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Biophysics of Amyloid Aggregation

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Deadline for manuscript submissions: closed (28 February 2022)

Message from the Guest Editors

The amyloid state is associated with human conditions that are still incurable and becoming increasingly prevalent, such as Alzhimer's and Parkinson's diseases and type II diabetes. In these diseases, a range of peptides and proteins aberrantly convert from their soluble native states into intractable amyloid aggregates that disrupt cellular functions. To design effective therapeutics to prevent, delay or combat these devastating pathologies, it is imporant to further resolve the fundamental processes underpinning the aggregation reactions of specific biomolecules. In this Special Issue, we invite contributions that leverage biophysical approaches to study the fundamental biology and chemistry underlying protein neurodegenerative aggregation in diseases. All submissions that extend our knowledge of the amyloid state and its links to pathology are welcome. Examples of topics include, but are not limited to, disease models, diagnostics, drug discovery, antibody discovery, structural biology, chemical kinetics, structure-toxicity relationships, and high-resolution imaging.









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