

BIOGRAPHICAL SKETCH

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NAME David W. Adelson		POSITION TITLE Research Physiologist	
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 California at Berkeley	A.B.	1985	Biochemistry
University of California at San Diego	Ph.D.	1995	Marine Biology (Neurobiology)

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

- 1991 – 1995 Graduate Researcher, UCLA Dept. of Neurobiology
 1995 – 1996 Postdoctoral Trainee, UCLA School of Dentistry Section of Oral Biology
 1997 – 2000 Postdoctoral Researcher, UCLA Division of Digestive Diseases, CURE:DDRC
 2000 – Present Research Physiologist, CURE:DDRC, West LA VAGLAHS

Other Experience and Professional Memberships

- 1992 AGA Student Summer Fellowship
 1999 CURE Pilot and Feasibility Study

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

- Wei JY, **Adelson DW**, Tache Y, Go VLW. Descending vagal afferent discharges: another source of gastric "efferent" control. *J Auton Nerv Syst* 1995;52:83-97.
- Adelson DW**, Wei JY, Kruger L. H₂O₂-sensitivity of splanchnic C-fiber units in vitro. *J Neurophysiol* 1996;76:371-380.
- Adelson DW**, Wei JY, Kruger L. Properties of warm-sensitive splanchnic C-fiber units in vitro. *J Neurophysiol* 1997;77:2989-3002.
- Adelson DW**, Wei JY, Yashar M, O-lee TJ, Taché Y. Central autonomic activation by intracisternal TRH analog excites gastric splanchnic afferent neurons. *J Neurophysiol* 1999;81:682-691.
- Neubert JK, Maidment NT, Matsuka Y, **Adelson D**, Kruger L, Spigelman I. Inflammation-induced changes in primary afferent-evoked release of substance P within trigeminal ganglia in vivo. *Brain Res* 2000;871:181-91.
- Lever IJ, Bradbury EJ, Cunningham JR, **Adelson DW**, Jones MG, McMahon SB, Marvizon JCG, Malcangio M. Brain-derived neurotrophic factor is released in the dorsal horn by distinctive patterns of afferent fiber stimulation. *J Neuroscience* 2001;21:4469-4477.
- Chen C-Y, Million M, **Adelson DW**, Rivier J, Taché Y. Intracisternal urocortin inhibits vagally stimulated gastric contractility through CRF2. *British J Pharmacol* 2002;136:237-247.
- Glatzle J, Wang Y, **Adelson DW**, Kalogeris TJ, Zittel TT, Tso P, Wei JY, Raybould HE. Chylomicron components activate a vagal afferent reflex pathway to inhibit gastric motor function. *J Physiol* 550:657-54
- Adelson DW**, Million M, Kanamoto K, Palanca T, Taché Y. Coordinated gastric and sphincter motility evoked by intravenous CCK-8 as monitored by ultrasonomicrometry. *Am J Physiol.* 286:G321-32, 2004.
- Adelson DW**, Million M. Tracking the moveable feast: sonomicrometry and gastrointestinal motility. *News Physiol. Sci.* 19:27-32, 2004.
- Million M, Maillot C, **Adelson DW**, Nozu T, Gauthier A, Rivier J, Chrousos GP, Bayati A, Mattsson H and Taché Y. peripheral injection of sauvagine prevents repeated colorectal distention-induced visceral pain in female rats. *Peptides*, 2005 (In Press).

Selected abstracts

- Wei JY, **Adelson DW**, Taché Y, Kruger L, Go VLW. Descending afferent discharges: another source of ventral gastric vagal "efferent" activity. *Dig Dis Sci* 1992;37:975.

2. Wei JY, **Adelson DW**, Wang YH, Taché Y, Go VLW. Identification of ascending and descending unit activity of gastric vagal afferents: an in vitro study. *Gastroenterology* 1994;106:A587.
3. Million M, Nozu T, Gauthier A, **Adelson DW**, Maillot C, Morrow N, Garrick T, Taché Y. Corticotropin-releasing factor receptor2 (CRF2) agonist and CRF1 receptor antagonist decrease pain response to colorectal distention in rats. *Gastroenterology* 1998;114:A1080.
4. **Adelson DW**, Kosoyan H, O'Lee TJ, Taché Y. Analysis of single unit subdiaphragmatic vagal efferent discharge in response to i.c. TRH, i.c. CRF, or i.v. CRF. *Neurogastroenterol Mot* 1998;4:367.
5. **Adelson DW**, Wang L, Taché Y. Intracisternal TRH-analog excites gastric splanchnic afferent neurons via vagal pathways, and increases c-fos expression in the thoracic dorsal horn. *Soc Neurosci* 1998;24:380.
6. Maillot C, Million M, Lixin W, **Adelson DW**, Gauthier A, Garrick T, Taché Y. Repeated colorectal distentions (RCD) induce visceral hypersensitivity and neuronal activation in the lumbosacral spinal cord are abolished by morphine. *Gastroenterology* 1999;116:A624.
7. Million M, Maillot C, Miampamba M, Kawakubo K, **Adelson DW**, Taché Y. Repetitive colorectal distention induces simultaneously visceral hypersensitivity and changes in colonic mucosal mast cells number and distribution in rats. *Gastroenterology* 1999;116:A1042.
8. Kawakubo K, **Adelson DW**, Taché Y. Mast cells mediate gastric hypermotility induced by intracisternal TRH analog, RX 77368, in anesthetized rats. *Gastroenterology* 2000;118:A130.
9. **Adelson DW**, Taché Y. Intracisternal TRH-analog excites gastric sympathetic outflow in the rat. *Gastroenterology* 2000;118:A1158.
10. **Adelson DW**, Kosoyan H, Taché Y. Differing relationships between simultaneously measured vagal efferent and afferent unit activities in response to i.v. CRF injection and gastric distention. *Soc Neuroscience* 2000;26:1685.
11. Marvizon JC, **Adelson DW**, Mayer EA. Frequency-dependence of neurokinin release measured by NK1 receptor internalization. *Soc Neurosciences* 2000;26:246.
12. Chen C-Y, Mulugeta M, **Adelson DW**, Kuratani K, Bayati A, Taché Y. Intracisternal urocortin inhibits TRH analogue-induced gastric contractility mainly through central CRF receptor 2 in rats. *Gastroenterology* 2001;120(Suppl 1):A533.
13. Kanamoto K, Kawakubo K, **Adelson DW**, Taché Y. Autonomic nervous system action in gastric hypermotility induced by intracisternal TRH analog, RX 77368, in anesthetized rats. *Gastroenterology* 2001;120(Suppl 1):A533.
14. Kanamoto K, Kawakubo K, **Adelson DW**, Tache Y. Role of neuronal nitric oxide synthase in gastric hypermotility induced by intracisternal TRH analog, RX 77368, in anesthetized rats. *Gastroenterology* 2001;120(Suppl.1)A 533.
15. Glatzle J, Wang YH, **Adelson DW**, Tso P, Wei JY, Raybould HE. Apolipoprotein (apo) A-IV inhibits gastric motility via a CCK-A receptor and vagal afferent pathway in rats. *Digestion* 2001;63:268.
16. Chen C-Y, Kanamoto K, Million M, **Adelson DW**, Saint-Pierre D, Taché Y. Intracisternal ghrelin stimulates gastric motility, acid secretion, regional blood flow and increases systemic blood pressure through different pathways in rats. *Gastroenterology* 2002;122:A55.
17. **Adelson DW**, Million M, Kanamoto K, Taché Y. CCK-8 evokes coordinated GI movements in urethane-anesthetized rats: Use of sonomicrometry to simultaneously record gastric regional and sphincter motion. *Gastroenterology* 2002;122:A554.
18. **Adelson DW**, Million M, Kosoyan H, Taché Y. Intravenous Urocortin II contracts pylorus, antrum and lower esophageal sphincter and reduces intragastric pressure in urethane-anesthetized rats. *Gastroenterology* 2003;124(Suppl 1):A678.
19. **Adelson DW**, Million M, Liang,H., Taché Y. Intravenous ghrelin increases amplitude but not rate of phasic motion in gastric sphincters and antrum of urethane-anesthetized rats. *International Group for the study of Neurogastroenterology and Motility* 2003.
20. **Adelson DW**, Million M, Kosoyan, H, Taché Y. Vago-vagal reflex responses to intravenous ghrelin and CCK in urethane-anesthetized rats: a combined ultrasonometry and dual electrophysiology study. *Gastroenterology* 2004: 126(Suppl 2):A-588.

C. Research Support

Ongoing Research Support

- Taché (PI) 04/01/00 – Present
VA Merit Award
Peripheral Mechanisms of Post-Operative Ileus
Electrophysiological investigation of vagal and splanchnic afferent and efferent neuronal discharge evoked by CRF peripherally or in the brainstem
Role: Investigator
- R01 DK 33061 Taché (PI) 07/01/95 – 06/30/08
NIH/DDK
Corticotropin Releasing Factor: Actions on GI Function
The overall goals are to define the role of the paraventricular nucleus of the hypothalamus and locus coeruleus underlying CRF and IL-1 actions in the brain to induce alterations of gastric and colonic motor function and their implications at these brain sites to the stress response in rats.
Role: Investigator
- 1 R24 AT002681 Mayer (PI) 09/15/04 – 07/31/09
NIH/NCCAM
Mind/Brain/Body Interactions in Stress-Related Disorders
The goal of this infrastructure grant is to develop 4 research cores (Health Outcomes, Neuroimaging, Animal Models, Psychophysiology and Pain Assessment) to provide novel, cutting edge expertise and technologies to UCLA investigators interested in the study of mind brain body interactions. After the full build up of the cores, there will be a Pilot and Feasibility program for years 3-5 of the grant with 4 annual awards. These projects will utilize the resources of the cores as well as the expertise of the involved faculty. The animal core will make available mutant with floxed NR1, CRF1 and GluR2 subunit of glutamate receptors along with estrogen α and β receptors. It will also create mouse with regulable HPA axis and mice with *Cre*-expression driven by the μ -opioid receptors. These mice will be also genotyped in relation with changes in behavioral response to stress and gut function.
Role: Investigator
- DK 41301 Rozengurt (PI) 12/01/04 – 11/30/09
NIH/DDK Center Grant
Animal Core Y. Taché/J. Kaunitz
To provide guidance and expertise in the performance of in vivo studies and to assess gastric secretory and motor functions in collaboration with other cores; to test in vivo biological activity of antibodies.
Role: Investigator
- 1 R21 DK068155-01A1 Million (PI) 07/01/05 – 06/30/07 (Pending)
NIH/NIDDK
Peripheral CRF₂ Receptors Modulation of Colonic Response To Stress
The major goals of this project are to determine the role of peripheral CRF₂ receptors on the coping response of the colon to stress and visceral pain response.
Role: Investigator
- Completed Research Support**
- 19225 Weiner (PI) 06/15/98 – 06/14/00
NIH MH
Post-graduate training program in psychoneuroimmunology
Electrophysiological study investigating the role of immunocompetent cells in the stomach in evoking splanchnic afferent discharge evoked by TRH in the brainstem.
Role: Investigator
- DK41301 Adelson (PI) 01/01/99 – 12/31/99
Pilot & Feasibility Award
CURE: Digestive Diseases Research Center Core Grant/NIH

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

Spinal afferent modulation of central autonomic activation

Investigates the role of splanchnic afferent discharge evoked by TRH in the brainstem in influencing sympathetic outflow in gastric branches of the splanchnic nerve.

Role: PI

DK30110 Taché (PI)

01//01/97 – 06/14/98

NIH

Brain regulation of gastric function by neuropeptides

Electrophysiological investigation of splanchnic afferent discharge evoked by TRH in the brainstem.

Role: Investigator