

Drug discovery at the protein-protein interface: statistics from the binding site

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Protein-protein interactions (PPIs) are critical for all aspects of cellular function, a role that is further underlined by their involvement in a large number of disease pathways, thus they represent attractive targets for therapeutic intervention. A number of small molecules have been successful in targeting and disrupting protein-protein interactions. It is observed that these small molecules bind deeper within the contact surface of the target protein, with higher ligand efficiencies. Here, we address the differences between proteins that bind small molecule drugs and the proteins that are currently targeted by small molecule protein-protein interaction inhibitors.