

BIOGRAPHICAL SKETCH

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NAME Helena S. Ennes, M.D.	POSITION TITLE Assistant Researcher		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Lisbon–School of Medicine, Portugal	MD	1980	Medicine
University of California, Los Angeles	Research	1988-1992	Gastroenterology

A. Positions and Honors.**Positions and Employment**

1987 – 1988 Research Assistant, UCLA
 1988 – 1992 Research Fellow in Gastroenterology, Harbor-UCLA-Torrance
 1993 – 2001 Assistant Researcher, UCLA
 2001 – Present Associate Researcher, UCLA

B. Selected peer-reviewed publications (in chronological order).

- Mayer EA, Kolbel CBM, **Ennes HS**. Capsaicin sensitive nerves modulate motility in the rabbit colon. *Regul Pept* 1988;22:125.
- Kolbel CBM, Patel A, **Ennes HS**, Snape WJ Jr, Mayer EA. Evidence for the involvement of substance P in noncholinergic excitation of rabbit colonic muscle. *Am J Physiol Gastrointest Liver Physiol* 1989;256:G246-G253.
- Mayer EA, Kolbel CBM, Van Deventer G, Snape WJ Jr, **Ennes HS**. Modulation of cholinergic neurons in canine antrum is not mediated by serotonergic or adrenergic interneurons. In: *Nerves and the Gastrointestinal Tract*, pp. 596-601, MTP Press, Lancaster, England, 1989.
- Mayer EA, Kolbel CBM, Snape WJ Jr, Eysselein V, **Ennes HS**, Kodner A. Substance P and CGRP mediate motor response of rabbit colon to capsaicin. *Am J Physiol Gastrointest Liver Physiol* 1990;259:G889-G897.
- Ennes HS**, McRoberts JA, Hyman PE, Snape WJ Jr. Characterization of colonic circular smooth muscle cells in culture. *Am J Physiol Gastrointest Liver Physiol* 1992;263:G365-G370.
- Young SH, **Ennes HS**, Mayer EA. Propagation of calcium waves between colonic smooth muscle cells in culture. *Cell Calcium* 1996;20:257-271.
- Ennes HS**, Young SH, Raybould HE, Mayer EA. Intercellular communication between dorsal root ganglion cells and colonic smooth muscle cells in vitro. *Neuroreport* 1997;8:733-737.
- Silverman DHS, Munakata JA, **Ennes HS**, Mandelkern MA, Hoh CK, Phelps ME, Mayer EA. Regional cerebral activity in normal and pathological perception of visceral pain. *Gastroenterology* 1997;112:64-72.
- Young SH, **Ennes HS**, Mayer EA. Mechanotransduction in colonic smooth muscle cells. *J Membr Biol* 1997;160:141-150.
- Zeeh JM, **Ennes HS**, Hoffmann P, Procaccino F, Eysselein VE, Snape WJ Jr, McRoberts JA. Expression of insulin-like growth factor I receptors and binding proteins by colonic smooth muscle cells. *Am J Physiol Gastrointest Liver Physiol* 1997;272:G481-7.
- Hyman PE, Diego A, Ridout D, Yuan QX, **Ennes HS**, Cominelli F, Snape WJ Jr. Effect of cell culture on rabbit colonic smooth muscle cells Bradykinin receptors. *Gastroenterology* 1998;102:1597-1604.
- Ennes HS**, Young SH, Goliger JA, Mayer EA. Chemical signaling from colonic smooth muscle cells to DRG neurons in culture. *Am J Physiol Gastrointest Liver Physiol* 1999;276:C602-10.
- Raybould HE, Gschossmann JM, **Ennes HS**, Lembo T, Mayer EA. Involvement of stretch sensitive calcium reflex in mechanical transduction in visceral afferents. *J Auton Nerv Syst* 1999;75:1-6.
- Young SH, **Ennes HS**, McRoberts JA, Chaban VV, Dea SK, Mayer EA. Calcium waves in colonic myocytes produced by mechanical and receptor mediated stimulation. *Am J Physiol Gastrointest Liver Physiol* 1999;276:G1204-12.

15. Gschossmann JM, Chaban VV, McRoberts JA, Raybould HE, Young SH, **Ennes HS**, Lembo T, Mayer EA. Mechanical activation of dorsal root ganglion cells in vitro: comparison with capsaicin and modulation by kappa-opioids. *Brain Res* 2000;856:101-10.
16. Steinhoff M, Vergnolle N, Young SH, Tognetto M, Amadesi S, **Ennes HS**, Trevisani M, Hollenberg MD, Wallace JL, Caughey GH, Mitchell SE, Williams LM, Geppetti P, Mayer EA, Bunnett NW. Agonists of proteinase-activated receptor 2 induce inflammation by a neurogenic mechanism. *Nat Med* 2000;6:151-8.
17. McRoberts JA, Coutinho SV, Marvizon JC, Grady EF, Tognetto M, Sengupta JN, **Ennes HS**, Chaban, VV, Amadesi S, Creminon C, Lanthorn T, Geppetti P, Bunnett NW, Mayer EA. Role of peripheral N-methyl-D-aspartate (NMDA) receptors in visceral nociception in rats. *Gastroenterology* 2001;120:1737-1748.
18. Chaban VV, McRoberts JA, **Ennes HS**, Mayer EA. Nitric oxide synthase inhibitors enhance mechanosensitive Ca^{2+} influx in cultured dorsal root ganglion neurons. *Brain Res* 2001;903:74-85.
19. de Garavilla L, Vergnolle N, Young SH, **Ennes H**, Steinhoff M, Ossovskaya VS, D'Andrea MR, Mayer EA, Wallace JL, Hollenberg MD, Andrade-Gordon P, Bunnett NW. Agonists of proteinase-activated receptor 1 induce plasma extravasation by a neurogenic mechanism. *Br J Pharmacol* 2001;133:975-987.
20. McRoberts JA, **Ennes HS**, Li J, Slice L, Mayer EA. Rat DRG neurons express NR3 NMDA receptor subunits and excitatory glycine receptors. *Gastroenterology* 2003;124:A468.
21. Chaban VV, Mayer EA, **Ennes HS**, Micevych PE. Estradiol inhibits ATP-increased $[Ca^{2+}]_i$ in DRG neurons. *Neuroscience* 2003;118: 941-948.
22. Li J, McRoberts JA, **Ennes H**, Mayer EA. Experimental colitis alters the functional properties of NMDA receptors expressed by colon-specific DRG neurons in rats. *Gastroenterology* 2004;126: A-162.
23. Li J, McRoberts JA, Nie J, **Ennes HS**, Mayer EA. Electrophysiological characterization of N-methyl-D-aspartate receptors in rat dorsal root ganglia neurons. *Pain* 2004;109:443-52.
24. Chaban VV, Li J, **Ennes HS**, Nie J, Mayer EA, McRoberts JA. N-methyl-D-aspartate receptors enhance mechanical responses and voltage-dependent Ca^{2+} channels in rat dorsal root ganglia neurons through protein kinase C. *Neuroscience* 2004;128:347-57.

C. Research Support

Ongoing Research Support

R01 DK58173 Mayer (PI)

05/01/01 – 05/31/06

NIH/NIDDK

Peripheral NMDA Receptors in Visceral Nociception

The goals of this project are: Identification of NMDA receptor on visceral afferent nerve terminals in the colon. Characterization of subunit composition of these receptors. Characterization of peripheral NMDA receptors in visceral nociception in vivo and in vitro. Electrophysiologic characterization of NMDA receptor/channel properties on isolated DRG neurons.

Role: Research Associate

R21 DK066065-01 McRoberts (PI)

02/01/04 – 01/31/06

NIH NIDDK

Chronic Stress and Visceral Nociception

Experiments are designed in rats to test the general hypothesis that development of hypocortisolism (reduced glucocorticoid secretion) during chronic stress is an important factor in the up-regulation of the gut-associated immune system, production of inflammatory cytokines and cytokine-mediated sensitization of visceral afferent nerve pathways.

Role: Research Associate

Completed Research Support

SSGI 133122 Mayer (PI)

01/01/97 – 06/30/03

AstraZeneca

AstraZeneca/UCLA Functional Bowel Research Project

The major goals of this program were to develop new pharmacological treatments for functional digestive diseases. Specific research projects addressed: 1) development of techniques for visceral sensitivity testing in

Principal Investigator/Program Director (Last, First, Middle):

rats and humans; 2) development of animal models of IBS; 3) examination of potential treatment compounds in animal models; 4) Cellular and molecular mechanisms of visceral sensation.

Role: Research associate