1. Record Nr. UNINA9910298335303321 Perinatal and Prenatal Disorders / / edited by Phyllis A. Dennery, **Titolo** Giuseppe Buonocore, Ola Didrik Saugstad Pubbl/distr/stampa New York, NY:,: Springer New York:,: Imprint: Humana,, 2014 **ISBN** 1-4939-1405-7 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (438 p.) Collana Oxidative Stress in Applied Basic Research and Clinical Practice, , 2197-7224 618.9201 Disciplina Soggetti Oxidative stress Obstetrics Cell biology Oxidative Stress Obstetrics/Perinatology/Midwifery Cell Biology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto 1. Impact of oxidative stress on development -- 2. Chorioamnionitis and oxidative stress: New ideas from experimental models -- 3. Oxidative stress in the pathophysiology of gestational diabetes mellitus -- 4. Tobacco smoking and oxidative stress in pregnancy -- 5. Preterm labor and oxidative stress -- 6. Developmental origins of disease: The role of oxidative stress -- 7. Down Syndrome as a special case of oxidatively induced developmental dysregulation -- 8. Retinopathy of prematurity and oxidative signaling -- 9. Necrotizing enterocolitis and oxidative stress -- 10. Oxidative stress and the perinatal circulation --11. Use of oxygen in the resuscitation of neonates -- 12. Antioxidant properties of commercial surfactants -- 13. Oxidative stress and Glutathione synthesis rates in postnatal life -- 14. Oxygen vulnerability of the immature brain -- 15. Hyperbilirubinemia and antioxidant defenses in the neonate -- 16. Neonatal pain and oxidative stress --17. Ontogeny of antioxidant systems -- 18. Antioxidant therapies in the neonates -- 19. Postnatal stress including nutrition -- 20. Oxidative stress in epilepsy -- 21. The oxidative stress in the fetus and

newborn -- 22. New promising antioxidant drugs.

Sommario/riassunto

This authoritative volume describes the role of free radicals and antioxidants in prenatal and perinatal disorders currently explored in clinical and pre-clinical trials. In twenty-two inclusive chapters, the book covers the gamut of oxidative stress and its relation to a variety of factors, including fertility, metabolism, redox biomarkers, antioxidant defense and protection, gene polymorphisms, angiogenesis, cell signaling, mutations and oxidative damage involving lipids, proteins and nucleic acids, membrane trafficking, inflammation, mitochondrial dysfunction, alterations in immunological function, hypoxia, and post-natal stressors. This comprehensive source will keep clinicians and research scientists up-to-date on translational research into medical applications. Perinatal and Prenatal Disorders is a significant addition to the well-known Oxidative Stress in Applied Basic Research and Clinical Practice series.