**Chapter 2 Science Literacy**

***PoL2e.com/ap/link2.6***

***Guiding Questions***

1. Describe three roles of hydrogen bonds in nature.
2. Networks of adjoining hydrogen bonds frequently form in protein interiors. Identify one known role of these networks and one proposed role.
3. Identify the problem this research group is trying to solve.
4. The group proposed that Tyr-42 and protonated Glu-46 form an extended hydrogen bond network within the active site of PYP via additional interaction with the side-chain hydroxyl of Thr-50 and the backbone amide of Arg-52. Identify the evidence that led them to this claim.