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**Nitric oxide (NO): A new, but nowadays very popular free radical**

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This small molecule, which got the honor title of “the molecule or radical of 1992 year” origin from L-arginine (L-Arg). In the reaction catalyzed by nitric oxide synthase (NOS; EC 1.14.13.39) the L-Arg imino group changes place with an oxo (=O) oxygen in the guanidino group. The products will be the L-citrulline and nitric oxide. This paper deals with the structure, action and use of different NOS inhibitors. What we are going to study in details are the NOS types; the localization by immunohistochemistry and with nitroblue tetrazolium reaction (in NADPH-diaphorase (NADPHd) form) in the carp brain. We attempted to find an answer to the question whether NADPH-diaphorase and immunochemically localized reactions are equivalent in the carp central nervous system.