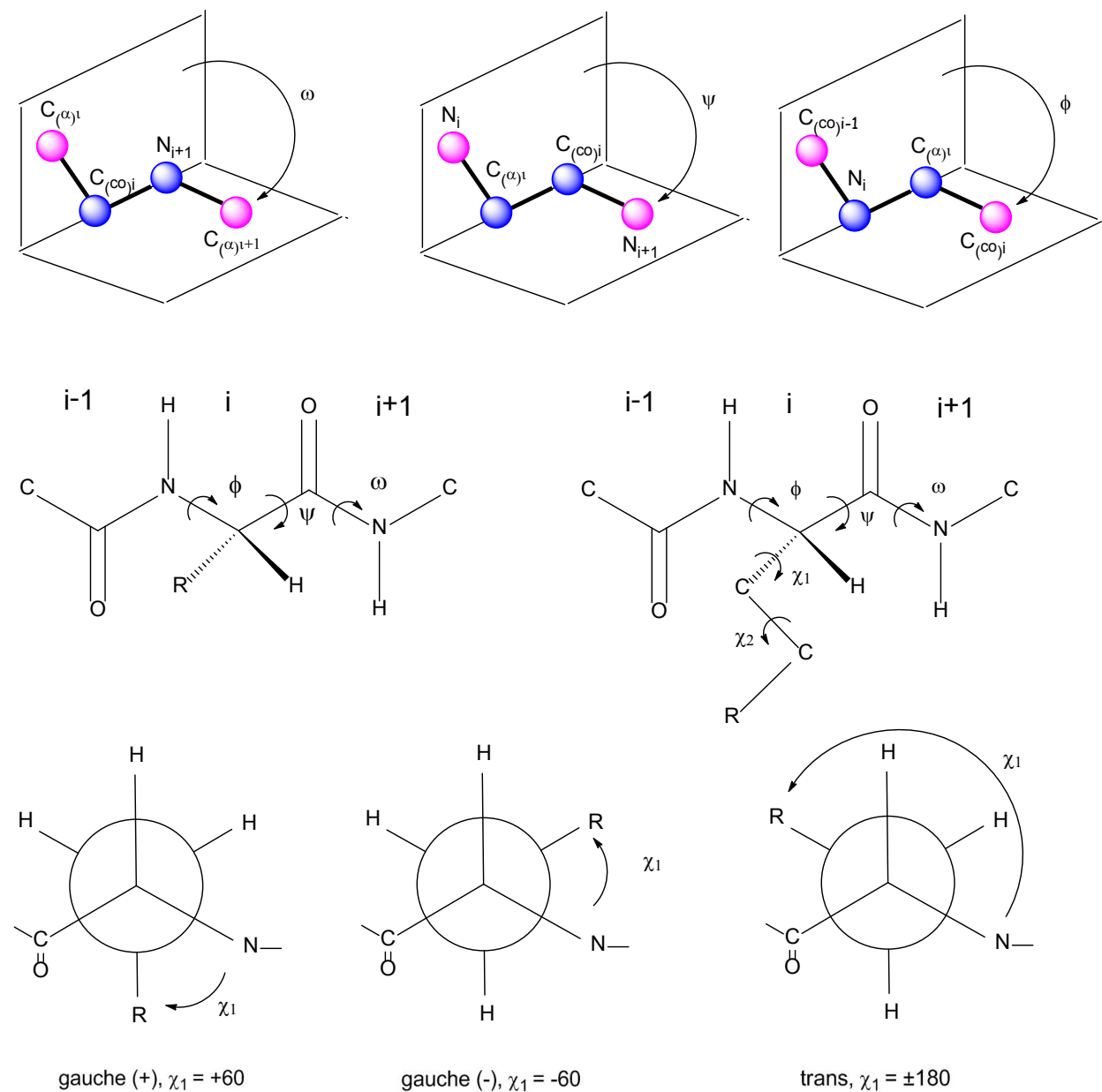
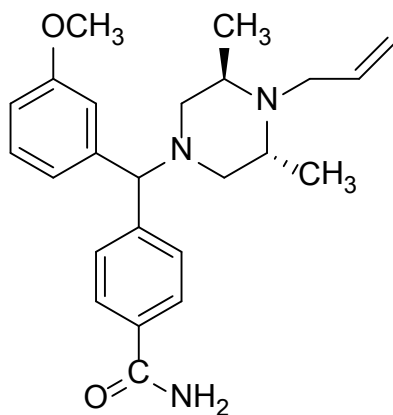


**Supplemental Figure 1.** Peptide Structure in phi, psi, omega space and in chi space. The side chain torsional angles are chi angles. Shown are the low energy conformations of the three lowest energy chi-1 angles (torsional angles between the  $C_\alpha$  and  $C_\beta$  carbons, etc. in an individual amino acid).



**Supplemental Figure 2.** Structure of SNC-80, a non-peptide  $\delta$  opioid receptor selective agonist.



**Supplemental Figure 3.** Structure of the chi-constrained bicyclic phenylalanine aromatic analog D-Tic.

