Examples from the dataset [2]

| Structure | Name | MW Neutral Form | pKa | Kinetic Solubility μΜ μg/ml | Intrinsic Solubility µM µg/ml |
|-------------------|---------------|--------------------|------------------------------------|---|---|
| | Acetaminophen | 151.17 | 9.52 ± 0.01 | 161700 ± 7000 μM 24400 ± 1060 μg/ml | 86300 ± 7000 μM 13000 ± 1060 μg/ml |
| S NH ₂ | Acetazolamide | 222.25 | 8.75 ± 0.02 7.31 ± 0.04 | $6100 \pm 3840 \mu M$ $1360 \pm 850 \mu g/ml$ | $3670 \pm 80 \; \mu M$ $816 \pm 18 \; \mu g/ml$ |
| OH B | Alprenolol | 249.36 | 9.47 ± 0.01 | $5080 \pm 50 \mu\text{M}$ $1266 \pm 12 \mu\text{g/ml}$ | $2320 \pm 40 \; \mu\text{M}$ $580 \pm 10 \; \mu\text{g/ml}$ |
| NH, | Amantadine | 151.25 | 10.48 ± 0.01 | $17300 \pm 3960 \ \mu M$ $2620 \pm 600 \ \mu g/ml$ | $14000 \pm 1180 \; \mu M$ $2120 \pm 180 \; \mu g/ml$ |

Overall performance in the solubility challenge

Percentage of entrants to correctly predicted logS

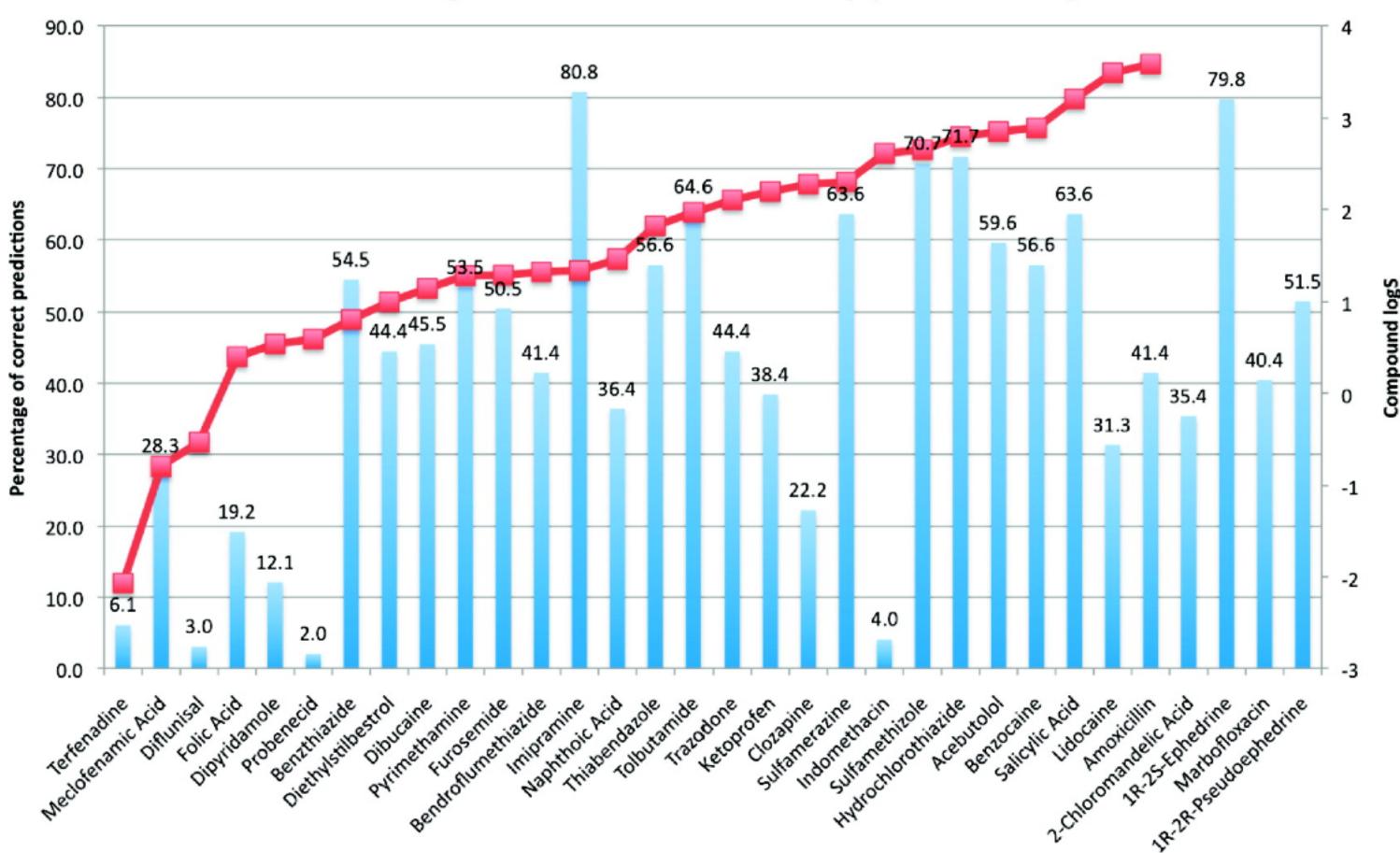


Figure 2 from ref [3]

"Correct" is within 0.5 logS

Blue bars are percentage correct

Red is actual logS

Compounds ordered from smallest logS to largest logS