

Postdoctoral Fellow, Immunology Discovery

Job ID: 00446714

Job Function

Research

Schedule

Full-time

Location

United States - California
South San Francisco

Job type

Regular Employee

Company/Division

Full-time

Job Level

Experienced

Who We Are

At the Roche Group, about 80,000 people across 150 countries are pushing back the frontiers of healthcare. Working together, we've become one of the world's leading research-focused healthcare groups. A member of the Roche Group, Genentech has been at the forefront of the biotechnology industry for more than 30 years, using human genetic information to develop novel medicines for serious and life-threatening diseases. The headquarters for Roche pharmaceutical operations in the United States, Genentech has multiple therapies on the market for cancer and other serious illnesses. Please take this opportunity to learn about Genentech, where we believe that our employees are our most important asset and are dedicated to remaining a great place to work.

The Position

A postdoctoral research position is available immediately in Genentech's Immunology Discovery group in the laboratory of Ali Zarrin. The successful candidate will join a highly collaborative team that combines genetic, biochemical, cellular, molecular and imaging tools to discover and elucidate novel pathways that regulate innate and adaptive immune response in health or various inflammatory diseases.

Selected publications from the Zarrin lab:

1) Hackney J.A., Misaghi S., Senger K., Garris C., Sun Y., Lorenzo M.N., A.A. Zarrin. DNA targets of AID: evolutionary link between antibody somatic hypermutation and class switch recombination. *Recent Advances in Immunology*, 2009;101:163-89.

2) Misaghi S., Garris C.S., Sun Y., Nguyen A., Zhang J., Sebrell A., Senger K., Yan D., Lorenzo M.N., Heldens S., Lee W.P., Xu M., Wu J., DeForge L., Sai T., Dixit V.M., A.A. Zarrin. Increased targeting of donor switch region and IgE in Sgamma1-deficient B cells. *Journal of Immunology*, 2010;185(1):166-73.

3) Sun Y., Senger K., Baginski T.K., Mazloom A., Chinn Y., Pantua H., Hamidzadeh K., Ramani S.R., Luis E., Tom I., Sebrell A., Quinones G., Ma Y., Mukhyala K., Sai T., Ding J., Haley B., Shadnia H., Kapadia S.B., Gonzalez L.C., Hass P.E., A.A. Zarrin. Evolutionarily conserved paired immunoglobulin-like receptor ? (PILR?) domain mediates its interaction

with diverse sialylated ligands. *Journal of Biological Chemistry*, 2012. 4;287(19):15837-50.

4) Zhu C., Lee V., Finn A., Senger K, Zarrin A.A., Du Pasquier L., E. Hsu. Origin of immunoglobulin isotype switching. *Current Biology*, 2012. 22(10):872-80.

5) Sun Y., Peng I., Senger K., Hamidzadeh K., Reichelt M., Baca M., Yeh R., N. Lorenzo M.N., Sebrell A., Dela Cruz C., Tam L., Corpuz R., Wu J., Sai T., Roose-Girma M., Warming S., Gonzalez L.C., Caplazi P., Martin F., DeVoss J., A.A. Zarrin. Critical role of activation induced cytidine deaminase in Experimental Autoimmune Encephalomyelitis. *Journal of Autoimmunity*, 2013. 46(2):157-167.

6) Kumar R., DiMenna L., Schrode N., Liu T.C., Franck P., Muñoz-Descalzo S., Hadjantonakis A.K., Zarrin A.A., Chaudhuri J., Elemento O., T. Evans. AID stabilizes stem-cell phenotype by removing epigenetic memory of pluripotency genes. *Nature*, 2013; 500(7460):89-92.

7) Misaghi S, Senger, K., Qu Y., Sai T., Sun Y., Nguyen A., Zhou M., Yan D., Sebrell A., Soukup T., Ngo J., Garris C., Lorenzo M.N., Rosse-Girma M., Caplazi P., Austin C., Xu M., Warming S., DeForge L., Lee W.P., Dixit V.M.*, A.A. Zarrin. Polyclonal hyper-IgE mouse model reveals mechanistic insights into antibody class switch recombination. *Proceedings National Academy of Sciences*, 2013. 110(39): 15770–15775.

8) Wu L.C. and A.A. Zarrin. The production and regulation of IgE by the immune system. *Nature Reviews Immunology*, 2014. 111(7)2644-2649.

9) Sun Y., Senger K., Pantua H., Sebrell A., Chinn Y., Yanmei L., Sturgeon L., Delarosa D., Caplazi P., Deforge L., Hass P., Gonzalez L., Balasz F., Kapaida S., A.A. Zarrin. PILRa negatively regulates inflammatory arthritis. *Journal of Immunology*, 2014 ,193(2):860-70.

10) Lin W., Seshasayee, D., Patrick Caplazi P., Suto E., Lin Z., Wyne L., DeForge L., Balasz M., Martin, F. , A.A. Zarrin. Dual B-cell immunotherapy is superior to individual anti-CD20 and BAFF blockade in murine models of spontaneous or accelerated lupus. *Arthritis & Rheumatism*, 2015, (67): 215-224.

11) Sun Y., Peng I., Webster J.D., Suto E., Lesch J., Wu X., Senger K., Francis G., Barrett K., Collier J.L., Burch J.D., Zhou M., Chen Y., Chan C., Eastham-Anderson J., Ngu H., Li O., Staton T., Havnar C., Joachico A., Jackman J., Jeet S., Riol-Blanco L., Wu L.C., Choy D.F., Arron J.R., McKenzie B., Ghilardi N., Ismaili M.H., Pei Z., DeVoss J., Austin C.D., Lee W.P., A. A. Zarrin. Inhibition of the kinase ITK in a mouse model of asthma reduces cell death and fails to inhibit the inflammatory response. *Science Signaling*, 2015, 8(405), 1-12.

12) Senger, K., Hackney J.A., Payandeh J., A.A. Zarrin. Antibody isotype switching in vertebrates. Book chapter. *Pathogen-Host: antigenic variation versus somatic adaptations*. Springer-Verlag series.

13) Senger, K., A.A. Zarrin. Structure and function of IgE. *Encyclopedia of Immunobiology*, 3rd edition, Elsevier, Oxford.

Who You Are

Successful applicants will have the following qualifications:

- PhD or MD/PhD degree with strong interest in immunology
- Proven ability to independently design and execute incisive experiments and interpret results

- First-author publications in leading journals
- Outstanding communication skills
- Strong passion and commitment to science
- Ability to work well within a team dynamic

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