

Julie P. Avery, PhD RDN LDN CLC

Formerly J.P. Richmond

Water and Environmental Research Center | University of Alaska Fairbanks, Fairbanks, Alaska 99775

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EDUCATION

- 1997 – 2000 University of Central Florida, Department of Biological Sciences, Orlando FL
B.S. in Biological Sciences, August 2000.
- 2001 – 2004 University of Alaska Anchorage, Department of Biological Sciences, Anchorage AK
M.S. in Biological Sciences, August 2004. *Thesis*: Ontogeny of total body oxygen stores and aerobic dive potential in the Steller sea lion (*Eumetopias jubatus*)
- 2004 – 2008 University of Connecticut, College of Agriculture and Natural Resources, Storrs CT
Ph.D. in Animal Science, August 2008. *Dissertation*: Evaluation of the somatotrophic axis in two marine mammal species with diverse early life history strategies: Influence of physiologic age and nutrition on growth of Harbor seals (*Phoca vitulina*) and Steller sea lions (*Eumetopias jubatus*)
- 2015 – 2019 University of North Florida, Department of Nutrition & Dietetics, Jacksonville FL
B.S. in Nutrition & Dietetics, April 2019.
- 2019 – 2020 Morrison Healthcare Dietetic Internship, Athens GA. Clinical focus with Pediatric specialty. Rotations in Jacksonville and Orlando FL. Completed May 2020.

CERTIFICATIONS AND LICENSURE

- Registered Dietitian Nutritionist (RDN) credentialed by the Commission on Dietetic Registration (CDR 86118496, exp May 2025)
- Licensed Dietitian Nutritionist (LDN) approved by State of Florida (ND 9841, exp May 2025)
- Certified Lactation Counselor (CLC) credentialed by the Academy of Lactation Policy and Practice (ALPP 313338, exp January 2025)

PROFESSIONAL POSITIONS & RESEARCH EXPERIENCE

- 2016 – present Research Assistant Professor, University of Alaska Fairbanks, Fairbanks AK. Utilizing a holistic One Health approach to Nutritional Physiology research that recognizes the linkage of human, animal and environmental health.
- 2016 – present Faculty Affiliate, University of Alaska Fairbanks, Veterinary Medicine Program. Teaching faculty for first year Veterinary Physiology and Histology.
- 2016 Research Professional, Institute of Northern Engineering, University of Alaska Fairbanks, Fairbanks AK. Research investigating mercury toxicity and selenium defense in Alaskan Pinnipeds.
- 2015 Compliance Coordinator, University of Connecticut, Department of Animal Science. Contracted to review, update, and prepare Department faculty, staff, students, and all agriculture animal facilities for on-site AAALAC inspection and accreditation. Storrs Campus received exemplary status following AAALAC review.

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- 2015 – present Research Faculty (Courtesy Appointment), Department of Biological Sciences, University of North Florida, Jacksonville FL. Research investigating nutrient and endocrine regulation of post-natal growth and development of wildlife species.
- 2010 – 2015 Assistant Professor, Department of Biological Sciences, University of North Florida, Jacksonville FL. Research investigating nutrient and endocrine regulation of postnatal growth and development of wildlife species.
- 2008 – 2010 Postdoctoral Research Associate, University of Connecticut, Storrs CT. Evaluated species differences in the response of metabolic hormones to nutritional stress.
- 2004 – 2008 Graduate Research Assistant, Department of Animal Science, University of Connecticut, Storrs CT. Investigated changes in components of the somatotrophic axis due to age and nutritional status in marine and terrestrial mammals.
- 2001 – 2004 Graduate Research Assistant, Department of Biological Sciences, University of Alaska Anchorage, Anchorage AK. Completed research investigating the development of dive physiology in Steller sea lions (*Eumetopias jubatus*).
- 2001 – 2004 Graduate Intern and Wildlife Technician, Alaska Department of Fish and Game, Division of Wildlife Conservation, Anchorage AK. Evaluation of health status of endangered Steller sea lion (*Eumetopias jubatus*) populations.
- 1999 – 2001 Research Assistant and Volunteer, Hubbs-Sea World Research Institute, Orlando FL. Assisted with behavioral research of manatee fishing-gear entanglement.
- 1999 – 2001 Undergraduate Research Assistant, Department of Biological Sciences, University of Central Florida, Orlando FL. Conducted research on the fasting physiology of various pinniped (sea and sea lion) species.
- 1999 – 2000 Research Intern Undergraduate, Florida Space Grant Consortium, Kennedy Space Center, Cape Canaveral FL. Investigated the stability of microbial systems for long term space flight.

EXTRAMURAL GRANTS AND CONTRACTS \$2.7 Million total

- 2022 National Science Foundation, Office of Polar Programs, Joint Funding by Arctic Systems Science and Arctic Social Science Programs. SUPPLEMENT “Collaborative Research: Mercury dynamics from the Holocene to the Anthropocene: Tracking Aleutian mercury in ocean species important to Native Alaskan diets”. PI Avery, co-I Misarti, co-I Rea NSF-ARCSS/ASSP 1935816 (\$129,655); PI Funk ARCSS/ASSP 1935823 (\$65,592). Award period 4/1/2023 – 3/31/2025.
- supplement required to facilitate pivot plan following cancelation of field season for two consecutive years in the far Western Aleutian Islands.*
- 2020 National Science Foundation, Office of Polar Programs, Joint Funding by Arctic Systems Science and Arctic Social Science Programs. “Collaborative Research: Mercury dynamics from the Holocene to the Anthropocene: Tracking Aleutian mercury in ocean species important to Native Alaskan diets”. PI Avery, co-I Misarti, co-I Rea NSF-ARCSS/ASSP 1935816 (\$2,259,411); PI Funk ARCSS/ASSP 1935823 (\$361,785). Award period 4/1/2020 – 3/31/2025.

- 2015 Hubbs Sea World Research Institute, Contract. "Evaluation of the somatotrophic axis in California sea lions pups rescued and rehabilitated during the 2013 Unusual Mortality Event" \$5,000
- 2014 University of British Columbia, Contract. "Seasonal changes in concentrations of leptin and ghrelin associated with intake and body condition of captive Northern Fur Seals" \$6,395
- 2013 Mazuri Exotic Animal Nutrition Research Grant. "Milk vs. Formula: Examination of Metabolic Hormone Profile in Common Pinniped Rehabilitation Formulas" \$4,700
- 2012 University of British Columbia Sub-Contract. "Evaluation of the response of metabolic hormones to seasonal changes in intake and body condition of captive Steller sea lions" \$13,153
- 2012 The Elizabeth Ordway Dunn Foundation Grant. "St. John's River Bottlenose Dolphin Population Monitoring" (Co-Pi Quincy Gibson, University of North Florida) \$20,000
- 2011 Alaska Department of Fish & Game Co-operative Agreement. "Growth Under Uncertainty: Investigation of Growth Hormone Receptor (GHR) in Steller Sea lion Muscle" \$29, 100
- 2008 The Sounds Conservancy Grants Program, QLF/Atlantic Center for the Environment awarded a grant to study, "Using the somatotrophic axis as a model to predict nutritional status in free-ranging harbor seal pups in southern New England"

INTERMURAL FUNDING \$28,500 total

- 2013 UNF Academic Affairs Summer Research Grant (Summer 2014), "Evaluation of the endocrine response to nutritional stress in multiple phocid (true seal) species" \$7,500
- 2012 UNF Faculty Development Grant for Proposal (Summer 2013), "The Cost of a New Fur Coat: Endocrine Regulation of Nutrient Allocation for Hair Growth versus Reproduction in an Antarctic Seal Species" \$7500
- 2010 UNF Faculty Development Grant for New Course Development (Summer 2011), "Implementation of a Marine Mammal Biology Lecture Course" \$7,500
- 2010 University of North Florida Environmental Seed Grant, "Atlantic bottlenose dolphin photo identification in Northeast Florida" \$3000
- 2008 University of Connecticut, Center for Environmental Sciences and Engineering, Multidisciplinary Environmental Research Award for research entitled "Fasting vs. Starvation: Development of a novel method to evaluate nutritional stress in an Endangered marine mammal species"
- 2007 University of Connecticut, Center for Environmental Sciences and Engineering, Multidisciplinary Environmental Research Award for research entitled "Effect of nutrient availability on the somatotrophic axis in free-ranging moose"

AWARDS AND FELLOWSHIPS

- 2015 University of North Florida, College of Arts and Sciences, Research Enhancement Plan 2014 (January 1, 2015- June 30, 2015). FAT OR FIT: Energetic Tradeoffs of Nutrient Partitioning in an Extreme Environment, Spring course release

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- 2012 Dean's Leadership Council Faculty Fellowship (January 1, 2013- June 30, 2013). Northeast Florida bottlenose dolphin abundance and movement. (Co-Pi Quincy Gibson, University of North Florida), \$3900 and Spring course release
- 2010 Charlotte Mangum Travel Grant, to attend the annual meeting of the Society for Integrative and Comparative Biology (SICB), \$500
- 2009 Post-Doctoral Scholar, Faculty Institutes for Reforming Science Teaching (FIRSTIV), Smithsonian Environmental Research Center (SERC)
- 2009 International Association of Aquatic Animal Medicine, Orlando FL. Student Travel Award, \$500
- 2008 Malcolm Ramsey Memorial Scholarship to recognize student research in field animals presented by the Comparative Nutrition Society, \$1,000
- 2007 Eastern States Exposition Graduate Scholarship, \$3,000
- 2007 International Association of Aquatic Animal Medicine, Orlando FL. First Place Graduate Student Presentation Competition, \$250 and Student Travel Award, \$500
- 2006 Comparative Nutrition Society, Outstanding Oral Presentation Award, First Place Graduate Student Competition, \$500
- 2006 University of Connecticut, Doctoral Dissertation Fellowship, \$1,000
- 2006 University of Connecticut, Summer Graduate Research Fellowship, \$1,000
- 2005 University of Connecticut, Summer Graduate Research Fellowship, \$1,000
- 2004 EPSCoR Travel Award to attend the AAAS Conference, \$500
- 2000 American Physiological Society Travel Award, \$500

PEER REVIEWED PUBLICATIONS

Symbol denotes mentored *undergraduate or †graduate student

1. **Avery, J.P.**, J. M. Castellini, M. Keenan, N. Misarti, A. Gastaldi, C. Funk, T. O'Hara, L.D. Rea. 2023. Mercury concentrations in ancient marine fish and mammal bones: A novel method to determine long-term natural fluctuations of mercury in marine ecosystems. *Frontiers in Marine Science*. *Frontiers in Ecology and Evolution, Paleoecology Section*. Vol 11. DOI 10.3389/fevo.2023.1251282 www.frontiersin.org/articles/10.3389/fevo.2023.1251282
2. Funk C., H. Lackos, N. Misarti, L.D. Rea, **J.P. Avery**. 2023. Report: Considering Ancestral Unangam Selection Biases in Transdisciplinary Research. *Alaska Journal of Anthropology*, 21 (1&2): 107 - 116.
3. **Avery J.P.** and S.A. Zinn. 2023. Extraordinary diversity of the pinniped lactation triad: lactation and growth strategies of seals, sea lions, fur seals, and walruses, *Animal Frontiers*, 13(3): 93–102. <https://doi.org/10.1093/af/vfad037> *Invited Review* [Cited by 1 per Google Scholar]
4. Castellini J.M., **J.P. Avery**, L.D. Rea, T.M. O'Hara. 2022. Total mercury, total selenium, and monomethyl mercury relationships in multiple age cohorts and tissues of Steller sea lions (*Eumetopias jubatus*). *Environmental Toxicology and Chemistry*, 41: 1477-1489. <https://doi.org/10.1002/etc.5329> . [Cited by 5 per Google Scholar]

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5. Rea, L.D., J.M. Castellini, **J.P. Avery**, B.S. Fadely, V.N. Burkanov, M.J. Rehberg, T.M. O'Hara. 2022. Corrigendum to "Regional variations and drivers of mercury and selenium concentrations in Steller sea lions" [Sci. Total Environ. 744 (2020) 140787], Science of the Total Environment, 831:154887. <https://doi.org/10.1016/j.scitotenv.2022.154887>. PMID: 35364161.
6. **Avery, J.P.**, N. Misarti, C. Funk, L.D. Rea. 2021. Sentinel marine species in Unangan middens provide insight to natural mercury dynamics in the Aleutian Islands. Ocean Past News. No.21. July.
7. Rea L.D., J.M. Castellini, **J.P. Avery**, B.S. Fadely, V.N. Burkanov, M.J. Rehberg, T.M. O'Hara. 2020. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions. Science of the Total Environment. 744: 140787. <https://doi.org/10.1016/j.scitotenv.2020.140787> [Cited by 20 per Google Scholar]
8. †Dailey, R.E., *K. Smith, C. Fontaine, **J.P. Avery**. 2020. Response of metabolic hormones and blood metabolites to realimentation in rehabilitated harbor seal (*Phoca vitulina*) pups. Journal of Comparative Physiology B. 190: 629-640 <https://doi.org/10.1007/s00360-020-01290-5> [Cited by 3 per Google Scholar]
9. **Avery, J.P.** 2017. Direct vs. indirect effects of Bioactive milk proteins on neonatal growth: Implications for failure to thrive and obesity. Insights in Nutrition and Metabolism. Insights Nutr Metabol. 1(2):63-70. [Cited by 2 per Google Scholar]
10. Rea, L.D., S.D. Farley, **J.P. Avery**, W.S. Dunlap-Harding, V.K. Stegall, C.A.B. Eischens, B.S. Fadely, T.S. Gelatt, K.W. Pitcher. 2016. Comparing total body lipid content of young-of-the-year Steller sea lions among regions of contrasting population trends. Marine Mammal Science. 32(4): 1200-1218. <https://doi.org/10.1111/mms.12327> [Cited by 16 per Google Scholar]
11. †Dailey, R.E., C. Fontaine, **J.P. Avery**. 2016. Endocrine response to realimentation in young northern elephant seals (*Mirounga angustirostris*): Indications for development of fasting adaptation. General and Comparative Endocrinology. 235(1):130-135. [doi:10.1016/j.ygcen.2016.06.009](https://doi.org/10.1016/j.ygcen.2016.06.009) [Cited by 3 per Google Scholar]
12. †Tighe, R.L., R.K. Bonde, **J.P. Avery**. 2016. The Seasonal Response of Ghrelin, Growth Hormone, and Insulin-like Growth Factor I in the Free-ranging Florida Manatee (*Trichechus manatus latirostris*). Mammalian Biology. 81(3): 247-254. <http://dx.doi.org/10.1016/j.mambio.2016.02.006> [Cited by 6 per Google Scholar]
13. Shero, M.R., *R.T. Krotz, D.P. Costa, **J.P. Avery**, J.M. Burns. 2015. Overwinter changes in Weddell seal body condition and hormone profiles: Implications for pregnancy? Functional Ecology. 29(10): 1278–1291 doi: 10.1111/1365-2435.12434 <http://onlinelibrary.wiley.com/doi/10.1111/13652435.12434/pdf> [Cited by 39 per Google Scholar]

14. Gibson, Q., Howells, E., Lambert, J., Mazzoil, M., **Richmond, J.** 2013. The Ranging Patterns of Female Bottlenose Dolphins (*Tursiops truncatus*) with Respect to Reproductive Status: Testing the Concept of Nursery Areas. *Journal of Experimental Marine Biology and Ecology*. 445:53-60
<https://doi.org/10.1016/j.jembe.2013.03.020> [Cited by 16 per Google Scholar]
15. Mazzaro, L.M., **J.P. Richmond**, M. Kluever, J. Morgan, J.L. Dunn, S.A. Zinn, E.A. Koutsos. 2011. Evaluation of an alternative to feeding whole frozen fish in Beluga Whales (*Delphinapterus leucas*). *Zoo Biology*. 30: 32-51. <https://doi.org/10.1002/zoo.20319> [Cited by 4 per Google Scholar]
16. **Richmond, J.P.**, T. Jeanniard du Dot, D.A.S. Rosen, S.A. Zinn. 2010. Seasonal influence on the response of the somatotropic axis to nutrient restriction and re-alimentation in captive Steller sea lions (*Eumetopias jubatus*). *Journal of Experimental Zoology*. 313A:144-156.
<https://doi.org/10.1002/jez.584> [Cited by 5 per Google Scholar]
17. **Richmond, J.P.**, T. Norris, S.A. Zinn. 2010. Re-alimentation in harbor seal pups: Effects on the somatotropic axis and growth rate. *General and Comparative Endocrinology*. 165: 286-292.
[doi:10.1016/j.ygcen.2009.07.007](https://doi.org/10.1016/j.ygcen.2009.07.007) [Cited by 13 per Google Scholar]
18. **Richmond, J.P.** and S.A. Zinn. 2009. Validation of radioimmunoassays (RIA) for growth hormone (GH) and insulin-like growth factor (IGF)-I in phocid, otariid, and cetacean species. *Aquatic Mammals*. 35(1):19-31. doi: 10.1578/AM.35.1.2009.19 [Cited by 16 per Google Scholar]
19. du Dot, T.J., D.A.S. Rosen, **J.P. Richmond**, S.A. Zinn, A.S. Kitaysky, A.W. Trites. 2009. Changes in glucocorticoid, IGF-I, and thyroid hormones as indicators of nutritional stress and subsequent re-feeding in Steller sea lions (*Eumetopias jubatus*). *Comparative Biochemistry and Physiology A*. 152(4): 524-534. <http://dx.doi.org/10.1016/j.cbpa.2008.12.010> [Cited by 69 per Google Scholar]
20. **Richmond, J.P.**, J. Skinner, J. Gilbert, L.M. Mazzaro, S.A. Zinn. 2008. Comparison of the Somatotropic Axis in Free-ranging and Rehabilitated Harbor Seal Pups (*Phoca vitulina*). *Journal of Zoo and Wildlife Medicine*. 39(3):342-348. doi: 10.1638/2007-0076.1 [Cited by 12 per Google Scholar]
21. **Richmond, J.P.**, J.M. Burns, L.D. Rea. 2006. Ontogeny of total body oxygen stores and aerobic dive potential in Steller sea lions (*Eumetopias jubatus*). *Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology*. 176:535-545.
<http://dx.doi.org/10.1007/s00360-006-0076-9> [Cited by 125 per Google Scholar]
22. **Richmond, J.P.**, J.M. Burns, L.D. Rea, K. Mashburn. 2005. Postnatal ontogeny of Erythropoietin and hematology in free-ranging Steller sea lions (*Eumetopias jubatus*). *General and Comparative Endocrinology*. 141: 240-247. <http://dx.doi.org/10.1016/j.ygcen.2005.01.004> [Cited by 42 Google Scholar]
23. Burns, J.M., C.A. Clark, **J.P. Richmond**. 2004. The impact of lactation strategy on physiological development of juvenile marine mammals: implications for the transition to independent foraging.

International Congress Series. 1275: 341-350. <http://dx.doi.org/10.1016/j.ics.2004.09.032> [Cited by 53 per Google Scholar]

MANUSCRIPTS IN PREPARATION (Symbol denotes mentored *undergraduate or †graduate student)

24. †Keenan, M., N. Misarti, L. Horstman, C. Funk, T.M. O'Hara, L. Rea, **J. Avery**. *In Co-author Review*. Variability of total mercury concentrations among Steller sea lion bone locations and bone elements. *To be submitted Fall 2023 to Marine Pollution Bulletin*.
25. Kirkham A.L., **J.P. Avery**, R.S. Beltran, J.M. Burns. *In Co-author Review*. Post-lactation mass recovery and metabolic hormone dynamics in adult female Weddell seals. *To Be Submitted Fall 2023 to General and Comparative Endocrinology*.
26. **Avery, J.P.**, M. Fowler, D.P. Costa, S. A. Zinn. *In Prep*. Northern elephant seal (*Mirounga angustirostris*) Lactation Triad: role of endogenous vs exogenous metabolic hormones in pup growth. *To be submitted Winter 2024 Journal of Comparative Physiology B*.

PROFESSIONAL CONFERENCE PRESENTATIONS

Symbol denotes mentored *undergraduate or †graduate student

An additional 40 Abstracts were presented between 2000-2009. The following list begins with 2010.

1. **Avery, J.**, N. Misarti, C. Funk, S. Shirar, J. Reuther T. O'Hara, L. Rea. 5000 years of mercury dynamics examined through ancestral Unangam archaeological fauna from Unalaska Island. Oral presentation at the Alaska Marine Science Symposium, Anchorage, Alaska. January 29 – February 2, 2024. *withdrawn*
2. Corliss, K., N. Misarti, L. Rea, C. Funk, **J. Avery**. Midden refuse in ancestral Unangam villages provides 4000yrs of mercury variability in the Aleutians. Poster presentation at the Alaska Marine Science Symposium, Anchorage, Alaska. January 29 – February 2, 2024.
3. †Keenan, M., N. Misarti, C. Funk, T.M. O'Hara, L. Rea, **J. Avery**. Variability of total mercury concentrations in Steller sea lion bone. Oral presentation at the 3rd UAF Steller sea lion Research Symposium, April 2023 Fairbanks, Alaska.
4. Funk, C., H. Lackos, N. Misarti, L. Rea, **J. Avery**. Ancient Unangam selection biases and their potential impact on paleo-chemistry studies. Oral presentation at the 50th Annual Meeting of the Alaska Anthropological Association, March 2023 Anchorage, Alaska.
5. †Keenan, Mary, Nicole Misarti, Lara Horstmann, Caroline Funk, Todd O'Hara, Lorrie Rea, **Julie Avery**. Total mercury concentrations among unique bone elements varies within individual adult Steller sea lions. Poster presentation at the Alaska Marine Science Symposium, Anchorage, Alaska. January 23-26, 2023.
6. †Keenan, M., N. Misarti, L. Hortsman, C. Funk, T. O'Hara, L.D. Rea, **J.P. Avery**. Influence of environmental regime shift on total mercury concentration in Steller sea lion bones. International

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Council for the Exploration of the Sea Annual Science Conference (ICES), Dublin, Ireland. September 19- 22, 2022. *Abstract Accepted July 2022, presentation declined.*

7. Misarti, N., C. Funk, M. Keenan†, L.D. Rea, **J.P. Avery**. Influence of environmental regime shift on total mercury concentration in Steller sea lion bones. International Council for the Exploration of the Sea Annual Science Conference (ICES), Dublin, Ireland. September 19- 22, 2022. *Abstract Accepted July 2022 for oral presentation.*
8. **Avery, J.P.**, N. Misarti, C. Funk, T.M. O'Hara, L.D. Rea. It's in the bones: Tracking mercury dynamics in the Aleutian Islands, Alaska utilizing ancient Otariid bones. 24th Biennial Conference of the Society for Marine Mammalogy, West Palm Beach, FL. Original date Dec 2021, delayed to August 2022 due to COVID pandemic. *Poster Presentation.*
9. †Keenan, M., N. Misarti, L. Hortsman, L.D. Rea, **J.P. Avery**. Total mercury concentration in Steller sea lion femurs. 24th Biennial Conference of the Society for Marine Mammalogy, West Palm Beach, FL. Original date Dec 2021, delayed to August 2022 due to COVID pandemic. *Poster Presentation.*
10. Rea L.D., S.G. Crawford, J.M. Castellini, **J.P. Avery**, B.S. Fadely, M. Keogh, M. Rehberg, and T.M. O'Hara. Mercury Rising: Significant Within-decade Increase in Mercury Concentrations in Steller Sea Lion Pups at Agattu Island, Alaska. 24th Biennial Conference of the Society for Marine Mammalogy, West Palm Beach, FL. Original date Dec 2021, delayed to August 2022 due to COVID pandemic. *Poster Presentation.*
11. Funk, C., N. Misarti, L.D. Rea, **J.P. Avery**. The long history of mercury in Aleutian marine food webs, Year 2 of the Aleutian Mercury Dynamics project. Alaska Anthropological Association Conference, Online. February 28-March 4, 2022. Oral Presentation.
12. †Keenan, M., N. Misarti, L. Hortsman, C. Funk, L.D. Rea, **J.P. Avery**. Variability in total mercury concentration ([THg]) of Steller sea lion (*Eumetopias jubatus*) pup and adult long bones. Alaska Marine Science Symposium, Anchorage AK, January 24- 27, 2022.
13. **Avery, J.P.**, N. Misarti, C. Funk, T.M. O'Hara, L.D. Rea. Sanak Island Alaska: A key study site to explore eastern Aleutian mercury dynamics. Alaska Marine Science Symposium, Anchorage AK, January 24- 27, 2022.
14. **Avery, J.P.**, N. Misarti, C. Funk, L.D. Rea. Ancient Unangan harvests of sentinel species track natural source mercury dynamics in the Aleutian Islands. One Health, One Future Conference at University of Alaska Fairbanks, April 6-11, 2021. Conference delayed 1 year due to COVID pandemic.
15. Rea L.D., S.G. Crawford, J.M. Castellini, **J.P. Avery**, B.S. Fadely, M. Keogh, M. Rehberg, and T.M. O'Hara. Significant Within-decade Increase in Mercury Concentrations in Steller Sea Lion Pups at Agattu Island, Alaska. One Health, One Future Conference at University of Alaska Fairbanks, April 6-11, 2021. Conference delayed 1 year due to COVID pandemic.
16. Funk, C., N. Misarti, T.M. O'Hara, L.D. Rea, **J.P. Avery**. Archaeological faunal assemblages partnered with modern data tell the story of mercury contamination in the Aleutian Islands. 48th Annual Meeting of the Alaska Anthropological Association from March 1-5, 2021.

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17. **Avery, J.P.**, N. Misarti, T.M. O'Hara, L.D. Rea. Ancient Marine Mammal Bones Record Dynamic Change in Natural Levels of Mercury Over the Last 3000 Years. SETAC North America 41st Annual Meeting from November 15-19, 2020.
18. Castellini, J.M., T.M. O'Hara, **J.P. Avery**, L.D. Rea. Total mercury, total selenium, and monomethyl mercury in multiple age cohorts and tissue types in Alaskan Steller sea lions (*Eumetopias jubatus*). SETAC North America 41st Annual Meeting from November 15-19, 2020.
19. Rea L.D., S.G. Crawford, J.M. Castellini, **J.P. Avery**, B.S. Fadely, M. Keogh, M. Rehberg, and T.M. O'Hara. Within decade increase in mercury concentrations in Steller sea lion pups at Agattu Island, Alaska. SETAC North America 41st Annual Meeting from November 15-19, 2020.
20. Castellini, J.M., T.M. O'Hara, **J.P. Avery**, L.D. Rea. 2020. Total mercury (THg), monomethyl mercury (MeHg ++), and total selenium (TSe) concentrations of Steller sea lions (*Eumetopias jubatus*) in Alaska: Age cohorts and tissue types. Alaska Marine Science Symposium, Anchorage AK, January 27- 30, 2020.
21. Crawford, S., M. Quillin, T. O'Hara, J.M. Castellini, **J.P. Avery**, B. Fadely, M. Keogh, M. Rehberg, L.D. Rea. 2019. Crescendos in heavy metal: Increasing mercury concentrations in Steller sea lion pups at Agattu Island, western Aleutian Islands, Alaska. Alaska Marine Science Symposium, Anchorage AK, January 28- February 1, 2019.
22. **Avery, J.P.**, N. Misarti, L.D. Rea. 2018. Mercury in ancient pinniped bones. Second UAF Steller Sea Lion Research Symposium. April 24-25, 2018.
23. Rea, L. D., J.M. Castellini, **J.P. Avery**, B.S. Fadely, H. Ziel, R.R. Ream, C. Kuhn, C. Duncan, M. Rehberg, T.M. O'Hara. 2018. Comparison of total mercury concentrations in hair of three pinniped species (Steller sea lions, Pacific harbor seals and northern fur seals) feeding in the Aleutian Islands and Bering Sea, Alaska. Second UAF Steller Sea Lion Research Symposium. April 24-25, 2018.
24. Castellini, J. M., L.D. Rea, L. Correa, **J.P. Avery**, T.M. O'Hara. 2018. Total mercury, methylmercury, and total selenium distribution in the tissues of Steller sea lions. Second UAF Steller Sea Lion Research Symposium. April 24-25, 2018.
25. **Avery, J.P.**, *T. Lamken, T.M. O'Hara, J. Margaret Castellini, J. London, H. Ziel, and L.D. Rea. 2017. Impact of foraging ecology on total mercury, monomethylmercury, and selenium concentrations in Aleutian Island harbor seals. Society for Marine Mammalogy, October 22-27, 2017.
26. Rea, L.D., J. Margaret Castellini, **Avery, J.P.**, B.S. Fadely, H. Ziel, R.R. Ream, C. Kuhn, C. Duncan, M. Rehberg, and T.M. O'Hara. 2017. Comparison of total mercury concentrations in hair of three pinniped species from the Aleutian Islands and Bering Sea, Alaska. Society for Marine Mammalogy, October 22-27, 2017.
27. **Avery, J.P.**, *T. Lamken, T.M. O'Hara, J. London, H. Ziel, and L.D. Rea. 2017. Regional differences in total mercury content of Aleutian harbor seal fur. Alaska Marine Science Symposium, January 16-20, 2017.

28. Castellini, J.M., **J.P. Avery**, T.M. O'Hara, *T. Bouta, L.D. Rea. 2017. Tissue distribution of total mercury, monomethylmercury, and selenium in Alaskan Steller sea lions. Alaska Marine Science Symposium, January 16-20, 2017.
29. †Harding, J., **J.P. Avery**, T.M. O'Hara, and L.D. Rea. 2017. Can Fur Predict the Total Mercury Concentration of Muscle in Steller sea lions? Alaska Marine Science Symposium, January 16-20, 2017.
30. **Avery, J.P.** 2015. Milk vs. Formula: Examination of Metabolic Hormone Profile in Common Pinniped Rehabilitation Formulas. Conference on the Biology of Marine Mammals, San Francisco CA. December 13-18, 2015.
31. *Ruben, C.A., M. Diaz Gomez, D.A.S. Rosen, **J.P. Avery**. 2015. Nutritional and Dietary Influences on metabolic hormones in Northern Fur Seals (*Callorhinus ursinus*). Conference on the Biology of Marine Mammals, San Francisco CA. December 13-18, 2015.
32. *Alvarez, G.A., †R.L. Cimino, R.K. Bonde, **J.P. Avery**. 2015. Investigating nutritional status of the West Indian Manatee (*Trichechus manatus*). Southeast and Mid-Atlantic Marine Mammal Symposium. Virginia Beach, VA. March 27-29, 2015.
33. *Tortolero, A., J. Schuh, A.D. Tuttle, **J.P. Avery**. 2015. Growth hormone and Insulin-like Growth Factor-I response to realimentation in rehabilitated gray seals (*Halichoerus grypus*). Southeast and Mid-Atlantic Marine Mammal Symposium. Virginia Beach, VA. March 27-29, 2015.
34. †Schumacher E.S., *W. Aris, **J.P. Avery**. 2015. Validation of ghrelin, growth hormone, and insulinlike growth factor-I radioimmunoassays to determine hormone concentrations in human formula and common pinniped rehabilitation formula. Southeast and Mid-Atlantic Marine Mammal Symposium. Virginia Beach, VA. March 27-29, 2015.
35. Emery K.Q., K.J. O'Connell, A.R. Kompelli, J.L. Dearolf, **J.P. Avery**. 2015. Morphology of a neonatal guinea pig accessory ventilatory muscle. Society for Integrative and Comparative Biology. West Palm Beach, FL. January 3-7 2015.
36. Mills W.B., M.R. Butler, J.L. Dearolf, **J.P. Avery**. 2015. Morphology of the neonatal guinea pig scalenus muscle. Society for Integrative and Comparative Biology. West Palm Beach, FL. January 3-7 2015.
37. O'Connell K.J., K.A. McGrail, J.N. LaVergne, L.A. Riley, R.A. Walker, J.L. Dearolf, **J.P. Avery**. 2015. Fatigue properties of the neonatal guinea pig diaphragm. Society for Integrative and Comparative Biology. West Palm Beach, FL. January 3-7 2015.
38. †Sirman, A.E., **J.P. Avery**, W.R. Hood. 2015. The effects of the developmental environment on reproductive effort and insulin-like growth factor 1 in the house mouse (*Mus musculus*). Society for Integrative and Comparative Biology. West Palm Beach, FL. January 3-7 2015.

39. Shero, M.R., R.T. Krotz, D.P. Costa, **J.P. Avery**, J.M. Burns. 2014. Overwinter changes in Weddell seal body condition and hormone profiles: Implications for pregnancy? American Physiological Society, San Diego CA. October 5-8, 2014.
40. †Pelon, K. and **J.P. Avery**. 2014. Developmental pattern of muscle growth hormone receptor expression in Steller sea lions (*Eumetopias jubatus*). UNF Biology Chemistry & Physics Poster Session. Jacksonville FL, October 24, 2014.
41. †Schumacher, E., *W. Aris, **J.P. Avery**. 2014. Examination of Ghrelin and Growth Hormone Concentrations in Common Pinniped Rehabilitation Formulas. UNF Biology Chemistry & Physics Poster Session. Jacksonville FL, October 24, 2014.
42. Hood, W., †A. Sirman, **J.P. Avery**. 2014. Maternal diet, metabolism, and reproductive effort in the house mouse. Comparative Nutrition Society Proceedings. Flat Rock, NC. August 2014.
43. *Smith, K.N., †R.E. Dailey, **J.P. Richmond**. 2014. Different Feeding Methods Have Limited Effects on Cortisol Concentrations in Harbor Seal (*Phoca vitulina*) Pups Undergoing Rehabilitation. Southeast and Mid-Atlantic marine Mammal Symposium. Wilmington, NC. March 28-30, 2014.
44. Amatuli, K.C., D.A.S. Rosen, **J.P. Richmond**. 2014. Seasonality of metabolic hormones in a seasonal carnivore, the Steller sea lion *Eumetopias jubatus*. Society for Integrative and Comparative Biology. Austin TX, January 3-7 2014.
45. *Butler, M.R., A. Chughtai, L.A. Riley, R.A. Walker, J.L. Dearolf, **J.P. Richmond**. 2014. Effects of prenatal glucocorticoids on the fetal guinea pig scalenus muscle. Society for Integrative and Comparative Biology. Austin TX, January 3-7 2014.
46. *Krotz, R.T, M.R. Shero, D.P. Costa, J.M. Burns, **J.P. Richmond**. 2014. Linking metabolic hormones to nutritional status in Weddell seals (*Leptonychotes weddellii*). Society for Integrative and Comparative Biology. Austin TX, January 3-7 2014.
47. *O'Connell, K.J., J.L. Dearolf, **J.P. Richmond**. 2014. Effect of prenatal steroids on the citrate synthase activity of the guinea pig external abdominal oblique. Society for Integrative and Comparative Biology. Austin TX, January 3-7 2014.
48. †Dailey, R.E., **J.P. Richmond**. 2013. Effect of age on the endocrine response to changes in nutritional status in young Northern elephant seals (*Mirounga angustirostris*). Conference on the Biology of Marine Mammals, Dunedin, New Zealand. November 2013.
49. *Amin, M., **J.P. Richmond**. 2013. Age related changes in growth hormone and insulin-like growth factor I free-ranging Steller sea lions (*Eumetopias jubatus*). Southeast and Mid-Atlantic marine Mammal Symposium. Jacksonville FL. March 22-24, 2013.
50. Anderson, B., **J. Richmond**, T. Pitchford, J. Gelsleichter. 2013. Observations of shark scavenging on North Atlantic Right Whale (*Eubalaena glacialis*) carcass in Northeast Florida. Southeast and Mid-Atlantic marine Mammal Symposium. Jacksonville FL. March 22-24, 2013.

51. †Cimino, R.L., **J.P. Richmond**. 2013. Seasonal variations in growth hormone, insulin-like growth factor-I, and ghrelin in the free-ranging manatee (*Trichechus manatus latirostris*). Southeast and MidAtlantic marine Mammal Symposium. Jacksonville FL. March 22-24, 2013.
52. †Dailey, R.E., **J.P. Richmond**. 2013. Impact of age and nutritional status on ghrelin and the somatotrophic axis in Northern elephant seals (*Mirounga angustirostris*). Southeast and MidAtlantic marine Mammal Symposium. Jacksonville FL. March 22-24, 2013.
53. *Seenath, S., **J. Richmond**. 2013. Endocrine evaluation of nutritional status of Steller sea lion (*Eumetopias jubatus*) pups in the Western Aleutian Islands, Alaska. Southeast and Mid-Atlantic marine Mammal Symposium. Jacksonville FL. March 22-24, 2013.
54. *Butler M.R.; Dearolf, J.L.; **Richmond, J.P.** 2013. The effect of prenatal steroids on citrate synthase activity in the fetal guinea pig scalenus muscle. Society for Integrative and Comparative Biology (SICB). San Francisco CA. January 3-7, 2013.
55. †Cimino, R.L., **J.P. Richmond**. Assessing seasonality of the free-ranging Florida Manatee (*Trichechus manatus latirostris*). SICB. San Francisco, January 3-7 2013.
56. †Dailey, R.E., **J.P. Richmond**. Impact of nutritional status on ghrelin and growth hormone in phocid seal pups. SICB. San Francisco, January 3-7 2013.
57. Gibson, Q.A., E.M. Howells, J.D. Lambert, M.M. Mazzoil, G. O’Cory-Crowe, **J.P. Richmond**. Impact of Reproductive Status on Ranging Patterns of Female Bottlenose Dolphins. SICB. San Francisco, January 3-7 2013.
58. *Kompelli, AR; Dearolf, JL; **Richmond, JP.** 2013. The effect of betamethasone on the citrate synthase activity in fetal guinea pig rectus abdominus. SICB. San Francisco CA. January 3-7, 2013.
59. *McGrail, KA; Dearolf, JL; Walker, RA; **Richmond, JP.** 2013. Effects of prenatal steroids on the citrate synthase activity of the fetal guinea pig (*Cavia porcellus*) diaphragm. SICB. San Francisco CA. January 3-7, 2013.
60. *McKinney, M.L.; Walker, R.A.; Dearolf, J.L.; **Richmond, J.P.** 2013. The scalenus and diaphragm muscles’ contributions to inspiration in the bottlenose dolphin (*Tursiops truncatus*). SICB. San Francisco CA. January 3-7, 2013.
61. †Nekolny, S.; Gibson, Q.; ‡Ermak, J.; **J.P. Richmond**. 2013. Don’t Bite Your Mother: Seasonality and Sex Differences in Bottlenose dolphin Aggression. SICB. San Francisco CA. January 3-7, 2013.
62. *Unser, A.J.; Dearolf, J.L.; **Richmond, J.P.** 2013. Investigating the presence of a venous sphincter in the bottlenose dolphin (*Tursiops truncatus*) diaphragm. SICB. San Francisco CA. January 3-7, 2013.
63. *Walker, R.A.; Dearolf, J.L.; **Richmond, J.P.** 2013. Assessment of the oxidative capacity of the rectus thoracis muscle in betamethasone treated fetuses. SICB. San Francisco CA. January 3-7, 2013.

64. †Dailey, R.E., **J. P. Richmond**. 2012. Satiety hormone response from nutritional nadir through realimentation in rehabilitated seal pups. Comparative Nutrition Society Proceedings. Monterey CA. July 2012.
65. *Mello, M, Q.A. Gibson, Z. McKenna, **J.P. Richmond**. 2011. Body Coverage and Severity of Tooth Rake Marks: A Comparison Between Two Neighboring Populations of Bottlenose dolphins (*Tursiops truncatus*). Biology of Marine Mammals, Tampa, FL. November 2011.
66. Gibson, Q.A., E.M. Howells, J.D. Lambert, M.M. Mazzoil, G. O’Cory-Crowe, **J.P. Richmond**. 2011. The Ranging Patterns of Female Bottlenose Dolphins (*Tursiops truncatus*) with Respect to Reproductive Status: Testing the Concept of Nursery Areas. Conference on the Biology of Marine Mammals, Tampa, FL. November 2011.
67. *Parker, S., J.M. Burns, J. Schuh, S.A. Zinn, **J.P. Richmond**. 2011. Comparison of the somatotropic axis between free-range vs. rehabilitated ice seal species. Conference on the Biology of Marine Mammals, Tampa, FL. November 2011.
68. Caldwell, M., Q. A. Gibson, **J.P. Richmond**, R. Burks, M. Mazzoil, R. Borkowski. 2011. Post Unusual Mortality Event Survey Data Provide Evidence for Long-term Habitat Use and Possible Range Extension of Bottlenose Dolphins (*Tursiops truncatus*) in Jacksonville, FL. Conference on the Biology of Marine Mammals, Tampa, FL. November 2011.
69. *Hebert K. D., **J.P. Richmond**, L. D. Rea, S. A. Zinn. 2011. Longitudinal Assessment of the Somatotropic Axis in Free-Ranging, Juvenile Steller Sea Lions. Journal of Animal Science. New Orleans, LA. July 10-14.
70. *Anderson, C.E., **J. P. Richmond**, J. M. Burns, S. A. Zinn. 2010. Comparison of the somatotropic axis of two precocious free-ranging ice seal species: harp (*Phoca groenlandica*) and hooded (*Cystophora cristata*). Journal of Animal Science. Denver, CO. July 11-15.
71. †Parillo, A., **J. P. Richmond**, K.S. White, J. Crouse, B.W. Dale, S. A. Zinn. 2010. The Effect of Forage Availability on the Somatotropic Axis in Free-Ranging Alaskan Moose. Journal of Animal Science. Denver, CO. July 11-15.
72. Richmond, J.P., M. Keogh, S. Atkinson, S.A. Zinn. 2010. Seasonal changes in leptin and ghrelin concentrations associated with intake and body condition of captive Steller sea lions. Integrative and Comparative Biology. Seattle, WA January 3-7.
73. Richmond, J.P., L.D. Rea, S.A. Zinn. 2010. Steller sea lion (*Eumetopias jubatus*) leptin cDNA Sequence Homology. Integrative and Comparative Biology. Seattle, WA January 3-7.

INVITED PRESENTATIONS

- April 18, 2023 – “Utilizing interdisciplinary analyses of faunal materials from Unangam middens to understand mercury dynamics of Aleutian Steller sea lions.” Third UAF Steller Sea Lion Research Symposium, Fairbanks AK.

J. P. Avery
 (Formerly J.P. Richmond)

- April 14, 2023 – “Perinatal growth physiology and One Health.” University of Alaska Fairbanks, TRiM Seminar, Fairbanks AK.
- November 3, 2017 – “Impact of foraging ecology on total mercury, monomethylmercury, and selenium concentrations in Aleutian Island harbor seals.” University of North Florida, Department of Biological Sciences Seminar.
- October 21, 2016 – “Conservation Physiology: Comparative Growth Physiology On the Land and In the Sea” University of Alaska Fairbanks, Institute of Northern Engineering, Fairbanks AK.
- September 19, 2016 – “Wildlife Growth Physiology: An Example of Conservation Physiology and One Health Connection” University of Alaska Fairbanks, Department of Veterinary Medicine, One Health Seminar, Fairbanks AK.
- February 25, 2015 - “Nature, Nutrition, and the Environment: The ecophysiology of differential growth strategies among phocids” University of Florida College of Veterinary Medicine, Aquatic Animal Health Program, Gainesville FL. <http://aquatic.vetmed.ufl.edu/education/events/seminars/>
- February 22, 2013 – “Growing Seasons: Endocrine Regulation of Growth Physiology” University of North Florida, Department of Biological Sciences, Jacksonville FL.
- July 8-12, 2013 - “Comparative Growth Physiology On the Land and In the Sea: Animal Science to Marine Mammal Biology” American Dairy Science Association-American Society of Animal Science Joint Annual Meeting, Indianapolis, ID. Special session on Companion Animals: Comparative Animal Nutrition.
- January 2, 2013 - “Fasting and Re-alimentation of phocids: All seals are not created equal” The Marine Mammal Center, Sausalito CA.
- January 25, 2013 - “Feast or Fast: Endocrine regulation of differential growth strategies in diverse marine mammal species” Auburn University, Department of Biological Science, Auburn AL.
- June 17, 2010 - “Conservation Research: The importance of captive studies to assess nutritional status of free-ranging populations of marine mammals” Mystic Aquarium & Institute for Exploration (MAIFE), Mystic, CT.
- February 19, 2010. “Nutrition, Growth and Development: Using metabolic hormones as a tool to assess nutritional status of marine mammal populations” University of North Florida, Jacksonville FL.
- January 7, 2010. “Nutritional status of free-ranging Steller sea lions: The utility of metabolic hormones to identify nutritional stress” NOAA, National Marine Mammal Laboratory, Alaska Fisheries Science Center, Seattle WA.
- September 15, 2009. “Nutrition, Growth, and Development: The role of the somatotrophic axis” University of Connecticut, Department of Molecular and Cellular Biology, Storrs, CT.
- September 2007. “Using captive animals to develop a model of nutritional stress for evaluation of nutritional status in free-ranging pinnipeds” presentation at workshop entitled “Marine Mammals in the Lab: Tools for Conservation and Science”. Marine Mammal Research Consortium, Vancouver, BC.
- September 2007. “Fasting and Re-alimentation: Changes in the somatotrophic axis of marine mammals under nutritional stress” University of Alaska Anchorage, Anchorage AK.

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- May 2007. “Assessing the nutritional status of rehabilitated harbor seals” MAIFE, Mystic, CT.
- March 2007. “Nutrition, Growth and Development: Using the somatotropic axis as a tool to assess nutritional status in marine species” Biology Department, Northeastern Illinois University, Chicago IL.
- June 2005. “The somatotropic axis on land and in the sea” MAIFE, Mystic, CT.
- June 2004. “Examination of blood and muscle development in the Steller sea lion (*Eumetopias jubatus*): Implications for Diving and Foraging Ability” MAIFE, Mystic, CT.
- May 2004. “Ontogeny of total body oxygen stores and aerobic dive potential in the Steller sea lion (*Eumetopias jubatus*)” Scripps Institution of Oceanography, La Jolla, CA.

TEACHING EXPERIENCE

- 2016 – 2017 Faculty Affiliate, Joint Doctorate of Veterinary Medicine Program at Colorado State University, College of Veterinary Medical Sciences, Ft. Collins Colorado and University of Alaska Fairbanks, Department of Veterinary Medicine, Fairbanks AK. *Veterinary Physiology and Histology* (DVM 618) Teaching faculty and Course Coordinator (9 credit course).
- 2010 – 2015 Assistant Professor, Department of Biological Sciences, University of North Florida, Jacksonville FL.*
 General Biology (BSC 1010C); Human Anatomy and Physiology I Lecture & Laboratory (BSC 2085C); Human Anatomy and Physiology II Laboratory (BSC 2086C); *Biology of Marine Mammals and Laboratory* (ZOO 4485, ZOO 4485L); *Advanced Biology of Marine Mammals* (ZOO 5487C); Senior Seminar Preparation (BSC 4842); Senior Seminar Practicum (BSC 4947); *Comparative Nutrition* (BSC 4930); *Advanced Comparative Nutrition* (BSC 5936). (New Courses Developed identified with italics)
 *Typical teaching load three classes per semester. For example, Fall 2014: General Biology Lecture (189 students), Human Anatomy and Physiology I Lecture (173 students), and Senior Seminar Practicum (11 students); or Spring 2014: Human Anatomy and Physiology I Lecture (144 students) and Biology of Marine Mammals (43 students) with laboratory (21 students).
- 2010 Adjunct Professor, Manchester Community College, Manchester CT
 General Biology I (BIO 121)
- 2009 Co-Instructor, University of Connecticut, Storrs CT. Principles of Biology I (BIOL 1107)
- 2005 – 2009 Teaching Assistant, Department of Animal Science, University of Connecticut, Storrs CT Reproductive Physiology (ANSC 3122); Growth and Metabolism of Domestic Animals (ANSC 3313); Writing in Growth and Metabolism of Domestic Animals (ANSC 3314W).

OTHER TEACHING EXPERIENCE

Graduate Student Committees Completed/In-Progress

2021-2023	Co-Chair, M.S.	Mary Keenan (University of Alaska Fairbanks)
2014-2016	Member, M.S.	Olivia Scheffler (University of North Florida)
2011-2015	Member, M.S.	Brenda Anderson (University of North Florida)
2013-2015	Member, M.S.	Amanda Brown (University of North Florida)
2012-2015	Member, M.S.	Jessica Frank (University of South Alabama)
2012-2014	Member, M.S.	Jessica Ermak (University of North Florida)
2012-2014	Member, M.S.	Rasheda Likely (University of North Florida)
2012-2014	Member, M.S.	Samantha Nokolny (University of North Florida)
2012-2014	Member, M.S.	Maria Peterson (University of North Florida)
2012-2014	Member, M.S.	Aubrey Sirman (Auburn University)
2011-2013	Chair, M.S.	Rachel Cimino (University of North Florida)
2011-2013	Chair, M.S.	Rachael Dailey (University of North Florida)
2008-2010	Member M.S.	Amanda Parillo (University of Connecticut, Animal Science)

Graduate Student Committees Not Completed

2014-2015	Chair, M.S.	Kathryn Pelon. Left program to pursue MS in Marine Environmental Policy.
2014-2015	Chair, M.S.	Elizabeth Schumacher. Left program to become a Wildlife Rehabilitation Specialist.
2011-2013	Member, M.S.	Zach McKenna. Switched to MA program.

Undergraduate and Professional Student Research (since Fall 2010)

*Denotes mentored student with authorship listed in publications

Crystal Liebenberg – UNF Undergraduate Research, Comparison of Insulin-like growth factor (IGF)-I and IGF binding proteins among varied human formulas. (Spring 2019 – 2020)

Elizabeth Cheiky – UNF Undergraduate Research, Nutritional Endocrinology. (Spring 2019 – 2020)

Hannah Malik – UNF Undergraduate Research, Insulin-like growth factor binding proteins in pupping versus skip breeding adult female Weddell seals (*Leptonychotes weddellii*). (Spring 2017 – 2020)

Evan Jason – UNF Undergraduate Research, Realimentation of emaciated California sea lion (*Zalophus californianus*) pups during the 2013-2016 Unusual Mortality. (Fall 2016 – Summer 2018)

Nicole Del Pino – UAF WERC, Colorado State University Veterinary Student Research, Total mercury and trophic level of fur and blood from Northern fur seal female-pup pairs (Summer 2017).

*Tim Bouta – UAF-WERC Undergraduate Student Research, Tissue distribution of methyl-mercury in Steller sea lions (*Eumetopias jubatus*) (Summer 2016 – January 2017).

*Jed Harding – UAF-WERC Veterinary Student Research, Examination of total mercury in fur and muscle of Steller sea lions (Summer 2016 – January 2017).

*Tiffany Lampkin – UAF-WERC Undergraduate Student Research, Mercury, selenium and chemical feeding ecology of Aleutian Island harbor seals (*Phoca vitulina*) (Spring 2016 – Fall 2016).

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- Emily Floore – UNF Undergraduate Research, Growth hormone and insulin-like growth factor in pupping versus skip breeding adult female Weddell seals (*Leptonychotes weddellii*). (Summer 2013 – December 2016)
- *Cheyanne Ruben – UNF Undergraduate Research, Influence of diet composition on ghrelin and the somatotrophic axis in Northern fur seals (*Callorhinus ursinus*). (Summer 2013 – May 2017)
- Joshua Smith – UNF Undergraduate Research, Insulin-like growth factor binding proteins in pupping versus skip breeding adult female Weddell seals (*Leptonychotes weddellii*). (Summer 2015)
- *Gina Alvarez – UNF Undergraduate Research, Insulin-like growth factor-I binding proteins in free-ranging manatee. (Spring 2013 – Summer 2015)
- *Andres Tortolero – UNF Senior Thesis, Endocrine response to re-alimentation in rehabilitated grey seal (*Hylocherus grypus*) pups. (Spring 2014 – Spring 2015)
- Ayla Anderson – NSF REU, Differences in insulin-like growth factor (IGF-I) and Growth Hormone (GH) between four North Atlantic phocid species throughout rehabilitation (Summer 2014)
- *Riley Krotz – UNF Senior Thesis, Linking metabolic hormones to nutritional status in Weddell seals (*Leptonychotes weddellii*). (Summer 2013 – Summer 2014)
- *Wendie Aris – NSF REU, Concentrations of Ghrelin in Human and Common Seal Formulas (Summer 2013)
- *Kacie Smith – UNF Senior Thesis, Different Feeding Methods Have Limited Effects on Cortisol Concentrations in Harbor Seal (*Phoca vitulina*) Pups Undergoing Rehabilitation. (Spring 2013 – Fall 2014)
- *Mansi Amin – UNF Senior Thesis, Age related changes in growth hormone and insulin-like growth factor I free-ranging Steller sea lions (*Eumetopias jubatus*). (Summer 2012 – Spring 2013)
- *Sanjeev Seenath – UNF Senior Thesis, Endocrine evaluation of nutritional status of Steller sea lion (*Eumetopias jubatus*) pups in the Western Aleutian Islands, Alaska. (Summer 2012 – Spring 2013)
- Robin Goyle – Post-Bacc Research, Quantification of Leptin concentrations in Steller sea lion serum and blubber. (Summer 2012 – Fall 2012)
- Dominique Barbosa – UNF Senior Thesis, Seasonal variation of ghrelin, growth hormone and insulin-like growth factor in free ranging harbor seals (Summer 2011 – Spring 2012)
- *Megan Mellow – UNF Senior Thesis, Tooth rake marks and aggression of bottlenose dolphins (*Tursiops truncatus*) in Northeast Florida. (Summer 2011 – Spring 2012)
- Jamie Rothaug – UNF Research, Using GPS to identify critical habitat of bottlenose dolphins (*Tursiops truncatus*) in the St. Johns River, Florida (Spring 2011 – Summer 2011)
- *Savannah Parker – UNF Senior Thesis, Free-range vs Rehabilitated ice seals: Analysis of components of the somatotrophic axis to assess nutritional status of harp (*Pagophilus groenlandicus*) and hooded seals. (Spring 2011 – Spring 2012)

PROFESSIONAL SERVICE & OUTREACH

Peer Review

Journals: Aquatic Biology, Comparative Biochemistry and Physiology, General and Comparative Endocrinology, Journal of Animal Science, Journal of Experimental Biology, Journal of Wildlife Rehabilitation, Nature, Marine Ecology Progress Series, Mammalian Biology, Marine Mammal Science, Physiological and Biochemical Zoology, Research in Veterinary Science, Science Advances.

J. P. Avery

(Formerly J.P. Richmond)

Research Proposals: National Science Foundation (designated reviewer 2010, 2023 and panelist 2013, 2015), North Pacific Research Board.

Professional Societies

Academy of Nutrition and Dietetics, Comparative Nutrition Society, Society for Integrative and Comparative Biology, Society for Marine Mammalogy.

Conference Organization

Organized and hosted the 2013 Southeast and Mid-Atlantic Marine Mammal Symposium (SEAMAMMS) at University of North Florida, March 22-24, 2013.

<http://www.unf.edu/coas/biology/SEAMAMMS.aspx>

Community Outreach

Host Biennial Community Zoom meetings to engage Alaska Indigenous and Scientific Community in discussion of Mercury Dynamics in the Aleutian Islands (NSF Sponsored Research). Participated in community outreach events such as the Right Whale Festival, Natural Life Festival, and Wild Amelia Nature Festival. Work closely with state and federal management agencies including Alaska Department of Fish & Game, Florida Fish and Wildlife Conservation Commission, National Marine Fisheries Service, and US Fish and Wildlife Service.

University Service

UAF University Service

2023-25 Committee on the Status of Women

UNF College & University Service

2010-20 Radiation Safety Committee

2012-14 COAS, Academic Programs
Committee

2015 Molecular Cell Biology & Genetics
Lecturer Search Committee

2015 Anatomy and Physiology Lecturer Search
Committee

UNF Departmental Service

2010-12 Boat Safety Committee

2010-12 By Laws Committee

2010-12 Internship Committee

2011-12 Long Range Planning Committee

2013-15 Biomedical and Pre-Professional
Advisory Committee

2012-15 Chair, Biology Curriculum Committee

CERTIFICATIONS, SPECIAL SKILLS AND TRAINING

- “Understanding and Operationalizing One Health” certification from AlaskaX via edX, January 2024.
- UAF Strategic Leadership Graduate Certificate, in progress. Anticipated August 2024.
- Institutional Animal Care and Use (ACUC) training and certification at multiple institutions.
- Remote First Aid, Survival Medicine, and CPR certified by LTR Training Systems, May 2003
- Communicating Across Cultures by Joint Regional Environmental Training Center, February 2003

J. P. Avery

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