

CURRICULUM VITAE
Stephan van Vliet, Ph.D.

[Duke Molecular Physiology Institute](#)
[Duke University School of Medicine](#)
7 Center for Living Drive
Durham, NC 27701
Office Location: 114 Stedman Center

Office Phone: (919) 660-6637
Cell Phone: (217) 778-5001
Email: stephan.vanvliet@duke.edu
Google: [Stephan van Vliet - Google Scholar](#)
Twitter: [@vanvlietphd](#)

ACADEMIC QUALIFICATIONS

- 2017 **Ph.D., Kinesiology**
University of Illinois, Urbana-Champaign, IL
Dissertation: Regulation of postprandial protein metabolism
after food ingestion and exercise
- 2012 **M.S. Nutrition and Exercise Science**
University of Chester, Chester, United Kingdom
- 2010 **B.S. Business Administration**
Erasmus University, Rotterdam, the Netherlands

PROFESSIONAL APPOINTMENTS

- 2019-present **Postdoctoral Research Associate**
Duke Molecular Physiology Institute,
Duke University School of Medicine, Durham, NC
- 2017-2019 **Postdoctoral Research Associate**
Center for Human Nutrition,
Washington University in St. Louis, School of Medicine
St. Louis, MO
- 2013-2015 **Research and Teaching Assistant**
Department of Kinesiology and Community Health
University of Illinois, Urbana-Champaign, IL
- 2012-2013 **Research Assistant**
Muscle Metabolism Maastricht Research Unit,
Department of Human Movement Sciences
Maastricht University, the Netherlands

AWARDS AND HONORS

- 2019 **Post-Doctoral Travel Award**, European Society for Clinical Nutrition and Metabolism, Annual Meeting
- 2017 **Cambridge Isotope Best Poster Award**, Experimental Biology, Annual Meeting
- 2016 **Laura J. Huelster Student Award**, Department of Kinesiology, University of Illinois
- 2015 **Student Travel Award**, Department of Kinesiology, University of Illinois
- 2015 **Robert L. Sprague Student Award**, Department of Kinesiology, University of Illinois
- 2015 **Listed as Excellent Teacher**, University of Illinois
- 2014 **Certificate in Foundations of Teaching**, University of Illinois
- 2014 **Listed as Excellent Teacher**, University of Illinois
- 2013 **Listed as Excellent Teacher**, University of Illinois
- 2008 **Annual Debate Award**, Rotterdam School of Management, STAR Study Association, Erasmus University

GRANTS

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|-----------|--|-----------|
| 2019-2022 | North Dakota Beef Checkoff
Effects of a Traditional vs Modern Diet on Cardiometabolic Health and Metabolomics Profiles in Middle-aged Adults
Role: Principal Investigator | \$130,168 |
| 2020-2022 | US Department of Agriculture
Phytochemicals in Beef: A Metabolomics Approach
Role: Principal Investigator | \$25,000 |
| 2020-2021 | Turner Institute of Ecoagriculture
Nutrient Density of Rangeland-Finished Bison
Role: Principal Investigator | \$25,000 |
| 2020-2021 | Dixon Water Foundation
Effects of Grass-fed Beef on Postprandial Inflammatory Responses
Role: Principal Investigator | \$15,000 |

- 2016 Egg Nutrition Center Young Investigator Award; \$30,000
Nutritional Strategies to Support Skeletal Muscle Mass Maintenance with Advancing Age
Role: Principal Investigator
- 2015 European Society for Clinical Nutrition and Metabolism; \$60,000
Protein Ingestion as a Strategy to Enhance Muscle Protein Anabolism in Hemodialysis Patients
Role: Principal Investigator
- 2014 ACSM/NASA Space Physiology Research Grant; \$5,000
Intrinsically Labeled Egg Protein for the in Vivo Measurement of Human Protein Metabolism
Role: Principal Investigator

PUBLICATIONS

Peer-Reviewed Journal Publications. h-index: 15; i-10 index:17.

[30] **S. Van Vliet**, F. Provenza, and S. Kronberg, Health-promoting phytonutrients are higher in grass-fed meat and milk. *Frontiers in Sustainable Food Systems* 2021, doi: 10.3389/fsufs.2020.555426

[29] H. Koh, **S. Van Vliet**, G. Meyer, R. Laforest, R. Gropler, S. Klein, and B. Mittendorfer. Heterogeneity in insulin-stimulated glucose uptake among different muscle groups in healthy lean people and people with obesity. *Diabetologia*, 2021. doi: doi.org/10.1007/s00125-021-05383-w

[28] **S. Van Vliet**, S. L. Kronberg, and F. D. Provenza, Plant-based meats, human health, and climate change. *Frontiers in Sustainable Food Systems*. vol. 4, p. 128, 2020. doi: 10.3389/fsufs.2020.00128.

[27] **S. Van Vliet**, A. Fappi, D. Reeds, and B. Mittendorfer, Independent and combined effects of vitamin D and conjugated linoleic acids on muscle protein synthesis in older adults: a randomized, double-blind, placebo-controlled clinical trial. *American Journal of Clinical Nutrition*, 2020. doi: 10.1093/ajcn/nqaa240.

[26] F. Draicchio, **S. Van Vliet**, O. Ancu, S. Paluska, K. Wilund, M. Mickute, T. Sathyapalan, D. Renshaw, P. Watt, L. Sylow, N. Burd, and R. Mackenzie, Integrin-associated ILK and PINCH1 protein content are reduced in skeletal muscle of maintenance hemodialysis patients. *Journal of Physiology*, doi: 10.1113/JP280441.

- [25] **S. Van Vliet**, H.-C. E. Koh, B. W. Patterson, M. Yoshino, R. LaForest, R. J. Gropler, S. Klein, and B. Mittendorfer, Obesity is associated with increased basal and postprandial beta-cell insulin secretion even in the absence of insulin resistance. *Diabetes*, 2020. doi: 10.2337/db20-0377.
- [24] J. Dorling, **S. Van Vliet**, K. Huffman, W. Kraus, M. Bhapkar, C. Pieper, T. Stewart, S. Das, S. Racette, E. Ravussin, L. Redman, and C. Martin. Effects of caloric restriction on human physiological, psychological, and behavioral outcomes: Highlights from CALERIE phase 2. *Nutrition Reviews* 2020. doi: 10.1093/nutrit/nuaa085
- [23] J. W. Beals, N. A. Burd, D. R. Moore, and **S. Van Vliet**, Obesity alters the muscle protein synthetic response to nutrition and exercise. *Frontiers in Nutrition*. vol. 6, p. 87, 2019. doi: 10.3389/fnut.2019.00087.
- [22] C. McGlory, **S. Van Vliet**, T. Stokes, B. Mittendorfer, and S. M. Phillips. The impact of exercise and nutrition on the regulation of skeletal muscle mass. *The Journal of Physiology*, vol. 597, no. 5, pp. 1251_1258, 2019. doi: 10.1113/JP275443.
- [21] **S. Van Vliet**, J. W. Beals, A. M. Holwerda, R. S. Emmons, J. P. Goessens, S. A. Paluska, M. De Lisio, L. J. Van Loon, and N. A. Burd, _Time-dependent regulation of postprandial muscle protein synthesis rates after milk protein ingestion in young men. *Journal of Applied Physiology*, vol. 127, no. 6, pp. 1792_1801, 2019. doi: 10.1152/jappphysiol.00608.2019.
- [20] **S. Van Vliet** and B. Mittendorfer, _Hidden _gures in age-associated regulation of glucose metabolism: Insulin secretion and plasma clearance. *Obesity*, vol. 27, no. 3, pp. 359_360, 2019. doi: 10.1002/oby.22422.
- [19] S. Abou Sawan, **S. Van Vliet**, J. T. Parel, J. W. Beals, M. Mazzulla, D. W. West, A. Philp, Z. Li, S. A. Paluska, N. A. Burd, et al., Translocation and protein complex co-localization of mtor is associated with postprandial myofibrillar protein synthesis at rest and after endurance exercise. *Physiological Reports*, vol. 6, no. 5, e13628, 2018. doi: 10.14814/phy2.13628.
- [18] S. Abou Sawan, **S. Van Vliet**, D. W. West, J. W. Beals, S. A. Paluska, N. A. Burd, and D. R. Moore. Whole egg, but not egg white, ingestion induces mTOR colocalization with the lysosome after resistance exercise. *American Journal of Physiology-Cell Physiology*, vol. 315, no. 4, pp. 537_543, 2018. doi: 10.1152/ajpcell.00225.2018.
- [17] J. W. Beals, S. K. Skinner, C. F. McKenna, E. G. Poozhikunnel, S. A. Farooqi, **S. Van Vliet**, I. G. Martinez, A. V. Ulanov, Z. Li, S. A. Paluska, et al., Altered anabolic signalling and reduced stimulation of myo_brillar protein synthesis after feeding and resistance exercise in people with obesity. *The Journal of Physiology*, vol. 596, no. 21, pp. 5119_5133, 2018. doi: 10.1113/JP276210.

[16] **S. Van Vliet**, J. W. Beals, I. G. Martinez, S. K. Skinner, and N. A. Burd. Achieving optimal post-exercise muscle protein remodeling in physically active adults through whole food consumption, *Nutrients*, vol. 10, no. 2, p. 224, 2018. doi: 10.3390/nu10020224.

[15] **S. Van Vliet** and B. Mittendorfer, When muscle doesn't 'Rac' it up, adipose tissue 'AKTs', *The Journal of Physiology*, vol. 596, no. 12, pp. 2273_2275, 2018. doi: 10.1113/JP276179.

[14] **S. Van Vliet**, S. K. Skinner, J. W. Beals, B. A. Pagni, H.-Y. Fang, A. V. Ulanov, Z. Li, S. A. Paluska, M. Mazzulla, D. W. West, et al., Dysregulated handling of dietary protein and muscle protein synthesis after mixed-meal ingestion in maintenance hemodialysis patients. *Kidney International Reports*, vol. 3, no. 6, pp. 1403_1415, 2018. doi: 10.1016/j.ekir.2018.08.001.

[13] **S. Van Vliet**, G. I. Smith, L. Porter, R. Ramaswamy, D. N. Reeds, A. L. Okunade, J. Yoshino, S. Klein, and B. Mittendorfer, _The muscle anabolic effect of protein ingestion during a hyperinsulinaemic euglycaemic clamp in middle-aged women is not caused by leucine alone. *The Journal of Physiology*, vol. 596, no. 19, pp. 4681_4692, 2018. doi: 10.1113/JP2765047.

[12] J. W. Beals, R. W. Mackenzie, **S. Van Vliet**, S. K. Skinner, B. A. Pagni, G. M. Niemi, A. V. Ulanov, Z. Li, A. C. Dilger, S. A. Paluska, et al., _Protein-rich food ingestion stimulates mitochondrial protein synthesis in sedentary young adults of different BMIs. *The Journal of Clinical Endocrinology & Metabolism*, vol. 102, no. 9, pp. 3415_3424, 2017. doi: 10.1210/jc.2017-00360.

[11] M. Mazzulla, J. T. Parel, J. W. Beals, **S. Van Vliet**, S. Abou Sawan, D. West, S. Paluska, A. Ulanov, D. Moore, N. Burd, et al., _Endurance exercise attenuates postprandial whole-body leucine balance in trained men. *Medicine and Science in Sports and Exercise*, vol. 49, no. 12, pp. 2585_2592, 2017. doi: 10.1249/MSS.0000000000001394.

[10] G. M. Niemi, J. Parel, J. Beals, **S. Van Vliet**, S. A. Paluska, D. R. Moore, N. A. Burd, and M. De Lisio, Kinetics of circulating progenitor cell mobilization during submaximal exercise. *Journal of Applied Physiology*, vol. 122, no. 3, pp. 675_682, 2017. doi: 10.1152/jappphysiol.00936.2016.

[9] **S. Van Vliet**, E. L. Shy, S. Abou Sawan, J. W. Beals, D. W. West, S. K. Skinner, A. V. Ulanov, Z. Li, S. A. Paluska, C. M. Parsons, et al., _Consumption of whole eggs promotes greater stimulation of postexercise muscle protein synthesis than consumption of isonitrogenous amounts of egg whites in young men. *The American Journal of Clinical Nutrition*. vol. 106, no. 6, pp. 1401_1412, 2017. doi: 10.3945/ajcn.117.159855.

[8] J. W. Beals, R. A. Sukiennik, J. Nallabelli, R. S. Emmons, **S. Van Vliet**, J. R. Young, A. V. Ulanov, Z. Li, S. A. Paluska, M. De Lisio, et al., Anabolic sensitivity of postprandial muscle protein synthesis to the ingestion of a protein-dense food is reduced in overweight and obese young adults. *The American Journal of Clinical Nutrition*, vol. 104, no. 4, pp. 1014_1022, 2016. doi: 10.3945/ajcn.116.130385.

[7] **S. Van Vliet**, J. W. Beals, J. T. Parel, C. D. Hanna, P. L. Utterback, A. C. Dilger, A. V. Ulanov, Z. Li, S. A. Paluska, D. R. Moore, et al., _Development of intrinsically labeled eggs and poultry meat for use in human metabolic research, *The Journal of Nutrition*, vol. 146, no. 7, pp. 1428_1433, 2016. doi: 10.3945/jn.115.228338.

[6] N. A. Burd, J. Beals, and **S. Van Vliet**. What is the relationship between acute measure of muscle protein synthesis and changes in muscle mass? *Journal of Applied Physiology*, vol. 118, no. 4, pp. 498_503, 2015. doi: 10.1152/jappphysiol.01069.2014.

[5] N. A. Burd, S. H. Gorissen, **S. Van Vliet**, T. Snijders, and L. J. Van Loon, _Di_erences in postprandial protein handling after beef compared with milk ingestion during postexercise recovery: A randomized controlled trial. *The American Journal of Clinical Nutrition*, vol. 102, no. 4, pp. 828_836, 2015. doi: 10.3945/ajcn.114.103184.

[4] T. Snijders, P. T. Res, J. S. Smeets, **S. Van Vliet**, J. Van Kranenburg, K. Maase, A. K. Kies, L. B. Verdijk, and L. J. Van Loon, _Protein ingestion before sleep increases muscle mass and strength gains during prolonged resistance-type exercise training in healthy young men, _ *The Journal of Nutrition*, vol. 145, no. 6, pp. 1178_1184, 2015. doi: 10.3945/jn.114.208371.

[3] **S. Van Vliet**, N. A. Burd, and L. J. Van Loon. The skeletal muscle anabolic response to plant-versus animal-based protein consumption. *The Journal of Nutrition*, vol. 145, no. 9, pp. 1981_1991, Jul. 2015. doi: 10.3945/jn.114.204305.

[2] A. M. Holwerda, **S. Van Vliet**, and J. Trommelen. Refining dietary protein recommendations for the athlete. *The Journal of Physiology*, vol. 591, no. Pt 12, p. 2967, 2013. doi: 10.1113/jphysiol. 2013.255927.

[1] J. Trommelen, **S. Van Vliet**, and N. A. Burd, _Postexercise `window of potential' for the stimulation of muscle protein synthesis. *Agro Food Industry Hi-Tech*, vol. 24, no. 5, 2013.

Under Review

[1] **S. Van Vliet**, J. Bain, M. Muehlbauer, C.F. Pieper, S. Kronberg, F. Provenza, and K. Huffman, Impossible to go beyond beef? A metabolomics comparison. *Sci Rep* (Under Review), 2021.

[2] F. Leroy, F. Abraini, T. Beal, P. Dominguez-Salas, P. Gregorini, P. Manzano, J. Rowntree, and **S. Van Vliet**,. Animal source foods in healthy, sustainable, and ethical diets, *Animal* (Under Review), 2021.

[3] S. Kronberg, F. Provenza, **S. Van Vliet**, and S. Young. Closing nutrient cycles for animal production current and future agroecological and socio-economic issues, *Animal* (Under Review), 2021.

[4] J. Walejko, B. Christopher, S. Crown, G. Zhang, A. Pickar-Oliver, T. Yoneshiro, S. Page, **S. Van Vliet**, O. Ilkayeva, M. Muehlbauer, M. Carson, J. Brozinik, C. Hammond, R. Gimeno, S. Kajimura, C. Gersbach, C. Newgard, P. White, and R. McGarrah, Branched-chain alpha-ketoacids are preferentially reaminated and activate protein synthesis in the heart, *Nature Communications* (Under Review), 2021.

Book Chapters

[1] **S. Van Vliet** and N. Burd. "Protein" in *Nutritional supplements in sport, exercise and health: An AZ guide*, L. M. Castell, S. J. Stear, and L. M. Burke, Eds. Routledge, 2015, pp. 220_224.

PRESENTATIONS

Peer-Reviewed Conference Abstracts

- 2020 **American Society for Nutrition Annual Meeting**
S. Van Vliet, J. Bain, M. Muehlbauer, S. Kronberg, F. Provenza, K. Huffman, and W. Kraus. Impossible to go beyond beef? A metabolomics comparison. *Online COVID-19.
- 2020 **American Society for Nutrition Annual Meeting**
K. Porter-Starr, M. Miller, **S. Van Vliet**, D. Patel, C. Pieper, M. Orendruff, S. McDonald, M. Borack, and C. Bales. The impact of higher (dairy) protein intake on measures of muscle quality in older adults. *Online COVID-19.
- 2020 **American Society for Nutrition Annual Meeting**
P. Lin, **S. Van Vliet**, C. Lin, L. Svetkey, C. Tyson, and J. Scialla, _Impact of the DASH Diet on Intestinal Permeability and Inflammation Markers. *Online COVID-19.
- 2020 **Experimental Biology Annual Meeting**
H. Koh, **S. Van Vliet**, G. A. Meyer, R. Laforest, R. J. Gropler, S. Klein, and B. Mittendorfer. Heterogeneity in insulin-stimulated glucose uptake among different muscle groups in people. *Online COVID-19.
- 2020 **Clinical Conference on Diabetes**
H. C. Koh, **S. Van Vliet**, R. Laforest, R. Gropler, S. Klein, and B. Mittendorfer, 2031-p: Obesity and insulin resistance alter the biodistribution of whole body insulin-stimulated glucose disposal. *Online COVID-19.

- 2019 **4th Annual Education and Research Retreat, Duke Aging Center, Durham, NC**
S. Van Vliet, N.A. Burd, K. Huffman, and W. Kraus. The use of intrinsically labeled protein for the in vivo study of postprandial protein metabolism in humans.
- 2019 **Precision Medicine Colloquium, Durham, NC**
S. Van Vliet, N.A. Burd, K. Huffman, and W. Kraus. The use of intrinsically labeled protein for the in vivo study of postprandial protein metabolism in humans.
- 2019 **41st ESPEN Congress, Krakow, Poland**
S. Van Vliet, S. Skinner, J. Beals, B. Pagni, H.-Y. Fang, A. Ulanov, Z. Li, S. Paluska, M. Mazzulla, D. West, et al., Pt10. 6: Impaired amino acid availability and muscle protein synthesis rates after meal ingestion in maintenance hemodialysis patients.
- 2019 **American Society of Nephrology, Kidney Week, Washington, DC**
H. Fang, **S. Van Vliet**, A. Salvador, C. Mckenna, N. Burd, and K. Wilund. Skeletal muscle chaperone and co-chaperone proteins are elevated in maintenance hemodialysis patients.
- 2018 **Diabetes Day, St Louis, MO**
S. Van Vliet, M. Franczyk, R. LaForest, J. Yoshino, R. Gropler, S. Klein, and B. Mittendorfer. Tissue-specific glucose uptake in human obesity.
- 2017 **Experimental Biology, Chicago, IL**
N. A. Burd, **S. Van Vliet**, L. J. Van Loon, J. W. Beals, and S. A. Paluska. Sustained postprandial muscle protein synthesis rates after protein ingestion in healthy young males.
- 2017 **Experimental Biology, Chicago, IL**
I. G. Martinez, **S. Van Vliet**, E. L. Shy, J. W. Beals, A. V. Ulanov, M. Orlando, D. W. West, D. R. Moore, S. A. Paluska, and N. A. Burd. Post-exercise consumption of whole eggs or egg whites improves whole body leucine balance but does not differentially modulate leucine kinetics in resistance-trained young men.
- 2017 **Experimental Biology, Chicago, IL**
S. A. Sawan, S. Van Vliet, E. L. Shy, J. W. Beals, S. A. Paluska, N. A. Burd, and D. R. Moore. Whole eggs and egg whites ingestion induce similar increases in muscle anabolic signaling phosphorylation after resistance exercise in trained young men.
- 2017 **Experimental Biology, Chicago, IL**

S. K. Skinner, J. Beals, **S. Van Vliet**, G. M. Niemiro, A. C. Dilger, M. De Lisio, S. Paluska, and N. A. Burd. Elevated muscle inflammatory response after protein-dense food ingestion in obese adults.

2016 **Exercise Physiology Conference, St. Catharines, Ontario, CA**
S. Abou Sawan, M. Mazzulla, J. Parel, J. Beals, **S. Van Vliet**, N. Burd, and D. Moore. Endurance exercise enhances post-prandial mitochondrial protein synthesis in human muscle.

2016 **Exercise Physiology Conference, St. Catharines, Ontario, CA**
M. Mazzulla, S. Abou Sawan, J. Parel, S. Van Vliet, J. Beals, N. Burd, and D. Moore. The digestion and absorption of dietary protein and the subsequent inhibition of whole-body protein breakdown are not affected by an acute bout of endurance exercise in trained males.

2016 **ASCM Annual Meeting, Boston, MA**
S. Van Vliet, R. S. Emmons, J. T. Parel, J. W. Beals, L. J. Van Loon, S. A. Paluska, M. De Lisio, and N. A. Burd. mTOR Activation Occurs Independent of Changes in Skeletal Muscle LAT1 Protein Content after Protein Ingestion.

2016 **ASCM Annual Meeting, Boston, MA**
J. W. Beals, R. A. Sukiennik, **S. Van Vliet**, J. R. Young, A. V. Ulanov, L. Li, S. A. Paluska, and N. A. Burd. Diminished postprandial muscle protein synthetic response to protein ingestion in obese adults.

2016 **ASCM Annual Meeting, Boston, MA**
G. M. Niemiro, J. Parel, J. Beals, **S. Van Vliet**, D. R. Moore, N. A. Burd, and M. De Lisio. Time course of progenitor cell mobilization during exercise in endurance trained men.

2015 **Canadian Society for Exercise Physiology, Hamilton, Ontario, CA**
J. Parel, S. Van Vliet, R. Emmons, J. Beals, L. Van Loon, S. Paluska, M. De Lisio, and N. Burd. Protein ingestion does not modulate skeletal muscle lat1 protein content throughout the postprandial period in healthy young men.

2014 **ACSM Conference, Integrative Physiology of Exercise, Miami Beach, FL**
S. Van Vliet, N. Burd, S. Gorissen, T. Snijders, and L. Van Loon. Milk and beef ingestion result in similar post-exercise myofibrillar protein synthetic and anabolic signaling response.

Invited Talks

2021 **USDA-ARS Northern Great Plains Winter Workshop (Upcoming), USD-ARS, Mandan, ND. S. Van Vliet.** The effects of livestock grazing systems on human health.

- 2021 **Grazing in Future Multi-Scapes International Workshop (Upcoming), Lincoln University, Lincoln, New Zealand. S. Van Vliet.** The effects of livestock grazing systems on human health.
- 2020 **NC State MBA FoodCon, Raleigh, NC**
S. Van Vliet. Plant-based protein and human health.
- 2019 **National Cattlemen Beef Checkoff Program (Webinar)**
S. van Vliet and C. Rosenbloom. [Building a Strong Future: Optimizing Nutrition to Support Strength Throughout Adulthood.](#)
- 2018 **Auburn University, Auburn, AL**
S. van Vliet. Skeletal muscle mass and the regulation of substrate metabolism in health and disease.
- 2018 **Duke University, Durham, NC**
S. van Vliet. Skeletal muscle mass and the regulation of substrate metabolism in health and disease.
- 2017 **Washington University School of Medicine, St Louis, MO**
S. van Vliet. Regulation of postprandial protein metabolism after food ingestion and physical activity.
- 2016 **Mexico National Nutrition Congress, San Luis Potosi, Mexico.**
S. van Vliet. Skeletal muscle protein synthesis. Invited Keynote Speaker, University of San Luis Potosi.

Departmental Talks

- 2020 **Endocrinology Grand Rounds, Duke University School of Medicine, Durham, NC.** Optimizing nutrient density to support metabolic health throughout adulthood.
- 2020 **Human Physiology Seminar, Duke University School of Medicine, Durham, NC.** Impossible to go beyond beef? A metabolomics comparison of novel plant alternatives and meat.
- 2019 **Data Integration Working Group, Duke Center for the Study of Aging and Human Development, Duke University School of Medicine, Durham, NC.** Applications of isotope tracers for in vivo human metabolic research.
- 2018 **Center for Human Nutrition, Washington University School of Medicine, St Louis, MO.** Exit Seminar.
- 2017 **Departmental Seminar, Department of Kinesiology and Community Health, University of Illinois, Urbana-Champaign, IL**

Consumption of whole eggs versus egg whites to stimulate post-exercise muscle protein synthesis in young men.

- 2016 **Departmental Seminar, Department of Kinesiology and Community Health, University of Illinois, Urbana-Champaign, IL**
The production of intrinsically labeled eggs and poultry meat for use in human metabolic research.
- 2016 **Nutrition and Exercise Performance Group, Department of Kinesiology and Community Health, University of Illinois, Urbana-Champaign, IL**
The muscle-full effect in response to dietary protein feeding.
- 2015 **Nutrition and Exercise Performance Group, Department of Kinesiology and Community Health, University of Illinois, Urbana-Champaign, IL**
The use of intrinsically labeled food proteins in human metabolic research.
- 2015 **Nutrition and Exercise Performance Group, Department of Kinesiology and Community Health, University of Illinois, Urbana-Champaign, IL**
The production of intrinsically labeled eggs and poultry meat for use in human metabolic research.
- 2014 **Nutrition and Exercise Performance Group, Department of Kinesiology and Community Health, University of Illinois, Urbana-Champaign, IL**
Metabolic demand model of protein and amino acid requirements.

TEACHING AND MENTORING EXPERIENCE

Teaching Experience

- 2017 **Guest Lecturer**
University of Illinois, KIN 453: Nutrition for Performance.
Lecture title: Resistance Exercise Nutrition.
- 2016 **Guest Lecturer**
University of Illinois, KIN 450: Biochemistry of Exercise.
Lecture title: Muscle protein gain and resistance exercise.
- 2016 **Guest Lecturer**
University of Illinois, KIN 453: Nutrition for Performance.
Lecture title: Organic Foods.
- 2015 **Guest Lecturer**
University of Illinois, KIN 451: Skeletal Muscle Physiology.
Lecture title: Exercise-induced Muscle Damage and Inflammation.

2013-2015 **Teaching Assistant**

University of Illinois, KIN 352: Bioenergetics of Human Movement. Provided lectures and practical exercise testing to 30-60 students involving Wingate tests, strength testing (Biodex and 1 RM), & metabolic testing (VO2Max, resting energy expenditure, resting metabolic rate).

2013-2015 **Teaching Assistant**

University of Illinois, KIN 150: Bioscience of Human Movement. Provided lectures and practical exercise testing to 30 - 60 students involving cardiovascular testing, metabolic testing (including VO2Max, RER and RMR), body composition testing and Biodex testing.

Professional Supervision

2019- Professional supervision of a research team consisting of **two registered dietitians, one recruiter, and one clinical research coordinator**.
Projects: Effects of a Traditional vs Modern Diet on Cardiometabolic Health and Metabolomics Profiles in Middle-aged Adults

Undergraduate Student Supervision

2017-2018 Mentored a total of **2 undergraduate research assistants** in the Center for Human Nutrition at Washington University of St Louis, School of Medicine*.

2013-2017 Mentored a total of **15 undergraduate research assistants** in the Nutrition and Exercise Performance Research group at the University of Illinois. *As a result of their involvement, several outstanding undergraduate research assistants earned co-authorship on several of my publications.

SERVICE

Outreach

2018 **STEM Outreach Workshop**
University of Illinois, Urbana-Champaign, IL

2017 **Engineers Volunteering In STEM Education (ENVISION)**
University of Illinois, Urbana-Champaign, IL

2016 **Nutrition Workshop**
University of San Luis Potosi, San Luis Potosi, MX.
Led a “nutrition for performance” workshop for youth athletes in San Luis Potosi, MX.

2014 **Tutor, Illinois James Scholar Honors Program**
University of Illinois, Urbana-Champaign, IL

Journal Reviewer, ad hoc

Diabetes, Obesity, American Journal of Clinical Nutrition, Journal of Nutrition, Nutrition Reviews, Frontiers in Nutrition, Frontiers in Sustainable Food systems, Nutrients, Foods, Journal of Gerontology, Journal of Applied Physiology, Nutrition & Exercise Metabolism, Nutrition & Metabolism.

Appointed or Elected Leadership

2020- Scientific Board, Animal Source Foods and Livestock: Ethics, Planet, and Health, [ALEPH](#)

Interviews and podcasts

2021 **John Deere Furrow magazine. “Healthy Soils, Healthy Plants, Healthy Humans”**. Interview about our metabolomics work linking soil health, to phytochemical richness of plants/animal foods, and human health.

2021 **Performance Nutrition Podcast Interview with Stephan van Vliet.** Interview about the phytonutrient density of foods and our metabolomics work that compares novel plant-based meat alternatives and meat.

2020 **Jayne Buxton “Plant-based foods”**. Interview about our metabolomics work that compares novel plant-based meat alternatives and meat.

2020 **MeatRX Community Meeting with Stephan Van Vliet PhD.** [Interview about phytochemicals in meat and milk.](#)

2019 **The Nourished Child Podcast.** [Whole Foods vs. Supplements: Which Is Best? With Stephan van Vliet](#)

2018 **Sigma Nutrition.** [Effects of Whole Foods on the Anabolic Response, Muscle Function and Metabolism. With Stephan van Vliet](#)

PROFESSIONAL ASSOCIATIONS

2016- American Diabetes Association

2016- American Heart Association

2015- European Society for Clinical Nutrition and Metabolism

2013- American College of Sports Medicine

2013- American Society for Nutrition

ERTIFICATION AND SKILLS

Certifications

- 2019 Phlebotomy Certified, Duke University Medical Center
- 2014 Graduate Teacher Certificate, University of Illinois
- 2013 Phlebotomy Certified, University of Illinois
- 2012 Phlebotomy Certified, Maastricht University Medical Center

Human Research

Stable isotope infusions for (muscle) protein synthesis & whole body glucose metabolism

¹⁸F-FDG PET/CT Imaging

Blood draws and fractionation

Strength testing and training

Dietary intervention trials

Body composition measurements (skin fold, DEXA & CT)

Maximal oxygen consumption testing; Wingate testing

Skeletal muscle and adipose tissue biopsy (procedure assistance)

Biochemistry and Molecular Biology

Tissue Preparation for Mass Spectrometry

Omics and Microbiome Analysis Tools

Contemporary Stable Isotope Analysis

Fibre Type Characterization and Satellite Cell Expression

Western Blotting Technique

Seahorse Metabolic Flux Assay

Orosboros Metabolic Flux Assay

Technical Skills

Mass Spectrometry: **Agilent GC-MS systems**

Database Management System: **RedCAP**

Statistical Analysis Software: **SPSS, SAS, MetaboAnalyst**