CURRICULUM VITAE

Name: Nicholas A. Burd, PhD

Address: Department of Kinesiology and Community Health
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EDUCATION

2011 – 2013
Maastricht University Medical Centre+, Department of Human Movement Sciences (Maastricht, The Netherlands)
Position: Postdoctoral research fellow Mentor: Luc JC van Loon, Ph.D.
Project Focus: Preservation of muscle mass with advancing age

2007 - 2011
Doctor of Philosophy, McMaster University (Hamilton, ON Canada)
Degree: Kinesiology Mentor: Stuart M Phillips, Ph.D.
Thesis Title: Contractile and nutritional modulation of human skeletal muscle protein synthesis

2005-2007
Master of Science, Ball State University (Muncie, IN USA)
Degree: Exercise Physiology Mentor: Todd A Trappe, Ph.D.
Thesis Title: The effect of a cyclooxygenase-2 inhibitor on human muscle protein synthesis after acute resistance exercise

2000-2005
Bachelor of Science, Ball State University (Muncie, IN USA)
Degree: Exercise Science, Applied Science (GPA: 3.54)

PROFESSIONAL EXPERIENCE

2013 -	Assistant Professor of Kinesiology and Community Health and faculty affiliate of Division of Nutritional Sciences, University of Illinois at Urbana-Champaign, Urbana, IL USA
2011-2013	Postdoctoral research fellow: Human Movement Sciences Maastricht University, Maastricht, The Netherlands
2007-2011	Research/Teacher Assistant: Exercise Metabolism Research Group McMaster University, Hamilton, ON Canada
2005-2007	Graduate Research Fellowship: Human Performance Laboratory Ball State University, Muncie, IN USA
2003-2005	Undergraduate Research Assistant: Human Performance Laboratory

Ball State University, Muncie IN USA

2004 Internship: Human Performance Clinical/Research Laboratory Colorado State University, Fort Collins, CO USA

UNIVERSITY SERVICE (2013-Present)

Campus, University, and College Committees served.

University of Illinois

Campus Committees

Institutional Review Board-BioMedical (IRB2) member (2017-present)
Committee chair, Exercise is Medicine on Campus (EIM-OC), 2017-present
Reviewer, UIUC Research Board Grant, 2014, 2016

College committees

Search committee, Open-Rank Position, Communication Disorders Related to Head and Neck Cancer (2015-2016)

Departmental committees

Search committee, Assistant Professor in Exercise Physiology (2016-2017).

DISSERTATION AND THESIS SUPERVISION

University of Illinois

Doctor of Philosophy

Stephan van Vliet, Ph.D., in progress, Kinesiology (Chair)
Joseph Beals, Ph.D., in progress, Division of Nutritional Sciences (Chair)
Sarah Skinner, Ph.D., in progress, Kinesiology (Chair)
Ziad Mahmassani, Ph.D., in progress, Kinesiology (Member)
Elizabeth Hubbard, Ph.D., in progress, Kinesiology (Member)
Lauren Killian, Ph.D., in progress, Division of Nutritional Sciences (Member)

Master of Science

Justin Parel, M.S., in progress, Kinesiology (Chair)
Isabel Martinez, M.S., in progress, Kinesiology (Chair)
Evan Shy, M.S., 2016, Kinesiology (Chair)
Thesis title: Effect of meal composition to modulate the anabolic response during recovery from resistance exercise
Sasha McCorkle, M.S., 2016, Division of Nutritional Sciences (Member)

Maastricht University

Doctor of Philosophy

Stefan Gorissen, Ph.D., 2016, NUTRIM School of Nutrition and Translational Research in Metabolism (Co-promoter)
Dissertation title: Dietary factors modulating postprandial protein handling.

TEACHING

2013 – present, Instructor, Department of Kinesiology and Community Health, University of Illinois at Urbana-Champaign. Course: Nutrition for performance

2014 – present, Instructor, Department of Kinesiology and Community Health, University of Illinois at Urbana-Champaign. Course: Scientific basis of physical performance (Graduate course)

2015 – present, Instructor, Department of Kinesiology and Community Health, University of Illinois at Urbana-Champaign. Course: Bioenergetics of human movement

SCHOLARLY ACTIVITY

Primary research articles in refereed journals

1. Niemiro GM, Parel J, Beals J, van Vliet S, Paluska SA, Moore DR, **Burd NA**, De Lisio M. Kinetics of circulating progenitor cell mobilization during submaximal exercise. J Appl Physiol (1985). 2017 Jan 12:jap.00936.2016. doi: 10.1152/japplphysiol.00936.2016. PMID: 28082336

2. Gorissen SH, Horstman AM, Franssen R, Kouw IW, Wall BT, **Burd NA**, de Groot LC, van Loon LJ. Habituation to low or high protein intake does not modulate basal or postprandial muscle protein synthesis rates: a randomized trial. Am J Clin Nutr. 2016 Nov 30. pii: ajcn129924., PMID: 27903518

3. Wall BT, **Burd NA**, Franssen R, Gorissen SH, Snijders T, Senden JM, Gijsen AP, van Loon LJ. Pre-sleep protein ingestion does not compromise the muscle protein synthetic response to protein ingested the following morning. Am J Physiol Endocrinol Metab. 2016 Oct 25:ajpendo.00325.2016. doi: 10.1152/ajpendo.00325.2016., PMID: 27780822

4. van Vliet S, Beals JW, Parel JT, Hanna CD, Utterback PL, Dilger AC, Ulanov AV, Li Z, Paluska SA, Moore DR, Parsons CM, **Burd NA**. Development of Intrinsically Labeled Eggs and Poultry Meat for Use in Human Metabolic Research. J Nutr. 2016 Jun 8. pii: jn228338., PMID: 27360524

5. Beals JW, Sukiennik RA, Nallabelli J, Emmons RS, van Vliet S, Young JR, Ulanov AV, Li Z, Paluska SA, De Lisio M, **Burd NA**. Anabolic sensitivity of postprandial muscle protein synthesis to the ingestion of a protein-dense food is reduced in overweight and obese young adults. Am J Clin Nutr. 2016 Sep 7. pii: ajcn130385., PMID: 27604771

6. Gorissen SH, **Burd NA**, Kramer IF, van Kranenburg J, Gijsen AP, Rooyackers O, van Loon LJ. Co-ingesting milk fat with micellar casein does not affect postprandial protein handling in healthy older men. Clin Nutr. 2015 Dec 24. pii: S0261-5614(15)00349-0. doi: 10.1016/j.clnu.2015.12.011, PMID: 26774526

7. **Burd NA**, Gorissen SH, van Vliet S, Snijders T, van Loon LJ. Differences in postprandial protein handling after beef compared with milk ingestion during postexercise recovery: a randomized controlled trial. Am J Clin Nutr. 2015 Oct;102(4):828-36. doi: 10.3945/ajcn.114.103184, PMID: 26354539

8. Kouw IW, Gorissen SH, **Burd NA**, Cermak NM, Gijsen AP, van Kranenburg J, van Loon LJ. Postprandial protein handling is not impaired in type 2 diabetes patients when compared with normoglycemic controls. J Clin Endocrinol Metab. 2015, Aug;100(8):3103-11, PMID:26037513

9. **Burd NA**, Cermak NM, Kouw IW, Gorissen SH, Gijsen AP, van Loon LJ. The use of doubly labeled milk protein to measure postprandial muscle protein synthesis rates in vivo in humans. J Appl Physiol. 2014, 117(11):1363-70, PMID:25277738

10. An R, Chiu CY, Zhang Z, **Burd NA**. Nutrient intake among US adults with disabilities, J Hum Nutr Diet. 2014, Sep 19, PMID: 25233949

11. Moore DR, Churchward-Venne TA, Witard O, Breen L, **Burd NA**, Tipton KD, Phillips SM. Protein ingestion to stimulate mofibrillar protein synthesis requires a greater relative protein intakes in healthy older versus younger men, J Gerontol A Biol Med Sci. 2015, 70(1):57-62, PMID:25056502

12. An R, **Burd NA**. Carbohydrate, Fat, and Protein Intake in Association with Energy Intake across Sex, Race, and Body Weight Status in the US Adult Population: 1999-2010, Public Health Nutrition. 2014, 18(8):1343-52, PMID:25203716

13. Rowlands DS, Nelson AR, Phillips SM, Faulkner JA, Clarke J, **Burd NA**, Moore D, Stellingwerff T. Protein-leucine fed dose effects on muscle protein synthesis after endurance exercise. Med Sci Sports Exerc. 2015, 47(3):547-55, PMID: 25026454

14. Gorissen SH, **Burd NA**, Hamer HM, Gijsen AP, Groen BB, van Loon LJC. Carbohydrate co-ingestion delays dietary protein digestion and absorption but does not modulate postprandial muscle protein accretion. J Clin Endocrinol Metab. 2014 Mar 14:Jc20133970, PMID:23826365

15. **Burd NA,** Hamer HM, Pennings B, Pellikaan WF, Senden JMG, Gijsen AP, van Loon LJC. Substantial differences between organ and muscle specific tracer incorporation rates in a lactating dairy cow. PLosOne. 2013 Jun 27;8(6):e68109, PMID:23826365

16. **Burd NA**, Pennings B, Groen BBL, Gijsen AP, Senden JMG, van Loon LJC. The single biopsy approach is reliable for the measurement of muscle protein synthesis rates in vivo in older men. J Appl Physiol. 2012 Sep;113(6):896-902, PMID: 22815390

17. Robinson MJ, **Burd NA**, Breen L, Rerecich T, Yang Y, Hector AJ, Baker SK, Phillips SM. Dose-dependent responses of myofibrillar protein synthesis with beef ingestion are enhanced with resistance exercise in middle-aged men. Appl Physiol Nutr Metab. 2013 Feb;38(2):120-5, PMID:23438221

18. Wall B, Dirks M, Verdijk L, Snijders T, Hansen D, Vranckx P, **Burd NA**, Dendale, van Loon LJ. Neuromuscular electrical stimulation increases muscle protein synthesis in elderly, type 2 diabetic men. AJP–Endocrinology and Metabolism. 2012 Sep;303(5):E615-23, PMID:22739107

19. Yang Y, Churchward-Venne TA, **Burd NA**, Breen L, Tarnopolsky, Phillips SM. Myofibrillar protein synthesis following ingestion of soy protein isolate at rest and after resistance exercise in elderly men. Nutr Metab (Lond). 2012 Jun 14;9(1):57, PMID:22698458

20. Camera DM, West DW, **Burd NA**, Garnham A, Phillips SM, Hawley J, Coffey V. Low muscle glycogen concentration does not suppress the anabolic response to resistance exercise. J Appl Physiol. 2012 May 24, PMID:22628371

21. Mitchell CJ, Churchward-Venne TA, West DWD, **Burd NA**, Breen L, Baker SK, Phillips SM. Resistance exercise load does not determine training-mediated hypertrophic gains in young men. J Appl Physiol. 2012 Apr 19, PMID:22533517

22. Donges CE*, **Burd NA***, Duffield R, Smith GC, West DWD, Short MJ, Mackenzie R, Plank LD, Shepherd PR, Phillips SM, Edge JA. Concurrent resistance and aerobic exercise stimulates both myofibrillar and mitochondrial protein synthesis in sedentary overweight middle-aged men. J Appl Physiol 2012 Jun; 112(12):1992-2001, PMID:22492939 **designates co-authored manuscripts*

23. Churchward-Venne TA, **Burd NA**, Mitchell MJ, West DWD, Philp A, Marcotte GR, Baker SK, Baar K, Phillips SM. Supplementation of a suboptimal protein dose with leucine or essential amino acids: effects on myofibrillar protein synthesis at rest and following resistance exercise in men. J Physiol 2012 Mar 25, PMID:22451437

24. West DW, **Burd NA**, Churchward-Venne TA, Camera DM, Mitchell CJ, Baker SK, Hawley JA, Coffey VG, Phillips SM. Sex-based comparisons of myofibrillar protein synthesis after resistance exercise in the fed state. JPhysiol 2012 Mar 1, PMID:22383503

25. **Burd NA,** Andrews RJ, West DWD, Little JP, Cochran AJR, Hector AJ, Cashaback JGA, Gibala MJ, Potvin JR, Baker SK, Phillips SM. Muscle time under during resistance exercise stimulates differential muscle protein sub-fractional synthetic responses in men J Physiol 2012, Jan 15;590(Pt 2):351-62, PMID:22106173

26. **Burd NA,** Groen BBL, Beelen M, Senden JMG, Gijsen AP, van Loon LJC. The reliability of using the single biopsy approach to assess basal muscle protein synthesis rates invivo in humans. Metabolism, 2012 Mar 9;8:15, PMID:22209666

27. Yang Y, Breen L, **Burd NA,** Hector AJ, Churchward-Venne T, Josse AR, Tarnopolsky MA, Phillips SM. Resistance exercise enhances myofibrillar protein synthesis with graded intakes of whey in older men. Br J Nutr. 2012 Feb 7:1-9, PMID:22313809

28. **Burd NA**, Yang Y, Moore DR, Tang JE, Tarnopolsky, Phillips SM. Greater stimulation of myofibrillar protein synthesis with ingestion of whey protein isolate versus micellar casein at rest and after resistance exercise in elderly men. Br J Nutr. 2012 Jan 31:1-5, PMID:22289570

29. West DWD*, **Burd NA***, Coffey VG, Baker SK, Burke LM, Hawley JA, Moore DR, Stellingwerf T, Phillips SM. Rapid aminoacidemia enhances myofibrillar protein synthesis and anabolic intramuscular signaling responses after resistance exercise. Am J Clin Nutr. 2011 Sep;94(3):795-803, PMID:21795443 **designates co-authored manuscripts*

30. **Burd NA**, West DW, Rerecich T, Prior T, Baker SK, Phillips SM. Validation of a single biopsy approach and bolus protein feeding to determine myofibrillar protein synthesis in stable isotope tracer studies in humans. Nutr Metab (Lond). 2011 Mar 9;8:15, PMID:21388545

31. **Burd NA**, West DW, Moore DR, Atherton PJ, Staples AW, Prior T, Tang JE, Rennie MJ, Baker SK, Phillips SM. Enhanced Amino Acid Sensitivity of Myofibrillar Protein Synthesis Persists for up to 24 h after Resistance Exercise in Young Men. J Nutr. 2011 Apr 1;141(4):568-73, PMID:21289204

32. Coffey VG, Moore DR, **Burd NA**, Rerecich T, Stellingwerff T, Garnham AP, Phillips SM, Hawley JA. Nutrient provision increases signalling and protein synthesis in human skeletal muscle after repeated sprints. Eur J Appl Physiol. 2011 Jul; 111(7):1473-83, PMID:21131864

33. Staples AW, **Burd NA**, West DW, Currie KD, Atherton PJ, Moore DR, Rennie MJ, Macdonald MJ, Baker SK, Phillips SM. Carbohydrate Does not Augment Exercise-Induced Protein Accretion versus Protein Alone. Med Sci Sports Exerc. 2011 Jul; 43(7):1154-61, PMID:2231864

34. **Burd NA**, West DWD, Staples AW, Atherton PJ, Baker JM, Moore DR, Holwerda AM, Parise G, Rennie MJ, Baker SK, Phillips SM. Low-Load High Volume Resistance Exercise Stimulates Muscle

Protein Synthesis More than High-Load Low Volume Resistance Exercise in Young Men. PLoSOne. 2010 Aug 9;5(8):e12033, PMID:20711498

35. **Burd NA,** Holwerda AM, Selby KC, West DWD, Staples AW, Cain NE, Cashaback JGA, Potvin JR, Baker SK, Phillips SM. Resistance exercise volume affects myofibrillar protein synthesis and anabolic signalling molecule phosphorylation in young men. J Phyisol. 2010 Aug 15;588(Pt 16):3119-30, PMID:20581041

36. **Burd NA**, Dickinson JM, Lemoine JK, Carroll CC, Sullivan BE, Haus JM, Jemiolo B, Trappe SW, Hughes GM, Sanders CE Jr, Trappe TA. Effect of a cyclooxygenase-2 inhibitor on postexercise muscle protein synthesis in humans. Am J Physiol Endocrinol Metab. 2010 Feb;298(2):E354-61, PMID:19934404

37. West DW, **Burd NA**, Tang JE, Moore DR, Staples AW, Holwerda AM, Baker SK, Phillips SM. Elevations in ostensibly anabolic hormones with resistance exercise enhance neither training-induced muscle hypertrophy nor strength of the elbow flexors. J Appl Physiol. 2010 Jan;108(1)60-7, PMID:19910330

38. West, W.D., Kujbida, G.W., Moore, D.R., Atherton P., **Burd, N.A**., Padzik J.P., De Lisio, M., Tang, J.E., Parise, G., Rennie, M.J., Baker, S.K., Phillips S.M. Resistance exercise-induced increases in putative anabolic hormones do not enhance muscle protein synthesis or intracellular signaling in young men. J Physiol. 2009 Nov 1;587 (Pt 21):5239-47, PMID:19736298

39. Moore DR, Tang JE, **Burd NA**, Rerecich T, Tarnopolsky MA, Phillips SM. Differential stimulation of myofibrillar and sarcoplasmic protein synthesis with protein ingestion at rest and after resistance exercise. J Physiol. 2009 Feb 15;587(Pt 4):897-904, PMID:19124543

40. Trappe, T.A., **Burd, N.A**., Louis, E., Lee, G., and Trappe S. Influence of concurrent exercise or nutrition countermeasures on thigh and calf muscle volume and function during 60 d of bedrest in women. Acta Physiol (oxf). 2007 Oct; 191(2):147-59, PMID:17655736

41. Weinheimer, E.M., Jemiolo, B., Carroll, C.C., Harber, M., Haus, J.M., **Burd, N.A**., LeMoine, J.K., Trappe, S., and Trappe, T.A. Resistance exercise and cyclooxygenase (COX) expression in human skeletal muscle: implications for COX-inhibiting drugs and protein synthesis Am J Physiol Integr Comp Physiol. 2007 Jun;292(6):R2241-8, PMID:17322116

Reviews (Peer-reviewed)

1. **Burd NA**, De Lisio M. Skeletal Muscle Remodeling: Interconnections Between Stem Cells and Protein Turnover. Exerc Sport Sci Rev. 2017, PMID: 28419002

2. van Vliet S, **Burd NA**, van Loon LJ. The skeletal muscle anabolic response to plant versus animal-based protein consumption. J. Nutr. 2015, PMID:26224750

3. **Burd NA,** Tardif N, Rooyackers O, van Loon LJC. Optimizing the measurement of mitochondrial protein synthesis in human skeletal muscle. Applied Physiology, Nutrition, and Metabolism. 2015 Jan;40(1): 1-9, PMID:25494678

4. Trommelen J, van Vliet S, **Burd NA.** Postexercise 'window' of potential for the stimulation of muscle protein synthesis. AgroFOOD Industry Vol 24(5) Sept-Oct 2013

5. **Burd NA**, Gorissen SH, van Loon LJC. Anabolic resistance of muscle protein synthesis with aging. Exerc Sport Sci. Rev. 2013, PMID:23558692

6. Churchward-Venne TA, **Burd NA,** Phillips SM. Nutritional regulation of muscle protein synthesis with resistance exercise: strategies to enhance anabolism. Nutr Metab (Lond). 2012 May 7;9(1):40, PMID:22594765

7. **Burd NA**, Mitchell CJ, Churchward-Venne TA, Phillips SM. Bigger weights may not beget bigger muscles: Evidence from acute muscle protein synthetic responses after resistance exercise. Applied Physiology, Nutrition, and Metabolism 2012 April 26, PMID:22533517

8. **Burd NA** and Phillips SM. Fast whey protein and the leucine trigger affect exercise-induced muscle protein synthesis. NutraFoods. Special Issue on Whey Proteins. 2010, 9(4) 7-11

9. West DWD, **Burd NA**, Staples AW, and Phillips SM. Human skeletal muscle hypertrophy is an intrinsic process. International Journal of Biochemistry and Cell Biology 2010 Sep;42(9):1371-5, PMID:20541030

10. **Burd NA**, Tang JE, Moore DR, Phillips SM. Exercise training and protein metabolism: influences of contraction, protein intake, and sex-based differences. J Appl Physiol. 2009 May 106(5):1692-701, PMID:19036897

Editorials/Perspectives/Letters (Peer-reviewed)

1. **Burd NA**, Beals JW, van Vliet S, van Loon LJC. The postexercise increase in muscle protein synthesis rate is indicative of skeletal muscle reconditioning rather than muscle hypertrophy per se. J Appl Physiol. 2015; 118: 498-503 (14)

2. **Burd NA**, Stear SJ, Burke LM, Castell LM. A-Z of nutritional supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance—Part 47. Br J Sports Med. 2013; 47(14); 933-4, PMID:23973882

3. Ranchordas MK, **Burd NA**, Godfrey RJ, Senchina DS, Stear SJ, Burke LM, Castell LM. A-Z of nutritional supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance—Part 43. Br J Sports Med. 2013; 47 155-156, PMID:23525752

4. **Burd NA**, Moore DR, Mitchell CJ, Phillips SM. Big claims for big weights but with little evidence. Eur J Appl Physiol 2012, PMID:23086296

5. **Burd NA**, Wall BT, van Loon LJ. Last word on Viewpoint: The curious case of anabolic resistance: old wives' tales or new fables? 2012 Apr 112(7):1237, PMID:22467757

6. Lee J and **Burd NA**. No role of muscle satellite cells in hypertrophy: Further evidence of a mistaken identity? J Physiol 2012, PMID:22707593

7. Ranchordas MK, **Burd NA**, Senchina DS, Burke LM, Stear SJ, Castell LM. A-Z of nutritional supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance—Part 29. Br J Sports Med. 2012; 46 155-156

8. **Burd NA,** Wall BT, van Loon LJC. The curious case of anabolic resistance: old wives' tales or new fables? J Appl Physiol. 2012 Apr 112(7):1233-5, PMID:22134695

9. **Burd NA,** Jeukendrup A, Reid MB, Burke LM, Stear SJ, Castell LM. A-Z of nutritional supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance—Part 26. Br J Sports Med. 2011; 45:1163-1164

10. **Burd NA**, West DW, Camera DM, Breen L. No role for early IGF-1 signalling in stimulating acute 'muscle building' responses. J Physiol. 2011 June 1;589(Pt 11):2667-8, PMID:21632529

11. **Burd NA,** West DWD, Churchward-Venne TA, Mitchell CJ. Growing collagen, not muscle, with weightlifting and 'growth' hormone. J Physiol. 2010 Feb 1;588(Pt 3):395-6, PMID:20123793

12. Moore DR, **Burd NA**. Exercise intensity matters for both young and old muscles. J Physiol. 2009 Feb 1;587(Pt 3):511-2, PMID:190749

Book chapters (Peer-reviewed)

1. **Burd, N.A.,** & Phillips, S.M. (2011). Nutrition for Power and Sprint Training. In S.A. Lanham-New, S.J. Stear, S.M. Shirreffs, & A.L. Collins (Eds.), *Sport and Exercise Nutrition.* Wiley-Blackwell: Oxford, UK.

2. **Burd, N.A.**, & Phillips, S.M. (2012). Protein and Exercise. In C.A. Rosenbloom, & E.J. Coleman (Eds.), *Sports Nutrition: A manual for Professionals (5th Edition).* Academy of Nutrition and Dietetics: Chicago, IL

3. **Burd, N.A.** (2015). Methionine. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

4. **Burd, N.A.** (2015). Peptides. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

5. **Burd, N.A.** (2015). Phosphatidylserine. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

6. Van Vliet, S. & **Burd, N.A.** (2015). Protein. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

7. **Burd, N.A.,** & Cermak, N. (2015). Threonine. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

8. **Burd, N.A.** (2015). Methionine. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

9. **Burd, N.A.** (2015). Whey Protein. In L.M. Castell, S.J. Stear, & L.M. Burke (Eds.), *Nutritional Supplements in Sport, Exercise, and Health: An A-Z Guide.* Routledge Taylor & Francis Group: New York, NY.

10. Beals, J.W., Shy, E.L., & **Burd, N.A.** (2017). Interaction between diet and physical activity in older people. In M.M. Raats, L.C.P.G.M. de Groot, D. van Asselt (Eds.), *Food for the Aging Population (2nd edition).* Woodhead/Elsevier: Duxford, UK

Selected published abstracts

1. **Burd, N.A.**, Lee, G., Trappe, S., & Trappe, T.A. (2006). Influence of exercise or nutrition countermeasures during 60 d of bedrest in women: Thigh and calf muscle volume. *FASEB J.* 20:LB34.

2. Trappe, T.A., Tesch, P. Alkner, B., **Burd, N.A.**, & Trappe, T.A. (2006). Gender specific changes in muscle mass with long-term bedrest. *FASEB J.* 20:LB34

3. Weinheimer, E. Jemiolo, B., Carroll, C.C., Harber, M.P., Haus, J.M., **Burd, N.A.**, LeMoine, Trappe, S.W., & Trappe, T.A. (2007). Resistance exercise and cyclooxygenase (COX) expression in human skeletal muscle: Implications for COX-inhibiting drugs and protein synthesis. *FASEB J.* 21:A937

4. **Burd, N.A.**, Dickinson, J.M., LeMoine, L.M., Caroll, C.C., Haus, J.M., Sanders, C., & Trappe, T.A. (2008). Consumption of a COX-2 inhibitor stimulates muscle protein synthesis after resistance exercise in humans. *FASEB J.* 22:958.15

5. **Burd, N.A.,** West, D.W., Staples, A.W., Holwerda, A.M., Moore, D.R., Tang, J.E., Baker, S., & Phillips, S.M. (2009). Influence of muscle contraction intensity and fatigue on muscle protein synthesis following resistance exercise. *Med. Sci. Sports Exerc.* 43(5):53-54.

6. **Staples, A.**W., Sherriffs, S.S., Burd, N.A., West, D.W., Moore, D.R., Tang, J.E., Baker, S.K., & Phillips, S.M. (2009). Muscle protein synthesis is not augmented by protein-carbohydrate co-ingestion at rest or following resistance exercise. *Med. Sci. Sports Exerc.* 41(5):150.

7. **Burd, N.A.**, West, D.W., Staples, A.W., Atherton, P.J., Moore, D.R., Prior, T., Tang, J., Rennie, M.J., Baker, S.K, & Phillips, S.M. (2010). The latent resistance exercise and feeding interaction to stimulate myofibrillar protein synthesis post-exercise is dependent on effort. *Appl Physiol Nutr Metab.* Dec; 35(6): S12.

8. Holwerda, A.M., **Burd, N.A.**, Selby, K.C., West, D.W., Staples, A.W., Cain, N.E., Cashaback, J., Potvin, J.R., Baker, S.K., & Phillips, S.M. (2010). Three sets of resistance exercise elicit a greater elevation in myofibrillar protein synthesis than 1 set of resistance exercise in young men. *Appl Physiol Nutr Metab.* Dec; 35(6): S42.

9. West, D.W., **Burd, N.A.**, Coffey, V.G., Staples, A.W., Baker, S.K., Burke, L.M., Hawley, J.A., & Phillips, S.M. (2010) Bolus protein feeding is more beneficial than pulse feeding for enhancing myofibrillar protein synthesis. *Appl Physiol Nutr Metab*. Dec; 35(6): S109

10. Andrews, R.J., **Burd, N.A.**, Hector, A.J., Baker, S.K., & Phillips, S.M. (2010). Anabolic signaling with low-intensity resistance exercise performed with high and low time under tension in young men. *Appl Physiol Nutr Metab.* Dec; 35(6): S3.

11. **Burd, N.A.**, West, D.W.D., Little, J.P., Gibala, M.J., Baker, S.K., & Phillips, S.M. (2011). Low-intensity resistance exercise stimulates mitochondria protein synthesis and PGC-1α mRNA expression**.** *Med. Sci. Sports Exerc.* 43(5, Suppl 1): 41.
12. Camera, D.M., **Burd, N.A.**, Phillips, S.M., Hawley, J.A., & Coffey, V.G. (2011). Effect of muscle glycogen status and nutrition on cell signaling following resistance exercise. *Med. Sci. Sports Exerc.* 43(5):583.

13. Mitchell, C., Churchward-Venne, T., Keegan, S., West, D., **Burd, N.A.**, Baker, S., & Phillips, S.M. (2011). The influence of training load and volume on anabolic signaling and muscle hypertrophy with resistance training. *Med. Sci. Sports Exerc.* 43(5):53-54.

14. **Burd, N.A.,** Wall, B.T., Dirks, M.L., Verdijk, L.B., Snijders, T., Hansen, D., Senden, J.M., Vranckx, P., Dendale, P., & van Loon. L.J. (2012). Neuromuscular electrical stimulation increases muscle protein synthesis rates in type 2 diabetic men. *FASEB J.* 26:lb712

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17. Gorissen, S.H., **Burd, N.A.**, Kramer, I.F., van Kranenburg, J., Gijsen, A.P., & van Loon, L.J. (2014). Fat co-ingestion does not impair postprandial protein digestion and absorption kinetics or whole body net protein balance in elderly males. *Clinical Nutrition.* Vol 33, S124.

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19. Van Vliet, S., Beals, J.W., Utterback, P.L., Hanna, C.D., Dilger, A.C., Ulanov, A.V., Moore, D.R., Parsons, C.M., & **Burd, N.A.** (2015). The production of intrinsically labelled eggs and poultry meat for use in human metabolic research. *Applied Physiology, Nutrition, and Metabolism*. 40(S1): S1-S69.

20. Parel, J., van Vliet, S., Emmons, R.S., Beals, J.W., van Loon, L.J., Paluska, S.A., De Lisio, M., & **Burd, N.A.** (2015). Protein ingestion does not modulate skeletal muscle LAT1 protein content throughout the postprandial period in healthy young men. *Applied Physiology, Nutrition, and Metabolism.* 40(S1): S1-S69.

21. **Burd, N.A.**, Wall, B.T., Franssen, R., Gorissen, S.H., Snijders, T., & van Loon, L.J. (2015) Protein ingestion before sleep does not modulate postprandial protein handling to the subsequent morning protein meal in young males. *Applied Physiology, Nutrition, and Metabolism*. 40(S1): S1-S69

22. **Burd, N.A.**, Parel, J.T., Mazzulla, M., Sawan, S.A., Beals, J.W., Shy, E.L., van Vliet, S., & Moore, D.R. (2016). Running Induces Gut Injury but Does Not Modulate Postprandial Release of Dietary Protein Derived-amino acids. *Med Sci Sports Exerc.* May;48(5 Suppl 1):442.

23. van Vliet, S., Emmons, R.S., Parel, J.T., Beals, J.W., van Loon, L.J., Paluska, S.A., De Lisio, M., & **Burd, N.A.** (2016). mTOR Activation occurs Independent of Changes in Skeletal Muscle LAT1 Protein Content after Protein Ingestion. *Med Sci Sports Exerc.* May;48(5 Suppl 1):443.
24. Beals, J.W., Sukiennik, R.A., van Vliet, S., Young, J.R., Ulanov, A.V., Li, L., Paluska, S.A., & **Burd, N.A**. (2016). Diminished Postprandial Muscle Protein Synthetic Response to Protein Ingestion in Obese Adults. *Med Sci Sports Exerc.* May;48(5 Suppl 1):5.

25. Skinner, S.K., Beals, J., van Vliet, S. Niemiro, G.M., Dilger, A.C., De Lisio, M., Paluska, S., & **Burd, N.A.** (2017). Elevated Muscle Inflammatory Response after Protein-Dense Food Ingestion in Obese Adults. FASEB J. April; 31:794.17.

26. **Burd, N.A.**, van Vliet, S., van Loon, L.J.C., Beals, J.W., & Paluska S.A. (2017). Sustained Postprandial Muscle Protein Synthesis Rates after Protein Ingestion in Healthy Young Males. FASEB J. April; 31:652.2.

27. Abou Sawan, S., van Vliet, S., Shy, E.L., Beals, J.W., Paluska, S.A., **Burd, N.A.**, & Moore, D.R. (2017). Whole Eggs and Egg Whites Ingestion Induce Similar Increases in Muscle Anabolic Signaling Phosphorylation after Resistance Exercise in Trained Young Men. FASEB J. April; 31:1036.15.

28. Moore, D.R., Lysecki, P., Breen, L., **Burd, N.A.**, Smith, K., Atherton, P.J., & Phillips, S.M. (2017). Chronic alterations in blood pH affect fasting-state amino acid oxidation and myofibrillar and albumin protein synthesis in healthy young men. FASEB J. April; 31:1036.14.

29. Bailey, M.A., Beals, J.W., Skinner, S.K., Paluska, S.A., **Burd, N.A.**, & Holscher, H.D. (2017). Investigating the links between habitual diet, the gastrointestinal microbiota, and cardiovascular disease risk factors in healthy weight, overweight, and obese men and women. FASEB J. April; 31:965.37.

30. Martinez, I.G., van Vliet, S., Shy, E.L., Beals, J.W., Ulanov, A.V., Orlando, M., West, D.W., Moore, D.R., Paluska, S.A., & **Burd, N.A.** (2017). 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. FASEB J. April; 31:652.4.

31. Beals, J.W., van Vliet, S., Sukiennik, R.A., Young, J.R., Dilger, A.C., Ulanov, A.V., Li, Z., Paluska, S.A., & **Burd, N.A.** (2017). Protein-Dense Whole Food Ingestion Augments Postprandial Mitochondrial Protein Synthesis in Healthy-Weight, Overweight, and Obese Young Adults. FASEB J. April; 31:44.8.

32. Van Vliet, S., Shy, E.L., Beals, J.W., Ulanov, A.V., Li, Z., Paluska, S.A., Moore, D.R., & **Burd, N.A.** (2017). Greater Stimulation of Postexercise Muscle Protein Synthesis after Consumption of Whole Eggs versus Egg Whites in Healthy Young Men. FASEB J. April; 31:167.7

Selected Media Appearances (2013-present)

2016, Interview for the Globe and Mail. The muscle-building power of milk vs. beef after a workout: which is better?

2015, Video for Physiology of Sport and Exercise (6^{th} edition). L.W. Kenny, J.H. Wilmore, & D.L. Costill (Eds.). Leucine

2013, Video for Nestle Nutrition Institute. Does chronically consuming protein immediately after exercise actually cause you to get stronger or faster?

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Physiological Reports
Journal of Strength and Conditioning Research
Amino Acids
Journal of Musculoskeletal & Neuronal Interactions
Nutrients
Food Research International

INVITED SPEAKER (Selected presentations)

Nicholas Burd. "Maximizing protein in the diet with exercise" UIUC DNS Nutrition Symposium 2017. Faculty Mini-Symposium: Protein in the Modern World. April 19, 2017

Nicholas Burd. "Protein dense food consumption for skeletal muscle remodeling, and effect of adiposity". National Pork Board meeting. St. Louis, Missouri. July 27, 2016

Nicholas Burd. "Muscle protein synthesis: does protein and peptide intake matter, and is there a difference between proteins?", The Marine Proteins and Peptides Symposium. Alesund, Norway, April 2016

Nicholas Burd. "Impact of protein ingestion on dietary protein digestion and absorption kinetics and postprandial muscle protein synthesis rates in healthy weight and obese adults", Obesity week 2015, Young Investigator Challenge Competition. Los Angeles California, November, 2015

Nicholas Burd. Strategies to maximize skeletal muscle mass. Midwest University. May 20, 2015. Phoenix, AZ, USA

Nicholas Burd. Maximizing muscle mass with postexercise protein intake. Experimental Biology (EB), San Diego, CA, USA

Nicholas Burd. The ups and downs of muscle protein turnover: the role of food and exercise. University of Illinois at Urbana-Champaign. Nov 6 2013; Urbana, Illinois, USA

Nicholas Burd. The role of dietary protein in the regulation of muscle mass. University of Illinois at Chicago. Oct 18 2013; Chicago, Illinois, USA

Nicholas Burd. "Does chronically consuming protein immediately after exercise actually cause you to get strong (resistance training) or faster (endurance training)?" American College of Sports Medicine (ACSM). May 28-June 1, 2013; Indianapolis, Indiana USA

Nicholas Burd. The effect of resistive exercise on muscle carbohydrate and protein metabolism. In symposium: "Acute and chronic responses to concentric and eccentric exercise". American College of Sports Medicine (ACSM). May 28-June 1, 2013; Indianapolis, Indiana USA

Nicholas Burd. Contraction induced changes in muscle protein synthesis—Does exercise load matter? In symposium: "Sensing the tension: Identifying Mechanotransducers that Regulate Muscle Growth". American College of Sports Medicine (ACSM). May 28-June 1, 2013; Indianapolis, Indiana USA

Nicholas Burd. Protein intake – before, during, or after to enhance endurance and strength training adaptations. Danish Sports Medicine Congress. Invited lecture. Jan 31 – Feb 2, 2013; Kolding, Denmark

Nicholas Burd. Protein and recovery from exercise – Are guidelines the same for all sorts of exercise? American College of Sports Medicine (ACSM), invited lecture. May 30 2012, San Francisco, California USA

Nicholas Burd. Contractile and nutritional modulation of human skeletal muscle protein synthesis. In the masterclass for Prof. dr. Alfred Goldberg, Striated muscle plasticity and metabolism in health and disease, Maastricht University, January 16, 2012, Maastricht, Netherlands

Nicholas Burd. Impact of resistance exercise intensity on human skeletal muscle protein synthesis. Department of kinesiology seminar, McMaster University, October 22, 2009, Hamilton, ON, CA

Nicholas Burd. Impact of resistance exercise intensity and anabolic hormones on human skeletal muscle protein turnover. Department of Sport & Exercise Science Research seminar, University of Auckland, Tamaki Campus, October 9 2009, Auckland, NZ

Nicholas A. Burd, Daniel WD West, and Stuart M. Phillips. Scientific update related to resistance exercise intensity and protein dose effects on human skeletal muscle. Sobre Entrenamiento Group Symposium. Online symposium. June 15, 2009

FUNDING

National Cattleman's Association, Primary Investigator: "The influence of regular beef consumption and protein density of the diet on training induced gains in muscle strength and performance in healthy adults", Awarded: $253,626 USD (July 2016-June 2018).

Japan *Curves,* Co-Primary Investigator: "Nutritional strategies to augment the postprandial muscle protein synthetic response to the ingestion of a low dose of protein in older women"
Awarded: $185,000 USD (June 2016-May 2017).

National Pork Board, Primary Investigator: "Effect of pork ingestion on postprandial mitochondrial protein synthesis and inflammation in healthy weight, overweight, and obese adults",
Awarded: $42,348 USD (May 2016 - April 2017).

Hass Avocado Board, Co-Investigator: "Investigating the Effects of Avocado Intake on Metabolic and Cognitive Health: A Systems Approach".
Awarded: $887,221 USD (December 2015 – December 2017)

UIUC Division of Nutritional Sciences, Primary Investigator: **"**Whole egg versus egg white consumption on postprandial protein handling *in vivo* in humans"
Awarded: $20,000 USD (Oct 2015 – Oct 2017)

Division of Nutritional Sciences Vision 20/20 research program award, Co-Investigator: "The effects of overweight/obesity and acute dietary protein ingestion on muscle stem cell function".
Awarded: $22,500 USD (Oct 2014 – Oct 2016) - completed

National Pork Board, Primary Investigator: "Postprandial muscle protein synthetic response after high quality pork consumption in lean, overweight, and obese adults".
Awarded: $135,400 USD (Oct 2014 – Oct 2016) - completed

UIUC Center on Health, Aging, and Disability, Primary Investigator: "Protein ingestion after endurance exercise for muscle mass maintenance and metabolic health"
Awarded: $20,000 USD - completed

University of Toronto Faculty of Kinesiology and Physical Education Research Grant, Co-Investigator: "Development of intrinsically-labeled egg proteins for the study of human protein metabolism".
Awarded: $5,000 CAD - completed

UIUC Research Board, Primary Investigator: "The time-dependent measurement of postprandial muscle protein synthesis rates by the use of doubly labeled milk proteins in humans"
Awarded: $30,000 USD - completed

Graduate Student Fellowships

Egg Nutrition Center/American Egg Board, Stephan van Vliet, KCH graduate student: "Nutritional strategies to support skeletal muscle mass maintenance with advancing age"
Awarded: $20,000 USD

ACSM Foundation Doctoral Student Grant, Joseph Beals, DNS graduate student: "Resistance exercise as a strategy to enhance basal and postprandial muscle protein synthesis in obese adults"
Awarded: $5,000 USD

European Society for clinical nutrition and metabolism (ESPEN), Stephan van Vliet, KCH graduate student: "Protein ingestion as a strategy to enhance muscle protein anabolism in hemodialysis patients"
Awarded: €50,000

ACSM Foundation Doctoral Student Grant, Stephan van Vliet, KCH graduate student: "Intrinsically labeled egg protein for the in vivo measurement of human protein metabolism"
Awarded: $5,000 USD-Completed

AWARDS & RECOGNITION

2011 ACSM Charles M. Tipton National Student Research Award

2010	The Physiological Society Travel Grant. 2010 Awarded: *£ 500*
2010	McMaster University School of Graduate Studies International Excellence Award Awarded: $10,000 CAD
2015	The American Society for Nutrition (ASN) Peter J. Reeds Young Investigator Award
Fall 2013	University of Illinois List of Teachers Ranked as Excellent by Their Students
Fall 2015	University of Illinois List of Teachers Ranked as Excellent by Their Students
Spring 2016	University of Illinois List of Teachers Ranked as Excellent by Their Students

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