

Phase Transition Biopolymers and Methods of Use

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Researchers at Duke University have discovered a family of new amino acid motifs, that when polymerized display lower critical solution temperature (LCST) phase behavior. These sequences display a range of cloud points and different degrees of thermal hysteresis. This family of new LCST peptide polymers provide a diverse set of polymers for a range of applications.

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Abstract: The present disclosure describes environmentally responsive polypeptides capable of displaying stimuli-triggered conformational changes in a reversible or irreversible manner that may be accompanied by aggregation. Polypeptides include a number of repeated motifs and may be elastomeric or non-elastomeric. The polypeptides may be used to deliver therapeutics to a biological site and to develop bioactive polypeptides that are environmentally responsive.

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