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Trophoblast invasion and uterine artery remodelling in primates; Chapter 9 The role of the maternal immune response in fetal programming; Chapter 10 Clinical causes and aspects of placental insufficiency; Chapter 11 Uterine blood flow as a determinant of fetoplacental development; Chapter 12 Placental amino acid transporters: The critical link between maternal nutrition and fetal programming?
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Sommario/riassunto

Developmental programming is a rapidly advancing discipline of great importance to basic scientists and health professionals alike. This text integrates, for the first time, contributions from world experts to explore the role of the placenta in developmental programming. The book considers the materno-fetal supply line, and how perturbations of placental development impact on its functional capacity. Chapters examine ways in which environmental, immunological and vascular insults regulate expression of conventional and imprinted genes, along with their impact on placental shape and size, transport, metabolism and endocrine function. Research in animal models is integrated with human clinical and epidemiological data, and questions for future research are identified. Transcripts of discussions between the authors allow readers to engage with controversial issues. Essential reading for researchers in placental biology and developmental programming, as well as specialists and trainees in the wider field of reproductive medicine.