

Charles J. Innis, VMD, DABVP(RA)
CInnis@neaq.org
617-877-5415

Education:

University of Pennsylvania School of Veterinary Medicine
Philadelphia, PA
VMD, 1994

Cornell University
Ithaca, NY
BA Biology, 1990
Distinction in all subjects

Board Certification:

Diplomate: American Board of Veterinary Practitioners, Reptile and Amphibian
Practice, 2010

Employment History:

2005-present **New England Aquarium, Boston, MA**

Director of Animal Health (2009-present): Oversight of all aspects of the Animal Health Department, including the Associate Veterinarians, seven technical staff, clinical care, research, hiring, budgets, performance reviews, facilities and equipment, and veterinary student externships, reporting to the Vice President of Animal Care. Veterinary chair of the Institutional Animal Care and Use Committee (2007-present). **Research Scientist, Anderson Cabot Center for Ocean Life** (2006-present): clinical and basic research in comparative medicine and conservation. **Associate Veterinarian** (2005-2009): Provided medical care for fish, reptiles, birds, invertebrates, and marine mammals.

1995- 2005 **VCA Westboro Animal Hospital, Westboro, MA**

Associate Veterinarian: Practiced small animal and exotic animal medicine and surgery in a high quality practice. Developed endoscopy and laparoscopy service.

1994-1995 **The Animal Center, Auburn, ME**

Associate Veterinarian: Practiced small animal medicine and surgery. Established and directed exotic animal practice. Managed ordering and computerization of medical and surgical inventory. Edited practice newsletter.

Teaching Experience:

Tufts University, Cummings School of Veterinary Medicine: Adjunct Assistant Professor (2003-present), Clinical Instructor (1997-2003), Department of Infectious Disease and Global Health. Teaching lectures and laboratories in Comparative Anatomy, Zoological Medicine, and Advanced Reptile Medicine.

University of Massachusetts Boston: Adjunct faculty
PhD committee member, Kerry McNally (2014-present): *The respiratory microbiome of Kemp's ridley turtles.*

University of Connecticut: Adjunct Associate Professor (2010-2017), Department of Pathobiology. Graduate student committee member, co-investigator, and guest lecturer for pathology seminar series.

PhD committee member, Dr. Akinyi Nyaoke (2006-2010): *Exophiala species infection in aquaria: identification, environmental study and challenge experiments.*

Master's committee member, Dr. Vanessa Schumacher (2009-2010): *Isolation and characterization of Sulawesi Tortoise Adenovirus-1, an emerging pathogen of chelonians, with development of improved detection methods.*

Mount Ida College: Adjunct Professor of Veterinary Technology (2003-2011). Teaching courses in small animal medicine and surgery; and reptile medicine and surgery.

Aquavet I, University of Pennsylvania School of Veterinary Medicine: Contributing instructor for course in aquatic animal medicine (2006-present).

MarVet, St. Michael's University School of Veterinary Medicine: Co-instructor for two week intensive course in aquatic animal medicine (2009).

Cornell University: Undergraduate teaching assistant, Animal Physiology (1989).

Editorial Experience:

Reviewer: American Journal of Veterinary Research, Marine Mammal Science, Journal of Zoo and Wildlife Medicine, Chelonian Conservation and Biology, Veterinary Record, Journal of Herpetology, Journal of Herpetological Medicine and Surgery, Journal of the American Veterinary Medical Association, Research in Veterinary Science, Veterinary Pathology, Northeast Naturalist, Journal of Wildlife Diseases, Phyllomedusa, Asian Herpetological Research, Animal Biology, Peer J, Herpetological Conservation and Biology, Diseases of Aquatic Organisms, Veterinary Parasitology, Conservation Physiology, Endangered Species Research, PLOS One, Conservation Biology, Animal Biology, Zoo Biology, Journal of Veterinary Pharmacology and Therapeutics.

Journal of Herpetological Medicine and Surgery

Scientific Editor 2001-2004

Associate Editor 1996- 2004

Sea Turtle Health and Rehabilitation: J. Ross Publishing, 2017, Co-editor

Professional Affiliations:

American Board of Veterinary Practitioners

Credentials Committee Vice-Chair, Reptile and Amphibian Practice, 2010-2016.

Organizing Committee, Reptile and Amphibian Practice, 2007-2010.

Association of Reptilian and Amphibian Veterinarians

President 2001-2002

President-elect, Program Chair 2000-2001

Secretary/Treasurer 1999-2000

Member at large, 1998-1999

Session Chair, 1998, 2002, 2014 Annual Conferences

Nominating Committee Chair, 1996-97

Wet Lab Coordinator, 1999, 2000, 2002, 2004 Annual Conferences

Scientific Committee, 2013, 2014 Annual Conferences

IUCN/SSC Turtle Survival Alliance

Steering Committee, 2003

Program Chair, 2003 Annual Conference

Taxon Management Group Point Person, Sulawesi Forest Turtle
(Critically Endangered)
*Responsible for the first known captive breeding of this species in 2003,
17 additional offspring since that time*

Taxon Management Group Point Person, Impressed Tortoise

IUCN Marine Turtle Specialist Group, 2006-present

IUCN Tortoise and Freshwater Turtle Specialist Group, 2006-present

American Association of Zoo Veterinarians, 2005-present

Reptile Session Chair, 2006 Annual Conference

American Veterinary Medical Association, 1994-present

Association of Zoos and Aquarium, 2007-present

Professional Service and Consulting

African Aquatic Conservation Fund/African Chelonian Institute, 2016-present, Scientific Advisory Committee.

Palawan Forest Turtle Veterinary Project, 2015. Provided veterinary care for 4000 confiscated Critically Endangered turtles in the Philippines.

National Oceanic and Atmospheric Administration, National Marine Fisheries Service. Unusual Mortality Event Investigative Team: New England Pinnipeds, Influenza, 2011-2012.

BP Deepwater Horizon Oil Spill, 2010-2016. Participated in planning and execution of medical management of oiled sea turtles in Louisiana. Post-event data analysis upon request of National Oceanic and Atmospheric Administration, National Marine Fisheries Service, contributing to the \$20 billion Natural Resources Damage Assessment. Stacy N, Innis C. Analysis and interpretation of hematology and blood chemistry values in live sea turtles documented by

response operations during the 2010 BP Deepwater Horizon oil spill response. [www.doi.gov/deepwaterhorizon/adminrecord], 2015.

National Oceanic and Atmospheric Administration, National Marine Fisheries Service. Sea turtles and contaminants workshop, 2010. Workshop on evaluating sea turtle injuries in northeast fishing gear, 2009.

Grants:

Association of Reptilian and Amphibian Veterinarians. Innis C, 2017. Pharmacokinetics of oxytetracycline after multiple subcutaneous doses during clinical use in sea turtles.

Morris Animal Foundation. Hunt K, Innis C, Merigo C. 2016. Assessing impacts of transport stress in endangered sea turtles.

Association of Reptilian and Amphibian Veterinarians. Innis C, Kennedy A. 2013. The use of iohexol clearance testing for assessment of renal function in naturally cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*), with comparison of initial vs. convalescent values.

Morris Animal Foundation. Hunt K, Rolland R, Innis C. 2012. The role of adrenal and thyroid hormones in recovery from cold-stunning in Kemp's ridley sea turtles.

Marine Conservation Action Fund. Hunt K, Rolland R, Innis C. 2009. Assessing stress and predicting mortality in endangered sea turtles.

Morris Animal Foundation. Schumacher V, Innis C, Risatti G, Frasca S Jr. 2009. Isolation and characterization of Sulawesi Tortoise Adenovirus-1, an emerging pathogen of chelonians, with development of improved detection methods.

United States Fish and Wildlife Service, Cooperative Endangered Species Conservation Fund. Burke E, Dodge K, Lutcavage M, Sharp B, Merigo C, Innis C. 2009. Massachusetts leatherback sea turtle research and disentanglement program.

Mount Ida College, Faculty Development Grant. Innis C, Young D. 2007. Pharmacokinetics of voriconazole in red-eared slider turtles.

Mount Ida College, Faculty Development Grant. Innis C, Young D. 2005. Pharmacokinetics of metronidazole in red-eared slider turtles.

Marine Conservation Action Fund. Innis C, Weber ES. 2005. Mercury levels in juvenile Kemp's ridley sea turtles.

Volunteerism

Massachusetts Spotted Turtle Monitoring Program (2007-present): statewide annual mark-and-recapture survey for purposes of long-term population monitoring.

Awards

Tufts Cummings School of Veterinary Medicine, 2017, Henry Childers Award, given “in recognition and gratitude for sustained and extraordinary contributions to the education of Cummings School veterinary students by a part-time instructor.”

Association of Reptilian and Amphibian Veterinarians, 2017, Reptile and Amphibian Veterinarian Excellence Award, sponsored by ZooMed Laboratories.

Massachusetts Veterinary Medical Association Merit Award, 2016, for achievements in species conservation.

Peer Reviewed Publications:

Rockwell KE, Innis CJ, Merigo C, Prescott, R. 2017. The effect of delayed hospitalization in cold-stunned Kemp’s ridley turtles (*Lepidochelys kempii*). *Journal of Herpetological Medicine and Surgery* 27 (3-4): 93-96.

Spielvogel CF, King L, Cavin JM, Tlusty M, Silverstein DC, Ceresia M, Innis CJ. 2017. Use of positive pressure ventilation in cold-stunned sea turtles: 29 cases (2008–2014). *Journal of Herpetological Medicine and Surgery* 27(1-2):48-57.

Stacy NI, Field CL, Staggs L., MacLean RA, Stacy BA, Keene J, Cacula D, Pelton C, Cray C, Kelley M, Holmes S, Innis C.J. 2017. Clinicopathological findings in sea turtles assessed during the Deepwater Horizon oil spill response. *Endangered Species Research*. 33:25-37.

Innis CJ, Kennedy A, McGowan JP, Buchweitz JP, McNally K. 2016. Glomerular filtration rates of naturally cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*): comparison of initial vs. convalescent values. *Journal of Herpetological Medicine and Surgery*. 26:100-103.

Ferguson SD, Wellehan JFX Jr, Frasca S Jr, Innis CJ, Harris HS, Miller M, Weber ES, Stockdale Walden H, Greiner EC, Merigo CM, Stacy SA. 2016. Coccidial infection of the adrenal glands of leatherback sea turtles (*Dermochelys coriacea*). *Journal of Wildlife Diseases*. 52:874-82.

Reckendorf A, Tuxbury K, Cavin J, Silver G, Brisson J, McManus C, Stacy B, Merigo C, Innis C. Laryngeal paralysis in a loggerhead turtle (*Caretta caretta*). 2016. *Journal of Herpetological Medicine and Surgery* 26(1-2):20-25.

Hunt KE, Innis C, Merigo C, Rolland RM. 2016. Endocrine responses to diverse stressors of capture, entanglement and stranding in leatherback turtles (*Dermochelys coriacea*). *Conserv Physiol* 4(1): cow022; doi:10.1093/conphys/cow022.

Hunt KE, Innis C, Kennedy A, McNally K, Davis D, Burgess E, Merigo C. 2016. Assessment of ground transportation stress in juvenile Kemp's ridley sea turtles (*Lepidochelys kempii*). *Conservation Physiology* 4.1 (2016): cov071.

Gornik KR, Pirie CG, Marrion RM, Wocial JN, Innis CJ. 2016. Ophthalmic parameters in rehabilitated juvenile Kemp's ridley sea turtles (*Lepidochelys kempii*). *Journal of the American Veterinary Medical Association* 248:673-680.

Gornik KR, Pirie CG, Marrion RM, Wocial JN, Innis CJ. 2015. Baseline corneal sensitivity and duration of action of proparacaine in rehabilitated juvenile Kemp's ridley sea turtles (*Lepidochelys kempii*). *Journal of Herpetological Medicine and Surgery* 25(3-4):166-121.

Petrosky KY, Knoll JS, Innis C. 2015. Tissue enzyme activities in Kemp's ridley turtles (*Lepidochelys kempii*). *Journal of Zoo and Wildlife Medicine* 46:637-640.

Innis CJ, Merigo C, Cavin JM, Hunt K, Dodge KL, Lutcavage M. 2014. Serial assessment of the physiologic status of leatherback turtles (*Dermochelys coriacea*) during direct capture events in the northwestern Atlantic Ocean: comparison of post-capture and pre-release data. *Conservation Physiology* 2: doi:10.1093/conphys/cou048.

Innis CJ, Young D, Wetzlich S, Whitcomb A, Tell L. 2014. Plasma concentrations and safety assessment of voriconazole in red-eared slider turtles (*Trachemys scripta elegans*) after single and multiple subcutaneous injections. *Journal of Herpetological Medicine and Surgery* 24(1-2): 28-35.

Stacy BA, Innis CJ, Daoust PY, Wyneken J, Miller M, Harris H, James MC, Christiansen EF, Foley A. 2014. Solitary large intestinal diverticulitis in leatherback turtles (*Dermochelys coriacea*). *Veterinary Pathology*. doi: 10.1177/0300985814549211.

Innis CJ, Braverman H, Cavin JM, Ceresia ML, Baden LR, Kuhn DM, Frasca S Jr, McGowan JP, Hirokawa K, Weber ES III, Stacy B, Merigo C. 2014. Diagnosis and management of *Enterococcus* spp infections during rehabilitation of cold-stunned Kemp's ridley turtles: 50 cases (2006-2012). *Journal of the American Veterinary Medical Association* 245:315-323.

Innis CJ, Feinsod R, Hanlon J, Stahl S, Oguni J, Boone S, Schnellbacher R, Cavin J, Divers SJ. 2013. Coelioscopic orchiectomy can be effectively and safely accomplished in chelonians. *Veterinary Record*. doi: 10.1136/vr.101475.

Stacy NI, Innis CJ, Hernandez JA. 2013. Development and evaluation of three mortality prediction indices for cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*). Conservation Physiology. doi: 10.1093/conphys/cot003.

Stockman J, Innis CJ, Solano M, Brisson J, Kass PH, Weber ES. 2013. Prevalence, distribution, and progression of radiographic abnormalities in the lungs of cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*): 89 cases (2001-2005). Journal of the American Veterinary Medical Association 242: 675-681.

Kennedy A, Innis C, Rumberiha W. 2012. Determination of glomerular filtration rate in juvenile Kemp's ridley turtles (*Lepidochelys kempii*) using iohexol clearance, with preliminary comparison of clinically healthy turtles vs. those with renal disease. Journal of Herpetological Medicine and Surgery 22(1-2):25-29.

Schumacher VL, Innis CJ, Garner MM, Risatti GR, Nordhausen RW, Gilbert-Marcheterre K, Wellehan JFX Jr, Childress AL, Frasca S Jr. 2012. Sulawesi tortoise adenovirus-1 (STADV-1) in two impressed tortoises *Manouria impressa*, and a Burmese star tortoise *Geochelone platynota*. Journal of Zoo and Wildlife Medicine 43:501-510.

Cavin JM, Donahoe SL, Frasca S Jr, Innis CJ, Kinsel MJ, Kurobe T, Naples LM, Nyaoke A, Poll CP, Weber EP III. 2012. *Myxobolus albi* infection in cartilage of captive lumpfish (*Cyclopterus lumpus*). Journal of Veterinary Diagnostic Investigation 24: 516-524.

Hunt KE, Innis C, Rolland RM. 2012. Corticosterone and thyroxine in cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*). Journal of Zoo and Wildlife Medicine 43(3): 479-493.

Sampson K, Merigo C, Lagueux K, Rice J, Cooper R, Weber ES, Kass P, Mandelman J, Innis C. 2012. Clinical assessment and post-release monitoring of eleven mass stranded dolphins on Cape Cod, Massachusetts. Marine Mammal Science. DOI: 10.1111/j.1748-7692.2011.00547.x.

Keller K, Innis C, Tlusty MF, Kennedy AE, Bean SB, Cavin JM, Merigo C. 2012. Metabolic and respiratory derangements associated with death in cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*): 32 cases (2005-2009). Journal of the American Veterinary Medical Association 240(3): 317-323.

Innis C, Merigo C, Ceresia M, Weber ES, Papich M. 2011. Single-dose pharmacokinetics of ceftazidime and fluconazole during concurrent clinical use in cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*). Journal of Veterinary Pharmacology and Therapeutics 35: 82-89.

Innis C, Merigo C, Dodge K, Tlusty M, Dodge M, Sharp B, Myers A, McIntosh A, Wunn D, Perkins C, Herdt T, Norton T, Lutcavage M. 2010. Health evaluation of leatherback turtles (*Dermochelys coriacea*) in the northwestern Atlantic during direct capture and fisheries gear disentanglement. Chelonian Conservation and Biology 9(2): 205-222.

Innis C, Davis D, Mandelman J, Gibson P, Charron K, Schumacher I, Murphy W, Weber ES. 2010. Hematologic values of captive Acadian redfish (*Sebastes fasciatus*). Journal of Zoo and Wildlife Medicine 41(3): 432-437.

Innis C, Nyaoke A, Williams CR, Dunnigan B, Merigo C, Woodward D, Weber ES, Frasca S. 2009. Pathologic and parasitologic findings of cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*) stranded on Cape Cod, Massachusetts, 2001-2006. Journal of Wildlife Diseases 45(3):594-610.

Innis C, Ravich J, Tlusty MF, Hoge M, Wunn D, Boerner-Neville L, Merigo C, Weber ES. 2009. Hematologic and plasma biochemical findings in cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*). Journal of the American Veterinary Medical Association 235(4):426-432.

Rivera S, Wellehan JFX, McMannon R, Innis CJ, Garner MM, Raphael BL, Frasca S, Gregory CR, Latimer KS, Rodriguez CE, Diaz-Figueroa O, Marlar AB, Nyaoke A, Risatti G. 2009. An epizootic in Sulawesi tortoises (*Indotestudo forsteni*) caused by a novel Siadenovirus. Journal of Veterinary Diagnostic Investigation 21:415-426.

Nyaoke A, Weber ES, Innis C, Stremme D, Dowd C, Hinckley L, Gorton T, Wickes B, Sutton D, de Hoog S, Frasca S. 2009. Disseminated phaeohyphomycosis in weedy seadragons, *Phyllopteryx taeniolatus*, and leafy seadragons, *Phycodurus eques*, caused by species of *Exophiala*, including a novel species. Journal of Veterinary Diagnostic Investigation 21: 69-79.

Innis C, Tlusty M, Perkins C, Holladay S, Merigo C, Weber ES. 2008. Trace metal and organochlorine pesticide concentrations in cold-stunned, juvenile Kemp's Ridley sea turtles (*Lepidochelys kempii*) from Cape Cod, Massachusetts, USA. Chelonian Conservation and Biology 7(2):230-239.

Bogard C, Innis C. 2008. A simple and inexpensive method of shell repair in chelonia. Journal of Herpetological Medicine and Surgery 18(1): 12-13.

Solano M, Innis C, Smith C, Merigo C, Weber ES. 2008. Scintigraphic and radiographic evaluation of appendicular skeletal lesions in eight cold-stunned Kemp's ridley sea turtles. Veterinary Radiology and Ultrasound 49(4): 388-394.

Innis C, Garner M, Johnson A, Wellehan J, Tabaka C, Marschang R, Nordhausen R, Jacobson ER. 2007. Antemortem diagnosis and characterization of nasal intranuclear coccidiosis in tortoises. Journal of Veterinary Diagnostic Investigation 19:660-667.

Innis C, Tlusty M, Merigo C, Weber ES. 2007. Metabolic and respiratory status of cold-stunned Kemp's ridley sea turtles. Journal of Comparative Physiology B 177: 623-630.

Innis C, Tlusty M, Wunn D. 2007. Hematologic and plasma biochemical analysis of northern red-bellied cooters. *Journal of Zoo and Wildlife Medicine*. 38(3): 425-432.

Innis C, Young D, Papich M. 2007. Pharmacokinetics of metronidazole in the red-eared slider turtle after single intracoelomic injection. *Journal of Veterinary Pharmacology and Therapeutics* 30:168-171.

Innis C, Hernandez-Divers SJ, Martinez-Jimenez D. 2007. Coelioscopic-assisted pre-femoral oophorectomy in chelonians. *Journal of the American Veterinary Medical Association* 230(7): 1049-1052.

Innis C, Garner M, Tabaka C, Raiti P, Frye F, Boyer T, and Bonner B. 2006. Gross necropsy and histopathological findings in imported impressed tortoises (*Manouria impressa*): seventeen cases. *Journal of Herpetological Medicine and Surgery* 16(2).

Mayer J, Knoll J, Innis C, Mitchell M. 2005. Characterizing the hematologic and plasma chemistry profiles of captive Chinese water dragons, *Physignathus concincinus*. *Journal of Herpetological Medicine and Surgery* 15(3).

Innis C. 2004. Decision-making in the release of injured freshwater turtles and tortoises. *Wildlife Rehabilitation* 21.

Innis C. 2003. Preliminary observations on reproductive parameters of the Sulawesi forest turtle (*Leucocephalon yuwonoi*) in captivity. *Chelonian Conservation and Biology* 4(3).

Innis C. 2001. Medical issues affecting the rehabilitation of Asian chelonians. *Turtle and Tortoise Newsletter, The Newsletter of Chelonian Conservationists and Biologists*: #4.

Innis, C. 2000. Captive care of Bell's hingeback tortoise. *Journal of Herpetological Medicine and Surgery* 10(1).

Innis C, and Kincaid A. 1999. Bilateral calcium phosphate ureteroliths and Spirorchid trematode infection in a red-eared slider turtle (*Trachemys scripta elegans*) with a review of the pathology of spirorchidiasis. *Bulletin of the Association of Reptilian and Amphibian Veterinarians* 9(3).

Innis C. 1996. Treatment with propranolol and prostaglandin F2a stimulates nesting behavior but not oviposition in a gravid iguana. *Bulletin of the Association of Reptilian and Amphibian Veterinarians* 6(2).

Innis C. 1995. Per-cloaca deworming of tortoises. *Bulletin of the Association of Reptilian and Amphibian Veterinarians* 5(2).

Innis C., 1994. Considerations in formulating captive tortoise diets. *Bulletin of the Association of Reptilian and Amphibian Veterinarians* 4(1).

Textbook Publications and Review Articles:

Manire C, Harms C, Stacy B, Norton T, Innis C (eds). 2017. Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Innis C, Wyneken J, Valente A, Stacy B. 2017. Urogenital system. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Boylan SM, Valente ALS, Innis CJ, Stacy BA, Wyneken J. 2017. Respiratory System. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Norton T, Innis C, Manire C. 2017. Critical Care and Emergency Medicine. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Innis C, Harms C, Manire C. 2017. Therapeutics. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Stacy N, Innis C. 2017. Clinical Pathology. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Innis C, Staggs L. 2017. Cold-stunning. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Innis C, Frasca S. 2017. Bacteria and Fungi. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Divers S, Innis C, Norton T, Mader D. 2017. Endoscopy. In Manire C, Harms C, Stacy B, Norton T, Innis C (eds). Sea Turtle Health and Rehabilitation. J. Ross Publishing.

Innis C. Medical Management of Sea Turtles. *In Press*. In: Divers S, Stahl S (eds). Mader's Reptile Medicine and Surgery, Volume 3. El Sevier, St. Louis.

Boyer T, Innis C. Anatomy and Physiology of Turtles, Tortoises, and Terrapins. *In Press*. In Divers S, Stahl S (eds). Mader's Reptile Medicine and Surgery, Volume 3. El Sevier, St. Louis.

Divers S, Innis C. *In Press*. Urology. In Divers S, Stahl S (eds). Mader's Reptile Medicine and Surgery, Volume 3. El Sevier, St. Louis.

Innis C, Knotek S. *In Press*. Chelonia. In Heatley JJ, Russell KE (eds). Exotic Animal Clinical Pathology: Techniques and Diagnosis, Wiley-Blackwell, Hoboken, NJ.

Innis CJ. 2013. Conservation issues. In Mader DR, Divers SJ (eds). Current Therapy in Reptile Medicine and Surgery: El Sevier, St. Louis.

Innis C. 2010. Endoscopy and endosurgery of the chelonian reproductive tract. In Divers SJ (ed) The Veterinary Clinics of North America: Exotic Animal Practice 13: 243-254.

Weber ES, Weis C, Schwarz T, Innis C, Klide A. 2009. Anesthesia, diagnostic imaging and surgery of fish. Compendium of Continuing Education for the Practicing Veterinarian: E1-E9.

Weber ES, Innis CJ. 2007. Piscine patients: basic diagnostics. Compendium of Continuing Education for the Practicing Veterinarian 29(5): 276-288.

Divers SJ, Innis CJ. 2006. Renal disease in reptiles: diagnosis and clinical management. In Mader DR (ed) Reptile Medicine and Surgery, Second Edition. El Sevier, St. Louis: 878-892.

McArthur S, Wilkinson R, Meyer J, Innis C, and Hernandez-Divers SJ (eds) 2004. Medicine and Surgery of Tortoises and Turtles. Blackwell Science. Oxford, England.

Innis C. 2004. Innovative approaches to chelonian obstetrics. Exotic DVM 6(2).

Innis C. 2004. Chelonian species identification and husbandry recommendations. Exotic DVM 6(2).

Innis, C and Boyer T. 2002. Chelonian reproduction. In Spear B (ed) The Veterinary Clinics of North America: Exotic Animal Practice 5: 555-578.

Innis C. 1995. Amphibian anesthesia. Vivarium 9(3).

Abstracts and Professional Presentations:

Innis C, Hunt K, Merigo C, Rolland R. 2017. Serial assessment of plasma corticosterone and free thyroxine concentrations during rehabilitation of 85 cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*), with preliminary observations on exogenous thyroxine supplementation. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Spielvogel C, Innis C, Cavin J, King L. 2016. Use of positive pressure ventilation in cold-stunned sea turtles: 29 Cases (2008-2014). International Association of Aquatic Animal Medicine Annual Conference.

Innis CJ. 2015. Serial assessment of the physiologic status of leatherback turtles (*Dermochelys coriacea*) during direct capture events in the northwestern Atlantic Ocean: comparison of post-capture and pre-release data. International Conference on Avian, Herpetological, and Exotic Mammal Medicine. Paris, France.

Innis CJ. 2014. Observations on plasma concentrations of oxytetracycline, tobramycin, gentamicin, and clarithromycin during clinical use in Kemp's ridley turtles. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Innis CJ, Kennedy A, McGowan JP, Buchweitz JP. 2014. Glomerular filtration rates of naturally cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*): comparison of initial and convalescent values. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Hunt K, Innis C, Merigo C, Rolland R. 2013. Assessment of capture stress, entanglement stress and stranding stress in leatherback sea turtles (*Dermochelys coriacea*). Presentation at the 4th Annual Conference of the International Society of Wildlife Endocrinology, 14-16 October 2013, Chicago, USA.

Innis C, Cavin JM, Merigo C, Sampson KA, Dodge KL, Dodge MF. 2013. Medical management and post-release monitoring of a stranded leatherback turtle (*Dermochelys coriacea*). International Association of Aquatic Animal Medicine Annual Conference.

Braverman H, Innis C, Cavin J, Sims M, Ceresia M, Baden LR, Kuhn D, Williams SR, Hirokawa K, Weber ES III, Frasca S Jr, Stacy B, Merigo, C. 2013. Diagnosis and treatment of *Enterococcus sp.* infections during rehabilitation of cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*): 50 cases, 2006-2011. International Association of Aquatic Animal Medicine Annual Conference.

Innis C. 2012. Observations on praziquantel concentrations during experimental and clinical use in marine aquaria. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Innis C, Frasca S Jr, Stacy B, Wickes B, Wellehan JFX Jr, Sutton D. 2012. Identification and antimicrobial susceptibility of fungi isolated from marine turtles with histologically confirmed mycotic infections: 16 cases, 2005-2012. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Cavin JM, McManus CA, Silver GM, Hume CS, Innis CJ. 2012. Use of acupuncture in an African penguin (*Spheniscus demersus*) with acute hind limb paresis. International Association of Aquatic Animal Medicine Annual Conference.

Pugliares KR, St. Leger JA, Innis C, Anthony SJ, Ip H, Saliki JT, Frasca S Jr, Fire S, Merigo C, Anderson DM, Garron M, Rowles T. 2012. Pathological findings in harbor seals from New Hampshire and Massachusetts September – December 2011, including identification of influenza subtype H3N8. Northeast Regional Stranding Network Annual Conference.

McNally K, Innis C, Cavin J, Kennedy A, Mergio C. 2011. Attempted treatment of a progressive *Mycobacterium chelonae* infection in a Kemp's ridley sea turtle (*Lepidochelys kempii*). Northeast Regional Stranding Network Annual Conference.

Innis C, Sims M, Ceresia M, Baden L, Kuhn D, Williams CR, Hirokawa K, Weber ES, Merigo C, Frasca S Jr. 2010. Diagnosis and treatment of *Enterococcus sp.* infections during rehabilitation of cold-stunned Kemp's ridley turtles (*Lepidochelys kempii*): 13 cases. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Innis C, Divers S, Cavin J, Blais P, Wolfus G. 2010. Preliminary observations on endoscopic castration of chelonia. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Innis C, Hunt K, Rolland R. 2010. Endocrine responses to natural and anthropogenic stressors in leatherback turtles (*Dermochelys coriacea*) and Kemp's ridley turtles (*Lepidochelys kempii*). Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Innis C, DeVoe R, Mylniczenko, Garner M. 2010. A call for additional study of the safety of subcarapacial venipuncture in chelonians. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Stockman J, Weber ES, Innis C, O'Sullivan-Brisson J, Solano M. 2010. Prevalence and distribution of lung radiographic abnormalities in cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*): 102 cases. Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians.

Innis C, Baitchman E. 2010. Veterinary contributions to chelonian head start programs. Joint Meeting of Ichthyologists and Herpetologists.

Cavin J, Ceresia M, Innis C. 2010. The use of intermittent positive pressure ventilation in cold-stunned sea turtles with respiratory acidosis. Annual Conference of the International Association of Aquatic Animal Medicine

Sampson K, Brisson J, Cavin J, Kennedy A, McNally K, McManus C, Merigo C, Silver G, Innis C. 2010. Myositis of the adductor mandibulae in a cold-stunned Kemp's ridley sea turtle, *Lepidochelys kempii*. Northeast Regional Stranding Network Annual Conference.

Innis C, Young D, Wetzlich S, Tell L. 2010. Plasma voriconazole concentrations in red-eared slider turtles (*Trachemys scripta elegans*) after single and multiple subcutaneous injections. First International Conference on Reptile and Amphibian Medicine, Munich.

Nyaoke A, Weber ES, Innis C, Romanelli A, Wickes B, Sutton D, Hedrick RP, Frasca S Jr. 2010. Experimental infection of Chinook salmon maintained in saltwater aquaria using a novel *Exophiala* species. Eastern Fish Health Conference.

Garner M, Burse C, Greiner E, Gardiner C, Wendland L, Innis C, Pearson D, and Pearson M. 2009. Larval migrans in tortoises: eight cases. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C, Garner M, Nordhausen R, Wellehan J, Childress A, Schumacher V, Gilbert K, Risatti G, Frasca S. 2009. Post-mortem detection of Sulawesi tortoise adenovirus-1 in two impressed tortoises (*Manouria impressa*) and a Burmese star tortoise (*Geochelone platynota*). Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 2009. Considerations in selecting systemic antifungal agents in sea turtles. Northeast Regional Stranding Network Annual Conference.

Hirokawa K, Innis C, Nyaoke A, Frasca S. 2009. Safety and efficacy of coelioscopic liver and spleen biopsies in Atlantic salmon. Eastern Fish Health Conference.

Hirokawa K, Innis C, Solano M, Weber, E. 2009. A case of degenerative joint disease and mycobacteriosis in a Kemp's ridley sea turtle (*Lepidochelys kempii*). International Association of Aquatic Animal Medicine Annual Conference.

Innis C, Merigo C, Dodge K, Myers A, Sharp B, Norton T, Lutcavage M. 2008. Health assessment of leatherback sea turtles (*Dermochelys coriacea*) at sea. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C, Young D, Wetzlich S, Tell L. 2008. Plasma voriconazole concentrations in four red-eared slider turtles (*Trachemys scripta elegans*) after a single subcutaneous injection. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis, C. 2008. Quality control suggestions for blood analysis of stranded marine animals. Northeast Regional Stranding Network Annual Conference.

Hirokawa K, Innis C, Frasca S, Nyaoke A. 2008. Management of chytridiomycosis in *Dendrobates* at the New England Aquarium. Eastern Fish Health Workshop.

Nyaoke A, White-Hunt S, Cavin J, Edmunds D, Innis C, Weber ES, Frasca S Jr. 2008. Ocular chondral myxozoanosis in lumpfish, *Cyclopterus lumpus*. Eastern Fish Health Workshop.

Sardi K, Merigo C, Innis C, Lagueux K, Cooper R, Weber S, Rice J. 2007. Advanced technology used to assess the health and post-release survival of mass stranded cetaceans on Cape Cod, Massachusetts, USA. 17th Biennial Conference on the Biology of Marine Mammals. Cape Town, South Africa.

Nyaoke A, Weber ES, Innis C, Stremme D, Dowd C, Keller C, Hinckley L, Gorton T, Wickes B, Thompson E, Sutton D, de Hoog S, Frasca S. 2007. Species identifications of *Exophiala* from investigations of phaeohyphomycosis in aquaria. American Association of Veterinary Laboratory Diagnosticians Annual Conference.

Wellehan JFX, Stacy BA, Frasca S, Innis C, Weber ES, Merigo C, Williams CR, Dunnigan B, Foley AM. 2007. Molecular characterization of a coccidian parasite of the adrenal gland in leatherback sea turtles (*Dermochelys coriacea*). American Association of Zoo Veterinarians Annual Conference.

Innis C. 2007. Temperature and pH correction of blood gas, acid-base, and critical biochemical values of ectotherms: current trends and applications in cold-stunned Kemp's ridley sea turtles (*Lepidochelys kempii*). Association of Reptilian and Amphibian Veterinarians Annual Conference.

Nyaoke A, Weber ES, Innis C, Stremme D, Dowd C, Keller C, Gorton T, Wickes B, Thompson E, Sutton D, de Hoog S, Frasca S. 2007. Advances in our understanding of phaeohyphomycosis. Eastern Fish Health Workshop.

Innis C. 2007. Ophthalmic surgical procedures in public aquarium fishes. Eastern Fish Health Workshop.

Nyaoke A, Weber ES, Innis C, Stremme D, Keller C, Hinckley L, Gorton T, de Hoog S, Wickes B, Sutton D, Frasca Jr. S. 2006. Phaeohyphomycotic branchitis and pharyngitis in a weedy seadragon. 13th Annual Zoo and Wildlife Pathology Workshop. American Association of Zoo Veterinarians Annual Conference.

Frasca S, Nyaoke A, Weber ES, Innis C, Stremme D, Keller C, Hinckley L, Gorton T, de Hoog S, Wickes B, Sutton D. 2006. Phaeohyphomycosis in aquaria: identification of a novel species of *Exophiala* in seadragons. 5th International Symposium on Aquatic Animal Health.

Innis CJ, Garner M, Johnson A, Ogust R. 2006. Investigation of an upper alimentary tract disorder in a group of captive Arakan forest turtles (*Heosemys depressa*). Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C, Garner M. 2006. Spinal osteoarthropathy in green iguanas (*Iguana iguana*). Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 2005. Laparoscopic-assisted ovariectomy of chelonia: six cases. American Association of Zoo Veterinarians Annual Conference.

Innis C 2003. Clinical and histopathology findings in Sulawesi tortoises with sinusitis. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 2002. Observations on captive husbandry and pathology of the critically endangered Sulawesi forest turtle (*Leucocephalon yuwonoi*). Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. and Jacobson ER. 2002. Anatomy and clinical significance of the esophageal tonsils of *Boid* snakes. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 2002. Veterinary observations on the December 2001 Asian turtle confiscation. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 2000. Myocardial abscess and hemopericardium in a green iguana. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C, Raiti P, Frye F, Boyer T, and Bonner B. 1999. Gross necropsy and histopathological findings in recently imported impressed tortoises (*Manouria impressa*): eleven cases. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 1998. Considerations in establishing reptile ownership laws. American Zoo Association Northeast Regional Conference.

Innis C. 1997. Observations on urinalysis results from a group of captive tortoises. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 1997. Techniques for sexing juvenile chelonians with comments on clinical applicability. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 1997. Caring for herp outlaws: chelonian pediatrics. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Boyer T, Getzky D, Vap L, and Innis C. 1996. Clinical pathological findings of twelve cases of renal failure in *Iguana iguana*. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Innis C. 1995. Late embryonic death of oviparous reptiles. Association of Reptilian and Amphibian Veterinarians Annual Conference.

Continuing Education Presentations:

International Conference on Avian, Herpetological, and Exotic Mammal Medicine. Paris, France, 2015. Penguin masterclass.

North American Veterinary Conference, Antarctic Field Expedition, 2013. Eight one-hour lectures on medical management of penguins, pinnipeds, cetaceans, fish, turtles, oil spills.

World Veterinary Congress, Prague, 2013. Medical management of sea turtles; Endoscopy of Chelonia.

American Association of Zoo Veterinarians, Exotic Animal Medicine for the Clinical Practitioner, 2012. Chelonian husbandry and physical examination.

National Wildlife Rehabilitators Association Conference, 2011. Understanding reptile infectious disease testing; Obstetric management of turtles.

National Marine Animal Health and Stranding Network Conference, 2010. Sea turtle critical care; Medical management of cold-stunned sea turtles.

University of Veterinary and Pharmaceutical Sciences, Brno; University of Veterinary Medicine, Vienna, 2010. Medical management of marine turtles.

Association of Reptilian and Amphibian Veterinarians Annual Conference, 2009. Medical management of cold-stunned sea turtles; Interpretation of plasma biochemical, hematologic, acid-base, and blood gas data of sea turtles.

Northeast Natural History Conference, 2008. A review of diagnostic methods for reptile infectious diseases.

Tufts University WAZE Annual Conference, 2008. Global conservation of turtles and tortoises.

North American Veterinary Conference, 2008. Basic husbandry and nutrition of chelonians; Restraint and physical examination of chelonians; Clinical parasitology of the chelonia; Medical management of chelonian gastro-intestinal disorders; Chelonian necropsy: anatomy and common findings; Chelonian egg incubation.

University of Wisconsin School of Veterinary Medicine. Wildlife, Exotic, and Zoo Animal Conference, 2007. Medical management of chelonian trauma patients; Reptile reproductive disorders.

ReMaine Wild Rehabilitation Conference, 2006. Medical management of injured reptiles.

University of Pennsylvania School of Veterinary Medicine, Special Species Symposium, 2006. Reptile clinical pathology; Laparoscopic surgery of chelonians.

Western States Veterinary Conference, 2003. Use of endoscopy in herpetological medicine; Update on reptile anesthesia; The human-reptile bond; Sources of information for the reptile practitioner.

Tufts Expo, 2000. Turtle health issues; Lizard health issues; Basic reptile husbandry; Reptile endoscopy; Snake health issues; Choosing a pet reptile: making the responsible choice; Anesthetic techniques in reptile medicine.

International Herpetological Symposium, 2000. Use of endoscopy in herpetological medicine.

North American Veterinary Conference, 2000. Interpreting iguana bloodwork; Diagnosis and treatment of renal diseases in tortoises; Use of acriflavine in turtles; Alternative treatments for amoebiasis in chelonians; Tortoise urinalysis.

Poster Presentations:

Schumacher V, Innis C, Garner M, Risatti G, Nordhausen R, Gilbert-Marcheterre K, Frasca S. 2011. Diagnosis of Sulawesi tortoise adenovirus-1 in impressed tortoises (*Manouria impressa*) using improved detection methods. International Conference on Diseases of Zoo and Wild Animals, Lisbon.

Merigo C, Innis C, Weber ES, Streeter K, Montague J. 2006 The suspension vest: a breakthrough holding technique for leatherback seaturtle rehabilitation. 26th Annual Symposium on Sea Turtle Conservation and Biology.

Laboratory Instructor:

Joint Conference of the American Association of Zoo Veterinarians and Association of Reptilian and Amphibian Veterinarians, 2017. Introduction to sea turtle medicine. 4 hour laboratory.

American Association of Zoo Veterinarians Annual Conference, 2010. Sea turtle medicine.

American Association of Zoo Veterinarians Annual Conference, 2008. Chelonian endoscopy.

North American Veterinary Conference, 2008. Chelonian surgery.

University of Wisconsin School of Veterinary Medicine. Wildlife, Exotic, and Zoo Animal Conference, 2007. Chelonian medicine.

ReMaine Wild Rehabilitation Conference, 2006. Chelonian trauma management.

University of Pennsylvania School of Veterinary Medicine, Special Species Symposium, 2006. Reptile anatomy and necropsy; Reptile handling and physical examination.

Association of Reptilian and Amphibian Veterinarians Annual Conference, 2004. Basic reptile medicine.

North American Veterinary Conference, 2000. Basic and advanced reptile medicine.

Association of Reptilian and Amphibian Veterinarians Annual Conference, 1999. Reptile radiology.