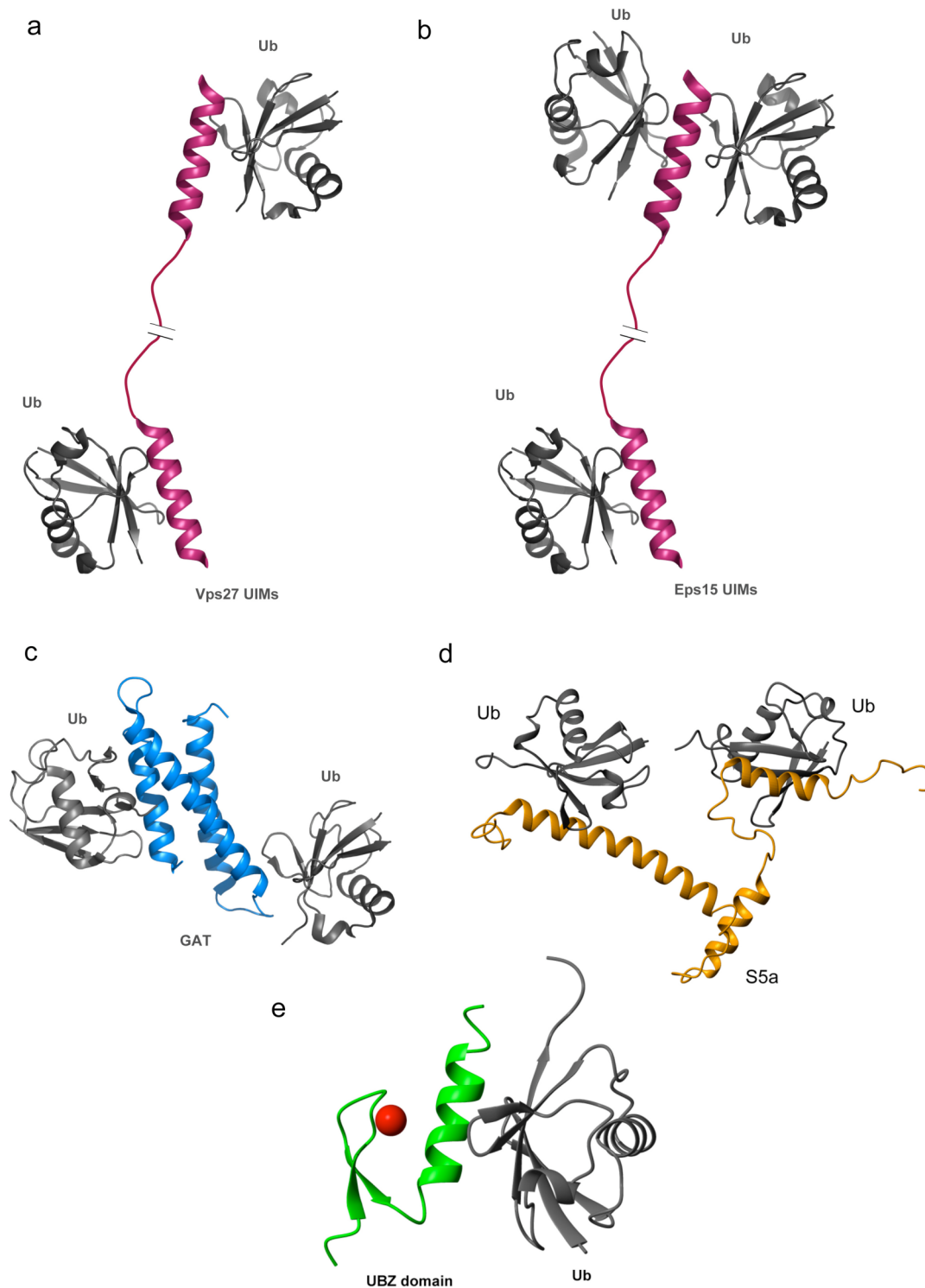




Supplementary information S2 (figure) | Ubiquitin-binding proteins engage in multivalent interactions. Model structures of a) two tandem single-sided UIMs of yeast Vps27a and b) tandem single- and double-sided UIMs of Eps15 (based on the Hrs-UIM and Vps27 structures) are displayed¹. c) The three-helix double sided domain from GGA-GAT (PDB 1WR6; Ub on the right side was docked based on the

NMR titration experiments)² and d) S5a (196-306) (PDB 1YX5 and 1YX6)³ can also bind to multiple ubiquitin molecules simultaneously. These interactions can either be used to increase affinity for a longer ubiquitin chain. e) Model of the ubiquitin-binding zinc finger domain of human DNA Y-polymerase eta complexed with monoubiquitin (generously provided by Dr Pei Zhou, Duke University, USA)⁴. Y-family polymerases increase their affinity for ubiquitinated PCNA through the additional ubiquitin:UBD interaction.

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