

Self-assembly of peptide-based nanostructures: Synthesis and biological activity

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Mots-clés	Cell penetrating peptides [4], nanoparticle [5], Peptide [6], self-assembly [7] Peptide-based nanostructures have received much attention in the field of drug targeting. In fact, peptides have many advantages such as simplicity of the structure, biocompatibility, and chemical diversity. Moreover, some peptides, which are called cell-penetrating peptides, can cross cellular membranes and carry small molecules, small interfering RNA, or viruses inside live cells. These molecules are often covalently or noncovalently linked to cargoes, thus forming amphiphilic conjugates that can self-assemble. Supramolecular nanostructures formed from peptides are used in nanomedicine as a carrier to protect a drug and to target cancer cells. This review explores aliphatic-chain-conjugated peptides and drug-conjugated peptides that can self-assemble. Special emphasis is placed on the synthesis procedure, nanostructure formation, and biological activity.
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- [1] <http://okina.univ-angers.fr/l.guy/publications>
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