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EDUCATION

B.S., Pharmacy (1968), National Taiwan University, Taipei, Taiwan
M.S., Physical Chemistry (1973), Auburn University, Auburn, Alabama
Ph.D., Pharmaceutical Chemistry/Pharmacokinetics (1977), University of California, San Francisco, California

PROFESSIONAL EXPERIENCE

1969-70 - Detail Pharmacist
Japan Shionogi Pharmaceutical Company, Taipei, Taiwan
1977-80 - Assistant Professor, College of Pharmacy
University of Florida, Gainesville, Florida
1980-86 - Associate Professor, College of Pharmacy
University of Houston, Houston, Texas
1987-89 - Manager of Clinical Research
KV Pharmaceutical Company, St. Louis, Missouri
1989-91 - Assistant Director, Clinical Pharmacology
Wyeth Research, Philadelphia, Pennsylvania
1991-92 - Associate Director, Clinical Pharmacology
Astellas Healthcare, Deerfield, Illinois
1992-93 - Director, Pre-clinical Development and Analytical Chemistry
Greenwich Pharmaceuticals, Philadelphia, Pennsylvania
1993-98 - Vice President, Clinical Research and Business Affairs
Orlando Clinical Research Center, Orlando, Florida
1998-02 - President, Promed Clinical Research Center (formerly CRC/FL)
Orlando, Florida
1999-01 - Scientific Advisor, Bureau of Pharmaceutical Affairs, Department of Health, Taiwan
2002-05 - Principal, Advanced Pharma Consulting, Orlando, Florida
2005- - Professor, Pharmaceutical Sciences, School of Pharmacy,
Palm Beach Atlantic University, West Palm Beach, FL
2006- - Scientific Advisory Board, PhytoMedicals, Inc, Princeton, NJ

PROFESSIONAL SOCIETY MEMBERSHIP

1971-73 - Lamda Phi Upsilon Chemical Society
1973-86 - American Pharmaceutical Association
1977- - American Association of Colleges of Pharmacy
1980- - American Society for Clinical Pharmacology and Therapeutics
1983- - American College for Clinical Pharmacology

- 1986- - American Association of Pharmaceutical Scientists
- 1997- - Association of Clinical Research Professionals
- 1997- - Drug Information Association

COLLEGE/UNIVERSITY SERVICES

- 1977-80 - Graduate Admissions Committee, College of Pharmacy, University of Florida
- 1979-80 - Graduate Seminars Committee, College of Pharmacy, University of Florida
- 1979-80 - Curriculum Committee, College of Pharmacy, University of Florida
- 1980-86 - Graduate Studies Committee, College of Pharmacy, University of Houston
- 1980-86 - Student Advising Committee, College of Pharmacy, University of Houston
- 1982-83 - Intramural Research Grant Committee, University of Houston.
- 1982-84 - Post-graduate Study Committee, College of Pharmacy, University of Houston
- 1985-86 - Limited Grant in Aid Committee, University of Houston.
- 1986-87 - Tenure and Promotion Committee, College of Pharmacy, University of Houston
- 2006-11 - Admissions Committee, School of Pharmacy, Palm Beach Atlantic University
- 2007-08 - Academic Technology Committee, Palm Beach Atlantic University
- 2007-08 - Grant Reviewer, Quality Initiative Faculty Research, Palm Beach Atlantic University
- 2008-11 - Research Resources Committee, School of Pharmacy, Palm Beach Atlantic University
- 2008-11 - Faculty Advocacy Committee, School of Pharmacy, Palm Beach Atlantic University
- 2009-10 - Faculty Promotion Advocacy Committee, Palm Beach Atlantic University

PROFESSIONAL SOCIETY SERVICES

- 1978 - Chairman, Basic Pharmaceutics Section, 125th Annual Meeting of the American Pharmaceutical Association.
- 1979 - Instructor, Continuing Education Program, Florida Pharmacists Association.
- 1982 - Paper Screening Committee, Texas Society for Hospital Pharmacists.
- 1985 - Symposium Coordinator, 133rd Annual Meeting of the American Pharmaceutical Association.
- 1996 - Communications Committee, American Society for Clinical Pharmacology and Therapeutics.
- 1998 - Vice Chair, Public Affairs and Communication Committee, American Society for Clinical Pharmacology and Therapeutics.

U.S. GOVERNMENT SERVICES

- 1979-80 National Medical Advisory Committee (Drug Labeling), FDA
- 1982-83 Special Study Section (Physiological Biochemistry), NIH
- 1983-84 Special Study Section (End-Stage Renal Disease Program), NIH
- 1983- Concept Summary Review Committee, National Institute on Drug Abuse.
- 1984-85 Project Officer, Research Technology Branch, National Institute on Drug Abuse
- 1985-86 Consultant, Pharmacokinetic Program, National Institute on Drug Abuse
- 1986-87 Special Review Committee, Small Business Innovation Research Grant, ADAMHA

1989-90 Contract Review, Extramural Program, National Institute on Drug Abuse
1992-00 Research Grant Review, Alcohol, Drug Abuse, and Mental Health Administration
2000- Research Grant/Contract Review, National Institute on Drug Abuse, NIH

BOOK/JOURNAL REVIEW

Pharmacokinetics. Gladtko and Heimann, eds. Gustav Fischer Verlag, Stuttgart, New York, 1980

Biopharmaceutics and Clinical Pharmacokinetics: An Introduction, R.E. Notari, Marcel Dekker, Inc., New York, N.Y., 1987

J. Pharmacokinet. Biopharm, 1980, 1982, 1984

The Association of Official Analytical Chemist, 1980-1981

Biopharmaceutics and Drug Disposition, 1981-1987

J. Clin. Pharmacol. 1983-85

J. Pharm. Sci. 1984

Clin. Pharmacokinet., 1984

Am. J. Kidney Diseases, 1985

Pharmaceutical Research, 1990-1991

J. Medical Systems 2009-

PUBLICATIONS

Book chapter

1. Lee, C.S. and Benet, L.Z.: Ethambutol hydrochloride. In: Analytical Profiles of Drug Substances. K. Florey, Ed., Vol.7, 1978, Academic Press, Inc., pp. 231-249.
2. Lee, C.S. and Chiang, C.N.: Maternal-fetal Transfer of Abused Substances: Pharmacokinetic and Pharmacodynamic Data. In: Prenatal Drug Exposure: Kinetics and Dynamics. C. N. Chiang, C. Lee, eds., Research Monograph Series, National Institute on Drug Abuse, Vol. 60, 1985, pp. 110-147
3. Chiang, C.N. and Lee, C.S. eds.: Prenatal Drug Exposure: Kinetics and Dynamics. Research Monograph Series, National Institute on Drug Abuse, Vol. 60, 1985

Research articles

1. Lee, C.S. and Benet, L.Z.: Gas-liquid Chromatographic determination of ethambutol in plasma and urine of human and monkey. J. Chromatogr. 128: 188-192 (1976).
2. Lee, C.S., Gambertoglio, J.G., Brater, D.C., and Benet, L.Z.: Kinetics of oral ethambutol in the normal subjects. Clin. Pharmacol. Ther. 22: 615-621 (1977).
3. Lee, C.S. and Benet, L.Z.: Macro and micro determination of ethambutol in biological fluids. J. Pharm. Sci. 67: 470-473 (1978).
4. Lee, C.S., Marbury, T.C., Perrin, J.H., and Fuller, T.J.: Hemodialysis of theophylline in uremic patients. J. Clin. Pharmacol. 19: 219-226 (1979).
5. Lin, C.K., Lee, C.S., and Perrin, J.H. : Determination of two fenamates in plasma using high-performance liquid chromatography. J. Pharm. Sci. 69: 96-97 (1980).

6. Lee, C.S., Marbury, T.C., and Benet, L.Z.: Clearance calculations in hemodialysis: Application to blood, plasma, and dialysate measurements for ethambutol. *J. Pharmacokinet. Biopharm.* 8: 69-81 (1980).
7. Bruni, J., Wang, L., Marbury, T.C., Lee, C.S., and Wilder, B.J.: Protein binding of valproic acid in uremic patients. *Neurol.* 30: 557-559 (1980).
8. Marbury, T.C., Lee, C.S., Bruni, J., and Wilder, B.J.: The pharmacokinetics of valproic acid in patients with chronic renal failure during hemodialysis. *Dialysis and Transplantation* 9: 961-964 (1980).
9. Lee, C.S. and Wang, L.H.: An improved GLC method for the determination of ethambutol in biological fluids. *J. Pharm. Sci.* 69: 362-363 (1980).
10. Marbury, T.C., Wang, L.H., and Lee, C.S.: Hemodialysis of Acetaminophen in uremic patients. *Int. J. Artificial Organs.*, 5: 263-266 (1980).
11. Imamura, I., Wang, L.H., Lee, C.S., and Perrin, J.H.: Effects of chlorpromazine and atropine on the gastrointestinal absorption of acetaminophen. *Int. J. Pharmaceutics* 5:25-32 (1980).
12. Wang, L.H., Lee, C.S., and Marbury, T.C.: Hemodialysis of mefenamic acid in uremia. *Am. J. Hosp. Pharm.* 37: 956-958 (1980).
13. Lee, C.S., Bruni, J., Marbury, T.C., Perchalski, R.J., and Wang, L.H.: Hemodialysis and total body elimination of carbamazepine during chronic hemodialysis. *Clin. Toxicol.* 17: 429-438 (1980).
14. Fleitman, J. S., Lee, C.S., and Perrin, J.H.: A rapid HPLC assay of benoxaprofen in plasma. *J. Liq. Chromatogr.* 3: 1165-1172 (1980).
15. Lee, C.S., Brater, D.C., Gambertoglio, J.G., and Benet, L.Z.: Disposition kinetics of ethambutol. *J. Pharmacokinet. Biopharm.* 8: 335-346 (1980).
16. Bruni J., Gallo, J.M., Lee, C.S., Perchalski, R.H., and Wilder, B.J.: Interactions of valproic acid with phenytoin. *Neurology* 30: 1233-1236 (1980).
17. Suber, R., Lee, C.S., Torosian, G., and Edds, G.: Comparison of the pharmacokinetics of sulfisoxazole in humans and two monogastric animal species. *J. Pharm. Sci.* 70: 981-984 (1981).
18. Wang, L.H., Lee, C.S., Marbury, T.C., and Majeske, B.: Clearance calculations in hemodialysis: Application to plasma, red blood cell, and dialysate measurement for cyclophosphamide. *Clin. Pharmacol. Ther.* 29: 365-372 (1981).
19. Imamura, I., Wang, L.H., Lee, C.S., and Perrin, J.H.: Acetaminophen- Diphenhydramine interaction in rabbits. *Intl. J. Pharmaceutics* 8: 277-284 (1981).
20. Salem, R.B., Wilder, B.J., Yost, R.L., Doering, P.L. and Lee, C.S.: Rapid infusion of phenytoin sodium loading doses. *Am. J. Hosp. Pharm.* 38: 354-357 (1981).
21. Lee, C.S., Marbury, T.C., Wang, L.H., and Cade, R.J.: Hemodialysis for acetaminophen detoxification. *Clin. Toxicol.* 18: 431-439 (1981).
22. Marbury, T.C., Lee, C.S., Perchalsky, R.J., Wang, L.H., and Wilder B.J.: Hemodialysis clearance of ethosuximide in end stage renal disease patients. *Am. J. Hosp. Pharm.* 38: 1757-1760 (1981).
23. Lee, C.S., Wang, L.H., Marbury, T.C., and Majeske, B.: Hemodialysis clearance of dyphylline in chronic hemodialysis patients, *J. Pharmacol. Exp. Ther.* 217: 340-344 (1981).
24. Lee, C.S.: The assessment of fractional drug removal by extracorporeal dialysis. *Biopharm. Drug Disp.* 3: 165- 173 (1982).
25. Lee, C.S. Marbury, T.C., and Perchalski, R.J.: Primidone pharmacokinetics in ESRD patients

- during hemodialysis treatment. *J. Clin. Pharmacol.* 22: 301-308 (1982).
26. Lee, C.S., and Marbury, T.C.: Calculation of peritoneal clearance - theophylline as an example. *Peritoneal Dialysis Bulletin* 2: 193-194 (1982).
 27. Marbury, T.C., Sheppard, J.D., Gibbons, K., and Lee, C.S.: Combined antidotal and hemodialysis treatments for nitroprusside-induced cyanide toxicity. *Clin. Toxicol.* 19: 475-482 (1982).
 28. Chen, M.M., Lee, C.S., Imamura, Y., and Perrin J.H.: Acetaminophen- aluminum hydroxide interaction in rabbits. *J. Pharm. Sci.* 72: 828-830 (1983).
 29. Faulkner, R.D., and Lee, C.S.: Comparative assays for doxepin and desmethyldoxepin using HPLC and HPTLC. *J. Pharm. Sci.* 72: 1165-1167 (1983).
 30. Lee, C.S.: Pharmacokinetics of urea: Development of a kinetic model for correlating daily nitrogen intake and urea metabolism in chronic renal failure. *Biopharm. Drug Disp.* 4: 225-231 (1983).
 31. Lee, C.S., Peterson, J., Marbury, T.C.: Comparative pharmacokinetics of theophylline in peritoneal dialysis and hemodialysis. *J. Clin. Pharmacol.* 23: 274-280 (1983).
 32. Chen, M.M., Lee, C.S., and Perrin, J.H.: Absorption and disposition of ethambutol in rabbits. *J. Pharm. Sci.* 72: 828 (1983).
 33. Senekjian, H.O., Lee, C.S., Kuo, T.S., Au, D.S., and Krothapalli, R.: Absorption and disposition of ibuprofen in hemodialyzed uremic patients. *Eur. J. Rheumatol. Inflamm.* 6: 155-162 (1983).
 34. Faulkner, R., Pitts, W., Lee, C.S., Lewis, W., and Fann, W.: Multi-dose kinetics of doxepin in depressed patients. *Clin. Pharmacol. Ther.* 34: 509-515 (1983).
 35. Varughese, A., and Lee, C.S.: Disposition kinetics of ranitidine in rats. *Drugs under Exp. Clin. Res.* 9: 837(1983).
 36. Lee, C.S., and Marbury, T.C.: Drug therapy in hemodialysis patients - clinical pharmacokinetic considerations. *Clin. Pharmacokinet.* 9: 42-66 (1984), Invited review article.
 37. Au, D.S., Kuo, T.S., Mederski, B., and Lee, C.S.: Disposition kinetics of ibuprofen in nephrectomized dogs. *J. Pharm. Sci.* 73: 705 (1984).
 38. Lee, C.S., and Varughese, A.: Disposition kinetics of ethambutol in nephrectomized dogs. *J. Pharm. Sci.* 73: 787 (1984).
 39. Faulkner, R.D., Senekjian, H.O., and Lee, C.S.: Hemodialysis of doxepin and desmethyldoxepin in uremic patients. *Int. J. Artif. Organs* 8: 151-155 (1984).
 40. Chen, M.M., and Lee, C.S.: Cimetidine-acetaminophen interaction in man. *J. Clin. Pharmacol.* 25: 227-229 (1985).
 41. Varughese, A., Brater, D.C., Benet, L.Z., and Lee, C.S.: Ethambutol Kinetics in patients with impaired renal function. *Am. Rev. Resp. Dis.* 134: 34-38 (1986).
 42. Sun, X.S., Embil, K., Chow, D.S., and Lee, C.S.: HPLC analysis, protein binding, and red blood cell partition of phenprobamate. *Biopharm. Drug Disposition* 8: 341-351 (1987).
 43. Sun, X.S., Embil, K., and Lee, C.S.: Time-dependant absorption of phenprobamate. *Pharmaceutical Research* 5: 387-390 (1988).
 44. Karna, P., Lee, C., Kumar, A., Dyke, J., Gooch, W. M. Population pharmacokinetics of ceftizoxime in premature newborns. *Develop Pharmacol Ther* 20: 135-143 (1993).
 45. Jusko, W. J., Piekoszewski, W., Kilintman, G. B., Shaefer, M. S., Hebert, M. F., Piergies, A., Lee, C., Schechter, P., Mekki, Q. A. Pharmacokinetics of tacrolimus in liver transplant

- patients. Clin Pharmacol Ther 57: 281-290 (1995).
46. Shue, Y. K., Sears, P. S., Shangle, S., Walsh, R.B., Lee, C., Gorbach, S.L., Okumu, F., Preston, R.A. Safety, Tolerance and Pharmacokinetic Studies of OPT-80 in Healthy Volunteers Following Single and Multiple Oral Doses. Antimicrobial Agents and Chemotherapy 52: 11391-1395 (2008)
 47. Lee, C. Drug Safety, Whose Issue Is It? The Journal of Taiwan Pharmacy 25(2): 3-6 (2009)
 48. Lee, C. Clinical Trial, What Is It? The Journal of Taiwan Pharmacy, 25(3): 12-21 (2009)
 49. Lee, C. The Next Wave of Blockbuster Diabetic Drugs, Jin-Fu Foundation, National Taiwan University Medical College, pp. 1-3, Feb, 2010
 50. Lee, C. Tilting the Equilibrium of Pharmacist Supply and Demand. The Journal of Taiwan Pharmacy, 27(1): 10-16 (2011)
 51. Lee, C. and Lubin, M. A Randomized, Double-Blind, Placebo Controlled, Four Week Study to Assess the Efficacy and Safety of Arthri-Zen Relief Herbal Dietary Supplement in Patients Experiencing Mild to Moderate Arthritis Pain (presented and submitted)

RESEARCH FUNDING

1. Starter Grant, University of Florida, 1978 (\$5,100)
Enhanced Absorption of Water Sparingly Soluble Drugs
2. Key Pharmaceuticals, 1978 (\$6,000)
Bioavailability of a sustained-release theophylline formulation
3. Pfizer, Inc. 1978-79 (\$40,000)
The Psychobiology of Doxepin in Depression
(Co- Investigator, PI: Richard A. Moskovitz, MD)
4. Meyer Laboratories, 1978-79 (\$18,000)
Bioavailability of a Sustained-Release Theophylline Formulation
5. Initiation Grant, University of Florida, 1979 (\$3,000)
Pharmacokinetics of Valproic Acid in Chronic Renal Failure Patients during Hemodialysis
6. Department of Pediatrics, College of Medicine, University of Florida, 1979 (\$1,800)
Therapeutic monitoring of Theophylline in Asthmatic Patients
7. Biomedical Research and Development Grant, HEW, 1978-80 (\$350,000)
(Co-Investigator, PI: John H. Perrin, PhD)
 - i) Enhanced GI Absorption of Flufenamic Acid by beta- Cyclodextran Inclusion
 - ii) Disposition Kinetics of Drugs in Ascitis
8. Department of Gynecology and Obstetrics, College of Medicine, University of Florida, 1979 (\$6,200)
Determination of Urinary MHPG (3-methoxy 4-hydroxy phenyl- ethyleneglycol) in depressed Women
9. National Cancer Institute, NIH, 1979-80 (\$67,000)
Effect of Intravenous Hyperalimentation on Cancer Chemotherapy
(Co-Investigator, PI: Warren E. Ross, MD)
10. Glaxo Research Laboratories, 1980 (\$4,000)
Pharmacokinetics of Ranitidine
11. American Lung Association, 1980 (\$15,000)
Ethambutol Kinetics in Tuberculosis Patients with Renal Failure

12. Shand's Teaching Hospital, University of Florida, 1980 (\$1000)
Therapeutic monitoring of Acetaminophen in Analgesia
13. New Research Opportunities Grant, University of Houston, 1981 (\$2,500)
Pharmacokinetics of Clonidine in ESRD and Dialysis
14. Biomedical Research Supporting Grant, National Institute of Health, 1981 (\$25,000)
Drug Kinetics of Constant Rate Intravenous Infusion
15. Department of Pediatrics, University of Texas Health Sciences Center at Houston, 1982 (\$3,000)
Therapeutic monitoring of Theophylline in Pediatric Patients
16. Department of Gastroenterology, University of Texas Health Sciences Center at Houston, 1982 (\$7,500)
Therapeutic monitoring of Cimetidine
17. Biomedical Research Supporting Grant, National Institute of Health, 1982 (\$3,000)
Nitrogen Metabolism in Uremia
18. The Upjohn Company, 1983 (\$1000)
Absorption and Disposition of Ibuprofen in Hemodialyzed Uremic Patients
19. Boots Pharmaceuticals, Inc., 1983 (\$30,000)
Evaluation of Ibuprofen Sustained-Release Formulations
20. Internal Medicine, University of Texas Health Sciences Center at Houston, 1984 (\$1000)
Pharmacokinetics of Ethambutol in Renal Failure
21. University of Houston, 1984 (\$16,200)
HPLC Analysis of Phenprobamate in Biological Fluids
22. Siegfried Ltd., Zofingen, Switzerland, 1984 (\$74,000)
Pharmacokinetics of Phenprobamate in Rats and Humans
23. National Institute on Drug Abuse, 1984 (\$54,210)
IGP/Office of Health and Human Services
24. Embil Pharmaceuticals, Inc., Istanbul, Turkey, 1985 (\$20,000)
Anxiolytic Effects of Phenprobamate
25. Quantum Pharmics, New York, NY, 1985 (\$2,500)
Carbamazepine Bioequivalence - a feasibility study
26. Quantum Pharmics, New York, NY, 1985-86 (\$65,632)
Doxepin Bioequivalence
27. University of Houston, Grant in Aid, 1986 (\$2000)
Maternal-Fetal Transport of Drugs

RECENT PRESENTATIONS

Xuzhou Economic & Technological Development Office, Xuzhou, Jiangsu (May 7, 2012)
Title: A combination formulation of Sildenafil and Nitric Oxide Supplement for Erectile Dysfunction

Shanghai Jiaotong University, School of Pharmacy (May 15, 2012)
Title: Pharmacists' Role in Clinical Research