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Inhibition of beta amyloid fibril formation to prevent development of Alzheimer's disease

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Studies have indicated that Alzheimer's disease may be caused by the buildup of plaques in the brain, both intraneuronal and extracellular (Tanzi, 1989). The buildup of these plaques is caused by the aggregation of the beta amyloid peptide that is normally found in its monomeric form in the human blood stream. Development of a viable inhibitor to the aggregation of this peptide could result in a pharmaceutical application capable of preventing the onset of Alzheimer's disease. Several candidates for inhibitors were proposed, one of which was myricetin. Myricetin is a flavonoid that occurs naturally, found in some fruits and vegetables. To determine the inhibitive properties of myricetin, beta amyloid peptide was dissolved into a solution under conditions intended to mimic those of the human body. After various incubation periods, a fluorescent indicator that would only bind with the aggregated peptide was added, allowing for the quantification of the degree of aggregation that occurred in the solution.