**JOB TITLE:**
Postdoctoral Researcher

**DESCRIPTION SUMMARY:**

The Pritzker School for Molecular Engineering (PME), established in 2011 by the University of Chicago in partnership with Argonne National Laboratory, is a transformational academic unit exploring the intersection of science and engineering. In 2019, in recognition of our success, impact, and expansion, and the support of the Pritzker Foundation, the institute was elevated to the Pritzker School of Molecular Engineering—the first school in the nation dedicated to this emerging field. PME will lead engineering research and education in new directions, solve technological problems of major significance, and continually inspire creative applications of molecular-level science.

The Esser-Kahn Lab is looking for one or two postdoctoral researchers in the areas of quantitative immunology and immune-engineering, broadly defined. The research will be highly interdisciplinary so motivated candidates from diverse backgrounds are encouraged to apply. The focus will be on projects related to controlled activation of innate immunity in the context of vaccines and cancer immunotherapy. Applicants from many diverse backgrounds, including cell biology, molecular biology, chemistry, bioinformatics, biophysics, or biomedical engineering are encouraged to apply as this project will bridge traditional disciplinary boundaries. Of particular interest are technical skills and experience working with immune cells and/or animal models, and a working knowledge of immunology. These skills are beneficial, but not required.

With support from the NIAID, the candidates will have the opportunity to investigate a diverse array of important and unsolved challenges in the field of immunology including: (i) attenuating inflammation in vaccines, (ii) understanding the mechanism of action for chemically-linked agonists, and (iii) quantifying the activation threshold of immune receptors.

**DUTIES:**

1) Performs experiments and collects and analyzes data. Participates in cutting edge research project.

2) Participates in the preparation and writing of grant applications and reports, and co-authors/authors scientific research manuscripts. Provides peer review of grant applications and scientific manuscripts.

3) Collaborates on development of new research projects with academic and community-based organizations.

4) Other responsibilities include presentation of research results at weekly lab meetings and at national or international scientific meetings; including preparation and submission of papers that result in peer-reviewed journals.

5) Support the training of research staff, graduate or undergraduate students within the lab.
REQUIREMENTS:
Minimum qualifications for this position are a PhD or expected PhD in biology, bio-engineering, bio-medical or a related field. The individual must be able to work in a group setting and be able to write up the results in a format suitable for publications.

A working knowledge of scripting languages in immunology will be viewed favorably, but are not required. The interdisciplinary nature of the project means that few applicants are expected to completely meet these requirements and those interested, but perhaps lacking one area, are still encouraged to apply.

Interested applicants should contact Professor Aaron Esser-Kahn by email at aesserkahn@uchicago.edu. Please include: 1) cover letter, describing interest and qualifications for pursuing interdisciplinary research; 2) curriculum vitae (including publications list); 3) contact information for two scholars who are willing to write letters of reference; 4) one or more examples of software written (optional).