CURRICULUM VITAE

HuiChuan Jennifer Lai, Ph.D., R.D.
Professor, Dept of Nutritional Sciences, College of Agriculture and Life Sciences
Affiliate Professor, Dept of Pediatrics and Dept of Population Health Sciences
School of Medicine and Public Health
University of Wisconsin - Madison
1415 Linden Drive, Madison, WI 53706
Tel: (608) 262-9972; Fax: (608) 262-5860; E-mail: hlai@wisc.edu

EDUCATION

1987	B.S. in Nutrition, Taipei Medical College, Taiwan, R.O.C.
1990	M.S. in Nutritional Sciences, University of Wisconsin - Madison
1994	Ph.D. in Nutritional Sciences, University of Wisconsin – Madison Major: Human and Clinical Nutrition Minor: Distributed in Statistics, Food Sciences and Biochemistry
1995	Dietetic Internship, University of Wisconsin Hospital and Clinics
2002	M.S. in Biostatistics, University of Wisconsin-Madison

CREDENTIAL

1995	RD (Registered Dietitian)

POSITIONS AND EMPLOYMENT

1988 - 1993	Research Assistant University of Wisconsin-Madison, Dept of Nutritional Sciences
1991 - 1991	Teaching Assistant University of Wisconsin-Madison, Dept of Nutritional Sciences
1994 - 1995	Dietetic Intern University of Wisconsin Hospital & Clinics
1995 - 1995	Clinical Trainee University of Wisconsin Hospital & Clinics, Pediatric Pulmonary Center
1995 - 1997	Research Associate University of Wisconsin-Madison, Dept of Pediatrics
1998 - 2000	Post-doctoral Fellow University of Wisconsin-Madison, Dept of Pediatrics
2000 - 2001	Post-doctoral Trainee University of Wisconsin-Madison, Dept of Nutritional Sciences
2001 - 2002	Assistant Scientist University of Wisconsin-Madison, Dept of Pediatrics
2002 - 2008	Assistant Professor University of Wisconsin-Madison, Dept of Nutritional Sciences
2003 - 2008	Affiliate Assistant Professor University of Wisconsin-Madison, Dept of Biostatistics & Medical Informatics

2005 - 2008	Affiliate Assistant Professor University of Wisconsin-Madison, Dept of Pediatrics
2008 - 2013	Associate Professor University of Wisconsin-Madison, Dept of Nutritional Sciences
2008 - 2011	Affiliate Associate Professor University of Wisconsin-Madison, Dept of Biostatistics & Medical Informatics
2008 - 2013	Affiliate Associate Professor University of Wisconsin-Madison, Dept of Pediatrics
2008 - 2017	Director, Didactic Program in Dietetics University of Wisconsin-Madison, Dept of Nutritional Sciences
2014 - present	Professor University of Wisconsin-Madison, Dept of Nutritional Science
2014 - present	Affiliate Professor University of Wisconsin-Madison, Dept of Pediatrics
2017 - present	Affiliate Professor University of Wisconsin-Madison, Dept of Population Health Sciences

HONORS AND AWARDS

1984 - 1987	Outstanding Student Fellowships, Taipei Medical College, Taiwan, R.O.C.
1998 - 2000	Awardee, Cystic Fibrosis Foundation Postdoctoral Research Fellowship

OTHER EXPERIENCES AND PROFESSIONAL MEMBERSHIPS

1995 -	Member, Academy of Nutritional & Dietetics
1996 -	Member, American Society for Nutrition
2001 - 2002	Member, Consensus Committee on Nutrition for Pediatric Patients, Cystic Fibrosis Foundation
2002 - 2010	Member, Society for Epidemiological Research
2003 - 2003	Newborn Screening for Cystic Fibrosis, Centers for Disease Control and Prevention & Cystic Fibrosis Foundation
2005 - 2006	Workgroup on Nutritional Classification for Pediatric Patients, Cystic Fibrosis Foundation
2007 - 2009	Member, Editorial Board, The Open Epidemiology Journal
2007 - 2012	Member, Patient Registry Committee, Cystic Fibrosis Foundation
2009 -	Statistical Reviewer, Journal of Allergy & Clinical Immunology (JACI)
2010 - 2013	Scientific Review Committee, Early Pseudomonas Infection Control (EPIC) Observational Study
2012 - 2012	Member, R01 Clinical Ancillary Study Grant Review Committee, NIH/NIDDK
2013 - 2013	Member, Quality Improvement (QI SIP II) Grant Review Committee, Cystic Fibrosis Foundation
2014 - 2014	Member, R01 Clinical Ancillary Study Grant Review Committee, NIH/NIDDK
2014 - 2014	Member, P30 CF Center Grant Review Committee, NIH/NIDDK
2014 - 2014	Chair, WHO-CDC Reference Equations Working Group, Cystic Fibrosis Foundation

RESEARCH ACTIVITIES

A. Active Grants

9/2016 - 8/2021 **Principal Investigator**, NIH-R01DK109692A1
Early Childhood Diet, Growth, Gut Microbiome and Lung Health in Cystic Fibrosis
Total $3,435,587 (Direct: $2,479,437; Indirect: $956,150)

This project assesses the associations of exclusive breastfeeding and preschool diet to growth, nutritional status and pulmonary health in CF children through the first 6 y of life and determine if low essential fatty acid intake from breast milk and variations in gut microbiota contribute to these associations. These objectives are being accomplished through a multi-center clinical study referred to as ***FIRST*** (***Feeding Infants Right… from the STart***) at 6 CF Centers in 5 states (Madison & Milwaukee, WI; Boston, MA; Salt Lake City, UT, Indianapolis, IN; Chicago, IL)

9/2017 - 8/2018 **Principal Investigator**, NIH-R01DK109692 (Office of Dietary Supplement)
Admin Supp: Probiotic Use and Impact on GI Symptoms in Children with CF
Total $153,000 (Direct: $100,000; Indirect: $53,000)

This project adds 3 additional aims to the ***FIRST study***: 1) determine the prevalence of probiotic use in CF vs health children; 2) examine if probiotic use reduces fecal calprotectin level and improve GI symptoms; and 3) compare gut microbiome profile between probiotic users and non-users .

9/2017 - 8/2020 **Principal Investigator**, Cystic Fibrosis Foundation, LAI17A0
Impact of Early Malnutrition on Lung Disease Development in Cystic Fibrosis
Total $1,092,063 (Direct: $1,024,676; Indirect: $67,387)

This project adds 3 additional aims to the ***FIRST study***: 1) assess lung health at age 5-6 y by CT and LCI; 2) establish a biospecimen management system; and 3) link FIRST study subjects to the CFF patient registry after 6 years of age.

10/2017 - 8/2020 **Co-Investigator**, The Legacy of Angels Foundation,
Assessing the Added Value of Whole Genome Sequencing (WGS) in Cystic Fibrosis Newborn Screening
Total $717,045 (Direct: $682,900; Indirect: $34,145)

This grant provides funding to the ***FIRST study*** supported by NIH and CFF to add WGS assessment. We anticipate that the WGS data will help explain the onset and course of CF to aid clinical decision making for caring children with CF.

1/2016 - 12/2016 (NCE to 12/2017) **Principal Investigator**, Cystic Fibrosis Foundation, LAI15A0
Early Childhood Diet, Growth, Gut Microbiome and Lung Health in Cystic Fibrosis (R01 Bridge Support) Total $367,394 (Direct: $340,180; Indirect: $27,214)

This award provides funds to supplement the R56 for continuing ***FIRST study*** activities and gather additional data during the revision of R01DK209692A1

9/2011 - 8/2016 (NCE to 8/2017) **Principal Investigator**, NIH R01DK072126 (Y6-Y10)
Newborn Screening, Malnutrition and Lung Disease in Cystic Fibrosis
Total $2,939,214 (Direct: $2,110,407; Indirect $828,807)

This project aims to quantify the associations among newborn screening, malnutrition and lung disease in children with CF through epidemiological and clinical studies with the ultimate goal of developing evidence-based guidelines to advance clinical practices in CF.

9/2012 - 8/2017 **Co-investigator**, NIH R01HL113548 (PI: Peng, Emory University)
Method Development for Survival Dynamic Regression in Chronic Disease Research. Madison subcontract $56,375 (Direct: $37,458; Indirect $18,197)

This project aims to develop a general dynamic regression framework that resolves the key limitations of the existing approaches and possesses capacities to handle many realistic data-related issues.

B. Past Research Support

7/2001 - 6/2004 **Principal Investigator**, NIH K01DK02891
Quantifying Effects of Malnutrition on Cystic Fibrosis
Total $278,986 (Direct: $258,320; Indirect: $20,666)

7/2002 - 6/2005 **Principal Investigator**, Cystic Fibrosis Foundation, LAI01A0QI
Developing a Quality Improve Clinical Care System
Total $232,611 (Direct: $215,380; Indirect $17,231

1/2004 - 12/2004 **Principal Investigator**, UW-GCRC Clinical Research Feasibility Funds (CreFF)
Diet and Obesity as Environmental Risk Factors for Asthma: Validation Studies for the Assessment of Dietary Intakes and Physical Activity
Total $12,000 (Direct: $12,000)

3/2004 - 2/2006 **Principal Investigator**, USDA-Hatch
Assessment of dietary intake and physical activity and their associations to the development of obesity and asthma during early childhood
Total $52,000 (Direct: $52,000)

7/2004 - 6/2006 **Principal Investigator**, American Lung Association
Diet and Obesity as Environmental Risk Factors for Asthma
Total $69,450 (Direct: $69,450)

7/2005 - 6/2006 **Principal Investigator**, UW-Madison Graduate School Research Grant
Malnutrition and Lung Disease in Cystic Fibrosis
Total $21,000 (Direct: $21,000)

7/2006 – 6/2011 **Principal Investigator**, NIH R01DK072126 (Y1-Y5)
Malnutrition and Lung Disease in Cystic Fibrosis
Total $1,331,282 (Direct: $925,000; Indirect: $406,282)

10/2007 - 9/2011 **Principal Investigator**, USDA-Hatch
Early Life Predictors of Childhood Asthma and Obesity
Total $111,000 (Direct: $111,000)

1/2007 - 12/2011 **Co-Investigator**, NIH-NIDDK R01DK34108 (PI: Farrell)
Pulmonary Benefits of Cystic Fibrosis Neonatal Screening

7/2007 - 6/2010 **Co-Investigator**, USDA-CSREES (PI: Nitzke)
Coordinating Practicum Experiences For Advanced Students In Nutrition And Dietetics In Wisconsin

5/2010 - 4/2011 **Principal Investigator**, NIH R01DK072126-04S1 (UW144-PRJ35MK)
Malnutrition and Lung Disease in Cystic Fibrosis
Total $80,367 (Direct: $56,732; Indirect $23,635)

10/2011 - 9/2014 **Principal Investigator**, USDA-Hatch (UW142-PRJ53CR, CS, CT)
Assessing and addressing personal and environmental factors that influence healthy lifestyle choices of young adults
Total $116,544 (Direct: $116,544)

1/2014 - 12/2016 **Principal Investigator**, Cystic Fibrosis Foundation, LAI14A0
Feeding Infants Right.. from the STart (FIRST) Study
Total $181,440 (Direct: $168,000; Indirect: $13,440)

This grant provides additional funding to expand the ***FIRST study*** funded by R01DK072126 to 1) start phase 2 (age 2-6 y), 2) add a breast milk sub-study, 3) enhance multi-site communication and 4) implement new quality control reporting systems to ensure timely, accurate and complete data collection.

9/2015 - 8/2016 **Principal Investigator**, NIH-R56DK109692
Early Childhood Diet, Growth, Gut Microbiome and Lung Health in CF
Total $150,355 (Direct: $100,000; Indirect: $50,355)

This award provides limited interim research support based on the merit of the first submission of R01 DK109692 to continue study visit activities and gather additional data for revision of R01 DK209692A1.

C. Publications

Peer-Reviewed Articles:

1. Ney DM, Lai HC, Lasekan JB and Lefevre M. Interrelationship of plasma triglyceride and HDL size and composition in rats fed different dietary saturated fats. *J. Nutr*. 1991;121:1311-1322.
2. Lai HC, Lasekan JB, Yang H, Clayton MK and Ney DM. In vivo determination of triglyceride secretion using radioactive glycerol in rats fed different dietary saturated fats. *Lipids* 1991;26: 824-830.
3. Lai HC, Lasekan JB, Monsma CC and Ney DM. Alteration of plasma lipids in the rat by fractionation of modified milk fat (butterfat). *J. Dairy Sci*. 1995;78:794-803.
4. Lai HC and Ney DM. Corn oil, palm oil and butterfat fractions altered postprandial lipid metabolism and lipoprotein lipase activity in meal-fed rats. J. Nutr. 1995;125:1536-1545.
5. Lai HC and Ney DM. Gastric digestion modifies absorption of butterfat into lymph chylomicrons in rats. *J. Nutr*. 1998;128:2403-2410.
6. Pridham K, Brown R, Sondel SA, Green C, Wedel NY and Lai HC. A model of transition time to full nipple feeding for preterm infants with a history of lung disease. *JOGNN* 1998; 27: 533-545.

7. Lai HC, Kosorok MR, Sondel SA, Chen ST, FitzSimmons SC, Green C, Shen G, Walker S and Farrell PM. Growth status in children with cystic fibrosis based on National Cystic Fibrosis Patient Registry data: evaluation of various criteria to identify malnutrition. *J. Pediatr.* 1998;132:478-85.
8. Lai HC, Corey M, FitzSimmons SC, Kosorok MR and Farrell PM. Comparison of growth status in patients with cystic fibrosis in the United States and Canada. *Am. J. Clin. Nutr*. 1999; 69:531-538.
9. Lai HC, Kosorok MR, Laxova A, Davis LA, FitzSimmons S and Farrell PM. Nutritional status of patients with cystic fibrosis with meconium ileus: a comparison with patients without meconium ileus and diagnosed early through neonatal screening. *Pediatrics* 2000;105:53-61.
10. Lai HC, FitzSimmons SC, Allen DB, Kosorok MR, Rosenstein BJ, Campbell P and Farrell PM. Persistent growth impairment in children with cystic fibrosis following treatment of alternate-day prednisone. *New Engl J Med*. 2000;342: 851-859.
11. Farrell PM, Kosorok MR, Rock MJ, Laxova A, Zeng L, Lai HC, Hoffman G, Laessig RH, Splaingard ML and the Wisconsin Cystic Fibrosis Neonatal Screening Study Group. Early diagnosis of cystic fibrosis through neonatal screening prevents severe malnutrition and improves long-term growth. *Pediatrics* 2001;107: 1-13.
12. Lai HC, Kosorok MR, Laxova A and Farrell PM. Delayed diagnosis in females with cystic fibrosis in the United States. *Am J Epidemiol* 2002;156:165-173.
13. Kudsk KA, Reddy SK, Sacks GS and Lai HC. JACHO guidelines: too late to intervene in nutritionally at-risk surgical patients. *JPEN* 2003;27:288-290.
14. Farrell PM, Li Z, Kosorok MR, Laxova A, Green CG, Collins J, Lai HC, Rock MJ, and Splaingard ML. Longitudinal evaluation of bronchopulmonary disease in children with cystic fibrosis. *Pediatr Pulmonol* 2003;36:230-240.
15. Farrell PM, Li Z, Kosorok MR, Laxova A, Green CG, Collins J, Lai HC, Rock MJ, and Splaingard ML. Bronchopulmonary disease in children with cystic fibrosis after early or delayed diagnosis. *Am J Respir Crit Care Med* 2003;168:1100-1108.
16. Lai HJ, Cheng Y, Cho H, Kosorok MR, Farrell PM. Association between initial disease presentation, lung disease outcomes and survival in patients with cystic fibrosis. *Am J Epidemiol* 2004;159:537-546.
17. Koscik RL, Farrell PM, Kosorok MR, Zaremba KM, Laxova A, Lai HC, Douglas JA, Rock MJ, Splaingard ML. Cognitive function of children with cystic fibrosis: deleterious effect of early malnutrition. *Pediatrics* 2004; 113: 1549-1558.
18. Li Z, Lai HJ, Kosorok MR, Laxova A, Rock MJ, Splaingard ML, Farrell PM. Longitudinal pulmonary status in cystic fibrosis children presenting with melonium ileus. *Pediatr Pulmonol* 2004;38:277-84.
19. Zhang Z, Lai HJ. Comparison of body mass index percentile and percentage of ideal body weight for screening malnutrition in children with cystic fibrosis. *Am J Clin Nutr* 2004;80:982-91.
20. Lai HJ, Cheng Y, Farrell PM. The survival advantage of cystic fibrosis patients diagnosed through neonatal screening: evidence from the US Cystic Fibrosis Patient Registry data. *J Pediatr* 2005;147:S57-63.
21. Farrell PM, Lai HJ, Li Z, Kosorok MR, Laxova A, Green CG, Collins J, Hoffman G, Laessig R, Rock MJ, Splaingard ML. Evidence on improved outcomes with early diagnosis of cystic fibrosis through neonatal screening: enough is enough! *J Pediatr* 2005;147:S30-36.
22. Koscik RL, Lai HJ, Laxova A, Zaremba K, Kosorok MR, Douglas JA, Rock MJ, Splaingard ML, Farrell PM. Preventing early, prolonged vitamin E Deficiency: an opportunity for better

cognitive outcomes via early diagnosis through neonatal screening. *J Pediatr* 2005;147:S51-56.

23. Shoff SM, Ahn H, Davis LA, Lai HJ, Wisconsin CF Neonatal Screening Group. Temporal associations between energy intake, plasma linoleic acid and growth improvement in response to treatment initiation after diagnosis of cystic fibrosis. *Pediatrics* 2006;117:391-400.
24. Grosse SD, Rosenfeld M, Devine OJ, Lai HJ, Farrell PM. Potential impact of newborn screening for cystic fibrosis on child survival: a systematic review and analysis. *J Pediatr* 2006;149:362-366.
25. Lai HJ. Classification of nutritional status in patients with cystic fibrosis. *Curr Opin Pulm Med* 2006;12;422-427.
26. Lai HJ and Shoff SM. Classification of malnutrition in cystic fibrosis: implications on evaluating and benchmarking clinical practices. *Am J Clin Nutr 2008*;88:161-166.
27. Lai HJ, Shoff SM, Farrell PM, and the Wisconsin CF Neonatal Screening Group. Recovery of birth weight z-score within two years of diagnosis is positively associated with pulmonary status at age six years in children with cystic fibrosis. *Pediatrics* 2009;123:714-722.
28. Tanumihardjo SA, Valentine AR, Zhang Z, Whigham LD, Lai HJ, Atkinson R. Strategies to Increase Vegetable or Reduce Energy and Fat Intake Induce Weight Loss in Adults. *Exp Biol & Med* 2009: 234:542-552.
29. Yan J, Cheng Y, Fine JP, Lai HJ. Uncovering symptom progression history from disease registry data with application to young cystic fibrosis patients. *Biometrics* 2010;66:594-602.
30. Zhang Z, Shoff SM, Lai HJ. Incorporating genetic potential when evaluating stature in children with cystic fibrosis. *J Cyst Fibros* 2010;9:135-142.
31. Zhang Z, Lai HJ, Roberg KA, Gangnon RE, Evans MD, Anderson EL, Pappas TE, Dasilva DF, Tisler CJ, Salazar LP, Gern JE, Lemanske RF Jr. Early childhood weight status in relation to asthma development in high-risk children. *J Allergy Clin Immunol* 2010;126;1157-1162.
32. Jadin S, Wu GS, Zhang Z, Shoff SM, Tippets BM, Farrell PM, Miller T, Rock MJ, Levy H, Lai HJ. Growth and pulmonary outcomes during the first two years of life of breastfed and formula-fed infants diagnosed through the Wisconsin routine cystic fibrosis newborn screening program. *Am J Clin Nutr* 2011; 93:1037-1047.
33. Sanders DB, Lai HJ, Rock MJ, Farrell PM. Comparing age of cystic fibrosis diagnosis and treatment initiation after newborn screening with two common strategies. *J Cyst Fibros* 2012; 11:150-153.
34. Ji S, Peng L, Cheng Y, Lai HJ. Quantile regression for doubly censored data. *Biometrics* 2012; 68:101-112.
35. Zhang Z, Lindstrom M, Lai HJ. Pubertal height velocity and associations with pre-pubertal and adult heights in cystic fibrosis. J *Pediatr* 2013;163:376:82
36. Shoff SM, Tluczek A, Laxova A, Farrell PM, Lai HJ. Nutritional Status is associated with health-related quality of life in children with cystic fibrosis aged 9-19 years. *J Cyst Fibros* 2013 2013;12:746-53.
37. Lin F-C, Cai J, Fine JP, Lai HJ. Nonparametric estimation of the mean function for recurrent events data with missing event category. *Biometrika* 2013;100:727-40.
38. Tanumihardjo J, Shoff SM, Koenings M, Zhang Z, Lai HJ. Alcohol outlet proximity and density are associated with alcohol use among college students. *Wisconsin Med J* 2015;114:143-7.
39. Zhang Z, Shoff SM, Lai HJ. Comparing the use of CDC and WHO growth charts in children with cystic fibrosis through two years of age. *J Pediatr*. 2015;167:1089-95.
40. Sun X, Peng L, Huang Y, Lai HJ. Generalizing quantile regression for counting processes with applications to recurrent events. *J Am Stat Assoc* 2016;111:145-156.

41. Cheng Y, Shen P, Zhang Z, Lai HJ. Nonparametric association analysis of bivariate left-truncated competing risks data. *Biometrical J* 2016;58:635-51.
42. Zhang Z, Lindstrom M, Farrell PM, Lai HJ. Pubertal height velocity and adult height in patients with cystic fibrosis diagnosed through the Wisconsin randomized clinical trial of newborn screening. *Pediatrics* 2016;137:e20152907.
43. Wang W, Chen M-H, Chiou H, Lai HJ, Wang X, Yan J, Zhang Z. Onset of persistent Pseudomonas aeruginosa infection in children with cystic fibrosis with interval censored data. *BMC Med Res Methodology* 2016;16:122-131.

Manuscripts submitted or in revision:

1. Ma H, Peng L, Zhang Z, Lai HJ. Generalized accelerated recurrence time model for multivariate recurrent event data with missing event type. Biometrics (in revision).
2. Sander DB, Zhang Z, Farrell PM, Lai HJ. Early life growth patterns persist for 12 years and impact pulmonary outcomes in cystic fibrosis. (submitted to *J Cyst Fibro*)
3. Nuss ET, Valentine AR, Zhang Z, Lai HJ, Tanumihardjo SA. Interactions among serum carotenoids, retinol, and body composition in premenopausal women reveal a-carotene is negatively impacted by body fat. (submitted to *Eur J Clin Nutr*)

Book chapters:

1. Farrell PM, Lai HC. Chapter 45: Nutrition and Cystic Fibrosis. In Coulston AM, Rock CL, Monsen ER. Nutrition in the Prevention and Treatment of Disease. San Diego, CA: Academic Press, 2001:715-727.
2. Lai HJ, Farrell PM. Chapter 42: Nutrition and Cystic Fibrosis. In Coulston AM, Boushey CJ. Nutrition in the Prevention and Treatment of Disease. 2nd edition. San Diego, CA: Academic Press, 2008:787-804.
3. Zhang Z, Lai HJ. Chapter 42: Nutrition and Cystic Fibrosis. In Coulston AM, Boushey CJ, Ferruzzi MG. Nutrition in the Prevention and Treatment of Disease. 3rd edition. San Diego, CA: Academic Press, 2013:787-808.
4. Lai HJ, Rock MJ, Farrell PM. Chapter 48: Nutrition in Cystic Fibrosis. In Kleinman RE, Greer FR, eds. Pediatric Nutrition. 7th ed. American Academy of Pediatrics. Elk Grove Village, IL. 2014: pp. 1113-1146.
5. Zhang Z, Chin L, Lai HJ. Chapter 43: Nutrition and Cystic Fibrosis. In Coulston AM, Boushey CJ, Ferruzzi MG. Nutrition in the Prevention and Treatment of Disease. 4E edition. San Diego, CA: Academic Press (In press, 2017).

Abstracts:

1. Lai HC, Ney DM, Lasekan JB and Lefevre M. Effects of different dietary saturated fats on lipoprotein composition in rats. *FASEB J.* 1989;3: A4230.
2. Lai HC, Yang H, Lasekan JB, Clayton MK and Ney DM. In vivo determination of triglyceride secretion in rats fed different dietary saturated fats using [2-^{3}H]-glycerol. *FASEB J.* 1990;4:A2297.
3. Ney DM, Lai HC, Lefevre M and Lasekan JB. Relative effects of milk fat on lipoprotein composition and in vivo hepatic triglyceride secretion in rats. American Oil Chemist Society Meeting. *INFORM* 1990;1;333-334, Abstract HH-23.
4. Ney DM and Lai HC. Hepatic Secretion and plasma clearance of butterfat triacyl-glycerols. American Oil Chemist Society Meeting. *INFORM* 1992;3:551, Abstract III 5.
5. Lai HC and Ney DM. Defined milkfat fractions alter postprandial lipemia in meal-fed rats. *FASEB J.* 6: 3245, 1992.

6. Ney DM and Lai HC. Postprandial lipemia and lymph chylomicron composition in rats fed defined butterfat fractions. 15th International Congress of Nutrition, Adelaide, Australia. 1993, Abstract No. 247.
7. Farrell PM, Koscik RE, van Egmond A, Kosorok MR, Laxova A, Feenan L, McCarthy C, Davis LA, Lai HC, Chen ST, Splaingard ML, Mischler EH. Early nutrition therapy in cystic fibrosis. *Pediatr Pulmonol*1995;20(S12):90, abstract no. S3.4.
8. Sondel SA, Lai, HC, Green C, Chen ST, Walker S, Farrell PM and Kosorok MR. Growth status in CF. *Pediatr Pulmonol*1995;20(S12):268, abstract no. 316.
9. Lai HC, Chen ST, Koscik RE, Farrell PM and Kosorok MR. Occurrence of poor growth at diagnosis of CF. *Pediatr Pulmonol* 1995;20(S12): 267, abstract no. 311.
10. Lai HC, Kosorok MR, Sondel SA and Farrell PM. Characterization of growth in children with CF. *Pediatr Pulmonol* 1996;22(S13):316, abstract no. 388.
11. Lai HC, Kosorok MR and Farrell PM. Growth evaluation and occurrence of malnutrition in children with cystic fibrosis based on data from the national Cystic Fibrosis Patient Registry. 16th International Congress of Nutrition, Montreal, Canada. 1996.
12. Lai HC, Kosorok MR, Stacey C, FitzSimmons, Corey M and Farrell PM. Comparison of growth status in children with CF between the United States and Canada. *Pediatr Pulmonol* 1997;24(S14):309, abstract no. 378.
13. Marcus M, Lai HC, Lee SK, Radtke A and Green C. Alternative medicine usage in people with cystic fibrosis. *Pediatr Pulmonol* 1998;26(S18):abstract no. 691.
14. Lai HC, Kosorok MR, Laxova A and Farrell PM. Nutritional status of CF patients with meconium ileus (MI): a comparison with non-MI patients diagnosed early through neonatal screening. *Pediatr Pulmonol* 1998;26(S18):abstract no. 531.
15. Rock MJ, Davis LA, Marcus MM, Lai HC, Douglas J, Kosorok, MR, Zaremba K, Zeng L, Laxova A, Farrell PM. Early nutritional intervention in infants with CF. *Pediatr Pulmonol* 1998;26(S18): abstract no. 318.
16. Konstan MW, Butler SM, Johnson CA, Wagener JS, Lai HC, Morgan WJ. The relationship between nutritional status in early life and pulmonary function in CF. *Pediatr Pulmonol* 1999;28(S19):155, abstract no. S17.2.
17. Lai HC, Kosorok, MR, Allen DB, FitzSimmons SC, Rosenstein BJ, Campbell PW, Eigen H, Farrell PM. Long-term growth evaluation in children with cystic fibrosis with history of regular use of alternate-day prednisone therapy. *Pediatr Pulmonol* 1999;28(S19):297, abstract no. 463.
18. Lai HC, Kosorok MR, Laxova A, Davis LA, and Farrell PM. Long-term dietary intakes in children with cystic fibrosis: evaluation from diagnosis to age 10 years. *Pediatr Pulmonol Suppl* 1999;28(S19):297, abstract no. 464.
19. Lo HC, Lai HC, Chen HN, Yu WK, Tsao LY. Serum concentrations of total insulin-like growth factor (IGF)-I and its binding proteins sensitively reflect postnatal weight gain in preterm infants. *FASEB J* 2000: A531, abstract no. 369.3.
20. VanDevanter DR, Lai HC, Eigen H, Konstan MW. Rates of lung function decline dor pseudomonas aeruginosa infected placebo patients in the prednisone, ibuprofen, and tobramycin solution for inhalation (TOBI) cystic fibrosis trials. *Pediatr Pulmonol* 2000;30(S20):298, abstract no. 437.
21. Douglas JA, Zaremba KM, Becker MA, Rock MJ, Lai HC and Farrell PM. Association of cognitive abilities and head circumference in patients with cystic fibrosis. *Pediatr Pulmonol* 2000;30(S20):336, abstract no. 563.
22. Lai HC, Laxova A and Farrell PM. Gender difference in age of diagnosis for cystic fibrosis. *Pediatr Pulmonol* 2000;30(S20):314, abstract no. 491.

23. Lai HC and Farrell PM. Comparison of the old (1977) and the new (2000) growth charts for growth evaluation in children with cystic fibrosis. *Pediatr Pulmonol* 2000;30(S20):319, abstract no. 506.
24. Lai HC, Cho H, Kosorok MR and Farrell PM. Relationship between survival and initial disease presentation. *Pediatr Pulmonol* 2002;34(S24):323, abstract no. 421.
25. Shoff SM, Lai HC. Longitudinal dietary intake in children with cystic fibrosis from diagnosis to age 16 years: comparison with recommended clinical practice guidelines. *FASEB J* 2003;17(4):A343, abstract no. 205.12.
26. Zhang Z, Lai HC. Comparison of two weight-for-height indices for identifying malnutrition: application in the clinical care of children with cystic fibrosis. *FASEB J.* 2003;17(4):A728, abstract no. 445.6.
27. Reddy SK, Lai HC, Sacks GS, Kudsk KA. Elective esophageal surgery consumes more resources than elective surgery of other gastrointestinal sites. (Presented in the Digestive Disease Week, May 2003, Orlando, FL)
28. Lai HC, Cook T, Ahn H, Shoff SM, Laxova A, Rock MJ. Development of a quality improvement clinical care system. *Pediatr Pulmonol* 2003;36(S25):336, abstract no. 437.
29. Rock MJ, Cheng Yu, Lai HC, Makholm L. Distribution of sweat chloride values in patients with cystic fibrosis. *Pediatr Pulmonol* 2003;36(S25):337, abstract no. 439.
30. Koscik RL, Douglas JA, Zaremba KM, Lai HC, Rock MJ, Splaingard ML, Laxova A, Farrell PM. Quality of life in children with cystic fibrosis. *Pediatr Pulmonol* 2003;36(S25):358, abstract no. 496.
31. Koscik RL, Kosorok MR, Zaremba KM, Laxova A, Lai HC, Douglas JA, Rock MJ, Splaingard ML, Farrell PM. Early vitamin E deficiency and subsequent cognitive function: a potential benefit of neonatal screening for cystic fibrosis. *Pediatr Pulmonol* 2003;36(S25):359, abstract no. 497.
32. Cheng Y, Ahn H, Lai HJ. Associations between malnutrition and lung disease outcomes in young children with cystic fibrosis. *Pediatr Pulmonol* 2004;38(S27):320, abstract no. 381.
33. Shoff S, Ahn H, Davis L, Lai HJ, Farrell PM. Temporal associations between energy intake, plasma linoleic acid and growth in response to treatment initiation within two years post-diagnosis of cystic fibrosis. *Pediatr Pulmonol* 2004;38(S27):341, abstract no. 435.
34. Zhang Z, Lai HJ, Roberg R, Evans M, Gangnon M, Anderson E, Gern J, and Lemanske RF Jr. Occurrence of wheezing and being overweight in the first three years of life in a birth cohort at High risk for the development of asthma/allergy. *J Allergy Clin Immunol* 2005;115(2):S203, abstract no. 812.
35. Shoff SM, Lai HJ, the Wisconsin CF Neonatal Screening Group. Nutrition factors associated with sustained growth improvement beyond 2 years of post-diagnosis of CF and throughout early childhood. *Pediatr Pulmonol* 2005;40(S28):346, abstract no. 440.
36. Cheng Y, Ahn H, Lai HJ. Comparison of persistent versus worsening malnutrition to lung disease outcones in young children with cystic fibrosis. *Pediatr Pulmonol* 2005;40(S28):325, abstract no. 388.
37. Zhang Z, Cheng Y, Lai HJ. Characterization of the timing and magnitude of linear growth velocity in adolescents with cystic fibrosis. *Pediatr Pulmonol* 2005;40(S28):331, abstract no. 402.
38. Zhang Z, Lai HJ, Roberg R, Evans M, Anderson E, Gern J, and Lemanske RF Jr. Occurrence of wheezing and being overweight in the first five years of life in a birth cohort at high risk for the development of asthma/allergy. *J Allergy Clin Immunol* 2006;117(2):S84, abstract no. 329.
39. Lai HJ, Zhang Z, Davis LA, Shoff SM, Nord M, Roberg R, Gern J, and Lemanske RF Jr. Dietary factors associated with wheezing in a birth cohort at high risk for the development

of asthma/allergy at age 5 years. *J Allergy Clin Immunol* 2006;117(2):S218, abstract no. 840.

40. Friedlander SL, Mueller DJ, Zhang Z, Roberg KA, Anderson EL, Evans MD, Gangnon RE, Lai HJ, Gern JE, Lemanske RF Jr. The Relationship between Childhood Wheezing and Overweight Status as a Function of the Proinflammatory Mediators IL-6 and Leptin in a High-Risk Birth Cohort. *J Allergy Clin Immunol* 2006;117(2):S250, abstract no. 968.
41. Shoff SM, Lai HJ. Recovery of birth weight Z-score within 2 years of diagnosis is positively associated with pulmonary status at age 6 years. *Pediatr Pulmonol* 2006;41(S29):388, abstract no. 503.
42. Zhang Z, Casper CT, Cheng Y, Lai HJ. Challenges in estimating the age and magnitude of pubertal peak height velocity in children with cystic fibrosis. *Pediatr Pulmonol* 2006;41(S29):390, abstract no. 509.
43. Koscik RL, Shoff SM, Lai HJ, Zaremba K, Laxova A, Rock MJ, Gersian W, Farrell PM. Is recovery of birth weight Z-score within 2 years of diagnosis related to quality of life in later childhood? *Pediatr Pulmonol* 2006;41(S29):400, abstract no. 533.
44. Nord MA, Shoff SM, Zhang Z, Lai HJ. Validation of self-reported dietary intakes in children ages 5 to 7 years. *FASEB J* 2007;21(5):A709, abstract no. 692.3.
45. Zhang Z. Lai, HJ, Roberg KA, et al. Exclusive Breastfeeding and Wheezing in Children Genetically at High Risk of Developing asthma. *Proc Am Thoracic Soc* 2007;4:A273, abstract no. 4123.
46. Nord M, Chimienti E, Shoof SM, Zhang Z, Davis L, Shriver T, Lai HJ, Lemanske R. Validity of a physical activity questionnaire in children age 5 to 7 years. J Am Diet Assoc 2007;107:A-24.
47. Lai HJ, Shoff SM. Classification of malnutrition in cystic fibrosis: implications on evaluating and benchmarking clinical practices. *Pediatr Pulmonol* 2007;42(S30):373, abstract no. 479.
48. Zhang Z, Lai HJ. Incorporating genetic potential in evaluating short stature in children with cystic fibrosis. *Pediatr Pulmonol* 2007;42(S30):362, abstract no. 451.
49. Zhang Z, Lai HJ. Gender difference in pubertal height velocity pattern in children with cystic fibrosis. *Pediatr Pulmonol* 2007;42(S30):391, abstract no. 524.
50. Lai HJ, Laxova A, Farrell PM. Variation in use of enzymes within mutations usually associated with pancreatic sufficiency. *Pediatr Pulmonol* 2007;42(S30):389, abstract no. 520.
51. Zhang Z. Lai, HJ, Roberg KA, et al. Exclusive Breastfeeding and Wheezing in Children Genetically at High Risk of Developing asthma. Presented in the 2007 Society for Pediatric Research – Research Conference (SPR-RC), Oct 17-19, Woodlands, TX.
52. Lai, HJ, Shoff SM, Miller T, Rock MJ and the WI CF Neonatal Screening Study Group. Cystic fibrosis newborn screening in Wisconsin: comparison of growth between children diagnosed during the randomized control trial (1985-1994) and the routine program (1994-2003). *Pediatr Pulmonol* 2008;43(S31):399, abstract no. 551.
53. Jadin, S, Shoff SM, Lai, HJ. Growth during the first year of life of formula-fed and breastfed infants diagnosed through the Wisconsin routine newborn screening (NBS) program. *Pediatr Pulmonol* 2008;43(S31):421, abstract no. 608.
54. Shoff SM, Rischall A, Miller T, Lai, HJ. Pancreatic enzyme dosing in relation to current fat based and weight based enzyme guidelines. *Pediatr Pulmonol* 2008;43(S31):427, abstract no. 624.
55. Zhang Z, Lindstrom M, Lai HJ. Impaired pubertal linear growth and diminished lung function in cystic fibrosis. *Pediatr Pulmonol* 2008;43(S31):432, abstract no. 636.

56. Lin FC, Lai HJ. Persistent versus worsening malnutrition during age 6 to 10 years and lung disease outcomes in children with CF. *Pediatr Pulmonol* 2008;43(S31):378, abstract no. 494.
57. Tippets B, Shoff SM, Lin FC, Dorn J, Laxova A, Miller T, Levy H, Rock MJ, Lai HJ, Farrell PM, and WI-NBS Group. CF Newborn Screening in Wisconsin: Comparison of Pulmonary Outcomes During the First Six years of Life Between Children Diagnosed During the Randomized Clinical Trial (1985-1994) and the Routine Program (1994-2003). *Pediatr Pulmonol* 2009;44(S32):351, abstract no. 398.
58. Shoff SM, Lin FC, Becker T, Laxova A, Lai HJ, Farrell PM, Gershan W, and WI-NBS Group. Nutritional Status is associated with multiple dimensions of quality of life in children with cystic fibrosis aged 9-19 years. *Pediatr Pulmonol* 2009;44(S32):404, abstract no. 537.
59. Zhang Z, Laxova A, Farrell PM, Lai HJ, and WI-NBS Group. Validity of self-assessment of sexual maturation in adolescents with cystic fibrosis diagnosed through the Wisconsin randomized clinical trial of newborn screening. *Pediatr Pulmonol* 2009;44(S32):400, abstract no. 528.
60. Wu G, Lin FC, Jadin S, Shoff S, Lai HJ. Association of pancreatic enzyme replacement therapy of breastfed and formula-fed infants diagnosed through the Wisconsin Routine Newborn Screening Program. *Pediatr Pulmonol* 2009;44(S32):403, abstract no. 533.
61. Jadin S, Zhang Z, Marcus M, Pfeil D, Seffrood E, Shoff SM, Lai HJ. Vitamin D supplementation is associated with improved serum 25-hydroxy-vitamin D levels in children with cystic fibrosis. *Pediatr Pulmonol* 2009;44(S32):405, abstract no. 539.
62. Zhang Z and Lai HJ. Association between mid-parental height and child's height is weak in children whose father and mother's heights are discordant. *Pediatr Pulmonol* 2010;45(S33):419, abstract no. 550.
63. Peng L, Cheng Y, and Lai HJ. A novel analysis on the age of first Pseudomonas Aeruginosa infection in young children with CF. *Pediatr Pulmonol* 2010;45(S33):359, abstract no. 391.
64. Wu G, Zhang Z, Jadin S, and Lai HJ. Breastfeeding is associated with less Pseudomonas Aeruginosa infection during the first two years of life. *Pediatr Pulmonol* 2010;45(S33):367, abstract no. 411. **(Winner of CFF's 2010 Junior Investigator Award for Best Abstract in Clinical Sciences)**
65. Shoff S, Davis LA, Lai HJ. Use of caloric supplements and its relationship to total energy intake in children with CF. *Pediatr Pulmonol* 2010;45(S33):418, abstract no. 548.
66. Sanders DB, Rock MJ. Farrell PM, Lai HJ. Comparison of age of diagnosis between states using IRT/DNA versus IRT/IRT for CF newborn screening. *Pediatr Pulmonol* 2010;45(S33):389, abstract no. 472.
67. Lai HJ, Wu J. Growth and Pulmonary outcomes during the first two years of life of breastfed and formula-fed infants diagnosed with cystic fibrosis through the Wisconsin Routine Newborn Screening Program. J Cyst Fibro 2011;10(S1):S71, abstract no. 279. **(Highlighted in the European Cystic Fibrosis Society Conference, Hamburg, Germany, June, 2011)**
68. Zhang Z, Shoff SM, Lai HJ. Weight patterns in infants who received calorie-dense formula: observations from the Wisconsin Routine Newborn Screening Cohort. *Pediatr Pulmonol* 2011;46(S34):298, abstract no. 511.
69. Levy H, Jia S, Reske M, Schneck K, Lai HJ, Laxova A, Farrell PM, Hessner M. A translational approach to the identification of novel genes associated with CF. *Pediatr Pulmonol* 2011;46(S34):272, abstract no. 172.

70. Farrell PM, Li Z, Sanders DB, Lai HJ, Laxova A, Rock MJ, Levy H, Collins J, Ferec C. Determinants of lung disease progression in children with cystic fibrosis. J Cyst Fibro 2011;11(S1):S6, abstract no. 3.4.
71. Sun X, Peng L, Lai, HJ. Accelerated recurrent time analysis of doubly censored data: an application to Pseudomona aeruginosa infection in young children with cystic fibrosis. (Oral presentation in the 2012 Joint Statistics Meeting, July 28 to August 2, San Diego, CA)
72. Levy H, Sia S, Reske M, Lai HJ, Laxova A, Barbieri J et al. Use of serum induced transcriptional signature as a predictive disease specific maker for cystic fibrosis. Pediatr Pulmonol 2012;47(S35):282, abstract no. 169.
73. Sanders DB, Zhang Z, Shoff SM, Lai HJ. Early life recovery and maintenance of adequate growth through age 6 are associated with better pulmonary status at age 12 in children with CF. Pediatr Pulmonol 2012;46(S34):272, abstract no. 172
74. Zhang Z, Shoff SM, Lai HJ. Occurrence of cystic fibrosis-related diabetes by age 20 years is associated with impaired pubertal linear growth. Pediatr Pulmonol 2012;47(S35):272, abstract no. 507.
75. Lai HJ, Shoff SM, Zhang Z. Low serum linoleic acid (the principle essential fatty acid) is prevalent in the first two years of life and early adolescence. Pediatr Pulmonol 2012;47(S35):415, abstract no. 523.
76. Clemens C, Marcus M, Zhang Z, Shoff SM, Miller T, Lai HJ. Improved nutrition-related outcomes through 24 months of age in children with cystic fibrosis may be attributable to increased clinical focus on nutrition. Pediatr Pulmonol 2012;47(S35):410, abstract no. 508.
77. Zhang Z, Shoff SM, Lai HJ. Comparison of growth between CDC and WHO growth charts during the first two years of life in breastfed and formula-fed infants with CF. Pediatr Pulmonol 2012;47(S35):409, abstract no. 506.
78. Zhang Z, Shoff SM, Lai HJ. Implications of Transitioning from CDC to WHO growth charts on growth evaluation in young children with cystic fibrosis in the US. (Poster presentation, European CF Society Conference, Lisbon, Portugal, June 12-16, 2013)
79. Zhang, Farrell PM, Lai HJ, Wisconsin CF Neonatal Screening Study Group. Newborn screening and early life weight recovery are associated with better adolescent growth in children with CF. (Oral presentation, European CF Society Conference, Lisbon, Portugal, June 12-16, 2013)
80. Lai HJ. Defining optimal growth during periods of rapid growth: infancy and adolescence. (Invited presentation: Nutrition Symposium, North American CF Conference, Salt Lake City, UT, October 12-15, 2013. Pediatr Pulmonol 2013;48(S36):168, abstract no. S14.1.
81. Zhang Z, Lindstrom M, Farrell PM, Laxova A, Lai, HJ. Pubertal height velocity and adult height in patients with CF diagnosed through Wisconsin Randomized Clinical Trial of newborn screening. Pediatr Pulmonol 2013;48(S36):369, abstract no. 448 **(Semi-finalist of CFF's 2010 Junior Investigator Award for Best Abstract in Clinical Sciences)**
82. Sun X, Peng L, Zhang Z, Lai HJ. Novel statistical analysis on recurrent pseudomonas aeruginosa infections in young children with cystic fibrosis. Pediatr Pulmonol 2013;48(S36):330, abstract no. 345.
83. Shoff SM, Davis, Lai HJ. Dietary adequacy of children with CF 1-6 years of age: trends over 25 years. Pediatr Pulmonol 2013;48(S36):415, abstract no. 564.
84. Zhang Z et al. Intrinsic factors associated with growth improvement during the first year of life in infants with CF diagnosed through newborn screening. Pediatr Pulmonol 2014;49(S38):387, abstract no. 469.
85. Shoff SM, et al. Nutritional status and quality of life in children with CF aged 9 to 19 years. Pediatr Pulmonol 2014;49(S38):174-6, S14.2.

86. Lai HJ, et al. Initial disease characteristics and clinical care patterns of newly diagnosed infants with CF identified through newborn screening in 2012-13. Pediatr Pulmonol 2014;49(S38):383, abstract no. 460.
87. Huebner J, Oldroyd H, Bendy L, Andrade O, Horn B, Laxova A, Greer F, Lai HJ. Breast-feeding characteristics during the first six months of life in infants with CF diagnosed via newborn screening in 2012-13. Pediatr Pulmonol 2014;49(S38):406, abstract no. 519.
88. Busche C, Davis L, McDonald K, Maguiness K, Bailey J, Miller T, Marcus M, Lai HJ. Formula use and intake during the first six months of life in infants with CF diagnosed through newborn screening in 2012-13. Pediatr Pulmonol 2014;49(S38):405, abstract no. 518.
89. Lai HJ, Zhang Z, Chin L, Dumas S, Farrell PM, and the FIRST Study Group. Feeding, growth and nutritional status of infants with CF diagnosed through newborn screening (NBS): Findings from a new multi-center study in the USA. (Oral presentation, European CF Society Conference, Brussels, Belgium, June, 2015)
90. Zhang Z, Lindstrom M, Farrell PM, and the Wisconsin NBS Study Group. Early diagnosis through newborn screening (NBS) improved long-term growth and adult height at age 18 years in CF patients with pancreatic insufficiency. (Oral presentation, European CF Society Conference, Brussels, Belgium, June, 2015)
91. Lai HJ, Chin LH, Zhang Z, Davis, LA, Dumas SN, and the FIRST Study Group. Feeding, growth, and essential fatty acid status in infants with CF diagnosed through newborn screening in 2012-14. Pediatr Pulmonol 2015;50(S41):379.
92. Schuchardt ML, Shoff S, Lai HJ, and the FIRST Study Group. Factors associated with variation in pancreatic enzyme dosing among young infants with cystic fibrosis. Pediatr Pulmonol 2015;50(S41):408.
93. Chin LH, Davis LA, Lai HJ, and the FIRST Study Group. Early supplementation normalized serum vitamin A and E but not vitamin D in infants with CF diagnosed through newborn screening. Pediatr Pulmonol 2015;50(S41):403.
94. Shoff, SM, Schuchardt ML, Chin LH, Davis LA, Lai HJ, and the FIRST Study Group. Prevalence of anemia and intake of iron in infants with CF diagnosed through newborn screening. Pediatr Pulmonol 2015;50(S41):412.
95. Zhang Z, Laxova A, Shoff SM, Lai HJ, and the FIRST Study Group. Respiratory infections, exacerbations, and antibiotic use in the first year of life in infants with CF born 2012-2014. Pediatr Pulmonol 2015; 50(S41):335.
96. Lai, HJ. Nutritional status of infants with CF diagnosed after nationwide newborn screening in the U.S.: Preliminary findings from the FIRST study cohort. Pediatr Pulmonol 2015;50(S41):161-163.
97. Yang J, Peng L, Zhang Z, Lai HJ. A novel statistical analysis on the association between recurrent pseudomonas aeruginosa and recurrent staphylococcus aureus infections in young children with cystic fibrosis. Pediatr Pulmonol 2015; 50(S41):323.
98. Chin L, Zhang Z, Shoff S, Schuchardt M, Lai HJ, Greer F, and the FIRST Study Group. Impact of breastfeeding on nutritional status of infants with cystic fibrosis in the first year of life. Presented in the 18th International Society for Research in Human Milk and Lactation (ISRHML), Mar 3-7, 2016, Stellenbosch, South Africa
99. Chin L, Zhang Z, Shoff S, Schuchardt M, Lai HJ, Greer F, and the FIRST Study Group. Impact of breastfeeding on nutritional status of infants with CF in the first year of life: results from the FIRST Study. Presented in 2016 Experimental Biology, Apr 2-6, San Diego.
100. Lai HJ, Zhang Z and the FIRST Study Group. Exclusive breastfeeding and growth in young infants with CF. Pediatr Pulmonol 2016;51(S45):420.

101. Chin L, Davis L, Dumas S, Lai HJ and the FIRST Study Group. Essential fatty acid abnormalities and low linoleic acid intake is common in the second year of life in children with CF. Pediatr Pulmonol 2016;51(S45):425. **(Semi-finalist of CFF's 2016 Junior Investigator Award for Best Abstract in Clinical Sciences)**
102. Shoff SM, Lai HJ and the FIRST Study Group. Essential fatty acid content appears low in breast milk and diet of mothers of infants with CF. Pediatr Pulmonol 2016;51(S45):430.
103. Schuchardt M, Lai HJ and the FIRST Study Group. Maximal pancreatic enzyme dosage and acid blocker use are prevalent in young infants with CF. Pediatr Pulmonol 2016;51(S45):428.
104. Zhang Z, Lai HJ and the FIRST Study Group. Characterization of gut microbiota in early childhood in cystic fibrosis. Pediatr Pulmonol 2016;51(S45):325.
105. Lai HJ, Farrell PM and the FIRST Study Group. Variability in fecal elastase during infancy: impact on its utility as a secondary criterion for CF newborn screening program. Pediatr Pulmonol 2016;51(S45):388.
106. Yang J, Peng L, Zhang Z, Rahman AKM, Ma H, Lai HJ. Joint profile of respiratory infections and their associations with breastfeeding in infants with CF. Pediatr Pulmonol 2016;51(S45):327.
107. Chin L and Lai HJ. Supplementation resulted in lower prevalence of vitamin D deficiency in infants and toddlers with cystic fibrosis compared to that reported for healthy children. (Poster presentation, 2017 Experimental Biology Meeting, Chicago, IL)
108. Farrell PM, Sanders DB, Zhang Z, Lai HJ, and the WI CF NBS Study Group. Persistent early life growth patterns through age 12 years associated with pulmonary outcomes in children with CF. (Oral presentation, European CF Society Conference, Seville, Spain, June, 2017)
109. Leonard J, Gaffin J, Lai HJ and the FIRST Study Group. Variation in probiotic use in infants and toddlers with cystic fibrosis. (Poster presentation, European CF Society Conference, Seville, Spain, June, 2017).
110. Chin LH, Murali SG, Lai HJ and the FIRST Study Group. Essential fatty acid deficiency is associated with higher pro-inflammatory cytokines in infants and toddlers with CF in the first 2 years of life. (Oral presentation, European CF Society Conference, Seville, Spain, June, 2017)
111. Lai HJ, Zhang Z and the FIRST Study Group. Prolonged exclusive breastfeeding is associated with attenuated growth in infants with CF. (Oral presentation in the 2017 NACFC)
112. McDonald CM, Robson J, Schuchardt M, Bach TR, Zhang Z, Lai HJ and the FIRST Study Group. Growth response after gastrostomy placement or use of an appetite stimulant in infants and young children with CF. (Oral presentation in the 2017 NACFC)
113. Leonard J, Gaffin J, Bach TR, Shoff SM, Doan K, Lai HJ and the FIRST Study Group. Probiotic use and association to gastrointestinal symptoms in young children with cystic fibrosis. (Poster presentation in the 2017 NACFC)
114. Ma H, Zhang Z, Lai HJ and the FIRST Study Group. Investigating the dynamic heterogeneity of weight growth in infants with CF through a novel statistical analysis. (Poster presentation in the 2017 NACFC)

D. Invited Presentations

09/93 Department of Nutritional Sciences, UW-Madison, WI.
Postprandial lipid metabolism with ingestion of butterfat fractions in rats.

04/95 Department of Pediatrics, UW-Medical School, Madison, WI.
Pediatric Pulmonary Center seminar: Characterization of growth in children with CF.

04/99 Northern New England Cystic Fibrosis Consortium Regional Meeting, Bethel, ME.
Malnutrition and risk prediction in patients with cystic fibrosis.

03/01 Cystic Fibrosis Foundation Nutrition Consensus Conference, Bethesda, MD.
How to define stunting and wasting in children with cystic fibrosis.

04/01 Department of Nutritional Sciences, University of Illinois, Chicago, IL
Nutritional Epidemiology of Cystic Fibrosis

10/01 North American Cystic Fibrosis Conference, Orlando, FL
Round Table Moderator: Association of body mass index and pulmonary function

12/01 Department of Nutritional Sciences, Case Western Reserve University, Cleveland, OH
Nutritional Epidemiology of Cystic Fibrosis

02/02 Department of Nutritional Sciences, UW-Madison, WI.
Nutritional Epidemiology of Cystic Fibrosis

01/03 Department of Population Health Sciences, UW-Medical School, Madison, WI.
Risk Factors Associated with Clinical Outcomes of Cystic Fibrosis

01/03 Dept of Biostatistics and Medical Informatics, UW-Medical School, Madison, WI.
Epidemiology of Cystic Fibrosis: Opportunities for Biostatistical Applications and Research

11/03 National Center on Birth Defects and Developmental Disabilities, CDC, Atlanta
Newborn Screening for Cystic Fibrosis. New data on the survival advantage of CF infants detected through newborn screening

07/04 Summer Research Program in Biostatistics and Medical Informatics
Dept of Biostatistics and Medical Informatics
Assessing adequacy of dietary intakes (Mentor for Alexis Jerro)

02/05 Department of Nutritional Sciences, UW-Madison, WI.
Nutritional factors and disease outcomes in children: The importance of normal growth in cystic fibrosis and asthma

10/05 North American Cystic Fibrosis Conference, Baltimore, MD
Caregivers' Discussion Groups by Discipline: Nutritionists/Dietitians
The nutritionist: an important member of the CF team: How to start a research project

11/07 Department of Nutritional Sciences, UW-Madison, WI.
Using Epidemiological Research to Improve Care and Outcome of Cystic Fibrosis

04/08 Second Annual Midwest CF Nutrition Consortium Meeting, Milwaukee, WI
Newborn Screening in Wisconsin: Findings and Opportunities for Nutrition Research

10/10 North American Cystic Fibrosis Conference, Baltimore, MD
Special Topic: Outcomes, Study Design & Interpretation of CF Clinical Studies
Considerations for the Design of Studies in Infants with CF

04/11 Meriter Hospital Perinatal Conference, Madison, WI
Breastfeeding in Infants with Cystic Fibrosis

06/11 European Cystic Fibrosis Society (ECFS) Conference, Hamburg, Germany
Workshop: New Challenges in Nutrition - Growth and pulmonary outcomes during the first 2 years of life of breastfed and formula-fed infants diagnosed with CF through the Wisconsin Routine Newborn Screening Program

10/11 North American Cystic Fibrosis Conference (NACFC), Anaheim, California
Caregivers' Discussion Groups by Discipline: Psychologists/Psychiatrists
Evaluating clinical practice guidelines for feeding infants with CF

10/12 North American Cystic Fibrosis Conference, Orlando, Florida
FIRST Study Investigators Meeting (Organizer/PI of a 5-site multi-center study)

06/13 European Cystic Fibrosis Society (ECFS) Conference, Lisbon, Portugal
Workshop: Nutrition Matters
Newborn screening and early life weight recovery are associated with better adolescent growth in children with CF

10/13 North American Cystic Fibrosis Conference, Salt Lake City, Utah
FIRST Study Investigators Meeting (Organizer/PI of a 5-site multi-center study)

10/13 North American Cystic Fibrosis Conference, Salt Lake City, Utah
Symposium on Nutrition Throughout the Lifespan - Promoting Optimal Health during periods of rapid growth: first two years of life and adolescence

10/13 North American Cystic Fibrosis Conference, Salt Lake City, Utah
Biostatisticians/Epidemiologists Session: Studies in CF: Hot Designs, Cool Analyses
Novel statistical methods applied to the CF Foundation Patient Registry

10/14 North American Cystic Fibrosis Conference, Atlanta, Georgia
FIRST Study Investigators Meeting (Organizer/PI of a 5-site multi-center study)

06/15 European Cystic Fibrosis Society (ECFS) Conference, Brussels, Belgium
Workshop: Newborn Screening (NBS) – Still Some Work To Do!
Presentation #1: Newborn screening and early life weight recovery are associated with better adolescent growth in children with CF
Presentation #2: Early diagnosis through NBS improved long-term growth and adult height at age 18 years in CF patients with pancreatic insufficiency

10/15 North American Cystic Fibrosis Conference, Phoenix, Arizona
Symposium “Achieving Optimal Nutrition in CF”, “Nutritional Status of Infants with CF Diagnosed after Nationwide Newborn Screening in the US: Preliminary Findings from the FIRST Study Cohort”

10/15 North American Cystic Fibrosis Conference, Phoenix, Arizona
Nutrition Caregiver’s Session “Understanding WHO Percentiles: Challenges for Monitoring Growth in Young Children with CF”

11/15 Department of Population Health Sciences, UW-Medical School, Madison, WI.
Growth Assessment by WHO and CDC Growth Charts – Implications on Clinical Care Decision Making

09/16 Department of Nutrition, Fu-Jen University, Taipei, Taiwan.
The Power of Newborn Screening and Nutrition Research in Advancing Clinical Practice Guidelines in Cystic Fibrosis.

12/17 Department of Nutrition, China Medical University, Taichung, Taiwan.
Using Human Nutrition Research to Change Clinical Practice Guidelines for Cystic Fibrosis.

TEACHING/TRAINING EXPERIENCES

A. Courses Taught

1991 Teaching Assistant, Dept. of Nutritional Sciences, UW-Madison
NS431: Nutrition During the Life Span (spring semester)

2001 & 2017 Instructor, Dept. of Nutritional Sciences, UW-Madison
NS881: Topic in Human and Clinical Nutrition – Scientific Basis of Diets for Pediatric Patients (spring semester)

2003 Instructor, Dept. of Nutritional Sciences, UW-Madison
NS431: Nutrition throughout the life span – 10 lectures (spring semester)

2003	Stat 998: Statistical Consulting (spring semester), Project 1 Faculty
2004	M.S. Exam project faculty, Dept. of Statistics
2005	Stat 998: Statistical Consulting (fall semester), Project 2 Faculty
2008	M.S. Exam project faculty, Dept. of Statistics
2008	Guest Instructor, Dept. of Nutritional Sciences, UW-Madison, WI NS881: Seminar – Human and Clinical Nutrition (spring semester) Topic: Pathophysiology of Different Mutations in the CF Gene
2004-present	Course Director, Dept. of Nutritional Sciences, UW-Madison NS431: Nutrition throughout the life span (spring semesters)
2005-present	Co-Instructor, Dept. of Nutritional Sciences, UW-Madison NS631: Clinical Nutrition (fall semesters) Topics: Medical nutrition therapy for pulmonary and neurologic diseases
2005-present	Co-Instructor, Dept. of Nutritional Sciences, UW-Madison NS520: Capstone in Clinical Nutrition (fall & spring semesters) Topic: Quality improvement in CF clinical care practice
2005-present	Guest Instructor, Dept. of Nutritional Sciences, UW-Madison NS 626: Experimental Diet Design (fall semesters, every other year) Topic: Dietary Reference Intakes (DRI)
2017	Instructor, Dept. of Nutritional Sciences, UW-Madison NS 881: Topic in Human and Clinical Nutrition – Scientific Basis of Diets for Pediatric Patients (spring semester)

B. Graduate Students Trained

Name (Program)	Degree (Date)	Project	Current Position
HongYup Ahn (Biostatistics)	PhD (2005)	Development of a quality improvement clinical care system	Associate Professor Dept of Statistics, Dongguk University Seoul, South Korea
Michelle Nord (IGPNS*)	MS (2007)	Assessment of energy intake and energy expenditure in a pediatric population at high risk for asthma	Registered Dietitian Current position unknown
Yu Cheng (Biostatistics)	PhD (2006)	Development of risk models predictive of malnutrition and lung disease outcomes in CF	Associate Professor Dept of Biostatistics, Univ of Pittsburgh, Pittsburg, PA
Zhumin Zhang (IGPNS)	PhD (2008)	Evaluation of growth indexes for screening malnutrition in children with cystic fibrosis	Assistant Scientist Dept of Nutritional Sci UW-Madison
Feng-Chang Lin (Biostatistics)	PhD (2008)	Nonparametric estimation of the mean function for recurrent events data with missing event category	Res Assistant Professor Dept of Biostatistics, UNC, Chapel Hill, NC

Sarah Jadin (IGPNS)	MS (2009)	Developing evidence-based recommendations for infant feeding and vitamin D supplement for children with cystic fibrosis	Clinical Nutritionist UW Hospital & Clinics Researcher, Dept. Nutritional Science, UW-Madison
Grace Wu Freed (IGPNS)	MS (2011)	Evaluating clinical practice guidelines for feeding infants with cystic fibrosis	Lecturer & Director, Office of Academic Services, Fei Tian College, Cuddebackville, NY
Mallory Koenings (IGPNS)	PhD (2012)	Relationships between the alcohol environment and alcohol behaviors of students on college campuses	Postdoctoral Fellow USDA
Lyanne Chin (IGPNS)	PhD	2014 (in progress)	

*IGPNS: Interdepartmental Graduate Program in Nutritional Sciences

C. Postdoctoral Trainees and Fellows:

Name (Program)	Dates	Project	Current Position
Hong-Yup Ahn (Biostat postdoc)	2005	Development of a quality improvement clinical care system	Associate Professor Dept of Statistics Dongguk University Seoul, South Korea
Feng-Chang Lin (Biostat postdoc)	2008-09	Nonparametric estimation of the mean function for recurrent events data with missing event category	Res Assistant Professor Dept of Biostatistics Univ of North Carolina Chapel Hill, NC
Benjamin Tippets (Pulmonary fellow)	2008-10	Analysis of pulmonary outcomes of CF newborn screening in the WI routine program	Pediatric Pulmonologist St Luke's Children's Hospital Boise, Idaho
Zhumin Zhang (Nutri Sci postdoc)	2008-13	Evaluation of growth indexes for screening malnutrition in children with cystic fibrosis	Assistant Scientist Dept of Nutritional Sci UW-Madison
Igbal Rashid (Pulmonary fellow)	2012-14	Exploring FEF25-75 as a predictor for pulmonary exacerbation in children with cystic fibrosis	Postdoctoral Pediatric Pulmonary Fellow (current)

COMMITTEE SERVICE

Departmental:

Curriculum Committee, 2002 – present
IGPNS Admissions Committee, 2003 - 08
IGPNS Student Orientation Committee, 2007 – present
Dietetics Program Committee, 2003 - present
Research Priorities and Strategic Alliances Committee, 2008 - 09
Faculty Search Committee (Nitzke Replacement), 2011 - 12
Committee on Capstone Certificate Program in Clinical Nutrition, 2012 - 16
Faculty Search Committee (Schoeller Replacement), 2013 - 14
Committee on Professional Master's Degree in Clinical Nutrition, 2014 - 16
Nutritional Sciences Department Review Committee, 2014 – 15
Faculty Search Committee (Smith Replacement), Chair, 2016 – 17
Kuchnia Tenure Mentoring Committee, Chair, 2017 - present

College:

CALS Search Committee for MIU (Madison Undergraduate Initiative) Advisors, 2011 - 12

Summary of Research Interest

My main research interest is to develop evidence-based, clinical care guidelines for patients suffering from cystic fibrosis (CF), one of the most common genetic diseases in the world. CF is characterized by gastrointestinal and pulmonary abnormalities that result in malabsorption leading to malnutrition and growth failure, and chronic obstructive lung disease with recurrent infections from. In the US, approximately 1000 infants are born with CF every year, and more than 35,000 people are living with CF. Median age of survival has improved steadily to 37 years of age in 2008, but 20% of deaths still occur before 20 years of age.

My CF research focuses on investigating the interrelationships among newborn screening, malnutrition and lung disease progression. More specifically, I am best known for my work in evaluating and developing evidence-based, nutritional care guidelines in CF. From my early work defining criteria for malnutrition (pub#7) and identifying the long-term deleterious effect of prednisone therapy on linear growth impairment (pub#10), to the seminal studies establishing body mass index (BMI) as the superior indicator over % of ideal body weight for screening malnutrition (pub#19, 25, 26) and more recent work on developing new methodologies for incorporating genetic potential for evaluating height status and estimating pubertal height velocity (pub#30, 35), I have become a leader in the field.

The recognition of my research is evidenced by high-quality publications in top-tier journals that are cited by other CF experts' work in high-impact journals (e.g., *Am J Respir Crit Care Med* 2010;181:539-44 and 2011;183:1463-71 and *Curr Opin Pediatr* 2012;24:329-35), as well as awards/highlights in national and international CF conferences. For instance, the study conducted by a recent graduate (pub#32) won the "Junior Investigator Award for Best Abstract in Clinical Sciences", selected from >300 abstracts, in 2010's North American Cystic Fibrosis Conference (NACFC) and highlighted in 2011's European Cystic Fibrosis Society Conference. The significance of my research also led to invitations from the US Cystic Fibrosis Foundation to serve in their decision-making committees for guiding clinical practices and grant review committee to fund quality improvement grants.

Most importantly, the new knowledge generated from my research has led the US Cystic Fibrosis Foundation to change clinical practice guidelines (*JADA* 2008;108:832-9) that are followed by CF centers nationally and internationally, and as a result, improved clinical practices and care of patients with CF. In addition, my reputation on CF research extends beyond the CF community. In 2011, I was invited by the American Academy of Pediatrics (AAP) to be the corresponding author for writing the CF chapter in the new edition of AAP's *Pediatric Nutrition* just published in 2014.

Recently, I have expanded my CF research to new directions. First, we began to investigate how newborn screening coupled with comprehensive nutrition therapy influences individual treatment response (pub#27, 32). This new direction also represents a shift of my research methodologies from utilizing existing databases with retrospective analyses to conducting prospective, longitudinal studies that not only collect data from medical records/surveys but obtain biological specimens for biomarker analyses. A multi-center clinical study referred as the ***FIRST Study*** was initiated in 5 CF centers in 4 states in 2012 (see below). Second, for my original line of research on risk modeling, I have progressed from developing risk models to validating these models with novel statistical methods (pub#29, 34, 37) that are capable of delineating complex associations in disease progression through collaboration with theoretical biostatisticians.

Research Focus #1 – *Feeding Infants Right...from the STart (FIRST) study*

Nationwide implementation of CF newborn screening in 2010 has created a new opportunity to diagnose and treat infants with CF within weeks of birth. However, optimal feeding for CF infants, i.e., breast milk, formula or a combination, is unclear. The 2009 US CF Foundation Infant Care Guidelines encourage breastfeeding, but noted that no data are available to guide if human milk should be fortified or supplemented with formula. Breast milk's anti-microbial property is superior to formula but its caloric density and concentrations of protein, essential fatty acids and Na may be inadequate for CF infants with pancreatic insufficiency. These nutritional concerns were confirmed when we conducted retrospective analyses on Wisconsin cohort showing that, compared to formula, exclusive breastfeeding >2 months is associated with fewer PA infections but growth was attenuated during the first 2 years of life (pub #32).

The aforementioned retrospective study provided key preliminary data for us to obtain a NIH-R01 grant to conduct the ***FIRST study*** to investigate the potential benefits and risks of breastfeeding, hence resolving the breastfeeding issue and identify optimal feeding regimen for infants with CF. More specifically, the ***FIRST study*** was designed to test the hypothesis that exclusive breastfeeding lowers the risk of respiratory infections but increases the risk of growth faltering in the first 2 years of life. It is being conducted at 6 excellent CF Centers in 5 states (Madison and Milwaukee, WI; Indianapolis, IN; Salt Lake City, UT; Boston, MA and Chicago, IL) with a commitment to early enrollment and a target sample size of 200 CF infants.

As of June 2017, 170 CF infants have been enrolled into the ***FIRST study***. Detailed dietary data on breastfeeding (exclusive/partial and duration), formula (type, caloric density and amount) and solid foods (type and amount) are being collected systematically. Nutritional (growth and biomarkers) and pulmonary status (microbial infections, respiratory symptoms and chest radiography) is assessed during CF center visits at frequencies recommended in the 2009 guidelines. Primary outcomes are weight gain and PA infections at endpoints of age one and two years. Secondary outcomes include essential fatty acid status, inflammatory markers and chest radiographic scores.

While enrollment for ***FIRST study*** will continue to early 2018 until 200 infants are enrolled, additional funding from NIH and CFF have been obtained to extend follow-up to 6 years of age (***FIRST$_{age\ 2\text{-}6}$***), and to add complimentary studies such as assessing maternal diet and breast milk composition (***BM study***), characterizing gut microbiome with sibling comparison (***GM and GM-sib studies***), examining probiotic use (***Probiotic study***) and evaluating lung disease with more sensitive measures at 5-6 years of age (***LCI/CT study***).

Research Focus #2 – Risk Model Development

The apparent associations between better nutrition, better pulmonary status and survival are well documented. However, questions remain regarding how malnutrition that begins in early infancy, when lung disease is generally mild, contributes to later pulmonary decline. Our hypothesis is that malnutrition and lung disease in CF are determined by "baseline risk" (e.g., demographics, diagnosis, genotype, presenting phenotypes) and "longitudinal risk" (e.g., changes in the preceding years).

Findings generated from previous work (pub #12, 16, 20) laid the groundwork for us to transition from developing baseline risk models to validating these models with new statistical methods that are robust and more flexible in accommodating the challenging characteristics of messy clinical data (such as left-truncation, uneven time interval, double censoring, and missing values) by collaborating with theoretical biostatisticians. For example, by comparing our initial study using standard time-to-event Cox proportional hazards model (pub #16), to later studies using temporal regression in 2010 (pub #29), quantile regression in 2012 (pub #34), and recurrent event with missing data (pub #37), we proved that the proportional hazard assumption required in the Cox model was invalid and uncovered a new association between diagnosis and initial PA infections previously masked when the Cox model was used to analyze the data.

Our recent work on longitudinal models include the development of a novel nutritional indicator that predicts early treatment response (pub #23, 27), invalidation of CFF's indicator for defining genetic potential for height (pub#30), and characterization of adolescent peak height velocity with a novel growth curve model (pub #35). Current research continues to aim at identifying new nutritional and pulmonary indicators that are clinically meaningful. For example, indicators that can distinguish two patterns of malnutrition, "worsening" versus "persistent"; because the former signifies acute malnutrition while the latter reflects chronic malnutrition and therefore, may exert differential impact on lung disease outcomes in CF patients.

Summary of Teaching Philosophy and Experiences

During my decade of teaching, I have become immensely passionate about teaching both undergraduate and graduate students. My current teaching responsibilities reside primarily in the undergraduate program in Nutritional Sciences (described in more details on p.24). I am the course director of a 3-creidt junior level course (NS431: Nutrition in the Life Span) and teach several topics in a senior level course (NS631: Clinical Nutrition). In addition, I regularly contribute to teaching NS500 (Undergraduate Capstone Seminar Laboratory), NS520 (Applications in Clinical Nutrition), and a graduate course NS626 (Experimental Diet Design).

My goals for undergraduate teaching are to provide a knowledge base in nutrition, stimulate interest and desire to learn, and develop critical-thinking and problem-solving skills. Most importantly, I hope students will transform the knowledge and skills gained through my teaching into life-long learning in their careers. To achieve these goals, I am increasingly relying on problem-based learning approach by incorporating clinical case studies, current events, as well as original research publications including my own work on cystic fibrosis. In addition, I have enhanced problem-based learning by using new technology such as i>Clicker, as well as blended/flipped classroom format, to engage student attention and obtain instant feedback on teaching effectiveness. For instance, I designed an assignment that asked the students to listen to a news story from the National Public Radio (NPR), extract 3 take-home messages from podcast, identify 3 answers that NPR's correspondent made that were incorrect when cross-referencing to IOM's scientific report. In a discussion period, students were asked to evaluate the new national school lunch guidelines USDA implemented in 2013. This teaching style motivated self-learning, promoted classroom interactions, and increased knowledge retention.

My goal for mentoring graduate students is to teach them to integrate clinical practice and epidemiological methods with scientific evidence from experimental and translational research to advance our scientific knowledge for improving human health. I encourage students to obtain a broad and multidisciplinary education in addition to learning state-of-the-art analytical techniques in the field of epidemiology during their graduate training. I utilize collaborative and consulting opportunities to expose students to research outside of my area. My vision is to train nutritional scientists/epidemiologists that have the ability to perform complex analyses with hypothesis-driven approach derived from biological principles. My success is evidenced in that several of my graduate students' have had their conference abstracts selected as recipients or semi-finalists for Junior Investigator research awards at international CF meetings.

Didactic Teaching responsibilities

Course Director, Nutr Sci 431 "Nutrition in the Life Cycle", Spring semesters
Lecturer, Nutr Sci 631 "Clinical Nutrition", Fall semesters, 4 lectures (70 min each)
Lecturer, Nutr Sci 520 "Applications in Clinical Nutrition", Fall & Spring semesters, 1-2 lectures
Lecturer, Nutr Sci 626 "Experimental Diet Design", Fall semester, 1 lecture

Additionally, I provide regular academic advising to 30-35 pre-dietetics, dietetics, and nutritional sciences majors each semester.

Summary of Administrative Services

My service responsibilities concentrate on directing the undergraduate B.S. Dietetics program (described in more details below). The Nutritional Sciences major is the 3rd largest undergraduate major in our college (College of Agriculture and Life Sciences). Of the ~350 students enrolled in Fall 2014, about 70% (~250) choose dietetics, which is the only accredited professional healthcare program offered in CALS providing a career track to become a Registered Dietitian. Students are increasingly attracted to our major because it prepares them for the expanding job market in healthcare. This explains the >400% increase in dietetics enrollment since 1990 (from 58 to 250).

Since 2008, I have served as the director of the Didactic Program in Dietetics (DPD). Under my leadership, the DPD was accredited in 2009 following a comprehensive self-study and site visit. Many curricular and advising improvements have been implemented to manage the remarkable increase in student enrollment without additional instructional resources, and to maintain a high quality dietetics program that ranks among the top of the nation. These include GPA-based admission in 2009, revamped websites in 2010 that replaced traditional workshops with online video for providing dietetics career information and internship application process, streamlined bimonthly transfer sessions in partnership with CALS in 2012, and expanded business coursework in 2013. In addition, a ***Graduate Capstone Certificate Program in Clinical Nutrition***, the first Education Innovation (EI) program in CALS in partnership with UW Hospital and Clinics, began enrollment in January 2014. Currently, we are developing a ***Professional Master's Degree in Clinical Nutrition*** that will begin enrollment in in 2016 to provide additional advanced degree option for students completing the Graduate Capstone Certificate Program.

Dietetics Program Administration

My role as the Director of the Didactic Program in Dietetics (DPD) and Chair of Dietetics Committee demands significant amount of time to manage program activities, as required by Academy of Nutrition and Dietetics (AND). These responsibilities include the following:

1. Assess coursework and coordinate with the Dept of Food Science and School of Business to maintain curriculum that meets accreditation standards set by AND.
2. Monitor DPD enrollment and completion rates, Dietetic Internship (DI) placement rate and the Registered Dietitian (RD) exam passing rate. [Our DI placement rate ranges 70-80% (national average: ~50%) and our RD exam passing rate is 100% over the l0 years]
3. Conduct annual surveys of DPD alumni, internship program directors, and employers.
4. Submit annual reports and a more comprehensive 5-y outcome assessment report.
5. Convene Dietetics Advisory Committee meetings every 2 years. The Dietetics Advisory Committee includes ~20 members, mostly outside of campus.
6. Obtain/maintain accreditation that includes a Self-Study and site visit every 10 years.