



Conference Proceeding

Research and Development of Small Molecule Prodrug Self-Assembled Nanomedicine

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Abstract

Nanotechnology can improve drug PK and distribution in vivo, so as to reduce toxicity and increase efficiency; Nanodrug preparation with good druggability should have the characteristics of high drug loading, simple preparation process. Besides, the reasons that hinder the transformation of nanodrugs from laboratory research to clinic include the stability problem, reproducibility problem, etc. These are often easily neglected problems by scientific research workers. Different from common sense, we have developed a kind of small molecule prodrug self-assembled nanoparticles in our group: prodrug was synthesized using covalent bond to connect two hydrophobic compounds together, without the help of any surface-active substances, the prodrug can be dispersed and spontaneously self-assembled into nanoparticles with good stability. The nanoparticles have many druggability merits, based on it, its function has been continuously explored and optimized to promote its clinical transformation.

Keywords: Self-assembled nanomedicine; Cancer; Prodrug; Druggability

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