

# **ABDULGHANI HOUDI, Ph.D.**

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## **Research Interests**

Dr. Abdul Houdi's research interests are concerned with the role of brain opioids (enkephalins) in mediating changes in blood pressure, heart rate, pain sensation and drug addiction. This research will help in the development of a new line of drugs (peptides) in the treatment of various abnormalities and diseases. Our research involves the use of HPLC combined with radioimmunoassay for the isolation and measurement of endogenous opioid peptides in specific brain regions in response to drug treatments, such as nicotine, cocaine or physiological stimuli such as stress. In certain instances, we administer exogenous opioid agonists and antagonists into the brain through a chronically implanted brain cannula and monitor responses such as pain sensation (using the tail-flick method), blood pressure and heart rate (using a cannula implanted into the carotid artery). Synthesis of specific agonists and antagonists for opioid receptor subtypes are required for the study of the structure activity relationship studies.

## **Research Publications/Presentations**

Kolta, M.G., Pierzchala, K., Houdi, A.A. and Van Loon, G.R., "Streptozocin-Induced Diabetes Alters Peripheral Met-Enkephalin Levels in Rats," *Neuropeptides*, 21: 55-63 (1992).

Marson L., Houdi A.A., Palkovits M. and Van Loon G.R. "Bilateral Lesions of the Medulla Oblongata Alter Mu-Opioid Modulation of Autonomic Outflow." *Neuroendocrinology (Life Sci. Adv.)* 1) 11: 105-117 (1992).

Houdi A.A., Godin C.S. and Crooks P.A. "Detection of a Possible Biomarker for Sidestream Cigarette Smoke Exposure." *Pharmaceutical Science Communication*, 4:15-20 (1993).

Houdi A.A., Dowell R.T., Welch M. and Diana J.D. "Mechanisms involved in cardiovascular responses to cigarette smoke exposure in restrained conscious rats." *The FASEB J.*, 8: pp A39 (1994).