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# **Pegylation in Drug Delivery Applications**

Guest Editor:

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### Message from the Guest Editor

Dear Colleagues,

Pegylation in the pharmaceutical field is understood as the covalent or non-covalent attachment of PEG (polyethylene glycol) chains to a functional molecules or delivery systems, such as nanoparticles. This strategy is very effective in improving pharmacokinetics and reducing toxicity; it has become the main approach to overcome the limitations of biological drugs and to increase the efficiency of drug delivery in general. Pegylation might result in higher solubility in water, decreased renal opsonization clearance. lower aggregation, and phagocytosis, as well as protection against in vivo degradation. Overall, it may prolong systemic circulation time. Today, several pegylated drugs and nanostructures are approved and, in spite of recent concerns regarding the immunogenicity of PEG, no alternative polymer has proven to be better in reducing protein drugs immunogenicity. In this issue, we will explore the versatility of this technology in improving drug delivery, including the principles and peculiarities of different applications, as well as novel trends

Prof. Dr. Carlota O. Rangel Yagui *Guest Editor* 









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### Message from the Editor-in-Chief

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