Self-assembling peptides and their conjugates offer exceptional potential in nanomedicine. I will present some of our recent work on nanoscale assembled peptides and their conjugates, focusing on lipopeptides. Examples from our recent work on self-assembling lipopeptides (peptides attached N-terminally to palmitoyl, hexadecyl, lipid chains) will be outlined. Our focus is to investigate potential relationships between self-assembly and bioactivity, in particular in the fields of regenerative medicine, antimicrobial systems, and immune therapies. I will also present selected results from our recent work on model lipopeptoids with short cationic and anionic peptoid (N-substituted glycines) blocks. These are observed to self-assemble into ultra-small spherical micelles.

References