

Curriculum Vitae

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QUALIFICATIONS OVERVIEW: Expertise in designing, implementing and managing complex human clinical research trials. Senior scientific advisor for all whole-room calorimetry protocols. Proficient in the principles and practice of stable isotopes and isotope tracers in metabolic research.

EDUCATION

Ph.D.	2012	Cell Biology, University of Texas Medical Branch, Galveston, TX
B.S.	2004	Fitness and Human Performance, University of Houston, Houston, TX
A.S.	2002	Nutritional Sciences, San Jacinto College, Houston, TX

PROFESSIONAL EXPERIENCE

2012-present	Research Biologist, USDA-ARS, Grand Forks Human Nutrition Research Center
2006-2012	Graduate Research Assistant, Division of Endocrinology, Department of Internal Medicine, University of Texas Medical Branch
2004-2006	Research Assistant, Division of Endocrinology, Department of Internal Medicine, University of Texas Medical Branch

HONORS AND AWARDS

2017	Research article [<i>BMC Nutrition</i> , 2017. 3(1): p. 49] selected as “Editor’s Pick” with Press Release, Blog post and Video Abstract
2014	Research article [<i>J. Anal. At. Spectrom.</i> , 2014, April;29(4):594-598] selected as “Editor’s Pick” with cover artwork
2011	<i>Gail E. Butterfield Nutrition Travel Award</i> (First awardee of this award) American College of Sports Medicine
2010, 2007	<i>Peyton and Lydia Schapper Endowed Scholarship</i> , University of Texas Medical Branch
2010, 2009	<i>First Place Poster Presentation</i> , American Society for Nutrition Energy and Macronutrient Metabolism Research Interest Section, Experimental Biology

- 2009 *Best Student Poster*, 13th Annual Forum on Aging, University of Texas Medical Branch Sealy Center on Aging
- 2008, 2007 *Travel Award*, Isotec®, Experimental Biology
- 2007 *Gatorade Young Investigator Award*, American Physiological Society Environmental & Exercise Physiology Section, Experimental Biology
- 2005 *Student Research Manuscript Award*, American College of Sports Medicine Texas Chapter

PROFESSIONAL MEMBERSHIPS

American Society for Nutrition – 2007 to present
Society for the Study of Ingestive Behavior – 2017-present

PROFESSIONAL SERVICE

Service to the Discipline

1. Editorial Board Member - Nutrients
2. American Society for Nutrition
 - a. *Chair*, ASN Minisymposium “Obesity: Adipose Tissues and Muscle Metabolism”; Experimental Biology 2017
 - b. Obesity Research Interest Section
 - i. Secretary, 2015-2017
3. Obesity Society
 - a. *Co-Chair*, Obesity Society Symposium “Insulin Action and Obesity: Pathways and Clinical Consideration”; Obesity Week 2016
4. Guest Editor
 - a. Nutrients – The Impact of Beverages on Ingestive Behavior
5. Ad-Hoc Manuscript Reviews
6. Ad-Hoc USDA National Institute of Food and Agriculture Grant Review Panel

Service to University of North Dakota

1. *Adjunct Assistant Professor*, College of Nursing and Professional Disciplines, 2018
2. *Member*, Institutional Review Board, 2014-present
3. *Advisory Committee*, Maximizing Access to Research Careers (MARC) Undergraduate Student Training in Academic Research (U-STAR), 2018-present

TEACHING AND MENTORING

Postdoctoral Fellows

1. Angela De Leon, Ph.D. 09/2017-present

Undergraduate Students

1. Davis Kopplinger, MARC-USTAR Scholar, Summer Research, 2019

2. Brenna Miller, Increasing Spontaneous Non-Exercise Activity with Implicit Priming, Summer Research Project, 2016
3. Deandria Lavine, Medical Student Summer Research Project, University of Texas Medical Branch, 2011
4. Linda Yang, Medical Student Summer Research Project, University of Texas Medical Branch, 2011 ****Winner of Student Research Poster Competition****

INVITED TALKS

- 2015 “Carbohydrates, Fats and Proteins – Young Athlete’s Needs”; Red River Valley Gymnastics, Grand Forks, February 21
- 2015 “Being a Scientist”; Grand Forks Public Schools, Career Forum, April 13

LAY MEDIA

- 2017 Research highlighted in WHYY on air radio interview with Alan Yu.
- 2017 Research highlighted in “Could Diet Drinks Trigger Sugar Seeking?” article in Tufts University Health & Nutrition Letter (April issue).

PUBLICATIONS

Peer-reviewed Original Research

1. De Leon, A., Jahns, L., Casperson, S.L. Barriers and facilitators to following the dietary guidelines for vegetable intake: Follow-up of an intervention to increase vegetable intake. *Food Quality and Preference*. 2020;83:103903. doi:10.1016/j.foodqual.2020.103903
2. De Leon, A., Burnett, D.J., Rust, B.M., Casperson, S.L., Horn, W.F., Keim, N.L. Liking and Acceptability of Whole Grains Increases with a 6-Week Exposure but Preferences for Foods Varying in Taste and Fat Content Are Not Altered: A Randomized Controlled Trial. *Curr Dev Nutr*. 2020;4(3):nzaa023. doi:10.1093/cdn/nzaa023
3. McGrath, R., Stastny, S., Casperson, S.L., Jahns, L., Roemmich, J., Hackney, K. Daily Protein Intake and Distribution of Daily Protein Consumed Decreases Odds for Functional Disability in Older Americans. *J Aging Health*. 2019;898264319881864. doi:10.1177/0898264319881864.
4. Flack, K.D., Ufholz, K., Casperson, S.L., Jahns, L., Johnson, L. and Roemmich, J.N. Decreasing the Consumption of Foods with Sugar Increases Their Reinforcing Value: A Potential Barrier for Dietary Behavior Change. *J Acad Nutr Diet*. 2019;119(7):1099-1108. doi:10.1016/j.jand.2018.12.016
5. Casperson, S.L., Lanza, L., Albajri, E. and Nasser, J.A. Increasing Chocolate’s Sugar Content Enhances Its Psychoactive Effects and Intake. *Nutrients* 2019;11(3):596. doi:10.3390/nu11030596
6. Casperson, S.L., and Roemmich, J.N. Impact of Dietary Protein and Gender on Food Reinforcement. *Nutrients* 2017;9(9): 957. doi:10.3390/nu9090957
7. Casperson, S.L., C. Hall, and Roemmich, J.N. Postprandial energy metabolism and substrate oxidation in response to the inclusion of a sugar- or non-nutritive sweetened beverage with meals differing in protein content. *BMC Nutrition*, 2017;3(49).

doi:10.1186/s40795-017-0170-2

8. **Casperson, S.L.**, Johnson, L.K., and Roemmich, J.N. The relative reinforcing value of sweet versus savory snack foods after consumption of sugar- or non-nutritive sweetened beverages. *Appetite*. 2017;112:143-149. doi:10.1016/j.appet.2017.01.028.
9. **Casperson, S.L.**, Reineke, J.E., Sieling, J., Moon, J., Roemmich, J. and Whigham, L. A mobile phone food record app to digitally capture dietary intake for adolescents in a free-living environment: usability study. *JMIR Mhealth Uhealth*. 2015;3(1):e30. doi:10.2196/mhealth.3324
10. Mamerow, M.M., Mettler, J.A., English, K.L., **Casperson, S.L.**, Arentson-Lantz, E., Sheffield-Moore, M., Layman, D.K., and Paddon-Jones, D. Dietary protein distribution positively influences 24h muscle protein synthesis. *J Nutr*. 2014;144(6):876-80. doi:10.3945/jn.113.185280
11. Butz, D., **Casperson, S.L.**, and Whigham, L. The emerging role of carbon isotope ratio determination in health research and medical diagnostics. *J. Anal. At. Spectrom.*, 2014;29(4):594-598. doi: 10.1039/C3JA50327E
12. Sheffield-Moore, M., Dillon, E.L., Randolph, K.M., **Casperson, S.L.**, White, G.R., Jennings, K., Rathmacher, J., Schuette, S., Janghorbani, M., Urban, R.J., Hoang, V., Willis, M., and Durham, W.J. Isotopic decay of urinary or plasma 3-methylhistidine as a potential biomarker of pathologic skeletal muscle loss. *J Cachexia Sarcopenia Muscle*, 2014;5(1):19-25. doi:10.1007/s13539-013-0117-7
13. Sheffield-Moore, M., Wiktorowicz, J.E., Soman, K.V., Danesi, C.P., Kinsky, M.P., Dillon, E.L., Randolph, K.M., **Casperson, S.L.**, Gore, D.C., Horstman, A.M., Lynch, J.P., Doucet, B.M., Mettler, J., Ryder, J.W., Ploutz-Snyder, L.L., Hsu, J.W., Jahoor, F., Jennings, K., and Durham, W.J. Sildenafil increases muscle protein synthesis and reduces muscle fatigue. *Clin Transl Sci*, 2013;6(6):463-8. doi: 10.1111/cts.12121
14. Dillon E.L., Basra G., Horstman A.M., **Casperson S.L.**, Randolph K.M., Durham W.J., Urban R.J., Diaz-Arrastia C., Levine L., Hatch S.S., Willis M., Richardson G., and Sheffield-Moore M. Cancer Cachexia and Anabolic Interventions: A Case Report. *J Cachexia Sarcopenia Muscle*, 2012;3(4):253-63. doi:10.1007/s13539-012-0066-6
15. **Casperson, S.L.**, Sheffield-Moore, M., Hewlings, S.J. and Paddon-Jones, D. Leucine supplementation chronically improves the anabolic response to meals in older adults consuming the RDA for protein. *Clinical Nutrition*, 2012;31(4):512-9. doi:10.1016/j.clnu.2012.01.005
16. Dillon, E.L., **Casperson, S.L.**, Durham, W.J., Randolph, K.M., Sanford, A.P., Kinsky, M.P. and Sheffield-Moore, M. Muscle Protein Metabolism Responds Similarly to Exogenous Amino Acids in Healthy Younger and Older Adults during NO-Induced Hyperemia. *Am J Physiol Regul Integr Comp Physiol*, 2011;301(5):R1408-17. doi:10.1152/ajpregu.00211.2011
17. *Sheffield-Moore, M., *Dillon, E.L., **Casperson, S.L.**, Gilkison, C., Grady, J.J., Paddon-Jones, D., and Urban, R.J. A Randomized Pilot Study of Monthly Cycled Testosterone Replacement or Continuous Testosterone Replacement vs. Placebo in older Men. *Co-First Authors, *J. Clin. Endocrinol. Metab*, 2011;96(11):E1831-7. doi:10.1210/jc.2011-1262

18. *Durham, W.J., ***Casperson, S.L.**, Dillon, E.L., Keske, M.A., Paddon-Jones, D., Sanford, A.P., Lakshman, K.M., Hickner, R.C. Hong, C., Grady, J.J. and Sheffield-Moore, M. Age-related anabolic resistance after endurance type exercise in humans. *Co-First Authors, *FASEBJ*. 2010;24(10):4117-27. doi:10.1096/fj.09-150177
19. *Dillon, E.L., *Sheffield-Moore, M., Paddon-Jones, D., Gilkison, C., Sanford, A.P., **Casperson, S.L.**, Jiang, J., Chinkes, D.L. and Urban, R.J. Amino acid supplementation increases lean body mass, basal muscle protein synthesis and IGF-I expression in older women. *J. Clin. Endocrinol. Metab.* 2009;94(5):1630-7. doi:10.1210/jc.2008-1564
20. Dillon, E.L., Janghorbani, M., Angel, J.A., **Casperson, S.L.**, Grady, J.J., Urban, R.J., Volpi, E. and Sheffield-Moore, M. Novel noninvasive breath test method for screening individuals at risk for diabetes. *Diabetes Care*, 2009;32(3):430-5. doi:10.2337/dc08-1578
21. Dillon E.L., Volpi E., Wolfe R.R., Sinha S., Sanford A.P., Arrastia C.D., Urban R.J., **Casperson S.L.**, Paddon-Jones D., and Sheffield-Moore M. Amino acid metabolism and inflammatory burden in ovarian cancer patients undergoing intense oncological therapy. *Clin Nutr.* 2007;26(6):736-43. doi: 10.1016/j.clnu.2007.07.004
22. Sheffield-Moore M., Paddon-Jones D., **Casperson S.L.**, Gilkison C., Volpi E., Wolf S.E., Jiang J., Rosenblatt J.I., Urban R.J. Androgen therapy induces muscle protein anabolism in older women. *J Clin Endocrinol Metab.* 2006;91(10):3844-9. doi: 10.1210/jc.2006-0588

Book Chapters and Review Articles

Sheffield-Moore, M., **Casperson, S.**, and Urban, R.J. Androgens and lean body mass in the aging male. *Textbook of Men's Health*, B. Lunenfeld and L. Gooren, Parthenon Publishing, New York, NY, 2007

Abstracts

1. **SL Casperson**, Z Conrad, SK Raatz, J Derner, JN Roemmich, L Jahns, MJ Picklo (2020) Impact of beef consumption on saturated fat intake in the United States adult population: insights from modeling the influences of bovine genetics and nutrition. ASN Annual Meeting June 2020
2. A De Leon, JN Roemmich, **SL Casperson** (2020) Barriers to Adherence to a Weight Loss Diet Using the Nominal Group Technique. ASN Annual Meeting June 2020
3. A De Leon, JN Roemmich, **SL Casperson** (2020) Consuming 30 Grams of High-Quality Protein at Breakfast, Lunch, and Dinner Does Not Protect against Loss of Fat-Free Mass during Weight Loss in Women. ASN Annual Meeting June 2020
4. A De Leon, JN Roemmich, **SL Casperson** (2019) Responses on the Three Factor Eating Questionnaire Restraint and Disinhibition Scales Change after a Controlled Energy-Restricted Diet. ASN Annual Meeting June 2019
5. JA Nasser, E Albajri, L Lanza, **SL Casperson** (2019) Objective assessment of brain response to tasting high sugar/high fat chocolate by RETeval electroretinography. ASN Annual Meeting June 2019
6. A De Leon, L Jahns, JN Roemmich, **SL Casperson** (2018) Fixed Dietary Carotenoid Intake, Weight Loss and Skin Carotenoid Level. ASN Annual Meeting June 2018

7. L Jahns, LK Johnson, J Temple, **SL Casperson**, JN Roemmich (2018) The Reinforcing Value of Vegetables Does Not Increase During a Randomized Controlled Intervention Among Overweight and Obese Adults. ASN Annual Meeting June 2018
8. **SL Casperson**, L Johnson, JN Roemmich (2017) Sex Differences in Snack Food Reinforcement in Response to Increasing Dietary Protein. FASEB J April 2017 31:652.15
9. L Jahns, LK Johnson, J Temple, NL Keim, **SL Casperson**, JN Roemmich (2017) The reinforcing value of vegetables does not increase with repeated exposure during a randomized controlled provided vegetable intervention among overweight and obese adults. FASEB J April 2017 31:794.4
10. **SL Casperson**, C Hall, JN Roemmich (2016) Sugar-sweetened beverages decrease postprandial fat utilization in healthy weight adults after consuming test meals with different protein content. Obesity Week
11. **SL Casperson**, L Johnson, JN Roemmich (2016) The Relative Reinforcing Value of Snack Foods in Response to Consumption of Sugar- or Non-Nutritive-Sweetened Beverages. FASEB J April 2016 30:418.2 ***Oral presentation**
12. **SL Casperson**, D Schoeller, L Johnson, L Whigham (2014) Calculation of total meal $\delta^{13}C$ from individual food $\delta^{13}C$. FASEB J April 2014 28:813.2
13. **SL Casperson**, J Reineke, J Sieling, J Roemmich, L Whigham (2013) Usability of mobile phone food records to assess dietary intake in adolescents. FASEB J April 2013 27:230.2 ***Oral presentation**
14. E Hoang, W Durham, **SL Casperson**, C Gilkison, EL Dillon, M Sheffield-Moore, RJ Urban (2012) Elevation of Testosterone Concentrations in the Low Normal Range Reduces Fatigue in Older Men. Endocrine Society Annual Meeting
15. J Lynch, W Durham, M Jangorbani, S Schuette, EL Dillon, C Danesi, K Randolph, **SL Casperson**, J Rathmacher, A Horstman, G White, RJ Urban, M Sheffield-Moore (2012) Spot Determinations of Urinary 3-Methylhistidine Isotope Enrichment Decay To Identify Age-Related Differences in Protein Degradation. Endocrine Society Annual Meeting
16. **SL Casperson**, WJ Durham, EL Dillon, R Hickner, D Paddon-Jones, M Sheffield-Moore (2011) Substrate Exchange during Aerobic Exercise and Provision of Amino Acids in Older and Younger Men. American College of Sports Medicine Annual Meeting ****Abstract chosen as the first winner of Gail E. Butterfield Nutrition Travel Award**
17. E Hoang, W Durham, **SL Casperson**, C Gilkison, EL Dillon M Sheffield-Moore, RJ Urban (2011) Subjective Fatigue Response In Adult Males Following Short-Term Testosterone Treatment. Endocrine Society Annual Meeting
18. **SL Casperson**, WJ Durham, KM Randolph, EL Dillon, M Sheffield-Moore (2010) Anabolic and energetic signaling in human skeletal muscle in response to amino acids and endurance exercise. FASEB J April 2010 24:1046.5
19. EL Dillon, KM Randolph, **SL Casperson**, WJ Durham, RJ Urban, L Levine, C Diaz-Arrastia, M Sheffield-Moore (2010) Oral amino acids and testosterone therapy to improve muscle mass and quality of life during chemotherapy in recurrent cervical cancer: A case study. FASEB J April 2010 24:929.1

20. SL Casperson, M Sheffield-Moore, D Paddon-Jones (2010) Nutrient sensing anabolic pathway is increased in the elderly following chronic dietary leucine supplementation. FASEB J April 2010 24:331.2 ***Oral presentation **Abstract chosen as winner of ASN EMM RIS Poster Award**
21. W Durham, SL Casperson, EL Dillon, MA Keske, D Paddon-Jones, A Sanford, KM Lakshman, RC Hickner, C Hong, J Grady, M Sheffield-Moore (2010) Age-related anabolic resistance after endurance type exercise in humans. FASEB J April 2010 24:997.14
22. W Durham, SL Casperson, EL Dillon, D Paddon-Jones, RC Hickner, M Sheffield-Moore (2010) Response Of Leg Protein Metabolism To Acute Endurance Exercise In Younger And Older Healthy Men. American College of Sports Medicine Annual Meeting
23. SL Casperson, EL Dillon, D Paddon-Jones, W Durham, M Sheffield-Moore (2009) Peripheral vasodilation and aerobic exercise equally affect skeletal muscle substrate utilization in older and younger adults. FASEB J April 2009 23:777.10
24. SL Casperson, M Sheffield-Moore, and D Paddon-Jones (2009) Leucine supplemented meals improve muscle protein synthesis in older adults. FASEB J April 2009 23:738.17 ****Abstract chosen as winner of ASN EMM RIS Poster Award**
25. EL Dillon, RJ Urban, JA Angel, SL Casperson, D Paddon-Jones, M Sheffield-Moore (2008) Continuous testosterone administration for 5 months reduces markers of bone turnover in older men. FASEB J March 2008 22:1188.3
26. SL Casperson, EL Dillon, JA Angel, A Sanford, M Ahmad, D Paddon-Jones, E Volpi, M Sheffield-Moore (2008) Pharmacologic vasodilation increases muscle perfusion and muscle protein anabolism similarly in elderly and young. FASEB J March 2008 22:949.5
27. SL Casperson, EL Dillon, JA Angel, CR Gilkison, J Jiang, S Beca, D Paddon-Jones, M Sheffield-Moore, RJ Urban (2008) Cyclic Testosterone Administration Improves Muscle Anabolism in Hypogonadal Men. The Endocrine Society Annual Meeting
28. EL Dillon, RJ Urban, SL Casperson, M Drummond, BB Rasmussen, M Sheffield-Moore (2007) Chronic essential amino acid supplementation in the elderly increases basal muscle protein synthesis and S6K1 phosphorylation. FASEB J April 2007 21:A838
29. EL Dillon, M Janghorbani, JA Angel, SL Casperson, RJ Urban, E Volpi, M Sheffield-Moore (2007) Glucose-derived breath CO₂ kinetics in IGT and NGT subjects following an oral glucose load. FASEB J April 2007 21:A835
30. SL Casperson, EL Dillon, R Hickner, N Newberry, K Lakshman, M Mujeeb, JA Angel, RJ Urban, D Chinkes, M Sheffield-Moore (2007) Exercise-Stimulated Blood Flow in Older and Younger Men: A Methodological Comparison. FASEB J April 2007 21:A1237 ***Oral presentation**
31. SL Casperson, EL Dillon, JA Angel, A Sanford, E Volpi, D Paddon-Jones, M Sheffield-Moore (2007) Exercise-Mediated Increases in Muscle Perfusion in Older Men: Interaction of Amino Acids and Muscle Protein Metabolism. FASEB J April 2007 21:A838 ****Abstract chosen as winner of the Gatorade Young Investigator Award**
32. M Sheffield-Moore, SL Casperson, EL Dillon, M Ahmad, P Jammula, D Paddon-Jones,

RR Wolfe, DL Chinkes, MA Vincent, LH Clerk (2006) Nitric oxide-stimulated skeletal muscle capillary flow and glucose uptake in healthy elderly. *FASEB J* March 6, 2006 20:A142-A143

33. SL Casperson, EL Dillion, JA Angel, M Sheffield-Moore (2005) A methodological comparison of nitric oxide-stimulated leg blood flow in healthy elderly. Workshop on Investigation of Human Muscle Function *In Vivo*
34. SL Casperson, WE Amonette, JR Bentley, JK DeWitt, MA Guilliams, CA Twine, RD Hagan (2005) Evaluation of a Commercial Linear Encoder System to Predict Leg Press 1-RM and Measure Power Output. NSCA National Conference
35. SL Casperson, WE Amonette, JR Bentley, JK DeWitt, MA Guilliams, CA Twine, RD Hagan (2005) Free Weight Power Testing with Muscle Lab. Texas Chapter of the American College of Sports Medicine Annual Meeting ***Oral presentation **Chosen as 2nd place winner of the Student Research Manuscript Award**

RESEARCH SUPPORT

Active Grant Awards:

North Dakota Beef Commission #58-3062-6-006
06/15/2016 - 12/31/2019

This proposal aims to determine if protein intake patterns, specifically increasing beef consumption to meet the Dietary Guidelines for American, in overweight and obese women of child-bearing age influences dietary adherence during weight loss.

Role: PI

USDA-ARS Project # 3062-51000-057-00D
10/01/2019 - 09/30/2024

This research will test Dietary Guidelines for American and Physical Activity Guidelines for Americans induced changes in chronic low-grade inflammation (CLGI) and weight control. We will also determine the relation of change in CLGI with changes in novel putative physiological (metabolic rate, cell signaling molecules) and behavioral (food and exercise reinforcement, executive function) factors on the association of reduced CLGI that moderate weight control efficacy.

Role: Co-PI

Completed Grant Awards:

USDA-ARS Plains Area Co-funded Internship Program
05/2016-08/2016

Increasing Spontaneous Non-Exercise Activity with Implicit Priming

Role: PI

USDA-ARS Project # 5450-51000-049-00D
10/01/2014 - 09/30/2019

Dietary Guidelines Adherence and Healthy Body Weight Maintenance

Role: Co-PI