

RUDY MARTIN ORTIZ
Assistant Professor
Division of Natural Sciences
University of California
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POSITIONS

- July 2006 – Present: Assistant Professor Step IV, Division of Natural Sciences, UC Merced
- January 2005- June 2006: Assistant Professor Step III, Division of Natural Sciences, UC Merced
- January 2003 – December 2004: Postdoctoral Fellow, Department of Physiology, Tulane University Health Sciences Center
- June 2001 – December 2003: Postdoctoral Fellow, Department of Biology, UC Santa Cruz

EDUCATION

- **Ph.D.** Biology, University of California, Santa Cruz, June 2001
Title: “Endocrinology of Fasting and Renal Function in Pups of the Northern Elephant Seal (*Mirounga angustirostris*)”
Committee: C. Leo Ortiz (chair), Daniel P. Costa, Frank Talamantes, Charles E. Wade
- **M.Sc.** Wildlife & Fisheries Science, Texas A&M University, College Station, December 1994
- **B.A.** Biology, Texas A&M University, College Station, August 1990

REFEREED PUBLICATIONS

- **Ortiz, RM**, ML Graciano, JJ Mullins, and KD Mitchell. 2007. Aldosterone receptor antagonism alleviates proteinuria, but not malignant hypertension in Cyp11a1-Ren2 transgenic rats. *American Journal of Physiology (Renal Physiol)* In Press.
- Graciano ML, A Nishiyama, K Jackson, DM Seth, **RM Ortiz**, MC Prieto-Carrasquero, H Kabori, and LG Navar. 2007. Purinergic receptors contribute to early mesangial cell transformation and renal vessel hypertrophy during angiotensin II-induced hypertension. *Am J Physiol (Renal Physiol)* In Press.
- **Ortiz, RM**, ML Graciano, D Seth, M Awayda and LG Navar. 2007. Aldosterone receptor antagonism exacerbates intrarenal angiotensin II augmentation in Ang II-dependent hypertension. *American Journal of Physiology (Renal Physiol)* 293: F139-F147.
- **Ortiz, RM**, DE Crocker, DS Houser, and PM Webb. 2006. Angiotensin II and aldosterone increase with fasting in breeding adult male northern elephant seals (*Mirounga angustirostris*). *Physiological and Biochemical Zoology* 79 (6): 1106-1112.
- **Ortiz, RM** and GAJ Worthy. 2006. Body composition and water turnover rates of bottle-fed West Indian manatee (*Trichechus manatus*) calves. *Aquatic Mammals* 32 (1): 41-45.
- Sherman, RA, **RM Ortiz**, DP Noren, L Pagarigan, CL Ortiz, and F. Talamantes. 2005. Estradiol and testosterone concentrations increase with fasting in weaned pups of the northern elephant seal (*Mirounga angustirostris*). *Physiological and Biochemical Zoology* 78 (1): 55-59.

- **Ortiz, RM** and GAJ Worthy. 2004. Could lower body fat mass contribute to cold-water susceptibility in calves of the West Indian Manatee (*Trichechus manatus*)? *Marine Mammal Science* 20 (1):176-183.
- **Ortiz, RM**, DP Noren, CL Ortiz, and F. Talamantes. 2003. Ghrelin and growth hormone increase with fasting in a naturally adapted species, the northern elephant seal. *Journal of Endocrinology*. 178 (1): 83-89.
- **Ortiz, RM**, CE Wade, CL Ortiz, and F. Talamantes. 2003. Acutely elevated vasopressin increases circulating cortisol and aldosterone in fasting northern elephant seal pups (*Mirounga angustirostris*). *Journal of Experimental Biology*. 206 (16): 2795-2820.
- **Ortiz, RM**, DS Houser, CE Wade, CL Ortiz. 2003. Hormonal changes associated with the transition between nursing and natural fasting in northern elephant seals (*Mirounga angustirostris*). *General and Comparative Endocrinology* 130: 78-83.
- **Ortiz, RM**, CE Wade and CL Ortiz. 2003. Body water handling in response to hypertonic-saline induced diuresis in fasting northern elephant seal pups (*Mirounga angustirostris*). *Comparative Biochemistry and Physiology A*. 134:423-428.
- **Ortiz, RM**, CE Wade, DP Costa and CL Ortiz. 2002. Renal effects of fresh water-induced hypo-osmolality in a marine adapted seal. *Journal of Comparative Physiology B* 172:297-307.
- **Ortiz, RM**, CE Wade, DP Costa and CL Ortiz. 2002. Renal responses to plasma volume expansion and hyperosmolality in fasting seal pups. *American Journal of Physiology (Comp Reg Integrative Physiol)* 282: R805-R817.
- Talamantes, F. and **RM Ortiz**. 2002. Structure and regulation of expression of the mouse growth hormone receptor. *Journal of Endocrinology*. 175: 55-59.
- **Ortiz, RM**, DP Noren, B Litz and CL Ortiz. 2001. A new perspective on adiposity in a naturally obese mammal. *American Journal of Physiology (Endocrinol Metab)* 281: E1347-E1351
- **Ortiz, RM**. 2001. Osmoregulation in marine mammals. *The Journal of Experimental Biology* 204 (11): 1831-1844
- **Ortiz, RM**, CE Wade, and CL Ortiz. 2001. Effects of prolonged fasting on cortisol and TH in northern elephant seal pups. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology* 280: R790-R795
- Wade CE, **RM Ortiz** and LA Baer. 2000. Increases in body mass of rats during spaceflight: models and measurements. *Aviation, Space, and Environmental Medicine*. 71(11): 1126-1130
- **Ortiz, RM**, CE Wade and E Morey-Holton. 2000. Urinary excretion of LH and testosterone in male rats exposed to increased gravity: Post-spaceflight and centrifugation. *Proceedings of the Society for Experimental Biology and Medicine* 225(1): 98-102
- **Ortiz, RM** and CE Wade. 2000. Water balance in rats exposed to chronic centrifugation. *Journal of Applied Physiology* 89(1): 56-60
- **Ortiz, RM**, DS MacKenzie and GAJ Worthy. 2000. Thyroid hormone concentrations in captive and free-ranging West Indian manatees (*Trichechus manatus*). *The Journal of Experimental Biology* 203(23): 3631-3637
- **Ortiz, RM**, RM Patterson, CE Wade and FM Byers. 2000. Effects of acute fresh water exposure on water flux rates and osmotic response in captive Kemp's ridley sea turtles (*Lepidochelys kempi*). *Comparative Biochemistry and Physiology A* 127(1): 81-87

- **Ortiz, RM**, CE Wade and CL Ortiz. 2000. Prolonged fasting increases the response of the renin-angiotensin-aldosterone system, but not vasopressin levels, in postweaned northern elephant seal pups. *General and Comparative Endocrinology* 119: 217-223
- **Ortiz, RM** and GAJ Worthy. 2000. Effects of capture on plasma adrenal steroids and vasopressin levels in free-ranging bottlenose dolphins (*Tursiops truncatus*). *Comparative Biochemistry and Physiology A* 125(3): 317-324
- Wade CE, LA Baer, WA Belisle, **RM Ortiz** and MF Vasques. 1999. Deposition and renal handling of urinary electrolytes from rats during spaceflight. *Journal of Gravitational Physiology* 6(2): 25-32
- **Ortiz RM**, TJ Wang and CE Wade. 1999. Urea and osmotic excretion in rats exposed to chronic centrifugation. *Aviation, Space, and Environmental Medicine* 70 (11): 1089-1095
- **Ortiz RM**, TJ Wang and CE Wade. 1999. Influence of centrifugation and hindlimb suspension on testosterone and corticosterone excretion in rats. *Aviation, Space, and Environmental Medicine* 70(5): 499-504
- **Ortiz RM**, GAJ Worthy and FM Byers. 1999. Estimation of water turnover rates of captive West Indian manatees (*Trichechus manatus*) held in salt and fresh water. *The Journal of Experimental Biology* 202(1): 33-38
- **Ortiz RM**, GAJ Worthy and DS MacKenzie. 1998. Osmoregulation in free ranging and captive West Indian manatees (*Trichechus manatus*). *Physiological Zoology* 71(4): 449-457
- Wade CE and **RM Ortiz**. 1997. Effects of habituated restraint on urinary cortisol levels in rhesus monkeys. *Contemporary Topics in Laboratory Animal Science* 36(5): 55-57
- **Ortiz RM**, P Plotkin and DW Owens. 1997. Predation upon olive ridley sea turtles (*Lepidochelys olivacea*) by the American crocodile (*Crocodylus acutus*) at Playa Nancite, Costa Rica. *Chelonia Conservation and Biology* 2(4): 585-587
- **Ortiz RM**, SH Adams, DP Costa and CL Ortiz. 1996. Plasma vasopressin levels and water conservation in fasting, postweaned northern elephant seal pups (*Mirounga angustirostris*). *Marine Mammal Science* 12(1): 99-106
- Weldon P, **RM Ortiz** and T Sharp. 1992. The chemical ecology of crotaline snakes. *In* *Biology of the Pitvipers* (JA Campbell and ED Brodie, Jr., eds). Selva Press, Tyler, TX.

Papers Submitted or In Progress

- **Ortiz, RM**, A Mamalis and LG Navar. 2007. Aldosterone receptor antagonism reduces urinary C-reactive peptide excretion in angiotensin II-infused, hypertensive rats. Hypertension. Revisions Pending.
- Crocker, DE, **RM Ortiz**, DS Houser, PM Webb and DP Costa. Hormonal regulation of metabolism during extended breeding fasts in male northern elephant seals. In prep.
- **Ortiz, RM**, H Kobori, and LG Navar. Chronic Angiotensin II Infusion Stimulates Corticosterone in Association with Body Mass Reduction. In prep.
- **Ortiz, RM**, LK Pagarigan, B Long, TM Williams, D Casper and CL Ortiz. Biochemical and Hormonal Changes during Acute Food Deprivation and Re-feeding in Bottlenose Dolphins (*Tursiops truncatus*). In prep.

Published Abstracts

- **Ortiz, RM**, D Gravano, S Torres, J Grewal, AD Mamalis, DA Conte, and LG Navar. 2006. Urinary C-Reactive Protein Excretion Increases in Angiotensin II-Dependent Hypertensive Rats. *FASEB J* 20:470.16
- Prieto-Carrasquero MC, M Evans-Vallas, **RM Ortiz**, H Kobori, J Pagan, D Seth, and LG Navar. 2006. Effects of Aldosterone Receptor Blockade on Collecting Duct Renin in Normotensive and Hypertensive Rats. *FASEB J* 20:223.2
- **Ortiz, RM**, Y Ozawa, DV Tran, H Kobori, and LG Navar. 2005. Angiotensin II-Induced Body Mass Reduction is Associated with Decreases in Hepatic Growth Hormone Receptor and Insulin-like Growth Factor 1 mRNA Expressions. *Hypertension* 46(4):868
- **Ortiz, RM**, AN Bailey, M Cabrera, I Vukojicic, MS Awayda, and LG Navar. 2005. Eplerenone Acutely Increases Na⁺ Excretion, but Does Not Chronically Affect Na⁺ Balance, Renal α ENaC Content or Systolic Blood Pressure in Angiotensin II-Induced Hypertension. *FASEB J* 19:905.11
- **Ortiz, RM**, C Mouton, ML Graciano, JJ Mullins, and KD Mitchell. 2005. Aldosterone Antagonism Does Not Attenuate the Development of Malignant Hypertension in Cyp1a1-Ren2 Transgenic Rats. *FASEB J* 19:674.5
- Graciano ML, D Seth, M Cabrera, M Prieto-Carrasquero, **RM Ortiz**, and LG Navar. 2005. Purinergic Receptors Contribute To Angiotensin II-Induced Mesangial Cell Transformation during Hypertension. *FASEB J* 19: 351.23
- Noren DP and **RM Ortiz**. 2005. Plasma Metabolites Indicate Variation in Energy Reserve Utilization in Fasting Northern Elephant Seal Pups. *FASEB J* 19:131.11
- **Ortiz, RM**, AN Bailey, M Cabrera, ML Graciano, and LG Navar. 2004. Eplerenone Enhances Adrenal and Excreted Aldosterone during Angiotensin-II Induced Hypertension. *Hypertension* 44(4):558
- Johnson, RA, **RM Ortiz**, SD Appleton, KE Jackson, LG Navar, and FK Johnson. 2004. Ang II Induces Adrenal Heme Oxygenase-1 to Promote Feedback Inhibition of Aldosterone Synthesis. *Hypertension* 44(4):515
- Johnson, FK, KE Jackson, FJ Teran, W Durante, KJ Peyton, **RM Ortiz**, and RA Johnson. 2004. Spironolactone prevents cardiovascular/renal failure and endothelial dysfunction in hypertensive Dahl rats. *FASEB J* 18:209.4
- Pagarigan, LK, RA Sherman, TM Williams, **RM Ortiz**, CL Ortiz. 2003. Biochemical and hormonal alterations associated with acute food deprivation in bottlenose dolphins (*Tursiops truncatus*). *FASEB J* 17:590.3.
- Sherman, RA, L Pagarigan, DP Noren, **RM Ortiz**, CL Ortiz, and F Talamantes. 2003. Reproductive hormone concentrations in fasting, postweaned northern elephant seal (*Mirounga angustirostris*) pups. *FASEB J* 17:590.2
- **Ortiz, RM**, O Fregoso, CE Wade, CL Ortiz, and F Talamantes. 2002. Effects of vasopressin in fasting northern elephant seal pups (*Mirounga angustirostris*). *FASEB J* 16:
- **Ortiz, RM**, CE Wade and CL Ortiz. 2001. Renal function in naturally fasting northern elephant seal pups. *FASEB J* 15:

PRESENTATIONS

Faculty-Interview Seminar

- "Endocrinology of Fasting in Pups of the Northern Elephant Seal (*Mirounga angustirostris*): A Potential Model for Diabetes?" Division of Neurobiology, Physiology, and Behavior, UC

Davis, June 4, 2003. UCD Host: Vice Provost Barbara Horwitz. For position in Natural Sciences at UC Merced. UCM Host: Dean Maria Pallavicini.

Invited Seminars

- “Renin-Angiotensin-Aldosterone System in Marine Mammals: The Forgotten System”. Seaward Sea Life Center and University of Alaska, Fairbanks, March 8, 2007. Host: Dr. Shannon Atkinson.
- “Contributions of Aldosterone to Angiotensin II-dependent Hypertension”. Department of Pharmacology, Kagawa Medical University, Kita-gun, Japan, June 30, 2006. Host: Dr. Akira Nishiyama
- “Aldosterone Receptor Antagonism Exacerbates Intrarenal Angiotensin II: Implications for Increased Renal Na⁺ Reabsorption & Hypertension”. NKF of Northern California, Young Investigators Forum, San Francisco, CA, April 29, 2006.
- “Endocrinology of Marine Mammals – An Adventure in Multidisciplinary Research: Comparative, Gravitational, Clinical”. Society for the Advancement of Chicanos and Native Americans in Science annual meeting. Austin, TX, October 21-24, 2004.
- "Living in a World of Salt: Renal Handling of Na⁺ and H₂O in a Marine Adapted Mammal" Department of Biology, Mississippi State University, April 2, 2004. Host: Dr. Randall Buddington
- "Opportunities in Biomedical Research" REU Summer Research Program, UT-El Paso, June 12, 2003.
- “Ghrelin and Growth Hormone Increase with Fasting in an Adapted Mammal” NIH Minority Training Research Forum conference, San Diego, CA, March 14-17, 2003.
- “Marine Mammals in Biomedical Research” Explorations in Marine and Ocean Sciences, University of California, Santa Cruz, November 16, 2002.
- “When Is Too Much Body Fat A Good Thing? Regulation of body fat in a naturally obese mammal – northern elephant seals (*Mirounga angustirostris*)” Department of Biology, University of Texas, El Paso, September 20, 2002. Host: Dr. Kristine Garza
- “When Is Too Much Body Fat A Good Thing? Regulation of body fat in a naturally obese mammal – northern elephant seals (*Mirounga angustirostris*)” Department of Biology, New Mexico State University, September 19, 2002. Host: Dr. Marvin Bernstein
- “Living In A World of Salt: An alternative regulatory mechanism of Na⁺ from a marine mammal” Department of Physiology, Tulane University Medical School (LA), April 18, 2002. Host: Dr. L. Gabriel Navar
- “When Is Too Much Body Fat A Good Thing? Regulation of body fat in northern elephant seals (*Mirounga angustirostris*)” Department of Biology, Xavier University (LA), April 16, 2002. Host: Dr. Roldán Valverde
- “How Do They Control So Much Body Fat? Regulation of body fat in northern elephant seals (*Mirounga angustirostris*)” Department of Biology, Sonoma State University (CA), March 5, 2002. Host: Dr. Dan Crocker
- “Renal Function in Fasting Pups of the Northern Elephant Seal (*Mirounga angustirostris*): The role of vasopressin and aldosterone” Department of Animal Science, University of Vermont, November 2, 2001. Host: Dr. Karen Plautt

Chaired Conference Symposia/Workshops

- Symposium: “Transition from Postdoc to Jr. Faculty: Surviving the Initial Years”, Trainee Advisory Committee, American Physiological Society, Experimental Biology '06, San Francisco, CA April 1-5, 2006

- Workshop: “Developing the Foundation of Essential Career Skills”, Society for the Advancement of Chicanos and Native Americans in Science annual meeting, Albuquerque, NM, October 3-6, 2003 and Austin, TX, October 21-24, 2004.
- Featured Topic: “Comparative Aspects of the Hormonal Responses to Altered Metabolic Demands”, Comparative Section, American Physiological Society, Experimental Biology '03, San Diego, CA, April 11-15, 2003.

Conference Presentations

- Conatser LM, B Litz, LA Baer, **RM Ortiz**, CL Ortiz, C Campagna, and AE Ronca. Behavioral analysis of parturition in the southern elephant seal (*Mirounga leonina*). Sixteenth Biennial Conference on the Biology of Marine Mammals, San Diego, CA, December 16-21, 2005.
- **Ortiz, RM**, FK Johnson, W Durante, LG Navar, and RA Johnson. A heme oxygenase inhibitor increases AII-stimulated plasma aldosterone. American Physiological Society Conference, *Aldosterone and ENaC: From Genetics to Physiology*. Banff, Alberta, Canada, September 10-14, 2003.
- **Ortiz, RM**, O Fregoso, CE Wade, CL Ortiz, and F Talamantes. Saluretic actions of vasopressin in fasting northern elephant seal (*Mirounga angustirostris*) pups. American Physiological Society Conference, *The Power of Comparative Physiology: Evolution, Integration and Application*. San Diego, CA, August 24-28, 2002.
- **Ortiz, RM**. Regulation of vasopressin in fasting pups of the northern elephant seal (*Mirounga angustirostris*). Society for the Advancement of Chicanos and Native Americans in Science annual meeting. Phoenix, AZ, September 27-29, 2001.
- **Ortiz, RM**, CE Wade, and CL Ortiz. Endocrinology of fasting in northern elephant seal pups. XXXIV International Union of Physiological Science, Christchurch, New Zealand, August 26-31, 2001.
- **Ortiz, RM**, TJ Wang, BJ Corbin and CE Wade. 1997. Renal response to chronic centrifugation in rats. Experimental Biology '97, New Orleans, LA, April 6-9.
- Wang, TJ, **RM Ortiz**, BJ Corbin and CE Wade. 1997. Influence of altered mass loading on testosterone excretion and testicular mass. Experimental Biology '97, New Orleans, LA, April 6-9.
- **Ortiz, RM**, RM Patterson, FM Byers and DWm Owens. Osmotic response of Kemp's ridley sea turtles to acute fresh water exposure. Symposium on Sea Turtle Biology and Conservation, Orlando, FL, March 4-8, 1997.
- **Ortiz, RM** and CE Wade. 1996. Effects of habituated restraint in primates on urinary cortisol. Experimental Biology '96, Washington, DC, April 14-17.
- **Ortiz, RM**, GAJ Worthy, and DS MacKenzie. Osmoregulatory endocrinology of free ranging and captive West Indian manatees (*Trichechus manatus*). Eleventh Biennial Conference on the Biology of Marine Mammals, Orlando, FL, December 14-18, 1995.
- **Ortiz, RM**, GAJ Worthy and DS MacKenzie. A comparison of thyroid hormone levels in captive and free ranging West Indian manatees (*Trichechus manatus latirostris* and *T. m. manatus*). First International Manatee and Dugong Research Conference, Gainesville, FL, March 11-13, 1994.
- **Ortiz, RM** and GAJ Worthy. Water balance in captive manatees (*Trichechus manatus*). Tenth Biennial Conference on the Biology of Marine Mammals, Galveston, TX, November 11-15, 1993.
- **Ortiz, RM** and GAJ Worthy. Aldosterone and ADH levels in coastal bottlenose dolphins of

Texas. XVIII Reunión Internacional para el estudio de los Mamíferos Marinos, La Paz, Baja California del Sur, México, May 4-7, 1993.

- **Ortiz, RM**, S Adams, DP Costa and CL Ortiz. 1993. Serum ADH levels, urine output and osmolarity in elephant seal pups during prolonged fasts. Experimental Biology '93, New Orleans, LA, March 28-April 1.
- Kohin, S, P Patterson-Buckendahl, **RM Ortiz**, CL Ortiz. 1993. An apparent absence of melatonin in the plasma of Atlantic bottlenose dolphins. Experimental Biology '93, New Orleans, LA, March 28-April 1.
- **Ortiz, RM**, S Adams, DP Costa and CL Ortiz. ADH Levels, Urine output and osmolarity in elephant seal pups during prolonged fasts. Ninth Biennial Conference on the Biology of Marine Mammals, Chicago, IL, December 5-9, 1991. *and* Southwest Regional Conference on Comparative Endocrinology, Austin, TX, April 2-4, 1992.

Students' Presentations

- Torres, SN, **RM Ortiz**, LG Navar. Comparison of the Effects of Mineralocorticoid Receptor Antagonists on Aldosterone during Angiotensin II-dependent Hypertension. Society for the Advancement of Chicanos and Native Americans in Science annual meeting. Denver, CO, September 29 – October 2, 2005.
- Sherman, RA, L Pagarigan, DP Noren, **RM Ortiz**, CL Ortiz, and F Talamantes. Reproductive hormone concentrations in fasting, postweaned northern elephant seal (*Mirounga angustirostris*) pups. Society for Integrative and Comparative Biology annual meeting. Toronto, Ontario, Canada, January 4-8, 2003 and 15th Biennial Conference on the Biology of Marine Mammals, Greensboro, NC, December 14-19, 2003.

FELLOWSHIPS

- March 2004-present. NIH National Research Service Award with Dr. L. Gabriel Navar, Department of Physiology, Tulane University Health Sciences Center.
- April 2002 (Began January, 2003). Ford Foundation Postdoctoral Fellow with Dr. L. Gabriel Navar, Department of Physiology, Tulane University Health Sciences Center.
- July 2001 - Present. University of California's Office of the President Postdoctoral Fellow with Dr. Frank Talamantes, Department of Biology, UC Santa Cruz
- September 2000. University of California's Office of the President Dissertation-Year Fellowship. Department of Biology, University of California, Santa Cruz
- June, 1997 - 2001. NASA's Graduate Student Researcher Program Predoctoral Fellowship. Department of Biology, University of California, Santa Cruz
- July - August 1996: Minority International Research Training (M.I.R.T.) Fellowship with Dr. C. L. Ortiz, Department of Biology, UC Santa Cruz. Field research in the Gulf of California.

RESEARCH EXPERIENCE

- June - September 1998: NASA-UCSC Education Associate. NASA Ames Research Center
- September 1995 - September 1997: Scientist Associate. Lockheed-Martin Engineering and Science Services, NASA Ames Research Center
- June - August, 1995: Research Assistant I. Bionetics Corp., NASA Ames Research Center
- April - May, 1995: Research Assistant with Dr. F. Michael Byers, Texas A&M University
- February - March 1995: Research Assistant with Dr. Graham Worthy, Texas A&M University – Galveston. Conducted research at Centro Peixe-Boi, Itamaracá, Brasil.

- September - November 1994: Graduate Research Assistant. Dr. Graham Worthy, Texas A&M University
- June 1993 - June, 1994: Graduate Research Assistant with Drs. Graham Worthy and Duncan S. MacKenzie, Texas A&M University
- July 1992: Assisted on NMFS-USFWS project on dolphins in Matagorda Bay, Texas
- June 1991 - August, 1991: Lab Tech for Dr. Leo Ortiz, Department of Marine Biology, University of California, Santa Cruz
- June - August 1990: Research Assistant with Dr. David Owens, Department of Biology, Texas A&M University. Conducted research at Playa Nancite, Costa Rica.
- September 1989 - May, 1990: Lab Tech for Dr. David Owens, Department of Biology, Texas A&M University

TEACHING and MENTORING EXPERIENCE

- Spring 2007: BIS 60 Nutrition (enrollment 60)
- Fall 2006: BIS 161 Human Physiology (enrollment 23)
- Spring 2006: BIS 60 Nutrition (enrollment 50), BIS 290 Current Topics in Quantitative & Systems Biology (lectures), CORE 90 Freshmen Seminar (15)
- July, 2005: Physiologist-in-Residence for Summer Science Teachers Forum. Sponsored by American Physiology Society. Airlie, VA
- Spring, 2004: Physiology for Biomedical Engineering (BME 304): Renal Physiology section. Tulane University, New Orleans, LA.
- Spring, 2004: Human Physiology (GPSO 60401): Facilitator for Problem Based-Learning sessions. Tulane University Health Sciences Center, New Orleans, LA.
- Spring, 2002: Developed and taught course, "Bioethics in Science" for MARC/MBRS students, University of California, Santa Cruz
- October 1998 - December 2000: Graduate Teaching Assistant. Department of Biology, University of California, Santa Cruz. Animal Physiology and Introductory Biology
- June - July 1994: Instructor. Duke University's Talent Identification Program at Texas A&M University-Galveston. Comparative Physiology
- January - June 1992 and September 1993 - May 1994: Graduate Teaching Assistant. Department of Marine Biology, Texas A&M University - Galveston. Comparative Physiology, Natural History of Vertebrates, and Introductory Biology
- August 1990 - December 1991: Graduate Teaching Assistant. Department of Biology, Texas A&M University. Introduction to Zoology

Graduate Student Committees

- PhD students: J Phillips (UC Merced), M Keogh (University of Alaska, Fairbanks)
- MS students: B Litz (University of Alaska, Fairbanks)

Mentored Students:

- UC Merced, 2005 - present: A Camello, D Conte, S Charlie, R Garcia, D Gravano, J Grewal, A Mamalis, J Mowrer, L Rodrigues, R Rodriguez, J Romo, S Torres (UNM)
- Tulane University HSC, 2003-2004: A Bailey
- UCSC 1997 - 2003: A Bigelow, O Fregoso, A Galarza, G Gurun, S Lacayo, B Litz, L Pagarigan, A Ramirez, J Ramirez, R Sherman

Conference Mentor:

- J Ayala, UAB EB '06, San Francisco, CA

- C.R. Williams, UAB. Experimental Biology '05, San Diego, CA
- B.R. Macias, UC San Diego, and K. Thakali, Michigan St. Univ. Experimental Biology '04, Washington, DC
- I. de Jesús, Univ. Puerto Rico. Experimental Biology '03, San Diego, CA
- T. Gallegos, NMSU. APS Conference, *The Power of Comparative Physiology: Evolution, Integration and Application*, San Diego, CA

PROFESSIONAL EXPERIENCE

- August 2002 – Independent consultation for University of Miami's Center for Independent Experts to review the National Marine Fisheries Service's International Dolphin Conservation Program Act Science Report
- February 2002 – Independent consultation for University of Miami's Center for Independent Experts to review the National Marine Fisheries Service's Chase Encirclement Stress Studies on dolphins

AWARDS, HONORS and SUPPORT

- Invited to attend Treenut, Peanut & Seeds Scientific Nutritional Symposium (March 1-2, 2007. UC Davis)
- Invited to attend POM Wonderful Scientific Symposium (Feb. 7, 2007. UCLA)
- December 2006. Millennium Sports Club gift award for childhood obesity study. (\$5K)
- October 2006. Great Valley Center, Modesto CA, student fellowship award (J Mowrer, R Rodriguez) (\$20K)
- June 2006. UCM Graduate Research Committee mini-grant. (\$1830)
- April 2006. National Kidney Foundation of Northern California Young Investigators Forum Award.
- April 2004. NIH National Research Service Award
- March 2004. NIDDK/APS Minority Travel Award
- February & June 2003. NIDDK/APS Minority Travel Award
- January 2003. NIH Minority Trainee Research Forum Award
- February 2002. Young Investigator Award, Comparative Section, American Physiological Society
- February 2002. NIDDK/APS Minority Travel Award
- September 2001. Best oral presentation in Biology, SACNAS conference
- April 2001. American Physiological Society's Travel Award
- March 2001. Society of Experimental Biology Travel Award
- March 2001. NIDDK/APS Minority Travel Award
- August 2000. California Space Grant Consortium Award
- June 2000. American Museum of Natural History's Lerner-Gray Fund for Marine Research
- June 2000. Sigma Xi's Grant-in-Aid of Research
- April 2000. Myers Grant in Marine Research
- February 2000. NIDDK/APS Minority Travel Award
- December 1999. Friend's of Long Marine Lab Graduate Research Grant
- June 1998. NASA-UCSC Education Associates Program Award
- September 1994 - March, 1995. Save the Manatee Club Grant
- May 1994. Texas A&M University's Mini-Grant Program

- March 1994. Best Student Presentation Award. First International Manatee and Dugong Research Conference, Gainesville, Florida
- June 1993 - June 1994. Save the Manatee Club Grant
- September - December 1992. Save the Manatee Club Grant
- Aug. 1992. American Museum of Natural History's Lerner-Gray Fund for Marine Research

ACADEMIC & PROFESSIONAL SERVICE

Committees

- Inaugural member California's State Legislature Task Force on Diabetes & Obesity. March 2007
- Inaugural member UCM Institutional Animal Care and Use Committee. March 2007
- Faculty Search Committees, UCM 2005-06
- Trainee Advisory Committee of APS, 2003-2006
- Steering Committee of the Comparative Section of APS, 2003-2006
- Advisory Board for the Professional Skills Training for Minority Students in Biomedicine (APS), 2005-present

Journal Reviewer

- American Journal of Physiology, Aquatic Mammals, Canadian Journal of Zoology, Comparative Biochemistry and Physiology A, Free Radical Biology & Medicine, General and Comparative Endocrinology, Hypertension, Journal of Comparative Physiology B, Journal of Endocrinology, Journal of Experimental Biology, Marine Mammal Science, Peptides, Physiological and Biochemical Zoology, Zoo Biology

Conference Abstract Reviewer

- American Physiological Society, Society for the Advancement of Chicanos and Native Americans in Science, Society of Experimental Biology and Medicine, Society of Marine Mammalogy

PROFESSIONAL MEMBERSHIPS

- American Physiological Society (APS)
- American Heart Association (AHA)
- Endocrine Society
- National Kidney Foundation (NKF)
- Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)
- Society for Experimental Biology and Medicine (SEBM)
- Society of Integrative and Comparative Biology (SICB)

REFERENCES

Dr. L. Gabriel Navar
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Dr. Frank Talamantes
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Dr. Charles E. Wade
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