

Stanford



Xiaojing Gao

Assistant Professor of Chemical Engineering

Bio

BIO

How do we design biological systems as “smart medicine” that sense patients’ states, process the information, and respond accordingly? To realize this vision, we will tackle fundamental challenges across different levels of complexity, such as (1) protein components that minimize their crosstalk with human cells and immunogenicity, (2) biomolecular circuits that function robustly in different cells and are easy to deliver, (3) multicellular consortia that communicate through scalable channels, and (4) therapeutic modules that interface with physiological inputs/outputs. Our engineering targets include biomolecules, molecular circuits, viruses, and cells, and our approach combines quantitative experimental analysis with computational simulation. The molecular tools we build will be applied to diverse fields such as neurobiology and cancer therapy.

ACADEMIC APPOINTMENTS

- Assistant Professor, Chemical Engineering
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Pathway to Independence Award (K99), National Institutes of Health (2019)
- DARPA Riser, DARPA’s 60th Anniversary Symposium (2018)
- Postdoctoral Fellowship, Helen Hay Whitney Foundation-HHMI (2016-2019)
- Enlight Foundation/Bio-X Interdisciplinary Fellowship, Stanford University (2012-2015)

PROFESSIONAL EDUCATION

- Postdoctoral Fellow, California Institute of Technology , Biology and Biological Engineering (2020)
- Ph.D., Stanford University , Biology (2015)
- B.S., Peking University , Biology (2009)

LINKS

- Gao Lab: <https://gaolab.blog/>

Teaching

COURSES

2019-20

- Graduate Practical Training: CHEMENG 299 (Sum)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

Erik Kaseniit