Engineering and understanding supramolecular nanobiomaterials through enzymatic catalysis

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ABSTRACT

Engineering the properties of nanobiomaterials, such as enzymatic degradation, has been demonstrated through molecular design.[1] On the other hand, enzymatic catalysis can be instrumental for understanding molecular dynamics in self-assembled systems. This talk will present how molecular design and enzymatic catalysis are used to understand and engineer supramolecular nanobiomaterials.

References:

1. Y Shi, DS Ferreira, J Banerjee, AR Pickford, HS Azevedo, Tuning MMP-1 Degradability of Peptide Amphiphile Nanofibers Through Supramolecular Engineering, Biomaterials Science 2019, 7, 5132-5142.

2. HS Azevedo, Biomaterials Inspired by Biology: From Molecules to Self-Assembly. In RL Reis & ME Gomes (Eds.), Encyclopedia of Tissue Engineering and Regenerative Medicine, Vol. 1 (pp. 109–117). Academic Press: Elsevier.