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Lipid Nanostructures for Antioxidant Delivery

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Message from the Guest Editor

Many studies have demonstrated that the nanoencapsulation strategy makes it possible to protect active molecules from possible degradation, prolonging their chemical stability. On this matter, the inclusion of antioxidants within lipid nanostructures offers a tremendous opportunity. Indeed, despite their pharmaceutical potential, spanning from free radical formation hindrance to the inhibition of cancer cell proliferation and progression, antioxidant molecules are characterized by poor stability, and are degraded by many environmental factors such as oxygen, light, high temperature, and humidity. In this regard, lipid-based nanostructures such as liposomes, solid lipid nanoparticles, and nanostructured lipid carriers have been recently proposed as innovative delivery systems for antioxidant molecules. In vitro and in vivo studies have demonstrated that antioxidant encapsulation prolongs release kinetics, bioavailability, and antioxidant effects. In this Special Issue original research papers or review articles focusing on the physico-chemical, biological, and pharmacological properties of lipid-based nanosystems containing antioxidant molecules are welcome.



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Special Issue



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Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

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