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(54) Title: COMPOSITIONS AND METHODS FOR TREATMENT AND/OR PROPHYLAXIS OF PROTEINOPATHIES

(57) Abstract: Non-aggregating protein analogues of proteins involved in a proteinopathy, for example Alzheimer's disease, are provided. The protein has a beta-sheet aggregation domain, and the non-aggregating protein analogue has a beta-sheet destabilizing modification in the beta-sheet aggregation domain but substantially retains wild type protein function. The beta-sheet destabilizing modification can be a substitution of a naturally occurring amino acid for a non-naturally occurring amino acid. Methods of treating a proteinopathy using the non-aggregating protein analogues and methods of designing a non-aggregating protein analogue are provided.

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