a highly motivated and detail-oriented researcher, driven to solve complex scientific problems, and able to work both independently and in a collaborative environment. Strong oral and written communication skills are required. Candidates must have a PhD. in structural biology, biochemistry, molecular biology, or a related field. Expertise in protein purification, biophysical characterization, and structure determination by X-ray crystallography and/or single-particle cryo-EM is required, as evidenced by a strong record of first-author publications in top peer-reviewed journals. Experience in protein engineering and directed evolution techniques, such as phage display, along with biophysical characterization methods for protein-protein interactions, such as

surface-plasmon resonance (SPR) or bio-layer interferometry (BLI), are a plus.

More information on the Matsumoto Lab:

www.gene.com/scientists/our-scientists/marissa-matsumoto

More information about the Genentech Postdoctoral Program:

www.gene.com/careers/academic-programs/postdocs

Relevant publications:

Kumar N. *et al.* (2020) Structure of the Secretary Immunoglobulin A Core. *Science* 367(6481):1008-1014. DOI: 10.1126/science.aaz5807

Kumar N. *et al.* (2020) Structure of the Human Secretary Immunoglobulin M Core. *bioRxiv*
DOI: 10.1101/2020.09.10.291138

Lombana T.N. *et al.* (2019) Production, Characterization, and *in vivo* Half-Life Extension of Polymeric IgA Molecules in Mice. *MAbs* 11(6):1122-1138. DOI: 10.1080/19420862.2019.1622940

Yau R.G. *et al.* (2017) Assembly and Function of Heterotypic Ubiquitin Chains in Cell-Cycle and Protein Quality Control. *Cell* 171(4):918-933.e20. DOI: 10.1016/j.cell.2017.09.040

#L1-SN1

#postdoc

Who We Are

Genentech, a member of the Roche group and founder of the biotechnology industry, is dedicated to pursuing groundbreaking science to discover and develop medicines for people with serious and life-threatening diseases. To solve the world's most complex health challenges, we ask bigger questions that challenge our industry and the boundaries of science to transform society. Our transformational discoveries include the first targeted antibody for cancer and the first medicine for primary progressive multiple sclerosis.

Diversity and Inclusion (D&I) are critical to the success of our company and our impact on society. We believe that by championing diversity of background, thought and experience, we can foster a sense of belonging and provide an environment where every employee feels valued, included, and able to contribute their best for the patients we serve. We're focused on attracting, retaining, developing and advancing our people to their full potential by rewarding bold ways of thinking and integrating inclusive behaviors into every aspect of our work.

Genentech is an equal opportunity employer & prohibits unlawful discrimination based on race, color, religion, gender, sexual orientation, gender identity/expression, national origin/ancestry, age, disability, marital & veteran status. For more information about equal employment opportunity, visit our [Genentech Careers page](#)