

Chang Liu is Senior PI and Head of Division of Molecular and Cellular Design and Evolution at the Generative Biology Institute at EIT Oxford. Before 2026, Liu was a Professor and Chancellor's Fellow of Biomedical Engineering, Chemistry, and Molecular Biology & Biochemistry, the Director of the Center for Synthetic Biology, and the Director of the Engineering + Health Institute at UC Irvine. Liu retains a partial appointment as a Professor at UC Irvine.

After graduating summa cum laude and Phi Beta Kappa from Harvard in 2005 with a bachelor's degree in chemistry, Liu carried out his PhD at the Scripps Research Institute. His PhD work, done in the laboratory of Peter Schultz, focused on expanding bacterial genetic codes for the co-translational incorporation of otherwise post-translational modifications and using expanded genetic codes in the evolution of novel protein function. From 2009-2012, Liu was a Miller Fellow at UC Berkeley where he worked with Adam Arkin on the predictable design of complex regulatory systems using the special properties of RNA switches.

In 2013, Liu started his lab at UC Irvine. Liu's research is in the fields of synthetic biology, protein engineering, and molecular evolution. His group is known for the development of specialized genetic systems that continuously and rapidly mutate user-selected genes in vivo. These systems allow researchers to evolve proteins at unprecedented speed, scale, and depth in order to engineer new protein functions, probe the rules of evolution, and map the fundamental sequence-function relationships governing proteins and other macromolecules. These systems also allow researchers to record transient information as heritable mutations in order to track animal and cancer development at high cellular resolution.