UNIVERSIDAD DE GRANADA

Máster Universitario en Condicionantes Genéticos Nutricionales y Ambientales del Crecimiento y Desarrollo

SEMINARIO-WEBINAR SOBRE PROGRAMACIÓN PRECOZ DEL SISTEMA RENAL

Desde el Mié, 11/12/2024 - 13:38 hasta

Nutritional exposures during sensitive periods of early development may program functions and structures of the organism. In this scenario, there has been increasing attention on protein supply during gestation and infancy, as it has been postulated as one of the main early nutritional factors that may have a lifelong effect on obesity risk, hypertension, kidney structure, and thus possibly kidney function. With regard to kidney programming, prenatal animal models have shown that poor nutrition during pregnancy is related to low nephron endowment; this may be a potential driver of hypertension and renal disease later in life. There is some evidence suggesting that a similar mechanism may occur in humans. Both low birth weight and prematurity have been related to smaller kidneys and lower nephron endowment, which in turn have been associated with adult risk of hypertension and kidney disease.These findings support the hypothesis that the kidney may be programmed during gestation in humans (while nephrogenesis takes place). Moreover, it still remains unknown whether the critical window during which the kidney could be programmed extends to early postnatal life. As the kidney increases its size and functional capacity rapidly during the first months of life, it seems plausible to hypothesize that a nutritional intervention in this period could exert long-term effects on cardiovascular and kidney health. In this talk most recent advances in this topic will be presented.