

Education

- 09/13 ~ 12/16
- Master of Applied Statistics, Louisiana State University, Baton Rouge, LA
 - GPA 4.0/4.0
- 01/98 ~ 12/02
- PhD in Food Sciences and Technology, Biological and Agricultural Engineering, Texas A & M University, College Station, Texas
 - Dissertation Topic: Mechanisms to Enhance Functionality of Peanut-Based Biopolymer Film
- 09/95 ~ 06/97
- Master of Science, Agricultural Chemistry, National Taiwan University, Taipei, Taiwan
 - Thesis Topic: Preparation, Properties and Utilization of Wheat Germ Oil
- 09/91 ~ 06/95
- Bachelor of Science, Agricultural Chemistry, National Taiwan University, Taipei, Taiwan

Related Work Experience

- 10/14~present **Research Associate**, Veterinary Clinical Sciences, Louisiana State University, Baton Rouge, LA.
- Provide assistance and expertise in research study design, data analysis and experimental statistics
 - Oversee the departmental research laboratory and provide training in bench-top techniques
 - Supervise and coordinate in clinical trials and research projects, including data collection, management and statistical advices
- 06/14 ~ 10/14 **Instructor**, Biological Sciences, Louisiana State University, Baton Rouge, LA
- Teach and demonstrate Biological Laboratories and Basic Statistics for Sciences Majors sessions
- 02/03~06/14 **Research Associate**, Biological Sciences, Louisiana State University, Baton Rouge, LA
- Provide statistical consultation and instruction to graduate and undergraduate students
 - Mentor for undergraduate research
 - Manage and administrate all laboratory operations
 - In charge of NASA micro-gravity project – enzyme kinetics
 - In charge of SAXS (Small Angle X-ray Scattering) project of the denatured polymerases at APS (Argonne Advanced Photon Source) and SSL (Stanford Synchrotron Radiation Laboratory) facilities

Selected Publications

- Barnes K, Faludi A, Takawira C, Aulakh K, Rademacher N, **Liu CC**, Lopez MJ. 2019. Extracorporeal shock wave therapy improves short-term limb use after canine tibial plateau leveling osteotomy. *Vet Surg*. 2019 Aug 30. doi: 10.1111/vsu.13320. [Epub ahead of print]
- Paradise H, Gaschen L, Wanderer M, **Liu CC**, Granger LA. 2019. Performing both lateral abdominal radiographs may not improve the visualization of gas in the gastric outflow tract of cats. *Vet Radiol Ultrasound*. 2019 Aug 28. doi: 10.1111/vru.12801. [Epub ahead of print]
- Cradic DW, Aulakh KS, Hymel P, Barnes K, Gines JA, Rademacher N, Aulakh HK, **Liu CC**. 2019. Morphometric measurements to predict meniscal size in skeletally mature dogs for meniscal transplantation. *Vet Surg*. 2019 Aug 21. doi: 10.1111/vsu.13313. [Epub ahead of print]
- Ramos SJ, Woodward M, Hoppers SM, **Liu CC**, Pucheu-Haston CM, Mitchell MS. 2019. Residual antibacterial activity of canine hair treated with five mousse products against *Staphylococcus pseudintermedius* in vitro. *Vet Dermatol*. 30 (3) 183-e57.
- Cremer J, Perry SM, **Liu CC**, Nevarez JG. 2019. Comparison of surface, esophageal, and cloacal temperatures in different reptile species. *J Zoo Wildl Med* 50 (2) 308-314.
- Lagos-Carvajal A, Queiroz-Williams P, da Cunha A, **Liu CC**. 2019. Determination of midazolam dose for co-induction with alfaxalone in sedated cats. *Vet Anaesth Analg* 46 (3) 299-307.
- Buirkle CL, Aulakh KS, Gines JA, Rademacher N, **Liu CC**, Barnes K. 2019. Effect of tibial rotation on the tibial plateau angle measurement in dogs: An ex vivo study. *Vet Surg* 48 (3) 408-416.
- Reijnders D, Olson KN, **Liu CC**, Beckers KF, Ghosh S, Redman LM, Sones JL. 2019. Dyslipidemia and the role of adipose tissue in early pregnancy in the BPH/5 mouse model for preeclampsia. *Am J Physiol Regul Integr Comp Physiol* 317 R49-R58.
- Hampton A, Ford A, Cox RE 3rd, **Liu CC**, Koh R. 2019. Effects of music on behavior and physiological stress response of domestic cats in a veterinary clinic. *J Feline Med Surg*. 2019 Feb 12:1098612X19828131. doi: 10.1177/1098612X19828131. [Epub ahead of print].
- Reijnders D, **Liu CC**, Xu X, Zhao A, Olson K, Butler SD, Douglas NC, Sones JL. 2018. Celecoxib restores angiogenic factor expression at the maternal-fetal interface in the BPH/5 mouse model of preeclampsia. *Physiol Genomics* 50 (5) 385-392.
- Scagnelli AM, Walton SA, **Liu CC**, Acierno MJ. 2018. Effect of therapeutic plasma exchange on serum immunoglobulin levels in a dog with refractory Immune-mediated hemolytic anemia. *JAVMA* 252 (9) 1108-1112.
- Sutton EF, Lob HE, Song J, Xia Y, Butler SD, **Liu CC**, Redman LM and Sones JL. 2017. Adverse metabolic phenotype of female offspring exposed to preeclampsia in utero: a characterization of the bph/5 mouse in postnatal life. *J Physiol Regul Integr Comp Physiol* 312 (4): 485-491.
- Cutler DC, Shiomitsu K, **Liu CC**, and Nevarez J. 2016. Comparison of calculated radiation delivery versus actual radiation delivery in military macaws. *J Avian Medicine and Surgery* 30: 1-7.

- Liu CC**, and LiCata VJ. 2014. The stability of Taq DNA polymerase results from a reduced entropic folding penalty; identification of other thermophilic proteins with similar folding thermodynamics. *Proteins*. 82: 785-793.
- LiCata VJ and **Liu CC**. 2011. Analysis of free energy versus temperature curves in protein folding and macromolecular interactions. *Methods Enzymol*. 488:219-38.
- Liu CC**, Richard AJ, Datta K and LiCata VJ. 2008. Prevalence of temperature-dependent heat capacity changes in protein-DNA interactions. *Biophys J*. 94 3258-65.
- Richard AJ, **Liu CC**, Klinger AL, Todd MJ, Mezzasalma TM, and LiCata VJ. 2006. Thermal stability landscape for Klenow DNA polymerase as a function of pH and salt concentration. *Biochim Biophys Acta*. 1764, 1546-52.
- Schoeffler AJ, Joubert AM, Peng F, Khan F, **Liu CC**, and LiCata VJ. 2004. Extreme free energy of stabilization of Taq DNA polymerase. *Proteins* 54, 616-621
- Liu CC**, Tellez-Garay AM, and Castell-Perez ME. 2004. Physical and mechanical properties of peanut protein films. *Lebensm.-Wiss. u.-Technol. (LWT Food Science and Technology)* 37, 731-738.
- Karantzeni I, Ruiz CR, **Liu CC**, and LiCata VJ. 2003. Comparative thermal denaturation of *Thermus aquaticus* and *Escherichia coli* type 1 DNA polymerases. *Biochem. J*. 374, 785-792.

Professional Memberships

- Institute of Mathematical Statistics
- Biophysical Society
- Protein Society
- Gibbs Society of Biological Thermodynamics

Special Skills

- Proficient in Microsoft Office
- Proficient in statistical software (SAS, JMP, SPSS, and r)
- Proficient in the following statistics fields: data mining, multivariate statistics, reliability and survival analysis, categorical analysis, regression analysis and experimental design, Bayesian analysis, etc.
- Proficient in the following techniques: stopped-flow rapid kinetics, chemical and thermal protein denaturation, equilibrium hydrodynamics, fluorescence anisotropy, rheology, PCR, ELISA, Western blotting, etc.