

## RESEARCH INTERESTS - JEVTOVIC-TODOROVIC

Broadly, my research interests focus on mechanisms by which anesthetic drugs interact with neurotransmitter systems in the central nervous system to produce both pharmacological and toxicological effects. My primary interests thus far have centered on the identification and characterization of neurotoxic properties of commonly used intravenous and inhalational anesthetics with special emphasis on NMDA antagonist class of general anesthetics. It had extended to include several studies that have looked at the pharmacological ways of protection against this type of neurotoxicity. This research is federally funded by NIA/NIH.

Another important aspect of my research is focused on pathophysiology and pharmacology of the neuropathic pain using whole animal model and variety of neurobehavioral tests.

2000-2006 PPG (P.I. Olney, J.W.): Excitatory transmitters, memory, aging and dementia. Project 5: "Sensitivity of aged rats to NRHypo neurodegeneration induced by ketamine and/or nitrous oxide". NIH/NIA Principal Investigator: Vesna Jevtovic-Todorovic

2004-2009 Established Investigator Award – American Heart Association, National Center Research Program. "The role of melatonin in protection against anesthesia-induced neurodegeneration in the developing brain". Principal Investigator: Vesna Jevtovic-Todorovic

2005-2010 R01: "Anesthesia-Induced Developmental Neuroapoptosis". Principal Investigator: Vesna Jevtovic-Todorovic

News Release: [Common Pediatric Anesthesia Drugs Cause Brain Damage and Learning and Memory Problems in Infant Rats](#)