

CURRICULUM VITAE
LORI MARINO, PH.D.

CONTACT INFORMATION

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INTERESTS

Animal behavior, cognitive ethology, brain-behavior relationships, evolution of the brain and intelligence, self-awareness, human-nonhuman relationships, animal welfare and conservation

EDUCATION

- Ph.D.** Biopsychology, State University of New York at Albany, 1995
Thesis: Brain-behavior relationships in cetaceans and primates: Implications for the evolution of complex intelligence.
- M.A.** Experimental Psychology, Miami University, Ohio, 1989
- B.A.** Psychology, Biology minor, Honors in Psychobiology, New York University, 1982

CURRENT POSITIONS

Senior Lecturer, Neuroscience and Behavioral Biology Program, Emory University
Adjunct Faculty, Department of Psychology, Emory University
Affiliate Faculty, Living Links Center for the Advanced Study of Ape and Human Evolution, Emory University
Research Associate, National Museum of Natural History, The Smithsonian Institution

VISITING APPOINTMENTS

Visiting Asst Professor, Depts of Biology and Anthropology, Emory Univ, 1995-1998
Depts of Paleobiology, Vertebrate Zoology, and Anthropology, National Museum of Natural History, The Smithsonian Institution, Washington DC
Comparative Mammalian Brain Collection, Natl Museum of Health and Medicine, Wash DC
Museum of Natural History, University of Georgia, GA
Museum of Vertebrate Zoology, University of California, Berkeley, CA
Department of Ornithology and Mammalogy, California Academy of Sciences, CA
Aquarium for Wildlife Conservation, NY
Mystic Marinelife Aquarium, CT

Marine World Research Foundation, Marine World Africa USA, CA

FIELD WORK

Behavioral ecological studies of bottlenose dolphins off the southeastern coast of U.S. with The Dolphin Project, 1996-1997.

GRANTS RECEIVED

- ◆ **National Science Foundation** (submitted)
Grant Title: Systematics and evolution of living and fossil delphinidans (dolphins, porpoises, and kin) Collaborator (John Gatesy and Jonathan Geisler, PIs)
- ◆ **Emory University Research Committee**
Grant Title: Analysis of cortical organization in dolphins
Principal Investigator, 2004-2005
- ◆ **Kellogg Fund, National Museum of Natural History, The Smithsonian Institution**
Grant Title: Evidence for echolocation abilities from cetacean skulls, 2004
- ◆ **National Science Foundation**
Grant Title: Computed tomography of endocranial morphology in fossil Cetacea
Principal Investigator (Mark D. Uhen, Co-PI), 2001-2004
- ◆ **Carl Sagan Center for the Study of Life in the Universe, SETI Institute**
Grant Title: Trends in encephalization: A route to investigating F_i
Co-Principal Investigator (Daniel McShea, Co-PI), 2002-2003
- ◆ **Emory University Research Committee**
Grant Title: Descriptive and morphometric analyses of the bottlenose dolphin brain
Principal Investigator, 1999-2000
- ◆ **Cetacean Society International**
Grant Title: Testing self-recognition in the bottlenose dolphin
Principal Investigator, 1992-1993
- ◆ **Sigma Xi, The Scientific Research Society**
Grant Title: Self-awareness in the bottlenose dolphin: A test of convergent cognitive evolution
Principal Investigator, Years of Funding: 1990-1991, 1992-1993

HONORS AND AWARDS

International Travel Award, Institute for International Travel and Comparative Studies, Emory University, 2002, 2004

Animal Behavior Society Symposium Grant

Faculty Development Award, Emory University

Visiting Research Award, National Museum of Natural History, The Smithsonian Institution

Graduate Student Achievement Award, Department of Psychology, Miami University

Departmental Letter of Commendation, Department of Psychology, Miami University

Psi Chi National Honor Society, New York University

PUBLICATIONS

PEER-REVIEWED SCIENTIFIC PAPERS

Marino L (in press) Cetacean brains: How aquatic are they? *The Anatomical Record*.

Marino L (2006) Absolute brain size: Have we thrown the baby out with the bathwater? Invited commentary in *Proceedings of the National Academy of Sciences USA*, 103(37): 13563-13564.

Marino L, Sol D, Toren K, Lefebvre L, (2006). Does diving limit brain size in cetaceans? *Marine Mammal Science*. 22(2): 413-425.

Marino L, Hof P (2005) Nature's experiments in brain diversity. *The Anatomical Record*. 287A: 997-1000.

Hof P, Chanis R, Marino, L. (2005). Cortical complexity in cetacean brains. *The Anatomical Record*. 287A: 1142-1152.

Marino L (2005) Big brains matter in novel environments. Invited commentary in *Proceedings of the the National Academy of Sciences USA*. 102(15): 5306 – 5307.

Marino L, McShea D, Uhen MD (2004) The origin and evolution of large brains in toothed whales. *The Anatomical Record*. 281A: 1247-1255.

Marino L, Sherwood CC, Tang CY, Delman BN, Naidich TP, Johnson JI, Hof PR (2004) Neuroanatomy of the killer whale (*Orcinus orca*) from Magnetic Resonance Imaging. *The Anatomical Record*. 281A: 1256-1263.

Marino L (2004) Dolphin Cognition. *Current Biology*. 14, R910-R911.

Marino L, Sudheimer K, Pabst D A, McLellan WA, Arshad S, Naini G, Johnson JI (2004) Anatomical description of an infant bottlenose dolphin, *Tursiops truncatus*, brain from Magnetic Resonance Images. *Aquatic Mammals* 30: 315-326.

Marino L, Pabst DA, McLellan WA, Sudheimer K, Johnson JI (2004) Neuroanatomical structure of the spinner dolphin (*Stenella longirostris orientalis*) brain from magnetic resonance images. *The Anatomical Record* 279A: 601-610.

Marino L (2004) Cetacean brain evolution – multiplication generates complexity. *International Journal of Comparative Psychology* 17: 1-16.

Marino L (2003) Can we be too uncertain about uncertainty responses? Invited commentary on target article by Smith et al. The comparative psychology of uncertainty monitoring and comparative metacognition. *Behavioral and Brain Sciences* 26: 317-373.

Marino L (2003) Has scala naturae thinking come between neuropsychology and comparative neuroscience? *International Journal of Comparative Psychology* 16: 28-32.

- Marino L, Pabst DA, McLellan WA, Sudheimer K, Johnson JI (2003) Magnetic resonance images of the brain of a dwarf sperm whale (*Kogia simus*). *Journal of Anatomy* 204: 57-76.
- Marino L, Sudheimer K, Sarko D, Sirpenski G, Johnson JI (2003) Neuroanatomy of the harbor porpoise (*Phocoena phocoena*) from magnetic resonance images. *Journal of Morphology* 257: 308-347.
- Marino L, Uhen MD, Pyenson ND, Frohlich BF (2003) Reconstructing cetacean brain evolution using computed tomography. *The New Anatomist* 272B: 107-117.
- Sarko D, Marino L, Reiss D (2003) A bottlenose dolphin's (*Tursiops truncatus*) responses to its mirror image: further analysis. *International Journal of Comparative Psychology* 15: 69-76.
- Marino L, Sudheimer K, Pabst DA, McLellan W A, Filsoof D, Johnson J I (2002) Neuroanatomy of the common dolphin (*Delphinus delphis*) as revealed by magnetic resonance images (MRI). *The Anatomical Record* 268: 411-429.
- Ridgway SH, Marino L, Lipscomb T (2002) Description of a poorly differentiated carcinoma within the brainstem of a White whale (*Delphinapterus leucas*) from magnetic resonance images and histological analysis. *The Anatomical Record* 268: 441-449.
- Marino L (2002) Convergence in complex cognitive abilities in cetaceans and primates. *Brain, Behavior and Evolution* 59: 21-32.
- Marino L, Sudheimer K, Murphy TL, Davis KK, Pabst DA, McLellan W, Rilling JK, Johnson JI (2001) Anatomy and three-dimensional reconstructions of the bottlenose dolphin (*Tursiops truncatus*) brain from magnetic resonance images. *The Anatomical Record* 264: 397-414.
- Reiss D, Marino L (2001) Self-recognition in the bottlenose dolphin: A case of cognitive convergence. *Proceedings of the National Academy of Sciences USA* 98 (10): 5937-5942.
- Marino L (2001) Cetaceans would be an interesting comparison group. Invited commentary on target article by Finlay et al. Developmental structure in brain evolution, *Behavioral and Brain Sciences* 24: 290-291.
- Marino L, Murphy TL, Gozal L, Johnson JI (2001) Magnetic resonance imaging and three-dimensional reconstructions of the brain of the fetal common dolphin, *Delphinus delphis*. *Anatomy and Embryology* 203: 393-402.
- Marino L, Murphy TL, DeWeerd AL, Morris JA, Ridgway SH, Fobbs AJ, Humblot N, Johnson J I (2001) Anatomy and three-dimensional reconstructions of the brain of a white whale (*Delphinapterus leucas*) from magnetic resonance images (MRI). *The Anatomical Record* 262: 429-439.
- Marino L, Rilling JK, Lin SK, Ridgway SH (2000). Relative volume of the cerebellum in the bottlenose dolphin and comparison with anthropoid primates. *Brain, Behavior, and Evolution* 56: 204-211.

- Marino L, Uhen MD, Frohlich B, Aldag JM, Blane C, Bohaska D, Whitmore Jr FC (2000) Endocranial volume of mid-late Eocene archaeocetes (Order: Cetacea) revealed by computed tomography: Implications for cetacean brain evolution. *Journal of Mammalian Evolution* 7: 81-94.
- McCowan B, Marino L, Vance E, Walke L, Reiss D (2000) Bubble ring play of bottlenose dolphins: Implications for cognition. *Journal of Comparative Psychology* 114: 98-106.
- Hopkins W, Marino L (2000) Asymmetries for cerebral width in nonhuman primates as revealed by magnetic resonance imaging. *Neuropsychologia* 38: 493-499.
- Marino L (1999) Brain growth in the harbor porpoise (*Phocoena phocoena*) and Pacific white-sided dolphin (*Lagenorhynchus obliquidens*). *Journal of Mammalogy* 80: 1353-1360.
- Lilienfeld S, Gershon J, Duke M, Marino L, de Waal FBM (1999) A preliminary investigation of the construct of psychopathic personality (psychopathy) in common chimpanzees (*Pan troglodytes*). *Journal of Comparative Psychology* 113: 365-375.
- Marino L (1998) Brain growth patterns in the La Plata River dolphin (*Pontoporia blainvillei*). *Aquatic Mammals* 24: 111-116.
- Marino L (1998) Quantifying brain-behavior relations in cetaceans and primates. Correspondence in *Trends in Ecology and Evolution* 13 [148]: 408.
- Marino L (1998) A comparison of encephalization between odontocete cetaceans and anthropoid primates. *Brain, Behavior, and Evolution* 51: 230-238.
- Hopkins W, Marino L, Rilling J, MacGregor L (1998). Planum temporale asymmetries in great apes as revealed by magnetic resonance imaging (MRI). *NeuroReport* 9: 2913-2918.
- Marino L, Stowe J (1997) Lateralized behavior in a captive beluga whale (*Delphinapterus leucas*). *Aquatic Mammals* 23: 101-103.
- Reiss D, McCowan B, Marino L (1997) Communicative and other cognitive characteristics of bottlenose dolphins. *Trends in Cognitive Sciences* 1: 140-145.
- Marino L, Stowe J (1997) Lateralized behavior in two captive Bottlenose dolphins (*Tursiops truncatus*). *Zoo Biology* 16: 173-177.
- Marino L (1997) The relation between encephalization level, gestation length, and body weight in Odontocetes (toothed whales). *Marine Mammal Science* 13: 133-138.
- Marino L (1996) What can dolphins tell us about primate evolution? *Evolutionary Anthropology* 5: 81-85.
- Reiss D, Marino L (1995) Self-view television as a test of self-awareness: Only in the eye of the beholder? Reply to K. Marten and S. Psarakos. Using self-view television to distinguish between self-examination and social behavior in the bottlenose dolphin (*Tursiops truncatus*). *Consciousness and Cognition* 4: 235 - 238.

Marino L (1993) Towards a functional learning paradigm: Translating ecologically valid ideas into a functional empirical methodology. *Journal of Psychology and the Behavioral Sciences* 7: 11-22.

BOOK CHAPTERS, MAGAZINE ARTICLES, AND OTHER PEER-REVIEWED PAPERS

Marino L (2006) The ape in the mirror. *Best Friends Magazine*, November/December: 24-25.

Marino L, Lilienfeld S (in press) Dolphin assisted therapy: More flawed data, more flawed conclusions. *Anthrozoos*.

Marino L (in press) Cetacean brains. In *New Encyclopedia of neuroscience*, L. Squire, ed. Elsevier.

Marino L (in press) Animal consciousness. In *The Encyclopedia of human-animal relationships*, M Bekoff, ed. Greenwood Publishing Group.

Marino L (in press) Dolphin mythology. In *The Encyclopedia of human-animal relationships*, M Bekoff, ed. Greenwood Publishing Group.

Marino L (in press) Scala natura. In *The Encyclopedia of human-animal relationships*. M Bekoff, ed. Greenwood Publishing Group.

Marino L (2006) Cetacean brain evolution. In *Evolution of nervous systems in mammals*, V 3 L Krubitzer, JH Kaas, eds. Elsevier. Oxford, UK, pp. 261-266.

Marino L (2006) Evolution of the brain and cognition in cetaceans. In *Evolutionary cognitive neuroscience*. SM Platek, JP Keenan, TK Shackelford, eds. MIT Press. Cambridge, MA, pp. 163-193.

Marino L (2004) Objectivity in the study of intelligence: the cornerstone of new methods and discoveries. *Proceedings of Bioastronomy 2002 Symposium: Life among the stars*. R Norris, C Oliver, F Stootman, eds. Astronomical Society of the Pacific, San Francisco, pp. 163-193.

Gosling S Lilienfeld SO, Marino L (2003) Personality. *Primate psychology: The mind and behavior of human and nonhuman primates*, D Maestripieri, ed. U. of Chicago Press, pp. 254-288.

Marino L (2002) Brain size evolution. In *Encyclopedia of marine mammals*, WF Perrin, B Wursig, H Thewissen, eds. San Diego, Academic Press, pp. 158-162.

Marino L (2000) Turning the empirical corner on F_i: the probability of complex intelligence. In *A new era in bioastronomy*, GA Lemarchand, ed. San Francisco, Astronomical Society of the Pacific Conference Series, pp. 431-435.

Marino L, Lilienfeld S (1998) Dolphin-assisted therapy: flawed data, flawed conclusions. *Anthrozoos*, 11(4): 194-199.

Marino L (1997) Brain-behavior relations in primates and cetaceans: Implications for the ubiquity of factors leading to the evolution of complex intelligence. *Astronomical and biochemical origins and the search for life in the universe*. CB Cosmovici, S Bowyer, D Werthimer, eds. Editrice Compositori, Italy, pp.553 - 560.

Gallup Jr GG, Marino L, Eddy T (1996) Anthropomorphism and the evolution of social intelligence: A comparative approach. In *Anthropomorphism, anecdotes, and animals*, R Mitchell, N Thompson, L Miles, eds. State University of New York, University at Albany Press, pp. 77-91.

Marino L, Reiss D, Gallup Jr GG (1994) Mirror self-recognition in bottlenose dolphins: Implications for comparative investigations of highly dissimilar species. *Self awareness in animals and humans: Developmental perspectives*, ed. by S. Parker, R. Mitchell, & M. Boccia, New York: Cambridge University Press, pp. 380-391.

MANUSCRIPTS UNDER REVIEW OR IN PREPARATION

Marino L, Connor RC, Fordyce, RE, Herman LM, Hof PR, Lefebvre L, Lusseau, McCowan B, Nimchinsky EA, Pack AA, Rendell L, Reidenberg JS, Reiss D, Uhen MD, Van der Gucht E, Whitehead H. (submitted) Cetaceans have complex brains for complex cognition. *Public Library of Science (PLOS) Biology*.

Lemieux S, Marino L, Sol D, Lefebvre L (in preparation) Relationship between dietary strategy and brain size in cetaceans.

Rotstein DS, McLellan WA, Bossart G, Govett PD, Harms CA, Ketten D, Marino L, Nollens H, Saliki J, Pabst DA (in preparation). Multisystemic disease in a Blainville's beaked whale (*Mesoplodon densirostris*). *Journal of Wildlife Diseases*.

Marino L, Connor RC, Fordyce, RE, Herman LM, Hof PR, Lefebvre L, Lusseau, McCowan B, Nimchinsky EA, Pack AA, Rendell L, Reidenberg JS, Reiss D, Uhen MD, Van der Gucht E, Whitehead H. (under preparation) Cold water on hot brains: a critique of Manger's thermoregulation hypothesis of cetacean brain evolution. *Biological Reviews of the Cambridge Philosophical Society*.

INVITED TALKS

Best Friends Animal Society, Kanab, UT (2006) Animal Intelligence and self-awareness.

Special Symposium on Comparative Cognition at the Sixteenth Biennial Conference on the Biology of Marine Mammals, San Diego (2005) Mirrors and other measures of the self.

Invited Plenary for the Sixteenth Biennial Conference on the Biology of Marine Mammals, San Diego (2005) Imaging marine mammals.

Third Gordon Research Conference on Neuroethology, Oxford, England (2005) Chair of Session/Discussion Leader.

National Association of Biology Teachers' Annual Convention, Chicago (2004) Guest Speaker: Thinking intelligently about intelligence: The biological nature of human intelligence

Georgia State University (2004) The comparative psychology of dolphins.

Joint 12th Biennial Meeting of the International Society for Comparative Psychology and 16th Congress of the Spanish Society for Comparative Psychology, Oviedo, Spain (2004) Fifty-million years of cetacean brain and cognitive evolution (so far!).

8th International Conference on Bioastronomy, Reykjavik, Iceland (2004) Plenary address: A research program for the study of the evolution of intelligence.

Princeton University (2003) Dolphin brains and cognition.

New York University (2003) Neurobiology of whales and dolphins.

Emory University (2003) Big trends in big brains.

McGill University (2003) Neurobiology and cognition in whales and dolphins.

Group for Research and Education in Marine Mammals (GREMM), Center for Interpretation of Marine Mammals, Quebec, Canada (2003) Brain and intelligence in whales and dolphins.

Florida International University (2003) Reconstructing brain and behavioral evolution in cetaceans and other large-brained species.

University of California, Davis (2003) Reconstructing cetacean brain and behavioral evolution.

University of California, Santa Cruz (2003) Reconstructing cetacean brain and behavioral evolution.

Emory University (2002) High resolution magnetic resonance imaging of postmortem cetacean brains.

I Coloquio Internacional Filosofia e Ciencias Cognitiva. Braga, Portugal (2002) Towards a true human primate comparative psychology.

Fulbright Symposium: Science Education in Partnership, Hamilton Island, Australia (2002) Thinking intelligently about the evolution of intelligence.

Bioastronomy 2002: International Astronomical Union Symposium 213, Hamilton Island, Australia (2002) Plenary address: Objectivity in the study of intelligence: the cornerstone of new methods and discoveries.

Conference on Evolutionary Theory, Esalen Center for Theory and Research, Big Sur, CA., (2002) Complex cognitive abilities in cetaceans and primates: insights, implications, and lessons.

Annual Meeting of the Society for Philosophy and Psychology, Alberta, Canada (2002) What self-recognition in the dolphin tells us about self-awareness (with D. Reiss).

Annual Meeting of the Southern Society for Philosophy and Psychology, Nashville, TN (2002) Neuropsychology and comparative psychology: Insights from recognizing the essential nature of human and nonhuman brains.

Emory University (2002) A dolphin's eye-view of human intelligence.

Mount Sinai School of Medicine, New York, NY (2002) Convergent and divergent characteristics of cetacean and primate brains.

International Symposium on Astrobiology, Barcelona, Spain (2002) Intelligence in non-humans.

Biennial Conference on the Biology of Marine Mammals, Vancouver, Canada (2002) Comparative brain evolution in cetaceans and primates.

Biennial Conference on the Biology of Marine Mammals, Vancouver, Canada (2001) Mirror self-recognition in the bottlenose dolphin: a case of cognitive convergence (with D. Reiss).

Emory University (2001) Self-recognition in dolphins: what does it mean for primate-centered theories?

Annual Convention of the American Psychological Association, San Francisco, CA (2001) Self-awareness in humans and other animals: A comparative-developmental framework.

The Krost Symposium on the Evolution of Intelligence, Texas Lutheran University, Seguin, TX, (2001) Dolphin evolution: A non-primate path to complex intelligence.

Emory University (2000) Self-recognition in the dolphin: Implications for primate-centered theories of the self.

Astrobiology '99 Education Symposium sponsored by NASA Life Sciences and NASA Astrobiology Institute, Kohala Coast, HI (1999) Evolving brains on this and other planets.

Frontiers in Neuroscience colloquium, Emory University (1998) Neuroimaging of fossil and living marine mammals.

United States Naval Marine Mammal Program, San Diego, CA (1998) A comparison of brain and behavior in dolphins and primates.

Annual Meeting of The American Association of Physical Anthropologists, Salt Lake City, Utah (1998) The application of computed tomography to paleoneurology: An example from the study of brain evolution in cetaceans. (with B. Frohlich and F. C. Whitmore, Jr.).

University of Florida, Gainesville, FL (1997) Comparative brain and life history evolution in cetaceans and primates.

Emory University (1997) Brain evolution and life history in toothed whales and dolphins

Hughes Undergraduate Science Initiative Interdisciplinary Colloquium, Emory University, (1996) Are dolphins really that smart? Scientific answers to enduring questions.

The Scripps Institution of Oceanography, NASA Specialized Center of Research and Training in Exobiology, University of California, San Diego, CA (1995) How correlates of brain size in complex mammals inform exobiology.

Emory University (1995) Brain-behavior relationships in primates and cetaceans.

Rensselaer Polytechnic Institute, New York (1992) Who do we think we are? Gaining perspective on our species identity and place in nature.

Rensselaer Polytechnic Institute, New York (1992) The mind of a dolphin.

CONFERENCE PRESENTATIONS AND ABSTRACTS

Self-awareness in other species: Implications for our own sense of self. Nature and Human Nature: Changing Perspectives Conference, Santa Barbara, CA (2007).

Magnetic resonance imaging: A new tool to assess the effects of thyroid hormone disrupting chemicals on brain development in marine mammals (EW Montie, G Schneider, L Marino, MJ Moore, DR Ketten, KE Touhey, A Bogomolni, ME Hahn) The Society of Environmental Toxicology and Chemistry North America 27th Annual Meeting, Montreal, Canada (2006).

Encephalization in odontocetes: What's being aquatic got to do with it? (L Marino MD Uhen, D McShea). Fourth Tri-Annual Convention on Evolution of Aquatic Tetrapods, Akron, OH (2005).

The evolution of high encephalization levels in odontocetes in relation to the origin of echolocation. (MD Uhen, L Marino). Fourth Tri-Annual Convention on Evolution of Aquatic Tetrapods, Akron, OH (2005).

Comparative neuroanatomy in cetaceans and primates: Implications for functional convergence. American Association of Anatomists Platform Session at Experimental Biology, San Diego, CA (2005).

Smooth-surfaced striatal lobes of the cerebral hemispheres of six species of whales and dolphins. (JI Johnson RC Switzer III, L Marino, FM Ferreira, JA Morris, KD Sudheimer, AJ Fobbs Jr). The Society for Integrative and Comparative Biology Meeting, San Diego (2005).

- The origin and evolution of large brains in dolphins (L Marino, D McShea, MD Uhen). The Third Astrobiology Science Conference, Mountain View, CA (2004).
- Broca's desert lobe and the corpus striatum in the cerebral hemispheres of six species of whales and dolphins. (JI Johnson, RC Switzer III, L Marino, FM Ferreira, JA Morris, KD Sudheimer, AJ Fobbs Jr). American Association of Anatomists Annual Meeting, Wash. DC, (2004).
- Distinctive organization of the basal ganglia in the brains of cetaceans. (JI Johnson, RC Switzer, KD Sudheimer, FM Ferreira, L Marino, AJ Fobbs). The Society for Integrative and Comparative Biology Meeting, New Orleans (2004).
- A new analysis of trends in cetacean brain evolution. (L Marino, MD Uhen, D. McShea). Biennial Conference on the Biology of Marine Mammals, Greensboro, North Carolina, (2003).
- Encephalization trends in cetacean evolution: New data and new analyses. (L. Marino, M. D. Uhen, D. McShea). Annual Meeting of the J. B. Johnston Club in Comparative and Evolutionary Neurobiology, New Orleans, LA (2003).
- Comparative Neuroanatomy of the Killer Whale (*Orcinus orca*) and Amazon River Dolphin (*Inia geoffrensis*) from Magnetic Resonance Images. (L Marino, CC Sherwood, CY Tang, BN Delman, TP Naidich, JI Johnson, PR Hof) Annual Meeting of the Society for Neuroscience, New Orleans, LA (2003).
- Globus pallidus and substantia nigra form a contiguous "extended pallidum" in brains of whales and dolphins (Cetacea). (JI Johnson, RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs, L Marino). Annual Meeting of the Society for Neuroscience, New Orleans, LA (2003).
- Lateralized cerebral peduncles, extensive midbrain pallidum, and other distinctive features of the midbrain of whales and dolphins. (JI Johnson RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs, L Marino). The Society for Integrative and Comparative Biology Meeting, Toronto, Canada (2003).
- Evolution of cetacean brains over time, through morphospace, and among lineages. (MD Uhen, L Marino, N Pyenson). Meeting of the Secondary Adaptation of Tetrapods to Life in Water, Dunedin, New Zealand (2002).
- Neuroanatomy of the harbor porpoise (*Phocoena phocoena*) as revealed by magnetic resonance imaging. (D Sarko, L Marino, KD Sudheimer, JI Johnson). Annual Meeting of the Society for Neuroscience, Orlando, Fla (2002).
- Brain morphometry during cetacean (dolphin, porpoise, and whale) evolution revealed by computed tomography. (L Marino, MD Uhen, ND Pyenson, S Rotenberg, B Shamsai, B Frohlich). Annual Meeting of the Society for Neuroscience, Orlando, Fla (2002).
- Extensive chromophilic cell group in the ventral tegmental region and the distinctive spatial configuration of components of the ventral midbrain in dolphins and whales.

(JI Johnson, RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs, L Marino). Annual Meeting of the Society for Neuroscience, Orlando, Fla (2002).

Primate and cetacean comparative psychology: A meeting of the minds. International Society for Comparative Psychology Meeting, Chicago, Ill. (2002).

Statistical analysis of encephalization patterns in mammalia: Revisiting trends in the evolution of intelligence with a new and more direct analytical tool (D McShea, L Marino, MD Uhen). Bioastronomy 2002: International Astronomical Union Symposium 213, Hamilton Island, Australia (2002).

Atlas of the brain of the bottlenose dolphin (*Tursiops Truncatus*) using magnetic resonance images and corresponding stained sections. (JI Johnson, KD Sudheimer, L Marino, JK Rilling, TL Murphy, AJ Fobbs). Society for Integrative and Comparative Biology Meeting, Anaheim, CA (2002). Abstract in *Integrative and Comparative Biology*, 41(6), 1487-1488.

Computed tomography of endocranial morphology in fossil cetacea (MD Uhen, L Marino). Biennial Conference on the Biology of Marine Mammals, Vancouver, Canada (2001).

Look ma – no frontal lobes! The neurobiological implications of convergence in self-recognition ability in dolphins and hominoids. Annual Meeting of the J. B. Johnston Club in Comparative and Evolutionary Neurobiology, San Diego, CA (2001).

Comparative morphometric analyses of cetacean brains reveal inter-species variation. Annual Meeting of the Society for Neuroscience, San Diego, CA (2001).

A 3D atlas of the brain of a bottlenose dolphin in magnetic resonance images (JI Johnson, L Marino, KD Sudheimer, JK Rilling, KK Davis, TL Murphy, AJ Fobbs). Annual Meeting of the Society for Neuroscience, San Diego, CA (2001).

Computed tomography of endocranial morphology in fossil cetacea. (MD Uhen, L Marino). Annual Meeting of the Society for Vertebrate Paleontology, Bozeman, Montana (2001).

Cetacean brain evolution. Annual Meeting of the J. B. Johnston Club in Comparative and Evolutionary Neurobiology, New Orleans, LA (2000).

My cerebellum is bigger than yours: relative size of the cerebellum in dolphins and primates. (L Marino, JK Rilling, S Lin, SH Ridgway). Annual Meeting of the Society for Neuroscience, New Orleans, LA. (2000).

A 3-D atlas of the brain of a beluga whale in magnetic resonance images (TL Murphy, L Marino, JA Morris, AL DeWeerd, SH Ridgway, AJ Fobbs, N Humblot, JI Johnson). Annual Meeting of the Society for Neuroscience, New Orleans, LA (2000).

Primate and cetacean brains: alternative ways to build large brains. Annual Meeting of the Animal Behavior Society, Atlanta, GA (2000).

- Comets and predators: predicting the emergence of intelligence from physical and biological conditions. First Astrobiology Science Conference, National Aeronautics and Space Administration Ames Research Center, Mountain View, CA (2000).
- Brain evolution in cetaceans as revealed by endocranial morphology. Annual Meeting of the Society for Integrative and Comparative Biology, Atlanta, GA (2000).
- Magnetic resonance imaging of normal and pathological cetacean brains (L Marino, SH Ridgway). Biennial Conference on the Biology of Marine Mammals, Maui, HI (1999).
- Cetacean (dolphin, whale, and porpoise) neuroanatomy as revealed by magnetic resonance imaging (L Marino, JK Rilling). Annual Meeting of the Society for Neuroscience, Miami Beach, Fla (1999).
- Three-dimensional reconstruction of cetacean (dolphin, whale, and porpoise) brains from postmortem magnetic resonance images. (AJ Fobbs, L Marino, JI Johnson, JA Morris). Annual Meeting of the Society for Neuroscience, Miami Beach, Fla (1999).
- Turning the Empirical Corner on Fi: The Probability of Complex Intelligence. Sixth Bioastronomy Meeting, Kohala Coast, HI (1999).
- Humanlike pattern of asymmetry in the planum temporale of great apes, but not lesser apes or monkeys. Conference on Human Cognitive Specializations: Developmental and Comparative Perspectives, Lafayette/New Iberia, LA (1998).
- Evidence for advanced sensorimotor abilities in the bubble ring play of bottlenose dolphins. (E Vance, B McCowan, L Marino, L Walke, D Reiss). Annual Meeting of the Animal Behavior Society, Chicago, Ill (1998).
- Geographical Information Systems (GIS) as a tool in population dynamics research. (J Schacke, L Marino). Annual Atlantic Coastal Dolphin Conference, Mote Marine Laboratory, Sarasota, Fla (1998).
- Chimpanzee (*Pan troglodytes*) responses to deception in a social bartering situation. (L Marino, W Hopkins, H Smith, C Hyatt). Meeting of the American Society of Primatologists, San Diego, CA (1997).
- A comparison of encephalization quotients among modern odontocetes: implications for cognitive capacities. International Symposium on Information Processing by Aquatic Mammals, Marine World, Vallejo, CA (1997).
- Brain-behavior relations in primates and cetaceans: implications for the ubiquity of factors leading to the evolution of complex intelligence. International Conference on Bioastronomy: International Astronomical Union Colloquium No. 161: Astronomical and Biochemical Origins and the Search for Life in the Universe, Capri, Italy (1996).
- The relation between encephalization and diving patterns in odontocetes. Biennial Conference on the Biology of Marine Mammals, Orlando, Fla (1995).

Relative brain size is related to diving duration in Odontocetes. Annual Convention of the American Psychological Society, Wash., DC (1994).

A test of self-recognition in the bottlenose dolphin. (L Marino, D Reiss, GG Gallup Jr). Annual Convention of the American Psychological Society, San Diego, CA (1992).

Testing self-recognition in the bottlenose dolphin. (L Marino, D Reiss, GG Gallup Jr) Biennial Conference on the Biology of Marine Mammals, Chicago, Ill (1991).

Responses to mirror exposure: A comparison of chimpanzees and bottlenose dolphins. (L Marino, D Reiss, GG Gallup Jr). Self-recognition and Self-awareness in Monkeys, Apes, and Humans Conference, Sonoma State University, CA (1991).

EDITORIAL ACTIVITIES

Board of Reviewers (Summer 2004 to present), *The Anatomical Record*

Editorial Board (2003 to present), *International Journal of Comparative Psychology*

Guest Co-editor of special issue on The Evolution of Neurobiological Specializations in Mammals for *The Anatomical Record*, 2004.

Guest Co-editor of special issue on Evolution of the Vertebrate Brain and Behavior for *International Journal of Comparative Psychology*, 2004.

Ad hoc reviewer for *Nature* ♦ *Brain, Behavior and Evolution* ♦ *Proceedings of the National Academy of Sciences* ♦ *Journal of Comparative Neurology* ♦ *Behavioral and Brain Sciences* ♦ *Marine Mammal Science* ♦ *Aquatic Mammals* ♦ *Proceedings of The Royal Society: Biological Science* ♦ *Behaviour* ♦ *Journal of Anatomy* ♦ *Biological Reviews* ♦ *Canadian Journal of Zoology* ♦ *Journal of Neuroscience Methods* ♦ *Behaviour Processes* ♦ *Journal of Comparative Psychology* ♦ *Evolutionary Anthropology* ♦ *Anthrozoos*

GRANT REVIEWING

National Science Foundation
The Leakey Foundation

MEDIA

Numerous appearances and scientific advising for documentaries and films.

OTHER PROFESSIONAL ACTIVITIES

Executive Committee, Neuroscience and Behavioral Biology Program, Emory University

Co-organizer of Act for Dolphins – an international coalition of scientists to end the annual Japanese dolphin drive hunt

Co-organizer of working group on Socio-Cognitive Complexity, Santa Fe Institute

Co-chair (with J Flack), Working Group on Animal Behavior, Cognition, and Communication: The Role of Networks and Information, Santa Fe Institute, June 2005

Member, NASA Astrobiology Institute Lead Team, SETI Institute

Member at large, International Society for Comparative Psychology

Co-organizer (with P Hof), Symposium on The Evolution of Neurobiological Specializations in Mammals, American Association of Anatomists Meeting at Experimental Biology (FASEB), 2005

Program Organizing Committee, 2005 Biennial Meeting of the NASA Astrobiology Institute, University of Colorado, Boulder, Co.

Scientific Advisory Committee, design of new dolphin research facility, Marineland of Florida.

Co-organizer (with C Salas), Symposium on Evolution of Vertebrate Brain and Behavior, *International Society for Comparative Psychology*, Oviedo, Spain, 2004.

Scientific Organizing Committee, *International Society for Comparative Psychology*, Oviedo, Spain, 2004.

Scientific Organizing Committee, *Bioastronomy 2004: Habitable Worlds*, Iceland.

Co-organizer (with C Chyba) Session on the Evolution of Intelligence. *Astrobiology Science Conference*, NASA Ames Research Center, Moffett Field, CA, 2004.

Scientific Organizing Committee, *Bioastronomy 2002: International Astronomical Union Symposium 213*, Hamilton Island, Australia. 2002

Strategic Planning Committee for the SETI Institute Carl Sagan Center for the Study of Life In The Universe, Mountain View, CA., 2000 - 2004

Co-organizer (with B McCowan) Animal Behavior Society-funded Symposium on Comparisons of Primates and Cetaceans, *Annual Meeting of the Animal Behavior Society*, Atlanta, GA., 2000.

Co-organizer (with SH Ridgway) Symposium on The Cetacean Nervous System, *Biennial Conference on the Biology of Marine Mammals*, Maui, HI, 1999.

PROFESSIONAL MEMBERSHIPS

Society for Marine Mammalogy
 Animal Behavior Society
 International Society for Comparative Psychology
 J. B. Johnston Club in Comparative and Evolutionary Neurobiology

TEACHING EXPERIENCE

Emory University

Animal Welfare (new course Spring 2007)
 Perspectives in Neuroscience and Behavior
 Brain Imaging (taught every year since 1998)
 Imaging Mammal Brains (freshman seminar)
 Behavioral Neuroscience
 Mammalian Intelligence
 Cognitive Ethology
 Comparative Brain Evolution
 Dolphin-Human Interaction (freshman seminar)

The Evolution of Primate Intelligence
The Evolution of Social Behavior
Child Development

Courses taught at other institutions

Animal Behavior
Evolution of Dolphins and Whales
Bones, Brains and Behavior
Learning and Behavioral Conditioning
Introduction to Experimental Psychology
Introduction to Psychology
Psychology of Child Development
Physiological Psychology
Experimental Psychology
Statistics and Research Methods

PROFESSIONAL REFERENCES

Available upon request

