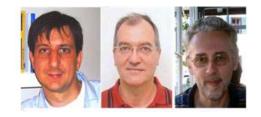
Bio-Organic Chemistry

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The research activity of the Bio-Organic Chemistry group is focused on the exploitation of peptides and conformationally constrained peptides for applications in organic, physical, biophysical and supramolecular chemistry. The group is currently engaged in the following research lines:

- synthesis, conformation, mechanism of action and bioactivities (antibacterial and antitumor) of the naturally-occurring peptaibiotics;
- textiles functionalized with antibacterial peptides for biomedical applications;
- peptide nanotechnology: peptido-rotaxanes, self-assembled peptide polymers, peptidedecorated metal nanoparticles for nanomedicine;
- synthesis and conformation of peptides with rigid and well-defined 3D-structure as structural elements for spectroscopic studies and for electron transfer and photovoltaic applications.
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- A terminally protected dipeptide: from crystal structure and self-assembly, through coassembly with carbon-based materials, to a ternary catalyst for reduction chemistry in water, Soft Matter, **2016**, 12, 238-245.
- The peculiar N- and C-termini of trichogin GA IV are needed for membrane interaction and human cell death induction at doses lacking antibiotic activity, BBA Biomembranes, **2015**, 1848, 134-144.
- Cotton functionalized with peptides: characterization and synthetic methods, J. Pept. Sci., 2014, 20, 547-553.