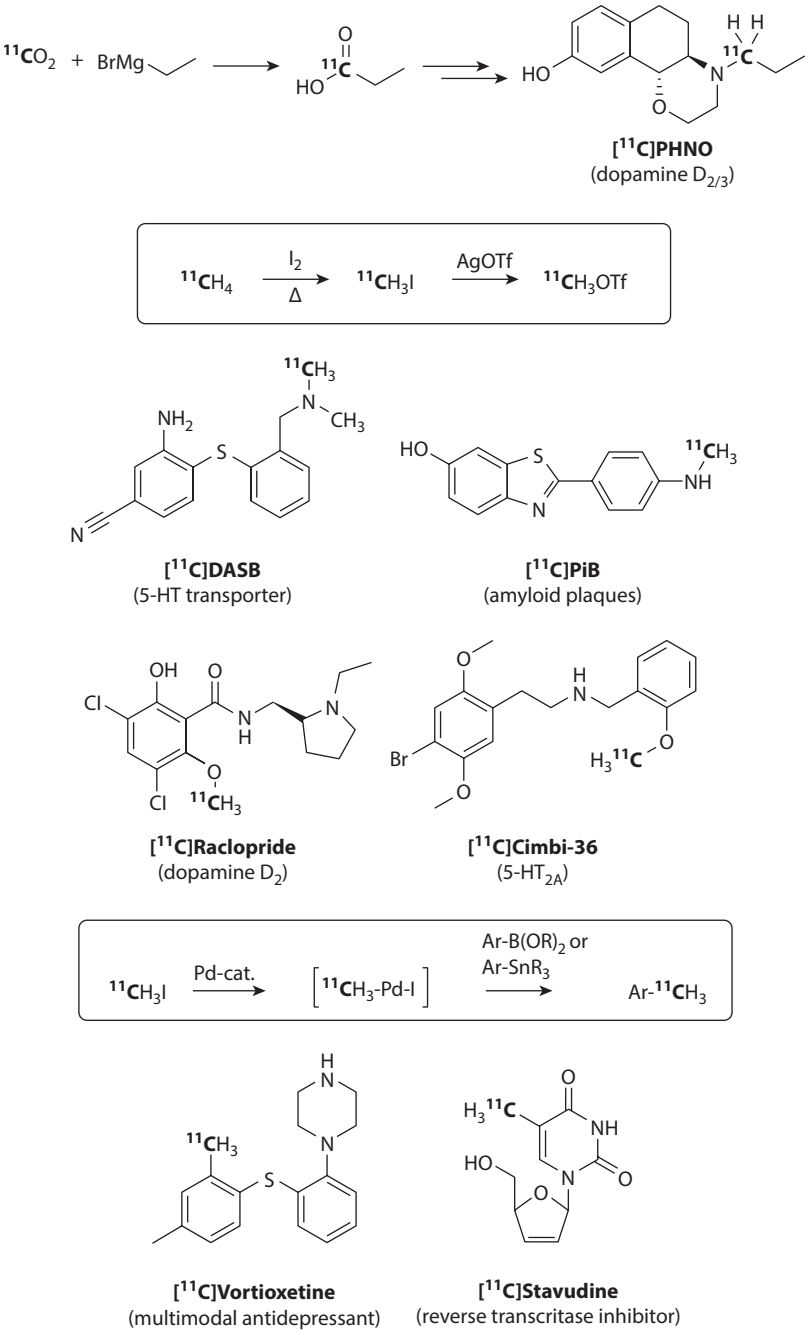

FIGURE 8.5 Representative examples of ^{11}C-labeled PET ligands and their biological targets.

8.6.2 ^{18}F-Labeling

At present, nucleophilic aromatic and aliphatic fluorination using [^{18}F]F$^-$ is the most reliable way to produce ^{18}F-labeled PET ligands with high specific activity. Either direct nucleophilic substitution on the target molecule or on secondary precursors which are then coupled to the molecule of interest, is therefore still the method of choice. In Figure 8.6, some examples of tracers prepared either by