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PET Ligands for β -Amyloid Detection



Given the global scale of Alzheimer's disease, early detection of pathological processes associated with the disease such as the presence of $\hat{\beta}$ -amyloid plaque deposits might assist in the characterization of biochemical events associated with the progression of cognitive decline. Early detection would also aid in the clinical evaluation of drug candidates for treating the disease. Harrison et al. (DOI: 10.1021/ml200018n) now describe a new class of radiolabeled ligands for positron emission tomography imaging (PET). One candidate PET ligand that binds β -amyloid was identified by the authors and is currently under investigation in phase I human trials.

Calcium, Vitamin D Analogues, and Cancer



Calcitriol, a form of vitamin D, shows potential antiproliferative activity in several cancer cell lines due to the ability to inhibit growth. However, the therapeutic potential of this compound is severely restricted due to adverse side effects such as hypercalcemia. Now, Salomon et al. (DOI: 10.1021/ml200034w) describe the design and synthesis of a calcitriol analogue that shows antiproliferative effects in several cancer cell lines with diminished calcemic effects. The compound described by the authors is welltolerated at relatively high doses and might serve as a starting point for a new class of anticancer compounds.



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