

Webinar

Characterization of protein aggregation using fractal analysis

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Proteins in our body often form aggregate species, many of which have a detrimental effect on our overall health and well-being. Of particular relevance among protein aggregates are the amyloids. Characterized by their highly organized nature and exceptional kinetic stability these aggregates are associated with many diseases such as Alzheimer's disease, spongiform encephalopathy, type II diabetes etc. A thorough understanding of the aggregation mechanisms at play is vital for the identification of therapeutic strategies against these diseases and single-molecule techniques such as TIRF microscopy are essential in this endeavour.

In this work, we have developed a semi-automated method for analyzing images of the aggregation process from TIRF microscopy by combining clustering algorithms and fractal analysis.

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