

Special Issue

The Role of Environment in Amyloid Aggregation: 3rd Edition

Message from the Guest Editor

The ability to form amyloid structures may be a generic property of polypeptides, and there are two major factors which define the probability of amyloid fibril formation—amino acid sequence of the protein/peptide and the environmental conditions. In the case of folded proteins, at least partial unfolding is necessary to trigger the amyloid formation pathway, so increased temperature, extreme pH conditions, addition of denaturants or any other changes in the environment leading to destabilization of protein structure are used in amyloid aggregation studies. Even in the case of disordered proteins, neutralization of charges or contact with hydrophobic surfaces may be necessary to induce amyloid formation. Changes in the environment may alter the mechanism of aggregation and lead to distinct amyloid fibril conformations. The precision of extrapolation could increase with comprehensive knowledge of how the broad range of environmental conditions affect protein amyloid aggregation. Thus, I would like to invite you to share your knowledge and data on protein aggregation at different conditions and submit research or review articles to this issue.

Guest Editor

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