

**Jimi Francis, PhD, IBCLC, RDN, LD**  
Curriculum Vitae

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**Contact Information**

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**Professional:**

University of Texas at San Antonio (UTSA)  
College Health, Community, D and Policy  
Department of Kinesiology  
One UTSA Circle  
San Antonio, TX 78249  
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**Personal:**

11843 Stanton Drive  
San Antonio, TX 78253

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**Educational Background**

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- 2013-2014**    **Dietetics Internship**, 96<sup>th</sup> Medical Group – Eglin AFB  
Individualized Supervised Practice Pathways  
Iowa State University  
Ames, IA
- 1996-2003**    **Doctor of Philosophy in Nutrition**  
University of California, Davis, California  
Dissertation: Mammary Candidosis Among Lactating Women  
Graduate Minors: Human Physiology, Medical Microbiology, Statistics
- 1992-1996**    **Master of Science in Nutrition**  
University of Nevada, Reno, Nevada  
Thesis: Breastfeeding Knowledge, Attitudes, and Beliefs Among Adolescents in Northern Nevada  
Graduate Minor: Biology
- 1986-1989**    **Bachelor of Science in Home Economics/Consumer - Science Dual Majors**  
University of Nevada, Reno, Nevada

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**Professional Licenses/Certifications**

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- 2022 – present: Holistic Lactation**  
Intuitive Parenting Network, LLC. Connecticut
- 2018 – present: Oral Habilitation**  
Intuitive Parenting Network, LLC. Connecticut
- 2014 – present: Licensed Dietitian**  
Texas State Board of Examiners of Dietitians, TX DT83304  
Commission on Dietetic Registration
- 2014 – present: Registered Dietitian Nutritionist**  
Commission on Dietetics Registration #992655
- 2000 – present: Registered Lactation Consultant**  
United States Lactation Consultant Association
- 1993 – present: International Board-Certified Lactation Consultant**  
International Board of Lactation Consultant Examiners, IBCLC L-1664

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## Professional Employment History

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- 2020-present** Assistant Professor, University of Texas, San Antonio, Texas
- 2014 – 2020** Assistant Professor, University of Texas, Tyler, Texas
- 2015 – 2019** Trainer, Advanced Lactation Management, Texas Department of Health and Human Services, Austin, Texas
- 2014 – 2017** Lactation Consultant, Christus Trinity Mother Frances Hospital, Tyler, Texas
- 2006 – 2013** Director of Clinical Research, Simplisse Company, St. Louis, Missouri
- 2004 – 2009** Faculty Researcher, University of Nevada-Reno, Reno, Nevada
- 2000 – 2007** Lactation Consultant, Health & Human Services - State of Nevada, Carson City, Nevada
- 1998 – 2006** Nutrition/Research Consultant, Health & Nutrition, Inc. Sparks, Nevada
- 1998 – 2005** Adjunct Lecturer, Truckee Meadows Community College, Reno, Nevada
- 1996 – 1998** Lactation Consultant, David Grant Medical Center, Travis Air Force Base, Fairfield, California
- 1996 – 2000** Teaching/Research Graduate Assistant, University of California, Davis, California
- 1995 – 1996** Teacher, Swope Middle School, Reno, Nevada
- 1992 – 1996** Teaching/Research Graduate Assistant, University of Nevada, Reno, Nevada
- 1991 – 1993** Teacher, Clayton Middle School (grades 7 and 8), Reno, Nevada
- 1989 – 1991** Teacher, Fernley High School (grades 9 to 12), Fernley, Nevada

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## Awards and Honors

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### Patents-Awarded

- Francis, J.,** Bryan R., Ruby, Oehlert, M. (2012). Breast pump liner. United States Patent 8323235B2.
- Francis, J.,** Bryan, R., Ruby, Oehlert, M. (2012). Breast pump. WO, US, CN, CO Patent 8109901B2.
- Francis, J.** (2012). Nipple Shield. United States Patent D652146
- Francis, J.,** Bryan, R., Ruby, Oehlert, M. (2012). Breast pump cup assembly. United States Patent 7972297.
- Francis, J.** (2011). Nipple Shield. United States Patent D637726
- Francis, J.** (2012). Breast-nipple shields. EU. EP2475347A2

### Patents-In Process

- Francis J.** Invention Declaration. Maternal-Infant Lactation Physiokinetics Biosensor Array. UTSA July 12, 2021.

### Honors

- 2019 – Outstanding Achievement Award, Faculty and Staff Publications, University of Texas at Tyler

2018 – Outstanding Achievement Award, Faculty and Staff Publications, University of Texas at Tyler  
2017 – Outstanding Achievement Award, Faculty and Staff Publications, University of Texas at Tyler  
2016 - Innovative Research Award, College of Nursing and Health Sciences, University of Texas at Tyler  
2016 – Outstanding Achievement Award, Faculty and Staff Publications, University of Texas at Tyler  
2015 - Outstanding Achievement Award, Faculty and Staff Publications, University of Texas at Tyler  
2010 – Certificate of Merit, Healthy Children Project, a non-profit research and educational institution dedicated to improving child health outcomes. East Sandwich, MA  
2007 – Highland Games Outstanding Achievement Award, International Ski Safety Society, Cairngorm Mountain, Aviemore, Scotland

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## Scholarly Contributions

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### Published

#### Chapters

**Francis, J., & Egdorf, R.** (2020). Volume 2, Chapter 10 - Maternal Nutrient Metabolism and Requirements in Lactation. Present Knowledge in Nutrition. Eleventh Edition. Marriott, Birt, Stallings, and Yates. Wiley Blackwell. ISBN: 978-0-12-818460-8  
<https://doi.org/10.1016/C2018-0-02533-5>

Spencer, B., & **Francis, J.** (2019). Chapter 4 – The Composition and Specificity of Human Milk. *Breastfeeding and Human Lactation*. Sixth Edition. Wambach & Spencer. Jones and Bartlett. ISBN-13: 978-1284151565

#### Published Peer-Reviewed Journal Articles

**Francis, J.,** Waller, K., Wilson, A., Dickton, D. (2022) Hypertensive disorders of pregnancy in a military hospital birth cohort. *Women's Health Reports* 3:1, 1–9. <https://doi.org/10.1089/whr.2022.0034>

**Francis, J., Dickton, D.D.** (2022) *Considerations for lactation with Ehlers-Danlos syndrome: a narrative review.* *Int Breastfeed J* 17(4) (2022). <https://doi.org/10.1186/s13006-021-00442-9>

**Francis, J., Zaman, F., Nicholas, A.** (2021) *Effect of a Novel Breastfeeding Education Program on Exclusive Breastfeeding.* *Journal of the Academy of Nutrition and Dietetics.* 121(10):PA133. <https://doi.org/10.1016/j.jand.2021.08.043>

Russell, B., Adamsons, K., Hutchison, M., **Francis, J.** (2021). *Parents' wellbeing and emotion regulation during infancy: The mediating effects of coping.* *The Family Journal.* July 2021. <https://journals.sagepub.com/doi/abs/10.1177/10664807211022230>

**Francis, J., & Dickton, D.** (2019). *Physical analysis of the lactating breast at milk transfer: a randomized clinical trial.* *Breastfeeding Med.* 14(10):705-711. <https://www.liebertpub.com/doi/10.1089/bfm.2019.0008>

**Francis, J.** (2019). Book Review - Food-Sensitive Babies, Dietary Intervention for Breastfed Babies. *Clinical Lactation.* 10(2). DOI: 10.1891/2158-0782.10.2.93.

**Francis, J., & Dickton, D. D.** (2019). *Preventive Health Application in Breastfeeding Outcomes.* *J Womens' Health.* 8(10):1344-1349. <https://www.liebertpub.com/doi/10.1089/jwh.2018.7477>

- Francis, J., & Dickton, D. D.** (2018). Emergent Acute Hypertension During Pregnancy – Anomaly or future trend? *J Gynecol Women's Health*. 13(4): 555866. <https://pubmed.ncbi.nlm.nih.gov/31373861/>
- Francis, J., & Dickton, D. D.** (2018). Feeding and Refusal of Expressed and Stored Human (FRESH) Milk Study. *Journal of Nutritional Health & Food Engineering*, 8(6), 391–393. <https://medcraveonline.com/JNHFE/JNHFE-08-00301.pdf>
- Dickton, D. D., & **Francis, J.** (2018). Case Review: Food pattern effects on milk lipid profiles. *Journal of Nutritional Health & Food Engineering*, 8(6), 467–470. <https://medcraveonline.com/JNHFE/case-review-food-pattern-effects-on-milk-lipid-profilesnbsp.html>
- Francis, J., & Dickton, D.** (2016) Feeding and Refusal of Expressed and Stored Human Milk, *Advances in Nutrition*. 7(1):31A, DOI/org/10.1093/advances/7.1.31A
- Francis, J, & Dickton, D.** (2015) Effects of Light on Riboflavin and Ascorbic Acid in Freshly Expressed Human Milk. *J Nutr Health Food Eng*, 2(6):00083. DOI: 10.15406/jnhfe.2015.02.00083
- Francis, J, Rogers K, Dickton D, Twedt R, Pardini R.** (2010) Decreasing retinol and  $\alpha$ -tocopherol concentrations in human milk and infant formula using varied bottle systems. *Maternal & Child Nutrition*, DOI: 10.1111/j.1740-8709.2010.00279.x
- Frolich JW, Dobbs ED, Barboza M, McJimpsey EL, Seipert RR, **Francis J**, Hyun JA, Freeman S, German JB, Lebrilla CB. Glycoprotein expression in human milk during lactation. *J Agri Food Chem*, 2010 May 26;58(10):6440-6448. DOI: 10.1021/jf100112x
- Francis, J., Rogers K, Brewer P, Dickton D, Pardini R.** (2008) Comparative analysis of ascorbic acid in human milk and infant formula using varied milk delivery systems. *International Breastfeeding Journal*. 11;3:19. DOI: 10.1186/1746-4358-3-19.
- Niñonuevo MR, Perkins PD, **Francis J**, Lamotte LM, LoCascio RG, Freeman SL, Mills DA, German JB, Grimm R, Lebrilla CB. (2008) Daily variations in oligosaccharides of human milk determined by microfluidic chips and mass spectrometry. *J Agric Food Chem*. 23;56(2):618-626. DOI: 10.1021/jf071972u.
- Morrill JF**, Heinig MJ, Pappagianis D, Dewey KG. Risk Factors for Mammary Candidosis. (2005) *Journal of Obstetrics/Gynecology Neonatal Nursing*. 34(1):37-45. DOI: 10.1177/0884217504272814.
- Francis-Morrill J**, Heinig MJ, Pappagianis D, Dewey KG. Diagnostic Value of Signs and Symptoms for Mammary Candidosis Among Lactating Women. (2004) *Journal of Human Lactation*. 20(3):288-295. DOI: 10.1177/0890334404267226
- Morrill JF**, Pappagianis D, Heinig MJ, Dewey KG. (2003) Detecting *Candida albicans* in human milk. *Journal of Clinical Microbiology*. 41(4):475-478. DOI: 10.1128/jcm.41.1.475-478.2003.
- Heinig MJ, **Francis J**, Pappagianis D. Mammary Candidosis in Lactating Women. (1999) *Journal of Human Lactation*. 15(4):281-288. DOI: 10.1177/089033449901500402.

### Peer-reviewed Abstracts

- Francis, J.** (2022) Nutrient Associations With Hypertension During Pregnancy. *Curr Dev Nutr*. 6(Suppl 1): 645. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9193566/>

Zaman, F., Nicholas, A., **Francis, J.** (2022) Effect of a Novel Breastfeeding Education Program on Exclusive Breastfeeding. *Curr Dev Nutr.* 6(Suppl 1):729. <https://doi.org/10.1093/cdn/nzac061.113>

Nicholas, A., Zaman, F., **Francis, J.** (2022). Human Donor Milk Bank Variations of Macronutrients and Implications for Fragile Infants. *Curr Dev Nutr.* 6(Suppl 1): 696.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9194023/>

### Non-peer Reviewed

Lucas, R., Zhang, Y., Russell, B., Srisopa, P., Boyle, J., **Francis, J.** (2020). Exclusive Breastfeeding at 6 Weeks Related to Pain Self-Management, Emotion and Self-Efficacy: A Secondary Analysis of a Pilot Randomized Control Trial. **MedXRv** preprint.  
<https://doi.org/10.1101/2020.09.28.20195198>

### Submitted and/or in Revision

#### Submitted

McGlothen-Bell, K., Groer, M., Gregory, K., Brownell, E.A., **Francis, J.**, Crawford, A.D., Lopez, E., McGrath, J.M., (Accepted, October 2022). A scoping review of neonatal opioid withdrawal and the infant gut microbiome: Does human milk optimize infant outcomes? *Advances in Neonatal Care.* Accepted October, 2022.

**Francis, J.**, Dickton, D. A Tale of Two Facilities – Breastfeeding at hospital discharge among women with hypertensive disorders of pregnancy. *Journal of Human Lactation.* Submitted July 28, 2022.

#### In Preparation

**Francis, J.**, Spencer, B. (2023, January) Chapter 4 – The Composition and Specificity of Human Milk. *Breastfeeding and Human Lactation.* Sixth Edition. Wambach & Spencer. Jones and Bartlett.

**Francis, J.**, Dickton, D., Zaman, F., Nicholas, A., Shuttock, E. (2022). Maternal/Infant cooperation and conflict: Hypertension during pregnancy. *In Progress.*

**Francis, J.**, Brownell, E.E., McGlothen-Bell, K. Car Seat Challenge – narrative review. *In Progress.*

**Francis, J.** Nutrient Associations with Hypertension During Pregnancy. *In Progress.*

**Francis, J.**, Brownell, E.E., McGlothen-Bell, K. HMBANA Milk Collection and Processing Survey. *In Progress.*

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## Scientific Presentations

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### Invited presentations

**Francis, J.**, & Darby, D.D. (2022). A Tale of Two Facilities- Hypertensive disorders of pregnancy and breastfeeding. San Antonio Military Health System and University Research Forum (SURF).

**Francis, J.**, & Darby, D. D. (2018). Analysis of the lactating breast after milk transfer-breastfeeding vs electric pumps. In 19th Conference of the International Society for Research on Human Milk and Lactation. (Vol. 13, p. 65). Breastfeeding Medicine: Mary Ann Liebert, Inc.

[https://www.liebertpub.com/doi/10.1089/bfm.2018.29100.abstracts?utm\\_source=sfmc&utm\\_medium=email&utm\\_campaign=BFM%20Abstracts%20September%2011%202018&d=9/11/2018&mcid=683076598](https://www.liebertpub.com/doi/10.1089/bfm.2018.29100.abstracts?utm_source=sfmc&utm_medium=email&utm_campaign=BFM%20Abstracts%20September%2011%202018&d=9/11/2018&mcid=683076598)

**Francis, J., & Lucas, R.** (2018). In *19th Conference of the International Society for Research in Human Milk and Lactation* (Vol. 13, p. 31). Breastfeeding Medicine: Mary Ann Liebert, Inc. [https://www.liebertpub.com/doi/10.1089/bfm.2018.29100.abstracts?utm\\_source=sfmc&utm\\_medium=email&utm\\_campaign=BFM%20Abstracts%20September%2011%202018&d=9/11/2018&mcid=683076598](https://www.liebertpub.com/doi/10.1089/bfm.2018.29100.abstracts?utm_source=sfmc&utm_medium=email&utm_campaign=BFM%20Abstracts%20September%2011%202018&d=9/11/2018&mcid=683076598)

**Francis, J., & Dickton, D. D.** (2018). Emergent hypertension during pregnancy and breastfeeding at hospital discharge. In *Maternal Child Nutrition, Nutrition and Nurture Conference*. 14:17. doi:10.1111/mcn.12587. <https://onlinelibrary.wiley.com/action/showCitFormats?doi=10.1111%2Fmcn.12587>

**Francis, J., & Dickton, D. D.** (2018). Biomechanics of human milk transfer—What DO we know? In *Maternal Child Nutrition*, 14, 23–24. <https://doi.org/10.1111/mcn.12587>

**Francis, J., & Dickton, D. D.** (2016). [Feeding and refusal of expressed and stored human milk. \*Advances in Nutrition\*, 7\(1\), 31A.](https://doi.org/10.1093/advances/7.1.31A) <https://doi.org/10.1093/advances/7.1.31A>.

### Poster Presentations

**Francis, J.** (2022) Nutrient Associations With Hypertension During Pregnancy. American Society of Nutrition Annual Conference. June 14-16, 2022.

Zaman, F., Nicholas, A., **Francis, J.** (2022, June) Effect of a Novel Breastfeeding Education Program on Exclusive Breastfeeding. American Society of Nutrition Annual Conference. June 14-16, 2022.

Nicholas, A., Zaman, F., **Francis, J.** (2022, June). Human Donor Milk Bank Variations of Macronutrients and Implications for Fragile Infants. American Society of Nutrition Annual Conference. June 14-16, 2022.

**Francis, J., Dickton, D.** (2022, April) Hypertensive Disorders of Pregnancy and Breastfeeding at Hospital Discharge – a Tale of Two Facilities. iViva Science, Mays Family Center at The Witte Museum, San Antonio, TX 78209.

Zaman, F., Nicholas, A., **Francis, J.** (2022) Novel Breastfeeding Education and Breastfeeding at Hospital Discharge. National Public Health Week Research Showcase. University of Texas at San Antonio, TX

Nicholas, A., Zaman, F., **Francis, J.** (2022) Human Donor Milk Bank Variations of Macronutrients. National Public Health Week Research Showcase. University of Texas at San Antonio, TX

**Francis, J., Zaman, F., Nicholas, A.** (2021, October) Effect of a Novel Breastfeeding Education Program on Exclusive Breastfeeding. 2021 Food & Nutrition Conference & Expo™ (FNCE®).

Pereira A, **Francis, J** Indic I, Sundaravadivel P. (2021, May) Smart Sensor Framework for analyzing Breastfeeding Patterns in Infants. East Texas Health Conference. University of Texas Health Science Center at Tyler.

Schaeffer, W., Swindall R., Boyle J., **Francis, J.** (2020, April) Analysis of the Macronutrient Content of Human Expressed Milk in East Texas Women. 5th Annual Lyceum Student Research Showcase.

Boyle, J., Dickton, D., & **Francis, J.** (2019, September). Gestational Hypertension – Disparate infant outcomes. University of Texas Health Science Center at Tyler's Health Disparities Conference. Tyler, Texas



- Francis, J., & Dickton, D. D.** (2019, May). *Emergent Acute Hypertension During Pregnancy – Anomaly or future trend?* East Texas Research Conference, Oral Presentation, University of Texas at Tyler.
- Francis, J., & Dickton, D.** (2018, October). Analysis of The Lactating Breast After Milk Transfer: Breastfeeding vs Electric Pumps. Protecting, Promoting and Supporting Breastfeeding from Biology to Policy - 19th Conference, Shonan Village, Japan: International Society for research on Human Milk and Lactation.
- Lucas, R., Adhikari, S.(Student), Indic, P., & **Francis, J.** (2018, October). Changing oral pressure as a measure of feeding efficacy. Protecting, Promoting and Supporting Breastfeeding from Biology to Policy - 19th Conference, Shonan Village, Japan: International Society for Research on Human Milk and Lactation.
- Tokoph, K.(Student), & **Francis, J.** (2018, April). Characterization of fungal organisms in human milk. UT Tyler Student Research Showcase, University of Texas at Tyler: UT Tyler Honors Program.
- Francis, J., & Dickton, D. D.** (2018, February). Analysis of the Lactating Breast After Milk Transfer. Celebration of Scholarship, University of Texas at Tyler: Office of the Provost.
- Francis, J.** (2017, June). Early Outpatient Lactation Management Intervention and Exclusivity of Breastfeeding at Six Weeks Postpartum. Nutrition and Nurture in Infancy and Childhood: Bio-Cultural Perspectives, Grange-over-sands, Cumbria, United Kingdom: Maternal and Infant Nutrition and Nurture Unit (MAINN), University of Central Lancashire.
- Tokoph, K.(Student), & **Francis, J.** (2017, April). Evaluation of the Physical and Nutrient Properties of Human Milk. 2nd Annual Honors Research Showcase, University of Texas at Tyler: UT Tyler Honors Program.
- Francis, J.** (2017, May). Emerging Hypertension During Pregnancy and Breastfeeding at Hospital Discharge. New Horizons in Lactation, San Antonio, TX: Unites States Lactation Consultants Association.
- Francis, J.** (2017, February). Lactation Intervention and Exclusivity of Breastfeeding at Six Weeks Postpartum. A Celebration of Scholarship and Creativity, UT Tyler UC Ballroom: Provost.
- Francis, J., & Dickton, D.**(Student) (2015, December). Feeding and Refusal of Expressed and Stored Human Milk. Advances and Controversies in Clinical Nutrition, Long Beach, CA: American Society of Nutrition.
- Francis, J., Twedt, R.**(Student), & Wagoner, C. (2014, October). Early Outpatient Lactation Management Intervention and Exclusivity of Breastfeeding at Six Weeks Postpartum. UT Health NE Meet and Greet, University of Texas at Tyler: College of Nursing and Health Science.
- Francis, J., & Dickton, D. D.**(Student). (2014, October). Effects of Photooxidation on Riboflavin and Ascorbic Acid in Human Milk. 17th Annual ISRHML conference- From Human Milk Molecules to Population Health: Research Advances, Kiawah Island, SC USA: International Society for Research on Human Milk and Lactation.

### Invited Presentations

### Conference Presentations

- Francis, J.** (2021, March). *Conducting Research in a Clinical Setting*. Midwifery Regional Conference, Nacogdoches, TX
- Francis, J.** (2020, March). Physiokinetics of Human Milk Transfer. Global Scientific Webinar. Philips/Avent.

**Francis, J.** (2019, May). *Faster than a speeding bullet? Human Milk Velocity and Flow During Human Milk Transfer.* "New Horizons in Clinical Lactation" - USLCA Annual Conference, Scottsdale, Arizona: Unites States Lactation Consultants' Association.

**Francis, J., & Dickton, D.** (2018, January). *Minimalist Early Intervention for Increasing Exclusive Breastfeeding at 6 weeks.* 2018 International Conference on the Theory and Practice of Human Lactation Research and Breastfeeding Management, Deerfield Beach, Florida: Healthy Children Project.

**Francis, J.** (2018, January). *When is enough ENOUGH? - neonatal nutrition.* Perinatal Challenges Conference, Tyler, TX: Trinity Mother Frances.

**Francis, J.** (2018, May). *Supporting the first three days of life - ensuring breastfeeding success.* Mother/Baby Nurse Conference, Jacksonville, TX: ETMC - Jacksonville.

**Francis, J.** (2018, January). *Why is supporting the normal breastfeeding dyad so difficult in the first 3 days?* Labor and delivery/neonatal/postpartum Conference, Family Birthplace: East Texas Medical Center.

#### Workshops conducted

**Francis, J.** (2018, July). *Advanced Feeding Assessment and Interventions.* Community Education Workshop, UT Tyler: Sponsored by UT Health and the Foundation for Maternal, Infant, and Lactation Knowledge.

**Francis, J.** (2018, July). *Breastfeeding Educator Workshop.* Community Education for Breastfeeding Educators, UT Tyler: Sponsored by UT Health and the Foundation for Maternal, Infant, and Lactation Knowledge.

#### Trainings presented

Texas Health & Human Services Virtual Training Sessions – Advanced Lactation Management

**Francis, J.** (2022, August). *Biomechanics of Lactation; Advances in Maternal Nutrition; Human Milk Biospecificity.* San Antonio, TX

**Francis, J.** (2022, June). *Biomechanics of Lactation; Advances in Maternal Nutrition; Human Milk Biospecificity.* San Antonio, TX

**Francis, J.** (2022, April). *Biomechanics of Lactation; Advances in Maternal Nutrition; Human Milk Biospecificity.* San Antonio, TX

**Francis, J.** (2022, February). *Biomechanics of Lactation; Advances in Maternal Nutrition; Human Milk Biospecificity.* San Antonio, TX

**Francis, J.** (2022, February). *Biomechanics of Lactation; Advances in Maternal Nutrition; Human Milk Biospecificity.* San Antonio, TX

**Francis, J.** (2021, December). *Biomechanics of Lactation; Advances in Maternal Nutrition; Composition of Human Milk.* San Antonio, TX

**Francis, J.** (2021, October). *Biomechanics of Lactation; Advances in Maternal Nutrition; Composition of Human Milk.* San Antonio, TX

**Francis, J.** (2021, August). *Biomechanics of Lactation; Advances in Maternal Nutrition; Composition of Human Milk.* San Antonio, TX

**Francis, J.** (2021, June). *Biomechanics of Lactation; Advances in Maternal Nutrition; Composition of Human Milk.* San Antonio, TX



**Francis, J.** (2020, February). *Biomechanics of Lactation. Principles of Lactation Management; Advances in Maternal Nutrition; Specificity and Composition of Human Milk; Special Infant Situations.* Laredo, TX

Texas Health & Human Services Training Sessions - Principles of Lactation Management

**Francis, J.** (2019, December). *Biomechanics of Lactation; Special Infant Situations; Advances in Maternal Nutrition; Specificity and Composition of Human Milk.* Longview, TX

**Francis, J.** (2019 October). *Advances in Maternal Nutrition; Specificity and Composition of Human Milk; Biomechanics of Lactation.* Abilene, TX

**Francis, J.** (2019 August). *Specificity and Composition of Human Milk; Biomechanics of Lactation; Advances in Maternal Nutrition;* Fort Worth, TX

**Francis, J.** (2019, May). *Special Infant Situations; Maternal Nutrition; Composition of Human Milk; Lactation Physiology.* Round Rock, TX

**Francis, J.** (2019, March). *Maternal Nutrition; Composition of Human Milk; Lactation Physiology.* Houston, TX

**Francis, J.** (2018, November). *Lactation Physiology; Advances in Maternal Nutrition; Composition of Human Milk.* Tyler, TX

**Francis, J.** (2018, September). *Lactation Physiology; Advances in Maternal Nutrition; Composition of Human Milk.* San Antonio, TX.

**Francis, J.** (2018, July). *Lactation Physiology; Advances in Maternal Nutrition; Composition of Human Milk.* Midland, TX

**Francis, J.** (2018, March). *Lactation Physiology; Advances in Maternal Nutrition; Composition of Human Milk.* Dallas, TX.

**Francis, J.** (2018, January). *The Case for Breastfeeding; Lactation Physiology; Advances in Maternal Nutrition; Composition of Human Milk.* Houston, TX

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### Media - Live Talk & Television

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**Francis, J.** CBS – Channel 19 news. Nutrition and premature infants. November 2015.

**Francis, J.** New breastfeeding law. CBS – Channel 19 news. Importance of allowing women to breastfeed wherever they are allowed to be. August 2015.

**Francis, J.** Healthy Easter Baskets. KLTV - Channel 7 news. Tips for healthier treats at Easter. March 2015.

**Francis, J.** Healthy Holiday Eating. KLTV - Channel 7 news Interview regarding methods to avoid over-eating during the Holiday Season. November 2014.

**Francis, J.** Halloween candy and allergies. KLTV - Channel 7 news. Interview regarding what Halloween candy is safe for children with allergies. October 2014.

**Francis, J.** Healthy Eating. KLTV - Channel 7 news Interview on School Lunch Policy. September 2014.

**Francis, J.** Breastfeeding Challenges. Live Chat Radio. March 2012.

**Francis, J.** Breastfeeding Challenges. Live Chat Radio. December 2011.

**Francis, J.** Breastfeeding Basics. Live Chat Radio. September 2011.

**Francis-Morrill J.** Infant and Maternal Nutrition. Week 6. Live 2005 radio broadcast. Available in the Radio Archives of [www.babiesandmoms.com](http://www.babiesandmoms.com).

**Francis-Morrill J.** Infant Nutrition – Nurturing Babies. Week 10. Live 2005 radio broadcast. Available in the Radio Archives of [www.babiesandmoms.com](http://www.babiesandmoms.com)

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## Granting Activities

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### Pending Research Support

1. **Francis, J.** (\$654,244). National Science Foundation. CBET. CAREER: Characterization of Lactation Physiokinetics Using Systems Theory. Start – May 1, 2023.  
Status: submitted July 27, 2022  
Role: Principal Investigator

### Current Research Support

1. Sundaravadivel, P., **Francis, J.**, Indic, P. (\$248,597). National Science Foundation Easy-Med: Interdisciplinary Training in Security, Privacy-Assured Internet of Medical Things, Funding dates: September 1, 2019 - August 31, 2022  
Status: funded  
Role: Co-Principal Investigator, 33% shared credit
2. **Francis, J.**, Lucas, R. (\$50000). SPARK Technology Commercialization Fund Field testing the Breastfeeding Diagnostic Device with Synchronized Biomechanical and Biomarkers, Funding dates: September 30, 2019 - September 30, 2022  
Status: funded  
Role: Co-Principal Investigator, 50% shared credit

### Previous Research Support

1. **Francis, J.**, Arce-Esquivel, A. Patterns of Atrial Fibrillation as a Measure of Cardiac Health Using Long-term Cardiac Monitoring., Funded by Arizona State University (July 10, 2018 - December 31, 2018), awarded July 2, 2018 (**\$10,380.00**), Funded – (Fall 2018-Spring 2020)
2. **Francis, J.**, Indic P. Going wireless - ME SuPPRT Breastfeeding diagnostic device , Funded by Institute for Integrated Healthcare (December 1, 2017 - December 31, 2018), awarded December 19, 2017 (**\$11,850.00**), Completed, Summer 2019.
3. **Francis, J.**, Adapting the Breastfeeding Diagnostic Device to add maternal measures., Funded by UT Tyler Bridge Grants Program (September 1, 2018 - August 31, 2019), awarded August 1, 2018 (**\$10,000.00**), Completed, Spring 2019, PI Jimi Francis.
4. **Francis, J.** Breastfeeding Educator Training, Funded by Foundation for Maternal, Infant, and Lactation Knowledge (October 3, 2017 - September 30, 2018), awarded October 1, 2017 (**\$1,250.00**), Completed, Summer 2018, PI Jimi Francis.
5. **Francis, J.**, Lucas, R. Summer Fellowship Program, Funded by Connecticut Center for Entrepreneurship & Innovation (June 4, 2018 - August 2, 2018), awarded May 16, 2018 (**\$15,000.00**), Completed, Summer 2018.
6. **Francis, J.**, Lucas, R. Evidence-Based Entrepreneurship, Funded by Accelerate UConn/NSF (February 15, 2018 - April 19, 2018), awarded February 9, 2018 (**\$3,000.00**), Completed, Spring 2018.
7. **Francis, J.** Hypertension of Pregnancy: Early Detection , Funded by CNHS Intramural Research Award (April 1, 2016 - August 31, 2018), awarded July 12, 2015 (**\$5,000.00**), Funded - Completed August 2018.
8. **Francis, J.** Hypertension of Pregnancy: Early Detection , Funded by Trinity Mother Frances Foundation (January 22, 2016), awarded January 1, 2016 (**\$5,000.00**), Funded - Completed, Fall 2018.

## Research Support Not Funded

- Francis, J. (\$679,020). National Science Foundation. CBET. CAREER: Characterization of Lactation Physiokinetics Using Systems Theory. Start - February 1, 2022. Status: scored but not funded. Role: Principal Investigator
- Francis, J. (3,095,893.00) Characteristics of the pathology pathway for gestational hypertension among Hispanic and Non-Hispanic Women. Project Period: From 02/01/2022 To 03/31/2027. Scored but not funded. Role: Principal Investigator.
- Francis, J.**, Shattuck, E. (2021) Balancing Conflict and Cooperation in the Maternal/Infant Dyad – Investigating Sickness Behavior and Inflammatory Response to COVID-19 Vaccination in Lactating Women. HCaP Transdisciplinary Team Grant. Submitted April 1, 2021. (\$9930)
- Brownell, E., **Francis, J.** (2020) Randomized Controlled Trial to Examine the Use of an Exclusive Human Milk Diet among Infants at Risk for Developing Neonatal Abstinence Syndrome. NIH. Submitted November 02, 2020. (\$298,233)
- Francis, J.** (2020) Biomedical Modeling for Early Detection of the Pathology Pathway to Hypertension During Pregnancy. NIH. Submitted May 29, 2020. (\$2,232,304)
- Francis, J.** (2020) Acceptability and Reliability Testing (ART) of the Breastfeeding Diagnostic Device, Medela (October 1, 2020 - September 30, 2022), (\$247,500.00), Submitted for Review, January 2020.
- Alfred, D., **Francis, J.**, Cook, E., Brazill, B., Sass, S., Holm, J., Brown, B. (2020) Mobile Health and Wellness Initiative, (\$500,000.00), In Preparation - submitted Spring 2020.
- Francis, J.**, Courville, K., Spencer, B., Mathema, S., Aberjirinde, IO. Designing a sustainable facility-based breastfeeding promotion intervention in urban Nepal using a theory-driven, participatory-action approach, Funded by Sigma Theta Tau International (November 1, 2019 - October 31, 2020). (\$10,000.00), Submitted – Not Funded, Fall 2019.
- Francis, J.**, Sundaravadivel, P. Testing Methodology for Early Detection of Gestational Hypertension in East Texas, Funded by UT Tyler East Texas Research Grant (September 1, 2019 - July 31, 2020), awarded September 1, 2019 (\$10,000.00), Submitted - Not Funded, Spring 2019.
- McGaha, P., **Francis, J.**, Glimore, K., Stames, K., Osuagwu., C., Willis, K., Allen, C. Racial and Ethnic Approaches to Community Health (REACH), Funded by CDC (November 1, 2018 - October 31, 2023), awarded September 29, 2018 (\$605,055.00), Submitted - Not Funded, Fall 2018.

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## Affiliations/Memberships

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2009-present Academy of Nutrition and Dietetics  
 2001-present American Society for Nutrition  
 1993-present International Lactation Consultants Association  
 2000-present United States Lactation Consultants Association  
 2002-present International Society for Research in Human Milk and Lactation  
 2014-present International Consortium for Milk and Human Health  
 2017-2020 Institute for Integrated Healthcare  
 1992-present National Ski Patrol

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## Teaching

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### University of Texas at San Antonio, TX

Semester	Courses Taught/Scheduled to Teach		Format
Fall 2022	KIN 4253	Exercise Nutrition	Face-to-Face

	NDT 5913	Research Seminar	Face-to-Face
	KAH 6931	Master's Thesis	Face-to-Face
<b>Summer 2022</b>	KAH 6981	Master's Thesis	Face-to-Face
	KAH 6983	Master's Thesis	Face-to-Face
<b>Spring 2022</b>	NDT 3343	Nutrition Across the Life Span	Hybrid 50/50
	NDT 4943.003	Foundations of Maternal/Child Health	Hybrid 50/50
	KAH 6981	Master's Thesis	Face-to-Face
<b>Fall 2021</b>	NDT 4333	Community Nutrition	Face-to-Face
	NDT 5913	Research Seminar	Face-to-Face
	KAH 6931	Master's Thesis	Face-to-Face
<b>Summer 2021</b>	NDT 5323	Independent Study – Lactation Physiokinetics	Face-to-Face
<b>Spring 2021</b>	KAH 6223	<b>Exercise Nutrition</b>	Synchronous Online
	KAH 6951	Independent Study – Infant feeding assessment	Face-to-Face
	KAH 6983	Master's Thesis	Face-to-Face
<b>Fall 2020</b>	NDT 4333	<b>Community Nutrition</b>	Synchronous Online
	NDT 4091	Community Nutrition Practicum	Face-to-Face
	KAH 6983	Master's Thesis	Face-to-Face

**Bold indicates course development for online during Pandemic**

University of Texas at Tyler, TX

Semester	Courses Taught/Scheduled to Teach		Format
<b>Spring 2020</b>	ALHS 2315	Nutrition for Allied Health*	Face-to-Face
	ALHS 5303	Nutritional Supplements and Nutraceuticals*	Face-to-Face
	HECC 5396	Master's Thesis II	Face-to-Face
	PHAR 7218	Self-Care	Face-to-Face
<b>Summer 2020</b>	ALHS 1315	Introduction to Nutrition*	Online
	ALHS 2315	Nutrition for Allied Health*	Online
<b>Fall 2019</b>	ALHS 2315	Nutrition for Allied Health*	Face-to-Face
	ALHS 4317	Theory and Clinical Aspects of Weight Management	Face-to-Face
	ALHS 5322	Nutrition, Health, and Disease	Face-to-Face
	ALHS 5322	Nutrition, Health, and Disease	Online
	HECC 5396	Master's Thesis II	Face-to-Face
<b>Spring 2019</b>	ALHS 2315	Nutrition for Allied Health*	Synchronous Online
	ALHS 4317	Theory and Clinical Aspects of Weight Management	Online
	ALHS 5325	Nutrition for Healthy Aging*	Face-to-Face
	ALHS 5325	Nutrition for Healthy Aging*	Online
	HECC 5395	Master's Thesis I	Face-to-Face
	HECC 5396	Master's Thesis II	Face-to-Face
<b>Summer 2019</b>	ALHS 1315	Introduction to Nutrition	Online
	ALHS 2315	Nutrition for Allied Health	Online

<b>Fall 2018</b>	ALHS 2315	Nutrition for Allied Health*	Face-to-Face
	ALHS 4317	Theory and Clinical Aspects of Weight Management	Face-to-Face
	ALHS 5322	Nutrition, Health, and Disease	Face-to-Face
	HECC 5399	Independent Study – Maternal/Infant Nutrition*	Face-to-Face
	HECC 5395	Master's Thesis I	Face-to-Face

**\*Indicates new course created and developed by Francis, J.**

## UTSA

### Master's Thesis Student Supervision

Farjana Zaman, Master's Thesis

August 2021 to December 2022. "Effects of a novel breastfeeding education on breastfeeding practices in rural east Texas"

Christina Jimenez, Master's Thesis

Aug 2020-August 2022. "Characteristics of the Inflammasome of the Lactating Breast."

### Research Assistant Supervision

1. Maisha Naowar – Graduate Research Assistant. Training in laboratory techniques associated with human milk composition and human subjects research education
2. Joy Baxter – Undergraduate research assistant, volunteer. Training in laboratory techniques associated with human milk composition and human subjects research education, nutrition education for athletes.
3. Paul Flynn – PhD Graduate Research Assistant, Electrical Engineering. Trained in human subjects' research education and biomedical device development.
4. Alex Nicholas - Training in laboratory techniques associated with human milk composition and human subjects research education.
5. Farjana Zaman - Training in laboratory techniques associated with human milk composition and human subjects research education
6. Katerina Tsvetkova - Training in laboratory techniques associated with human milk composition and human subjects research education

## UT Tyler

### Master's Thesis Student Supervision

1. Julianna Boyle, Thesis title "Predicting Academic Success Using Grit and Academic Resiliency." Graduated May, 2021.
2. Jing Le Xu, Thesis title "The 'Active Ingredients' of yin, yang and neutral food and the effect of these nutrients on improving and maintaining health." Graduated May, 2020
3. Prabhjot Kaur, Thesis title "Relationship of various factors with postpartum depression risk." Graduated, May, 2019.

### Master's Thesis Student Committee Member

1. Dipta Amatya, Thesis Title "A heartfulness meditation intervention in University students mixed methodology." Graduated May, 2019.
2. Selorm Kojo Darkey Thesis Title "Point process algorithm for the estimation of bi-directional cardio-respiratory interactions in preterm infants." Graduated May, 2019.

### Research Assistant Supervision

1. Julianna Boyle, Graduate Research Assistant, Health & Kinesiology. Trained in laboratory techniques and research project with gestational hypertension biomarkers and human milk composition.



2. Rebecca Swindall, Graduate Research Assistant, Health & Kinesiology. Trained in laboratory techniques and research on human milk composition.
3. Gabrielle Galvan, Graduate Research Assistant, Graduate Research Assistant, Health & Kinesiology. Trained in laboratory techniques and research on human milk composition.
4. Shambhavi Adhikari, Graduate Research Assistant, Electrical Engineering. Trained in laboratory techniques and research project with gestational hypertension biomarkers and human milk composition.

#### Internship Supervision

1. Celia Correo - Health and Kinesiology Capstone Experience Student Internship/Practicum included certification in human subjects' research, lab techniques, recruiting research participants, collect and analyze data collected.
2. Joy Johnson - Health and Kinesiology Capstone Experience Student Internship/Practicum included community outreach for nutrition education.
3. Mary Daniels - Health and Kinesiology Capstone Experience Student Internship/Practicum included the formation of a community garden in an underserved elderly population.

#### Teaching Assistant Supervision

1. Joy Johnson – Supervised teaching of ALHS 2315 Nutrition for Allied Health
2. Rebecca Swindall – Supervised teaching of ALHS 4317 Theory and Clinical Aspects of Weight management
3. Prabhjot Kaur - Supervised teaching of ALHS 2315 Nutrition for Allied Health and ALHS 4317 Theory and Clinical Aspects of Weight management
4. Kevin Tokoph – Supervised teach of ALHS 1315 Introduction to Nutrition

#### Undergraduate Research Assistant Supervision

1. Wyatt Schaeffer, Pre-Med, was trained in human subjects' research, lab techniques, recruiting research participants, collecting, and analyzing data collected. He presented an invited poster presentation at a conference proceeding.
2. Alina Pereira, Engineering, was trained in human subjects' research, lab techniques, recruiting research participants, collecting, and analyzing data collected. She presented an invited poster presentation at a conference proceeding.

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### Teaching Development

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**Technology Development for Curriculum/Course.** Course Objectives: 1) Create better course flow plan based on different modes of delivery; 2) Integrate digital tools to enhance teaching and learning practices. 3) Design multimodal content and opportunities for active learning; 4) Implement effective practices for curriculum design and course management. Innovation Academy Hours: 32

**First-Year Student Experience & Faculty Engagement.** Innovation Academy. Hours: 2

**More than Click & Submit: How to Develop Interactive Content.** Technology Development for Curriculum/Course, Academic Innovation. Hours: 1.5

**QM Principles and Best Practices for Using Visuals in Course Design.** Course Development, Academic Innovation. Hours: 1.5

**Panopto Beginner Training** Hours: 1

**Promoting Inclusive Teaching in the Classroom** Hours: 1

**Inclusive Pedagogy with Dr. Myron Anderson,** Hours: 1

**Utilizing Cengage Materials in the Classroom** with Megan Jackson, Hours: 1

**Using Proctorio to proctor online exams** Hours: 1

**Recording online lectures (Panopto, BB Collaborate, Zoom)** Hours: 1

**ImageStream training,** Hours: 3, Cell Core Lab



**Designing Your Online Course - Quality Matters.** Completed 10-1-2020 Hours: 16

**Using Connect in the classroom.** McGraw Hill instructor 12-30-2021 Hours: 1

**Applying the QM Rubric - Quality Matters.** Completed 10-22-2020 Hours: 24

**10 Tips To Making Online Teaching More Effective & Efficient** , Hours: 1.5, Jean Mandernach blends her passion for teaching and research to explore the power of online education for transforming students one asynchronous interaction at a time. Further, recognizing the clash between the ubiquity of the online classroom and the human need for sleep, Jean researches practical pedagogical approaches to help faculty be simultaneously effective and efficient.

**Why won't they talk?** Hours: 1, Using discussion to facilitate learning. Dr. Jay Howard provided insight from his book "Discussion in the College Classroom". Jay Howard is Professor of Sociology and Dean of the College of Liberal Arts and Sciences and Acting Dean of the College of Communication at Butler University in Indianapolis.

**Team Based Learning**, Hours: 5, Advanced train-the-trainer for team-based learning education.

**Team STEPPS Master Trainer**, Hours: 7, The TeamSTEPPS® Master Training Course was an interactive train-the-trainer course that prepares participants to plan, teach, implement, and sustain TeamSTEPPS® fundamentals. The course produced Master Trainers, who were trained to go back to their respective institutions and offer TeamSTEPPS® training and certification to others.

**Youth Protection Training**, Hours: 1, Training course to improve protection for minors in programs and camps.

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## Service

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### Peer Reviewer of Manuscripts

A Review of Quantitative Instruments for Understanding Breastfeeding Dynamics. Global Challenges. No. gch2.202100019

The Effect of Acupressure on Lactation in Non-Breastfeeding Mothers After Preterm Cesarean Delivery. Breastfeeding Medicine. BFM-2021-0063

Lactation Mastitis: A Systematic Review of the Literature of Current Practice and Future Implications for Prevention. Breastfeeding Medicine. BFM- 2021-0069

Episiotomy and initiation of human milk feeds: a retrospective observational study. Breastfeeding Medicine. 2 Revisions. BFM-2020-0071.R2

The change in haemoglobin concentration between the first and third trimesters of Pregnancy: a population study. BMC Pregnancy and Childbirth.

Breastfeeding practices in Mid-western and Eastern regions of Nepal: A health facility based cross-sectional study, BMC Pregnancy and Childbirth

Editorial Board, American Journal of Pediatrics

### Committee Assignments

#### UTSA

**Fall 2021-Spring 2022**

**Fall 2020-Spring 2021**

**College Level**

College Research Committee

**Department Level**

Student Application Review and Selection Committee

#### UT Tyler

**University Level**

**Fall 2019 – Spring 2020**

Faculty Senate, Health & Kinesiology Representative

**Fall 2019 - Spring 2022**

Intellectual Property Committee

Undergraduate Council

**Spring 2019 - Spring 2022**

Texas Higher Education Coordinating Board Health Services Field of Study Advisory Committee

**Summer 2018 - Ongoing**

Interprofessional Education Committee

**College Level**

**Fall 2019 - Spring 2022**

Chair, College Curriculum Committee

MOT Faculty Search Committee

College Curriculum Committee

Health Expo Committee

**Community Service**

Volunteer Work

**2009-present** Volunteer, Chief Financial Officer, Foundation for Maternal, Infant, and Lactation Knowledge, San Antonio, Texas

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**Professional Development**

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**Summer 2022**

Topics covered: The Magic of Human Milk: Neohormones, Epigenetics, and the Microbiome; Up in Smoke – Using Evidence to Inform Our Practice with Cannabis and Human Milk Feeding; Can a Baby Be Allergic to Breastmilk: Sensitivities, Allergies, Galactosemia, and Lactose Intolerance; Fem Tech: The Frightening and Fabulous Role in Lactation. Arizona LATCH Conference. Hours: 5.25

**Spring 2022**

**Breastfeeding Human Medicine – Interprofessional education**

Taking a team-based approach to breastfeeding support. Inspire Health & CHAMPS. Hours: 3.5 Ethics

**Fitting Flanges for Pumping: Rethinking Sizes and Materials.** GOLD Learning. Hours: 1.25

**Variations in healing after frenectomy.** United States Lactation Consultants Association. Hours: 1

**First 1000 Days - Critical Nutrients to Support First 1000 Days; From Conception to Toddlerhood.** Academy of Nutrition and Dietetics. Hours 1.5

**Fall 2021**

**Clinical Ethics for Lactation Professionals**

Topics covered: Clinical Issues, Milk Sharing and Milk Banking, Use of Medications, Human rights, and Workplace Barriers. GOLD Learning. Hours: 5 Ethics

**Spring 2021**

2-week writing challenge to improve research writing. National Center for Faculty Development & Diversity. Hours: 16

Topics covered: Back to Baseline – Normal anatomy; Biology of the mammary gland; Breastmilk fat profile; Effects of spray drying process on expressed human milk; Expected weight changes after birth; Overcoming challenges when providing virtual support to breastfeeding families; ReLATCHtation;

Skilled Lactation support in suboptimal and low resource settings; Talking to babies; Essential Communication Skills for Lactation Professionals; Translating Knowledge into Practice: Creating Effective Lactation Care Plans. GOLD Lactation Conference. Hours: 26.5

**Breastmilk Ecology: Genesis of Infant Nutrition (BEGIN) Meeting Series**

Working Group 1, Hours: 4, Maternal Inputs. Focus: Factors that impact the ontogeny of mammary tissues and lactogenesis.

Working Group 2, Hours:4, Human Milk Composition. Focus: Identifying the components of human milk and their roles.

Working Group 3, Hours:4, Infant Inputs. Focus: Infant factors that influence lactation, including milk let-down and composition over time.

Working Group 4, Hours: 4, Integration and Application. Focus: Identification of approaches to more fully understand: 1) human milk as a functional biological system, and 2) the functional implications of that system and its components.

Working Group 5, Hours: 4, Translation and Integration. Focus: How to translate and implement the evolving science regarding the biology of human milk to support safe and efficacious infant feeding practices

**Summer 2021**

**National Center for Faculty Development and Diversity Faculty Support Program Bootcamp, Hours: 60**, 12 weeks of intensive instruction to 1) Identify Goals for research and life progress; 2) Develop strategic plan for advancing research and writing; 3) Execute the plan with daily feedback from small group coaches.

**Spring 2020**

**RESEARCH FELLOWS PROGRAM Hours: 27** Sponsored by the Office of Research and Scholarship. Training for enhancing funding chances through improved grant proposal development.