

The strong binding that can arise from non-covalent interactions is poorly understood

- **Biotin binds to streptavidin with $K = 10^{13.4} \text{ M}^{-1}$**
- **Enzymes bind to the transition states of their substrates with $K = 10^{16 \pm 4} \text{ M}^{-1}$**
- **Question - are we missing some point that is fundamental?**