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Education:

1964 B.A. Chemistry, California State University at San Diego
1966 M.A. Chemistry, California State University at San Diego
1970 Ph.D. Marine Biology, Scripps Institution of Oceanography,
University of California, San Diego

Experience:

1959-1964 Laboratory Assistant (Microbiology and Biology), California State University at San Diego
Teacher and Researcher, San Diego Natural History Museum
1964-1966 Teaching Assistant (Chemistry), California State University at San Diego
1966-1970 Research Assistant (Marine Biology), Scripps Institution of Oceanography
1971 Research Associate (Marine Biology), Scripps Institution of Oceanography
1971-1972 Research Associate (Food Science), Pennsylvania State University
1972-1973 Lecturer (Oceanography), California State University at San Diego
Assistant Research Biochemist, Scripps Institution of Oceanography
1973-1976 Assistant Professor (Oceanography), Skidaway Institute of Oceanography
1976-1981 Associate Professor (Oceanography), Skidaway Institute of Oceanography
1981-Present Professor, Skidaway Institute of Oceanography
1978-Present Adjunct Associate Professor, Microbiology Department, University of Georgia
1980-Present Adjunct Associate professor, Biology Department, Georgia Institute of Technology
1993-Present Adjunct professor, Marine Science Department, University of Georgia

Memberships and Awards:

1970 Honored Student Award, American Oil Chemists Society
1973 Participant, Workshop on Inputs, Rates and Effects of Petroleum in the Marine Environment, National Academy of Sciences
1974-1975 Member, Advisory Committee on Marine Resources Research Group on Biological Accumulators (Food and Agriculture Organization of the United Nations)
1976-1979 Program Committee, Oil Spill Conference, EPA/API/USCG
1986-1993 Advisory Board, CRC Reviews in Aquatic Sciences, CRC Press
1986-1993 Editorial Board, Marine Environmental Research
1992-1995 National Academy of Sciences, Marine Board, Committee on Marine Salvage Issues

- 2001-2003 National Academy of Sciences, Committee to Review EPA's Research Grant Program
2023-present Editorial Board, Biology, MDPI Publisher

Committees Chaired:

- 1979 International Council for the Exploration of the Sea. Workshop on the problems on monitoring biological effects of pollution in the sea. chairman of working group on Biochemical Techniques (Lee *et al.*, Rapp, P.-V. Reun. Cons. Int. Explor. Mer. 179:48-55).
- 1980 NOAA Gulf/South Atlantic Region Ocean Pollution Conference. New Orleans, June 9-12, 1980. Member of Steering Committee and Co-chairman of panel.
- 1981 Principal contributor. Petroleum in the Marine Environment. Update of Report by the National Academy of Sciences. Workshop in November, 1981. Editor for chapter on Biological Processes.
- 1990 Environmental Protection Agency, Science Advisory Board, Ecological Monitoring Subcommittee.

Publications:

- 1966 Lee, R.F. Thymine-7-hydroxylase. M.A. Thesis. California State University at San Diego.
- 1967 Abbott, M.T., E.K. Schandl, R.F. Lee, T.S. Parker, and R.J. Midgett, Cofactor requirements of thymine-7-hydroxylase. *Biochimica et Biophysica Acta* 132:525-528.
- 1970 Lee, R.F. The sulfoglycolytic pathway in plants and algae. Ph.D. Thesis. Scripps Institution of Oceanography, University of California, San Diego.
- 1970 Lee, R.F., J.C. Nevenzel, and A.A. Benson. Wax ester structure and metabolism in marine copepods. *Federation Proceedings* 29:899.
- 1970 Lee, R.F., J.C. Nevenzel, and G.-A. Paffenhöfer. Wax esters in marine copepods. *Science* 167:1510-1511.
- 1970 Lee, R.F., J.C. Nevenzel, G.-A. Paffenhöfer and A.A. Benson. The metabolism of wax esters and other lipids by the marine copepod, *Calanus helgolandicus*. *Journal of Lipid Research* 11:237-240.

- 1970 Lee, R.F., J.C. Nevenzel, G.-A. Paffenhöfer, A.A. Benson, S. Patton, and R. Kavanaugh. A unique hexaene hydrocarbon from a diatom, *Skeletonema costatus*. *Biochimica et Biophysica Acta* 202:386-388.
- 1971 Lee, R.F. and A.R. Leoblilch. The distribution of 21:6 hydrocarbon and its relationship to 22:6 fatty acid in algae. *Phytochemistry* 10: 593-602.
- 1971 Lee, R.F., J.C. Nevenzel and G.-A. Paffenhöfer. Importance of wax esters and other lipids in the food chain - phytoplankton and copepods. *Marine Biology* 9:99-108.
- 1971 Lee, R.F., J. Hirota and A. Barnett. Distribution and importance of wax esters in marine copepods and other zooplankton. *Deep-Sea Research* 18:1147-1165.
- 1972 Lee, R.F. and A.A. Benson. The metabolism of 35S-glyceryl sulfoquinovoside (GSQ) by the coral tree, *Erthrina cristagalli*, and alfalfa, *Medicago sativa*. *Biochimica et Biophysica Acta* 261:35-37.
- 1972 Lee, R.F. and D.L. Puppione. Serum lipoproteins of the Pacific sardine, *Sardinops caerulea* Girard. *Biochimica et Biophysica Acta* 270:272-278.
- 1972 Lee, R.F., R. Sauerheber and A.A. Benson. Petroleum hydrocarbons: Uptake and discharge by the marine mussels, *Mytilus edulis*. *Science* 177:344-346.
- 1972 Benson, A.A., R.F. Lee and J.C. Nevenzel. Wax esters: Major metabolic energy sources. In: *Current Trends in Biochemistry of Lipids*, R.M.S. Smellie, ed, Academic Press, London, pp. 175 - 187.
- 1972 Sargent, J.R., R.F. Lee and H.J.C. Nevenzel. The biosynthesis of wax esters and triacylglycerols in cell-free preparation of the marine copepod, *Calanus helgolandicus*. Report UCLA-12-889. (Available from National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia.)
- 1972 Lee, R.F., Sauerheber and G.H. Dobbs. Uptake, metabolism and discharge of polycyclic aromatic hydrocarbons by marine fish. *Marine Biology* 17:201-208.
- 1972 Lee, R.F., J.C. Nevenzel and G.-A. Paffenhöfer. The presence of wax esters in marine planktonic copepods. *Naturwissenschaften* 59:406-411.
- 1972 Patton, S., R.F. Lee and A.A. Benson. The presence of unusually high levels of lysophosphatidyl ethanolamine in a wax ester-synthesizing copepod (*Calanus plumchrus*). *Biochimica et Biophysica Acta* 270:479-488.
- 1972 Lee, R.F., J. Hirota, J.C. Nevenzel, R. Sauerheber, A.A. Benson, and A. Lewis. Lipids in the marine environment. *California Cooperative Oceanic Fisheries Investigations Reports* 16:95-102.

- 1973 Lee, R.F. and J. Hirota. Wax esters in tropical zooplankton and nekton and the geographical distribution of wax esters in marine zooplankton. *Limnology and Oceanography* 18:227-229.
- 1973 Lee, R.F., J.C. Nevenzel and A.G. Lewis. Lipid changes during the life cycle of the marine copepod, *Euchaeta japonica* Marukawa. *Lipids* 9:891-898.
- 1973 Patton, S., R.D. McCarthy, P.E. Plantz, and R.F. Lee. Phospholipid incorporation into the plasma membrane of lactating mammary cell with special reference to spingomyelin. *Nature New Biology* 241:241-242.
- 1974 Lee, R.F. and A.A. Benson. Fates of petroleum in the sea: Biological aspects. In: Background Papers for a Workshop on Inputs, Fates, and Effects of petroleum in the Marine Environment. National Academy of Sciences, Washington, DC, pp. 541-551.
- 1974 Lee, R.F. Lipid composition of the copepod, *Calanus hyperboreus*, from the Arctic Ocean. Changes with depth and season. *Marine Biology* 26:313-318.
- 1974 Lee, R.F. and L. Cheng. A comparative study of the lipids of water striders from marine, estuarine, and freshwater environments: Halobates, Rheumatobates, Gerris (Heteroptera: Gerridae). *Limnology and Oceanography* 19:958-965.
- 1974 Lee, R.F. Lipids of zooplankton from Bute Inlet, British Columbia. *Journal of Fisheries Research Board of Canada* 31:1577-1582.
- 1974 Lee, R.F. Bioaccumulations and metabolism of organic pollutants in the sea. Background papers for the Advisory Committee on Marine Resources Research Working Group on Biological Accumulators. Food and Agriculture Organization of the United Nations. ACMRR/WP-BA/1/6.
- 1974 Lee, R.F. and P.M. Williams. Copepod slick in the northwest Pacific Ocean. *Naturwissenschaften* 61:505-506.
- 1974 Anita, N.J., R.F. Lee, J.C. Nevenzel, and J.Y. Cheng. Wax ester production by the marine cryptomonad *Chroomonas salina* grown photoheterotrophically on glycerol. *Journal of Protozoology* 21:768-771.
- 1975 Lee, R.F., C.F. Phleger and M.H. Horn. Composition of oil in fish bones: Possible function in neutral buoyancy. *Comparative Biochemistry and Physiology* 50B:13-16.
- 1975 Lee, R.F., J.T. Polhemus and L. Cheng. Lipids of the water strider *Gerris remigio* Say (Heteroptera:Gerridea): Seasonal and developmental variations. *Comparative Biochemistry and Physiology* 51B:451-456.

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- 1975 Benson, A.A. and R.F. Lee. The role of wax in oceanic food chains. *Scientific American* 232(3):76-86.
- 1975 Lee, R.F. Fate of petroleum hydrocarbons in marine zooplankton. Prevention and control of oil pollution. In: *Proceedings of the 1975 Conference on Prevention and Control of Oil Pollution*. American Petroleum Institute, Washington, DC, pp. 549-533.
- 1975 Sargent, J.R. and R.F. Lee. Biosynthesis of lipids in zooplankton from Saanich Inlet, British Columbia. *Marine Biology* 31:15-23.
- 1975 Lee, R.F. and A.T. Bairnes. Lipids in the mesopelagic copepod, *Gaussia princeps*: Wax ester utilization during starvation. *Comparative Biochemistry and Physiology* 52B:265-268.
- 1975 Lee, R.F. Lipids of parasitic copepods associated with marine fish. *Comparative Biochemistry and Physiology* 52B:363-364.
- 1975 Phleger, C.F., J. Patton, P. Grimes and R.F. Lee. Fish bone oil: Percent total body lipid and carbon-14 uptake following feeding of 1^{14}C -palmitic acid. *Marine Biology* 35:85-90.
- 1976 Lee, R.F. Marine impacts within the three-mile limit: Fate of oil in South Atlantic coastal waters. Ohshore Impacts Conference. Executive Summary. The Georgia Conservancy, Savannah.
- 1976 Lee, R.F. and C. Ryan. Biodegradation of petroleum hydrocarbons by marine microbes. In: *Proceedings of the Third International Biodegradation Symposium* (J.M. Sharpley and A.M. Kaplan, eds.). Applied Science Publishers, Essex, England, pp. 119-125.
- 1976 Lee, R.F. Metabolism of petroleum hydrocarbons in marine sediments. In: *Sources, Effects and Sinks of Hydrocarbons in the Aquatic Environment* American Institute of Biological Sciences, Washington, DC, pp. 334-344.
- 1976 Lee, R.F., C. Ryan and M.L. Neuhauser. Fate of petroleum hydrocarbons taken up from food and water by the blue crab, *Callinectes sapidus*. *Marine Biology* 37:363-370.
- 1976 Lee, R.F. Monitoring of petroleum hydrocarbons. In: *Manual of Methods in Aquatic Environment Research. Part 2. - Guidelines for the Use of Biological Accumulators in Marine Pollution Monitoring* (J.E. Portmann, ed.). Food and Agriculture Organization of the United Nations, Rome, Italy, pp. 38-47.

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- 1977 Lee, R.F. Fate of petroleum components in estuarine waters of the southeastern United States. In: *Proceedings of 1977 Oil Spill Conference (Prevention, Behavior, Control, Cleanup)*. American Petroleum Institute, Washington, DC, pp. 611-616.
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- 1977 Lee, R.F. Fate of petroleum hydrocarbons in marine animals. In: *Proceedings of the Oceans 77 Conference, October 17-19, 1977, Los Angeles, California*. Institute of Electrical and Electronics Engineers, New York, pp. 406-1 - 406-4.
- 1977 Lee, R.F. Fate of oil in the sea. In: *Proceedings of the 1977 Oil Spill Response Workshop* (P.L. Fore, ed.). U.S. Fish and Wildlife Service, Biological Services Program, FSW/OBS/77-f24, Washington, DC, pp. 43-54.
- 1978 Lee, R.F. and D.L. Puppione. Serum lipoproteins in the spiny lobster, *Panulirus interuptus*. *Comparative Biochemistry and Physiology* 59B:239-243.

- 1978 Lee, R.F., W.S. Gardner, J.W. Anderson, J.W. Blaylock and J. Barwell-Clarke. Fate of polycyclic aromatic hydrocarbons in controlled ecosystems enclosures. *Environmental Science and Technology* 12:832-839.
- 1978 Gagosian, R.B., S.I. Ahmed, J.W. Farrington, R.F. Lee, R.F.C. Mantoura, K.N. Nelson, T.T. Packard and K.L. Reinhart. Future research problems in marine organic chemistry. *Marine Chemistry* 6:375-382.
- 1979 Lee, R.F., S.C. Singer, K.R. Tenore, W.S. Gardner, and R.M. Philpot. Detoxification systems in polychaete worms: Importance in the degradation of sediment hydrocarbons. In: *Marine Pollution: Functional Responses* (W.B. Vernberg, F.P. Thurberg, A. Calabrese, and F.J. Vernberg, eds.). Academic Press, New York, pp. 23-37.
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- 1979 Gardner, W.S., R.F. Lee, K.R. Tenore, and L.W. Smith. Degradation of selected polycyclic aromatic hydrocarbons in coastal sediments: Importance of microbes and polychaete worms. *Water, Air and Soil Pollution* 11:339-347.
- 1979 Lee, R.F. and J.C. Nevenzel. Wax esters in the marine environment: Origin and composition of the wax from Bute inlet, British Columbia. *Journal of the Fisheries Research Board of Canada* 36:1519-1523.
- 1979 Lee, R.F. and F. Gonsulin. Lipids from nerve tissues of the horseshoe crab, *Limulus polyphemus*. *Comparative Biochemistry and Physiology* 64B:375-379.
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- 1980 Lee, R.F., J.M. Davies, H.C. Freeman, A. Ivanovic, M.N. Moore, J. Stegeman and J.F. Uthe. Biochemical techniques for monitoring biological effects of pollution in the sea. Rapp. P.-v. Reun. Cons. Int. Explor. Mer. 179:48-55.
- 1980 Lee, R.F. and S.C. Singer. Detoxifying enzyme systems in marine polychaetes: Increases in activity after exposure to aromatic hydrocarbons. Rapp P.-v. Reun. cons. Int. Explor. Mer. 179-29-32.
- 1980 Lee, R.F. Processes affecting the fate of oil in the sea. In: Marine Environmental Pollution, I. Hydrocarbons, (R.A. Geyer, ed.). Elsevier, Amsterdam, pp. 337-351.
- 1980 Lee, R.F. Metabolism of foreign organic compounds in marine animals. In: Marine Chemistry into the Eighties, (J. Thompson, W. Jamieson, W.J. Cretny and R.W. Macdonald, eds.). Institute of Ocean Sciences, Sidney, British Columbia, pp. 113-129.
- 1980 Hinga, K.R., R.F. Lee, J.W. Farrington, M.E.Q. Pilson, K. Tjessem and A.C. Davis. Biogeochemistry of benzanthracene in an enclosed marine ecosystem. Environmental Science and Technology 14:1136-1143.
- 1980 Cordes, C., L. Atkinson, R. Lee and J. Blanton. Pelagic tar off Georgia and Florida in relation to physical processes. Marine Pollution Bulletin 11:315-317.
- 1981 Lee, R.F., B. Dornseif, F. Gonsulin, K. Tenore and R. Hanson. Fate and effects of a heavy fuel oil spill on a Georgia salt marsh. Marine Environmental Research 5:125-143.
- 1981 Lee, R.F., K. Hinga and G. Almquist. Fate of radiolabeled polycyclic aromatic hydrocarbons and pentachlorophenol in enclosed marine ecosystems. In: Marine Mesocosms: Biological and Chemical Research in Experimental Ecosystems, (G.D. Grice, ed.). Springer-Verlag, New York, pp. 123-135.
- 1981 Lee, R.F. Mixed function oxygenase (MFO) in marine invertebrates. Marine Biology Letters 2:87-105.
- 1981 Lee, R.F., S.C. Singer and D.S. Page. Responses to cytochrome P-450 systems in marine crab and polychaetes to organic pollutants. Aquatic Toxicology 1:355-365.
- 1981 Lee, R.F., J. Stolzenbach, S. Singer, and K.R. Tenore. Effects of crude oil on growth and mixed function oxygenase activity in polychaetes, *Nereis* sp. In: Biological Monitoring of Marine Pollutants, (J. Vernberg, A. Calabrese, F.P. Thurberg, and W.B. Vernberg, eds.). Academic Press, New York, pp. 323-334.
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- analyzed by high pressure liquid chromatography, In: Proceedings 1981 Oil Spill Conference, American Petroleum Institute, Washington, DC, pp. 341-345.
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- 1982 Connor, J.W. and R.F. Lee. Multiple forms of cytochrome P-450 in marine crabs. In: *Cytochrome P-450, Biochemistry, Biophysics and Environmental Implications*, (Hietanen, M. Laitinen and O. Hanninen, eds.), Elsevier, Amsterdam, pp. 245-249.
- 1982 Lee, R.F., J.W. Conner, D. Page, L.E. Ray and C.S. Giam. Cytochrome P-450 dependent mixed-function oxygenase systems in marsh crabs. In: *Physiological Mechanisms of Marine Pollutant Toxicity*, (W.B. Vernberg, A. Callabrese, F.P. Thurberg, and F.J. Vernberg, eds.), Academic Press, New York, pp. 145-159.
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- 1983 Haddad, L.M., R.F. Lee, O.J. McConnell and N.M. Targett. Toxic marine life. In: *Clinical Management of Poisoning and Drug Overdose*, (L.M. Haddad and J.F. Winchester, eds.), W.B. Saunders, Philadelphia, pp. 303-317.
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- 1984 Quattrochi, L.C. and R.F. Lee. Microsomal cytochromes P-450 from marine crabs. *Comparative Biochemical Physiology* 79C:171-176.
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- 1985 Lee, R.F. Metabolism of tributyltin oxide by crabs, oysters and fish. *Marine Environmental Research* 17:145-148.
- 1985 McKay, M.C., R.F. Lee and M.A.K. Smith. The characterization of plasma lipoproteins of the channel catfish, *Ictalurus punctatus*. *Physiological Zoology* 58:693-704.
- 1985 Van Veld, P.A., R.D. Vetter, R.F. Lee and J.S. Patton. Factors affecting the metabolism of lipid solubilized benzo(a)pyrene by the intestine of spot (*Leiostomus xanthurus*). *Marine Environmental Research* 17:154-155.
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