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【902】 Effects of gravity on the alpha-synuclein aggregation

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Amyloid fibrils are the pathological hallmarks of many neurodegenerative diseases, including Alzheimer's and Parkinson's diseases, yet the mechanism of protein aggregation and fibrillization are not fully understood. Studying the protein aggregations in the microgravity/un-gravity condition can play a fundamental importance in discovering the aggregation mechanisms, and the influence of gravity on morphologies and configurations of aggregates as well as their aggregation behavior. In this research, we mainly focus on the low-gravity effect on alpha-synuclein aggregation in vitro, and combined various techniques, including atomic force microscope (AFM), Thioflavin T (ThT) and circular dichroism (CD), to measure the morphological transformation, aggregation kinetics, secondary structural transition during aggregation, and reasonable achievements have been achieved.

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