#### Structure 19

### **Supplemental Information**

## **Relative Solvent Accessible Surface Area**

# **Predicts Protein Conformational Changes**

#### upon Binding

Joseph A. Marsh and Sarah A. Teichmann

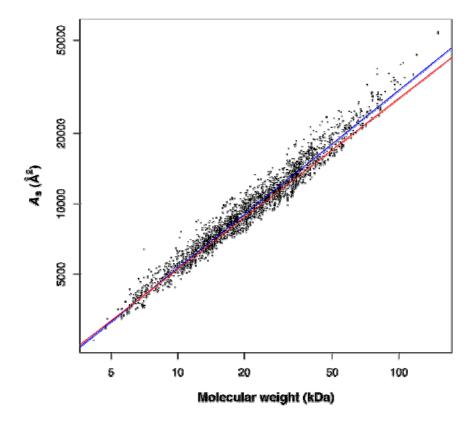
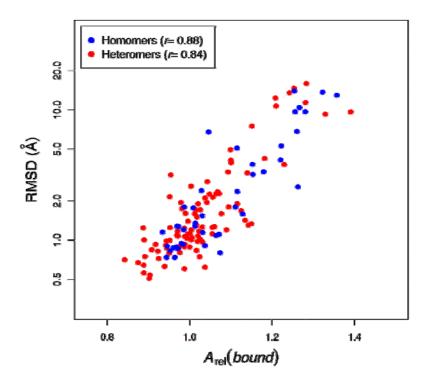
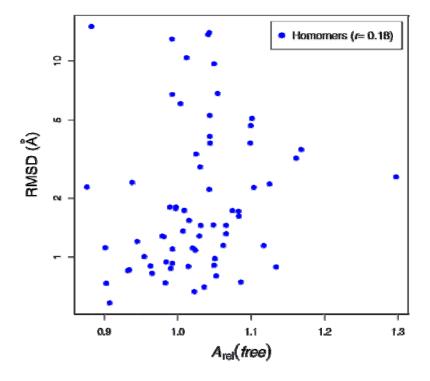


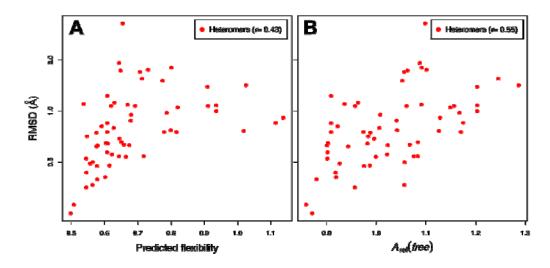
Figure S1, related to Figure 1. Relationship between protein molecular weight and solvent accessible surface area  $(A_s)$  for 4988 monomeric proteins. The blue line represents the fit in Equation 1 from this study, while the red line shows the fit derived in Miller et al. (1987a). These fits are very similar at low molecular weights but diverge above ~20 kDa due to the higher molecular weight proteins included in our study.



**Figure S2, related to Figure 1.** Correlation of  $A_{rel}(bound)$  with RMSD for single-domain proteins as identified in SCOP 1.75 (Murzin et al., 1995).



**Figure S3, related to Figure 4.** Comparison of  $A_{rel}(free)$  values for monomeric proteins vs. RMSD between unbound and homomeric conformations.



**Figure S4, related to Figure 5.** (A) Correlation between predicted flexibility from normal model analysis and RMSD for 60 monomeric proteins from Dobbins *et al.* (B) Correlation between  $A_{rel}(free)$  and RMSD for the same set of proteins.