

Kevin Karplus research interests

Protein structure prediction

- Iterated search with hidden Markov models (HMMS)
- Local structure prediction with neural nets
- Search and alignment with multi-track HMMS
- Contact prediction with mutual information
- 3D prediction using fragment replacement

Protein design (**new direction!**)

- Sidechain replacement for multimer stability
- Sidechain replacement for function change
- Full design

