Steven Jinks, M.S., Ph.D.

Clinical Interests

Dr. Jinks' laboratory is funded by the NIH and the Department of Anesthesiology and Pain Medicine. His research interests include sites and mechanisms of general anesthetics, pain mechanisms and treatments, and basic spinal cord/brainstem neurophysiology relating to nociceptive sensorimotor and locomotor function. Dr. Jinks' laboratory investigates these processes using *in vivo* electrophysiology in rodents as well as *in vitro* neonatal rodent and lamprey cord preparations.

Title

Adjunct Assistant Professor

Department

Anesthesiology

Division

General Anesthesiology

Education

M.S., UC Davis, Davis, California, 1998
Ph.D., UC Davis, Davis, California, 2001
B.S., University of Rhode Island, Kingston, Rhode Island, 1994

Professional Memberships

American Association for the Advancement of Science
Association of American Anesthesiologists
Association of University Anesthesiologists
International Association for the Study of Pain
Society for Neuroscience

Honors and Awards

Loren D. Carlson Dissertation Prize in Physiology, University of California, Davis, 2001
Alpha Award for Undergraduate Research, University of Rhode Island, 1995

Select Recent Publications

Inceoglu B, Wagner K, Schebb NH, Morisseau C, Jinks SL, Ulu A, Hegedus C, Rose T, Brosnan R, Hammock BD. Analgesia mediated by soluble epoxide hydrolase inhibitors is dependent on cAMP. *Proc Natl Acad Sci U S A*. 2011 Mar 22;108(12):5093-7. Epub 2011 Mar 7.

Jinks SL, Andrada J, Satter O. Anesthetic effects on fictive locomotion in the rat isolated spinal cord. *Neuroreport*. 2011 Sep 14;22(13):655-9.

Jinks SL, Andrada J. Validation and insights of anesthetic action in an early vertebrate network: the isolated lamprey spinal cord. *Anesth Analg*. 2011 Nov;113(5):1033-42. Epub 2011 Jul 25.

Carstens EE, Carstens MI, Simons CT, Jinks SL. Dorsal horn neurons expressing NK-1 receptors mediate scratching in rats. *Neuroreport*. 2010 Mar 10;21(4):303-8.

Jinks SL, Bravo M, Satter O, Chan YM. Brainstem regions affecting minimum alveolar concentration and movement pattern during isoflurane anesthesia. *Anesthesiology*. 2010 Feb;112(2):316-24.

UCDAVIS
HEALTH SYSTEM

Morisseau C, Inceoglu B, Schmelzer K, Tsai HJ, Jinks SL, Hegedus CM, Hammock BD. Naturally occurring monoepoxides of eicosapentaenoic acid and docosahexaenoic acid are bioactive antihyperalgesic lipids. *J Lipid Res.* 2010 Dec;51(12):3481-90. Epub 2010 Jul 27.

Jinks SL, Carstens E, Antognini JF. Nitrous oxide-induced analgesia does not influence nitrous oxide's immobilizing requirements. *Anesth Analg.* 2009 Oct;109(4):1111-6.

Inceoglu B, Jinks SL, Ulu A, Hegedus CM, Georgi K, Schmelzer KR, Wagner K, Jones PD, Morisseau C, Hammock BD. Soluble epoxide hydrolase and epoxyeicosatrienoic acids modulate two distinct analgesic pathways. *Proc Natl Acad Sci U S A.* 2008 Dec 2;105(48):18901-6. Epub 2008 Nov 21.

Jinks SL, Bravo M, Hayes SG. Volatile anesthetic effects on midbrain-elicited locomotion suggest that the locomotor network in the ventral spinal cord is the primary site for immobility. *Anesthesiology.* 2008 Jun;108(6):1016-24.

Jinks SL, Carstens EE, Antognini JF. Glutamate receptor blockade in the rostral ventromedial medulla reduces the force of multisegmental motor responses to supramaximal noxious stimuli. *Neurosci Lett.* 2007 Oct 22;426(3):175-80. Epub 2007 Sep 4.

Schmelzer KR, Inceoglu B, Kubala L, Kim IH, Jinks SL, Eiserich JP, Hammock BD. Enhancement of antinociception by coadministration of nonsteroidal anti-inflammatory drugs and soluble epoxide hydrolase inhibitors. *Proc Natl Acad Sci U S A.* 2006 Sep 12;103(37):13646-51. Epub 2006 Sep 1.

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