**Therapeutic Nanoconjugates**

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Therapeutic Nanoconjugates and Drug Delibery Systems are one of the key strategic lines of the CIBER-BBN.

As it is well known, the number of new chemical and biological entities being accepted by the Food and Drug Administration is stabilized around 20-30 every year. This relatively low number is due to several factors, but one of the main reasons in the poor ADME properties showed by compounds that previously had been good *in vitro* activity

To improve this situation, several approaches have been used: (i) preparation of therapeutic conjugates that are able to protect the drug until it reaches the target; (ii) preparation of conjugates bearing nanovectors with the objetove of reaching more efficiently the target.

Our laboratories have developed a robust synthetic platform mainly based in peptides able to address the problem mentioned above. Herein, multifunctional polyethylenglycol-based dendrimers for drug delivery; □-proline based foldamers as cell penetrating peptides; and gold nanoparticles; and multifunctionalized gold nanoparticles with peptides targeted to peptide receptor of a tumour cell line will be discussed.

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