Available Postdoc Position

RUA

Position ID Number	100009	
Supervisor Name	Xiaojing	Gao
Supervisor Title	Assistant Professor	
Phone Number		
Supervisor Email	xjgao@stanford.edu	
Lab Website	gaolab.blog	
Affiliated Institution	Stanford	
Contact Name		
Contact Title		
Contact Email Address		
Contact Phone Number		
Date of Best Consideration	11/15/21	
Application Close Date	11/14/22	
Anticipated Start Date	4/1/22	
Job Website		
Job Location	Stanford University	
Is remote work possible?	No	
CIP Codes	1.3 Agricultural/Biological Engineering and Bioengineering 1.5 Biomedical/Medical Engineering 6.2 Biochemistry, Biophysics and Molecular Biology	

Job Description	Do we understand biology well enough to engineer it? Will we be able to design biological systems as “smart medicine” that sense patients’ states, process the information, and respond accordingly? We believe the answers are unequivocally positive. To lay the groundwork for this vision, we have identified key challenges across different levels of complexity: (1) Protein: “anthro-orthogonality” and non-immunogenicity. (2) Biomolecular circuit: robustness in diverse contexts and non-mutagenic delivery. (3) Multicellular consortium: communication through scalable channels. (4) Translational application: interface with physiological inputs/outputs and prototyping. Taking a “vertical integration” approach, we are developing novel solutions at all these levels. We engineer biomolecules, molecular circuits, viruses, and cells, combining quantitative experimental analysis with computational simulation. The outcomes will contribute to not only specific biomedical applications but also the foundation for engineering mammalian biology. The postdoc will to lead one of these projects, with the expectation that they will eventually come up with their own molecular circuits as medicine" ideas, which will serve as the foundation of their own independent career in academia or industry.
Required Qualifications	Strong qualifications in one of the following fields is preferred: molecular biology, cellular biology, protein engineering, synthetic biology, systems biology, and computational modeling of dynamic systems.
Desired Qualifications	
Minimum Monthly Salary	$0
Maximum Monthly Salary	$0
Special Instructions for Applicants	
Opportunities for teaching?	Yes
Opportunities for supervision/mentoring?	Yes
Opportunities for communitiy outreach?	Yes
Position keywords	Synthetic biology Biomolecular engineering