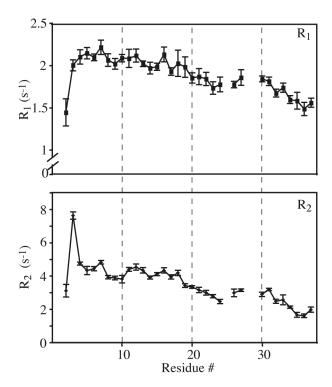
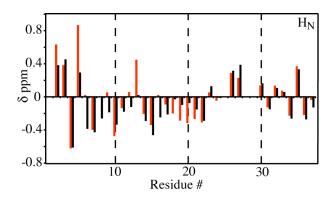
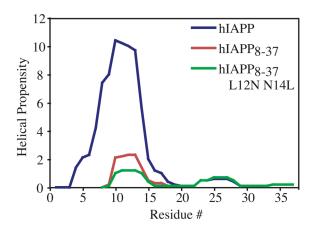
## **Supplementary Figures**



**Supplementary Figure 1.** <sup>15</sup>N longitudinal (R<sub>1</sub>) and transverse (R<sub>2</sub>) relaxation rates for rIAPP measured under standard conditions. Error bars were generated from confidence in fits calculated from single measurements.



**Supplementary Figure 2**.  $^{1}H_{N}$  secondary shifts of rIAPP in solution (black) and bound to bicelles (red).



**Supplementary Figure 3.** AGADIR helical predictions for IAPP variants. Full-length hIAPP (blue), truncated hIAPP<sub>8-37</sub> (red) and truncated, mutated hIAPP<sub>8-37</sub> L12N/N14L (green) were predicted at pH 7.4 and 25°C.