1. Record Nr. UNINA9910637783403321

Autore	Gambini Juan
Titolo	Oxidative Stress and Inflammation : From Mechanisms to Therapeutic Approaches
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022
ISBN	3-0365-6024-6
Descrizione fisica	1 electronic resource (234 p.)
Soggetti	Public health & preventive medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	In the biochemical reactions that take place within all living beings, species called free radicals are generated. Denham Harman, in his study on the origin and evolution of life (Harman, 2001), proposes that these species are amongst the causes of the origin of life on our planet. Oxygen is a molecule that provides the primary source of energy in aerobic organisms and therefore is key to the development and evolution of life. On the one hand, it gives rise to life; on the other, due to its ability to form different free radicals, it is capable of damaging essential structures for development. To combat these radicals, our biological systems have developed antioxidant defenses. However, when the balance between free radicals and antioxidant defenses is broken in favor of the former, a phenomenon called oxidative stress occurs, which ends up damaging molecules such as DNA, proteins, carbohydrates, and lipids (Sies, 1983) (Halliwell and Gutteridge, 1985). This phenomenon is implicated both in the development of diseases and in their progression. In addition, inflammation phenomena are also involved in most pathologies, which, although they are essential for tissue repair and immunity, turn against our bodies when they become excessively active. For these reasons, in this special edition we showcase an extensive knowledge of the effects of oxidative stress and inflammation both in diseases such as aging, or for its role in health.