Detection and Treatment of Alzheimer's Disease and Other CNS Diseases

**Technology Description**
Compositions and methods have been developed for detecting plaques and treating CNS disorders. Polyamine modification of amyloid beta peptides or antibodies binding to amyloid beta increases blood-brain barrier (BBB) permeability and incorporation of a contrast agent permits MRI detection of plaque deposits. A novel peptide-based imaging agent has also been developed based upon incorporation of particular chemically synthesized amino acid compositions. Incorporation of these residues facilitates BBB permeability of amyloid beta peptides and antibodies, and labeling with an imaging agent permits diagnostic interpretation.

**Advantages**
The capability to diagnose and potentially treat Alzheimer’s and other CNS diseases, facilitated by the increased blood-brain barrier permeability of peptides and antibodies.

**Stage of Development**
Extensive mouse studies have been conducted examining the diagnostic efficacy of these agents, their blood-brain barrier permeability, and their pharmacokinetics.

**References**

**Researchers**
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