

Challenges Predicting Ligand-Receptor Interactions of Promiscuous Proteins:

The Nuclear Receptor PXR

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Table S1. Molecular descriptors for PXR crystal structure ligands calculated with Discovery Studio ver 2.1 (Accelrys, San Diego, CA). MWT = molecular weight, Rotl Bonds = number of rotatable bonds, HBA = hydrogen bond acceptor, HBD = hydrogen bond donor, Polar surface area = polar surface area.

| Compound | ALogP | MWT | Rotl. | Num_Aromatic | | HBA | HBD | PSA |
|------------|-------|--------|-------|--------------|-------|------|------|--------|
| | | | Bonds | Num_Rings | Rings | | | |
| Estradiol | 3.84 | 272.38 | 0 | 4 | 1 | 2 | 2 | 40.46 |
| T1317 | 4.84 | 491.41 | 8 | 2 | 0 | 3 | 1 | 65.99 |
| Colupulone | 6.03 | 400.55 | 8 | 1 | 0 | 4 | 2 | 74.60 |
| Hyperforin | 10.11 | 542.83 | 13 | 1 | 0 | 4 | 1 | 71.44 |
| Rifampicin | 3.55 | 713.81 | 3 | 4 | 1 | 12 | 6 | 201.30 |
| SR12813 | 4.89 | 504.53 | 13 | 1 | 1 | 7 | 1 | 110.91 |
| Mean | 5.54 | 487.59 | 7.50 | 2.17 | 0.50 | 5.33 | 2.17 | 94.12 |
| SD | 2.41 | 147.25 | 5.24 | 1.47 | 0.55 | 3.67 | 1.94 | 57.16 |