

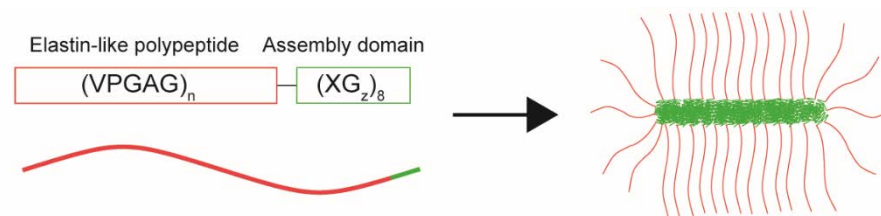
Electron micrograph of structures formed by self-assembling proteins.

These self-assembling proteins can be used to deliver toxic therapeutics to disease sites or to develop artificial cells.

A paper titled “Noncanonical Self-Assembly of Highly Asymmetric Genetically Encoded Polypeptide Amphiphiles into Cylindrical Micelles” presenting this work was published in the journal Nano Letters in November, 2014.

Researchers from Duke University have developed biologically synthesized proteins that can form nano-scale structures of various sizes, shapes, and behaviors.

These proteins, called elastin-like polypeptide block copolymers, spontaneously self-assemble into different structures based on their interactions with other proteins and water. By changing their sequence, the researchers can control the shape and behavior of the structures that they form.



Schematic showing protein self-assembly