A new probability method to understand protein-protein interface formation mechanism at amino acid level

Yongxiao Yang , Xinqi Gong

PII: S0022-5193(17)30443-5
DOI: 10.1016/j.jtbi.2017.09.026
Reference: YJTBI 9219

To appear in: *Journal of Theoretical Biology*

Received date: 4 May 2017
Revised date: 21 September 2017
Accepted date: 27 September 2017

Please cite this article as: Yongxiao Yang , Xinqi Gong , A new probability method to understand protein-protein interface formation mechanism at amino acid level, *Journal of Theoretical Biology* (2017), doi: 10.1016/j.jtbi.2017.09.026

Highlights:

- A new probability method was proposed to understand the protein-protein interface formation mechanism at amino acid level.
- Millions of models based on different geometric areas of surface residues were trained to estimate the probability of two surface residues from different monomers as an interface residue pair.
- Five simple discriminants for near native protein-protein interface recognition were constructed by integrating the probabilities of residue pairs on candidate interfaces.