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Prenatal Lipopolysaccharide Exposure Causes Mesenteric Vascular Dysfunction Through NO-cGMP Pathway in Offspring

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Abstract

Cardiovascular diseases, such as hypertension, could be programmed in fetal life. Prenatal lipopolysaccharide (LPS) exposure in utero results in increased blood pressure in offspring, but the vascular mechanisms involved are unclear. Pregnant Sprague-Dawley (SD) rats were intraperitoneally injected with LPS (0.79 mg/kg) or saline (0.5 ml) on gestation day 8, 10, and 12. The offspring of LPS-treated dams had higher blood pressure and decreased acetylcholine (ACh)-induced relaxation and increased phenylephrine (PE)-induced contraction in endothelium-intact mesenteric

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