Record Nr. UNINA9910254500503321 Epigenetics, the Environment, and Children's Health Across Lifespans / **Titolo** / edited by David Hollar Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-25325-5 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (399 p.) 610 Disciplina Soggetti Maternal and child health services Environmental health Human genetics **Pediatrics** Maternal and Child Health **Environmental Health Human Genetics** Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Epigenetics and Development: A Natural Process -- Cause and Effect in Epigenetic Disease Epidemiology -- Epigenetics and Health --Molecular Basis of Epigenetics -- Trans-generational Epigenetics --Maternal Exposure to Pharmaceuticals -- Maternal Exposure to Poor Nutrition -- Maternal Exposure to Alcohol, Tobacco, and Drugs --Maternal Exposure to Lead and Mercury -- Maternal Exposure to Stress -- Paternal Exposure to Environmental Mutagens and Stressors --Protective Nutrition Before and During Pregnancy -- Protective Behaviors Before and During Pregnancy -- Impact of Dental Mercury on Lifespan Health -- Children's Exposure to Stress -- Children's Exposure to Lead and Mercury -- Children's Exposure to Alcohol, Tobacco, and Drugs -- Children's Exposure to Violence -- Children's Exposure to Traumatic Events -- Children's Exposure to Poor Nutrition -- Infection Impact on Child Development and Epigenetics -- HLA and

Immune Response -- Allostatic Load -- Latent Periods and

Cardiovascular/Cancer Risks -- Dynamics of Life Experiences on Polygenic Gene Regulation -- Food Chain Impact of Pesticides on Human Health -- Sun and Artificial Radiation Exposure on Skin Health -- Medical Imaging Radiation Risk on Health -- Naturopathic Approaches to Epigenetic Health -- Reprogramming Epigenetic Effects -- An Ecological Systems Approach to Epigenetic Health -- The Health Leader's Guide to Promoting Epigenetic Health .

Sommario/riassunto

This stimulating volume addresses vital questions about gene/environment interactions as they affect cell health from the prenatal period through later life. Beginning with a tour of epigenetic processes in the human body, the book assembles current theoretical and empirical developments across the discipline, among them transgenerational epigenetic inheritance, the effects of maternal nutrition on epigenetic change, and possible links between epigenetics and childhood obesity. Public health and policy aspects of the field are discussed in depth, with the understanding that much can be done to improve our epigenetic health as a species. And in this vein, contributors consider future possibilities, such as the reprogramming of genes to reverse cancer and other diseases. Included in the coverage: The role of environmental epigenetics in perinatal and neonatal development The epigenetic biomarker H2AX: from bench science to clinical trials What's the risk? Dental amalgam, mercury exposure, and human health risks throughout the lifespan Posttraumatic stress disorder: neurological, genetic, and epigenetic bases Children's exposure to alcohol, tobacco, and drugs: long-term outcomes Ethical implications of epigenetics Epigenetics, the Environment, and Children's Health Across Lifespans brings real-world knowledge and applications of this increasingly im portant field to public health practitioners, maternal and child health researchers, and environmental health experts.