

CURRICULUM VITAE

G. Patrick Lambert, Ph.D.

DEGREES EARNED

Ph.D. Exercise Physiology, 2001
University of Iowa, Iowa City, IA

M.A. Exercise Physiology, 1990
Ball State University, Muncie, IN

B.S. Exercise and Health Science, 1988
Alma College, Alma, MI

PROFESSIONAL EXPERIENCE

August 2002 - Present: Creighton University, Omaha, NE
Primary Appointment: Associate Professor, Department of Exercise Science
Secondary Appointment: Associate Professor, Department of Biomedical Sciences (2005 – present)

July 2001 - July 2002: University of Nebraska Medical Center, Omaha, NE
Postdoctoral Research Associate - Pulmonary and Critical Care Medicine Section - Internal Medicine

August 1990 - July 2001: University of Iowa, Iowa City, IA.
Graduate and Professional Research Assistant - Department of Exercise Science

January 1998 - May 2000: St. Ambrose University, Davenport, IA
Adjunct Instructor - Department of Sport, Health and Physical Education

January 1996 - December 2000: University of Iowa, Iowa City, IA.
Adjunct Instructor - Department of Exercise Science

August 1994 - May 1996: Kirkwood Community College, Cedar Rapids, IA
Adjunct Instructor - Department of Math and Science

RESEARCH FUNDING

Current

Gatorade Sport Science Institute, 2008-2009. **G.P. Lambert** (Principal Investigator), S.J. Lanspa (Co-Investigator). Total award: \$42,938

Completed

Gatorade Sport Science Institute, 2005-2007. **G.P. Lambert** (Principal Investigator), J.J. O'Brien (Co-Investigator), S.J. Lanspa (Co-Investigator). Total award: \$124,198

Gatorade Sport Science Institute, 2003-2004. **G.P. Lambert** (Principal Investigator), S.J. Lanspa (Co-Investigator). Total award: \$29,621

Gatorade Sport Science Institute, 2002-2003. **G.P. Lambert** (Principal Investigator).
Total Award: \$40,700

OTHER RESEARCH FUNDING/AWARDS

Heartland Center for Occupational Health and Safety, 2001-2002. Total Award: \$15,000

American Physiological Society: Environmental and Exercise Physiology Section, 2001. Graduate Student Recognition Award. Total Award: \$500

American Physiological Society: Environmental and Exercise Physiology Section, 2000. Graduate Student Recognition Award. Total Award: \$500

Gatorade Sports Science Institute, 1998. Graduate Student Research Award. Total Award: \$1000

PUBLISHED PEER-REVIEWED RESEARCH ARTICLES

1. **Lambert, G.P.**, J.A. Lang, A.J. Bull, J.M. Eckerson, S.J. Lanspa, J.J. O'Brien. Fluid tolerance during running: effect of repeated trials. *Int. J. Sports Med.* 29: 878-882, 2008.
2. **Lambert, G.P.**, S.J. Lanspa, R. Welch, and X. Shi. Combined effects of glucose and fructose on fluid absorption from hypertonic carbohydrate-electrolyte beverages. *J. Exerc. Physiol. online*, 11(2):46-55, 2008.
3. **Lambert, G.P.**, J.A. Lang, A.J. Bull, P.C. Pfeifer, J.M. Eckerson, G.A. Moore, S.J. Lanspa, and J.J. O'Brien. Fluid restriction increases GI permeability during running. *Int. J. Sports Med.* 29(3): 194-198, 2008.
4. **Lambert, G.P.**, M.W. Boylan, J.P. Laventure, A.J. Bull, S.J. Lanspa. Effect of aspirin and ibuprofen on GI permeability during exercise. *Int. J. Sports Med.* 28(9): 722-726, 2007.
5. Lang, J.A., C.V. Gisolfi, **G.P. Lambert**. Effect of exercise intensity on active and passive carbohydrate absorption. *Int. J. Sport Nutr. Exerc. Metab.* 16: 485-493, 2006.
6. Rogers, J., R.W. Summers, **G.P. Lambert**. Gastric emptying and intestinal absorption of a low-carbohydrate sport drink during exercise. *Int. J. Sport Nutr. Exerc. Metab.* 15: 220-235, 2005.
7. **Lambert, G.P.**, J.R. Spurzem, D.J. Romberger, T.A. Wyatt, E. Lyden, A.M. Stromquist, J.A. Merchant, S.G. Von Essen. Tumor necrosis factor- α hyper-responsiveness to endotoxin in whole blood is associated with chronic bronchitis in farmers. *J. Agromedicine.* 10(1): 39-44, 2005.
8. LeVan, T.D., S. Von Essen, **G.P. Lambert**, F.D. Martinez, M.M. Vasquez, J.A. Merchant. Polymorphisms in the CD14 gene are associated with pulmonary function in farmers. *Am. J. Respir. Crit. Care Med.* 7: 773-779, 2005.
9. **Lambert, G.P.**, C.V. Gisolfi, D.J. Berg, P.L. Moseley, L.W. Oberley, and K.C. Kregel. Molecular Biology of Thermoregulation: Selected contribution: Hyperthermia-induced intestinal permeability and the role of oxidative and nitrosative stress. *J. Appl. Physiol.* 92: 1750-1761, 2002.
10. **Lambert, G.P.**, B. Mason, L. Broussard, T. Xia, R.W. Summers, and C.V. Gisolfi. Gastrointestinal permeability during exercise: effects of aspirin and energy-containing beverages. *J. Appl. Physiol.* 90(6): 2075-2080, 2001.
11. Gisolfi, C.V., **G.P. Lambert**, and R.W. Summers. Intestinal fluid absorption during exercise: Role of sport drink osmolality and $[Na^+]$. *Med. Sci. Sports Exerc.* 33(6): 907-915, 2001.
12. Popowski, L.A., R.A. Oppliger, **G.P. Lambert**, R.F. Johnson, A.K. Johnson, and C.V. Gisolfi. Blood and urinary measures of hydration status during progressive acute dehydration. *Med. Sci. Sports Exerc.* 33(5): 747-753, 2001.

13. Smetanka, R.D., **G.P. Lambert**, R. Murray, D. Eddy, M. Horn, and C.V. Gisolfi. Intestinal permeability in runners in the 1996 Chicago Marathon. *Int. J. Sport Nutr.* 9: 426-433, 1999.
14. Rao, S.S.C., J. Beaty, M. Chamberlain, **P.G. Lambert**, and C.V. Gisolfi. Effects of acute graded exercise on human colonic motility. *Am. J. Physiol.* 276: G1221-G1226, 1999.
15. Chang, R.T., **G.P. Lambert**, P.L. Moseley, F.K. Chapler, and C.V. Gisolfi. Effect of estrogen supplementation on exercise thermoregulation in premenopausal women. *J. Appl. Physiol.* 85(6): 2082-2088, 1998.
16. Gisolfi, C.V., R.W. Summers, **G.P. Lambert**, and T. Xia. Effect of beverage osmolality on intestinal fluid absorption during exercise. *J. Appl. Physiol.* 85(5): 1941-1948, 1998.
17. Ryan, A.J., **G.P. Lambert**, X. Shi, R.T. Chang, R.W. Summers, and C.V. Gisolfi. Effect of hypohydration on gastric emptying and intestinal absorption during exercise. *J. Appl. Physiol.* 84(5): 1581-1588, 1998.
18. Shi, X., H.P. Schedl, R.W. Summers, **G.P. Lambert**, R.T. Chang, T. Xia, and C.V. Gisolfi. Fructose transport mechanisms in humans. *Gastroenterology* 113: 1171-1179, 1997.
19. **Lambert, G.P.**, R.T. Chang, T. Xia, R.W. Summers, and C.V. Gisolfi. Absorption from different intestinal segments during exercise. *J. Appl. Physiol.* 83 (1): 204-212, 1997.
20. **Lambert, G.P.** and D.L. Costill. Submaximal blood lactate and heart rate measurements as indicators of training status in college distance runners. *J. Strength and Cond. Res.* 10(2): 93-97, 1996.
21. **Lambert, G.P.**, R.T. Chang, D.J. Joensen, X. Shi, H.P. Schedl, R.W. Summers, and C.V. Gisolfi. Simultaneous determination of gastric emptying and intestinal absorption during cycle exercise in humans. *Int. J. Sports Med.* 17: 48-55, 1996.
22. Shi, X., R.W. Summers, H.P. Schedl, R.T. Chang, **G.P. Lambert**, and C.V. Gisolfi. Effects of solution osmolality on absorption of select fluid replacement solutions in the human duodenojejunum. *J. Appl. Physiol.* 77(3): 1178-1184, 1994.
23. **Lambert, G.P.**, T.L. Bleiler, R.T. Chang, A.K. Johnson, and C.V. Gisolfi. Effects of voluntary consumption of carbonated and non-carbonated beverages at specific intervals during prolonged treadmill running in the heat. *Int. J. Sport Nutr.* (3): 177-193, 1993.
24. Lambert, C.P., D.L. Costill, G.K. McConell, M.A. Benedict, **G.P. Lambert**, R.A. Robergs, and W.J. Fink. Fluid replacement after dehydration: influence of beverage carbonation and carbohydrate content. *Int. J. Sports Med.* 13(4): 285-292, 1992.

PUBLISHED PEER-REVIEWED REVIEW ARTICLES

1. **Lambert, G.P.** Stress-induced gastrointestinal barrier dysfunction and its inflammatory effects. *J. Anim. Sci.* 87: E101-E108, 2009.
2. **Lambert, G.P.** Role of gastrointestinal permeability in exertional heatstroke. *Exer. Sport Sci. Rev.* 32 (4): 185-190, 2004.

PUBLISHED BOOK CHAPTER

1. **Lambert, G.P.** Intestinal Barrier Dysfunction, Endotoxemia, and Gastrointestinal Symptoms: The “Canary in the Coal Mine” during Exercise-Heat Stress? Marino FE (ed): *Thermoregulation and Human Performance. Physiological and Biological Aspects.* Med. Sports Sci. Basel, Karger, 2008. vol 53, pp 61-73

PUBLISHED ABSTRACTS FROM SCIENTIFIC MEETINGS

1. **Lambert, G.P.**, N Bedard, G. Holte, A. Schmidt, S.Lanspa. Lactobacillus acidophilus supplementation for 7 days does not reduce acute aspirin-induced gastrointestinal permeability *FASEB J.* 23:LB128, 2009. Presented at 2008 Experimental Biology Meeting.
2. **Lambert, G.P.**, J.A. Lang, A.J. Bull, J.M. Eckerson, S.J. Lanspa, J.J. O'Brien. Fluid tolerance during running: effect of repeated trials. *FASEB J.* 22:956.21, 2008. Presented at 2008 Experimental Biology Meeting.
3. **Lambert, G.P.**, J. Lang, R. Welch, S. Lanspa, and J. O'Brien. L-arginine in low concentration does not enhance intestinal water absorption from a dilute glucose-electrolyte solution in healthy humans. *FASEB J.* 21:LB502, 2007. Presented at 2007 Experimental Biology Meeting.
4. **Lambert, G.P.**, J.A. Lang, A.J. Bull, P.C. Pfeifer, J.M. Eckerson, and G.A. Moore. Effect of fluid replacement during distance running on gastrointestinal barrier function. Proceedings of the 2006 Nebraska Physiological Society Annual Meeting.
5. Lang, J.A., C.V. Gisolfi, and **G.P. Lambert**. Effect of exercise intensity on active and passive carbohydrate absorption. Proceedings of the 2006 Nebraska Physiological Society Annual Meeting.
6. **Lambert, G.P.**, S.J. Lanspa, R. Welch, and X. Shi. Intestinal absorption of hypertonic solutions containing glucose or glucose and fructose. *FASEB J.* 20:LB27, 2006. Presented at 2006 Experimental Biology Meeting.
7. **Lambert, G.P.**, J.P. Laventure, M.W. Boylan, A.J. Bull, S.J. Lanspa. Gastric comfort and gastric emptying rate are not altered by repeated fluid ingestion during physical training. Abstract LB128. Proceedings of the 2005 Experimental Biology Meeting.
8. Boylan, M.W., J.P. Laventure, A.J. Bull, S.J. Lanspa, **G.P. Lambert**. Comparison of the effects of aspirin and ibuprofen on gastrointestinal (GI) permeability during prolonged exercise. Abstract LB129. Proceedings of the 2005 Experimental Biology Meeting.
9. **Lambert, G.P.** Comparison of gastric emptying rates determined by two methods during exercise. Abstract LB452. Proceedings of the 2004 Experimental Biology Meeting.
10. **Lambert, G.P.**, J.R. Spurzem, D. Romberger, S. Von Essen, T.A. Wyatt, A. Stromquist, and J. Merchant. Association between whole blood cytokine responsiveness and respiratory symptoms in non-smoking, non-atopic farmers. *FASEB J.* 17(4): A89, 2003. Presented at 2003 Experimental Biology Meeting.
11. **Lambert, G.P.**, T.L. Mathisen, T.A. Wyatt, S.I. Rennard, S.G. Von Essen, X. Liu, and D.J. Romberger. Hog dust extract increases matrix metalloproteinase-9 (MMP-9) release by THP-1 cells. *Am. J. Resp. Crit. Care Med.* 165(8): A523, 2002. Presented at 2002 American Thoracic Society Meeting.
12. **Lambert, G.P.**, R.D. Matthes, P.L. Moseley, D.J. Berg, L.W. Oberley, K.C. Kregel, and C.V. Gisolfi. Heat stress increases intestinal permeability: The everted gut sac model and the role of oxidative/nitrosative stress. *FASEB J.* 15(4), A93, 2001. Presented at 2001 Experimental Biology Meeting.
13. Mendoza, J.R., **G.P. Lambert**, R.W. Summers, and C.V. Gisolfi. Effects of a low-carbohydrate sports drink on gastric emptying and intestinal fluid absorption during exercise. *Med. Sci. Sports Exerc.* 32(5 Suppl.): S238, 2000. Presented at 2000 American College of Sports Medicine Meeting.
14. **Lambert G.P.**, R.D. Matthes, C.V. Gisolfi. Effect of severe heat stress on intestinal permeability in rats. *FASEB J.* 14(4), A613, 2000. Presented at 2000 Experimental Biology Meeting.

15. **Lambert, G.P.**, R. Murray, D. Eddy, W. Scott, R. Laird, and C.V. Gisolfi. Intestinal permeability following the 1998 Ironman Triathlon. *Med. Sci. Sports Exerc.* 31(5 Suppl.): S318, 1999. Presented at 1999 American College of Sports Medicine Meeting.
16. Popowski, L.A., R.A. Oppliger, **G.P. Lambert**, A.K. Johnson, C.V. Gisolfi. Is urine specific gravity a satisfactory measure of hydration status? *Med. Sci. Sports Exerc.* 31(5 Suppl.): S323, 1999. Presented at 1999 American College of Sports Medicine Meeting.
17. Gisolfi, C.V., **G.P. Lambert**, R.W. Summers. Effect of [Na⁺] and hypoosmolality of an ORS on intestinal fluid absorption. *FASEB J.* 13(5 Part 2): A732, 1999. Presented at the 1999 Experimental Biology Meeting.
18. **Lambert G.P.**, B. Mason, L. Broussard, T Xia, R.W. Summers, C.V. Gisolfi. Intestinal absorption and permeability during exercise with aspirin: Effects of glutamine in replacement beverages. *FASEB J.* 12(4): A370, 1998. Presented at the 1998 Experimental Biology Meeting.
19. **Lambert, G.P.**, R.T. Chang, T. Xia, R.W. Summers, C.V. Gisolfi. Segmental differences in fluid absorption from the small intestine during exercise. Proceedings of the 1997 American Physiological Society Intersociety Meeting: Integrative Biology of Exercise.
20. Smetanka, R.D., **G.P. Lambert**, R. Murray, D. Eddy, M. Horn, and C.V. Gisolfi. Gastrointestinal permeability of runners following the 1996 Chicago Marathon. *Med. Sci. Sports Exerc.* 29(5 Suppl.): S131, 1997. Presented at 1997 American College of Sports Medicine Meeting.
21. Aker, J.G., B. Lynch, **G.P. Lambert**, and C.V. Gisolfi. Effects of exercise intensity, heat and dehydration on intestinal permeability and selected physiological variables. *Med. Sci. Sports Exerc.* 29(5 Suppl.): S132, 1997. Presented at 1997 American College of Sports Medicine Meeting.
22. Shi, X. R.W. Summers, **G.P. Lambert**, R. Chang, T Xia, C.V. Gisolfi. Fructose transport mechanisms and their role in water absorption in humans. *Med. Sci. Sports Exerc.* 27(5 Suppl.): S250, 1995. Presented at 1995 American College of Sports Medicine Meeting.
23. Ryan, A., **G. Lambert**, X. Shi, R. Chang, R. Summers, C. Gisolfi. Effect of hypohydration on gastric emptying and intestinal absorption during exercise. *FASEB J.* 9(3): A292, 1995. Presented at the 1995 Experimental Biology Meeting.
24. **Lambert G.P.**, R.T. Chang, D.J. Joensen, X. Shi, H.P. Schedl, R.W. Summers, C.V. Gisolfi. Simultaneous determination of gastric emptying and intestinal absorption. *FASEB J.* 8(4-5): A308, 1994. Presented at the 1994 Experimental Biology Meeting.
25. Lambert C.P., D.L. Costill, G.K. McConell, M.A. Benedict, **G.P. Lambert**, R.A. Robergs, W.J. Fink. Fluid replacement: influence of beverage carbonation and carbohydrate content. *Med. Sci. Sports Exerc.* 23(4 Suppl.): S129, 1991. Presented at 1991 American College of Sports Medicine Meeting.
26. Davis, J.A., D.L. Costill, **G.P. Lambert**, G.A. Beard, M.A. Benedict, C.P. Lambert. Response of borderline hypertensive men to a regimen of heat acclimation. *Med. Sci. Sports Exerc.* 22(2 Suppl.): S49, 1990. Presented at 1990 American College of Sports Medicine Annual Conference.
27. **Lambert, G.P.**, J.E. Davis, J.D. Seelbach. Changes in physiological characteristics of collegiate cross country runners with endurance training. Proceedings of the 1988 Midwest Chapter of the American College of Sports Medicine Annual Meeting.

PEER REVIEWER – Scientific Journals

- American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology (2007)
- Clinical and Experimental Pharmacology and Physiology (2005)
- Critical Care Medicine (2009)
- European Journal of Applied Physiology (2008)
- European Respiratory Journal (2002)
- Exercise and Sport Sciences Reviews (2002)
- International Journal of Sports Medicine (1999, 2008)
- International Journal of Sport Nutrition and Exercise Metabolism (2005, 2007, 2008-2, 2009-1)
- Journal of Applied Physiology (2001, 2003, 2006, 2009-4)
- Life Sciences (2008)
- Medicine and Science in Sports and Exercise (1999, 2000-2, 2007-2, 2008-3, 2009)

PEER REVIEWER – Books

- ACSM's Advanced Exercise Physiology – *Chapter 15: The Gastrointestinal System* (2003)

EXTERNAL REVIEWER - Master's Degree Dissertation

- Smith, R.M. *The effect of a tumor necrosis factor-alpha antibody on gut permeability in rats during exposure to a heat stress.* University of the Witwatersrand, Johannesburg, South Africa (2006)

INVITED REVIEWER – US Army

- US Army Small Business Innovative Research Phase I Grant Proposals (2007)
- US Army Medical Research and Materiel Command S & T Working Group Review (2004)
- US Army Joint Medical Technology Workshop - “Environmental Extremes” Section (2003)

INVITED PRESENTATIONS

- Zinpro Corporation: *Intestinal Barrier Function – State of the Art* (2009)
- American Society for Animal Science (ASAS) Annual Conference: *Stress-induced intestinal barrier dysfunction and its effects* (2008)
- American Society for Animal Science (ASAS) Annual Conference: *The impact of heat stress on intestinal barrier function and the immune response* (2007)
- Gatorade Sports Science Institute: *Gatorology 555 - Intestinal Absorption of Sport Drinks* (2005)

HONORS/OFFICES HELD

- President-Elect – Nebraska Physiological Society (2009)
- Councilor - Nebraska Physiological Society (2008-2009)

PROFESSIONAL AFFILIATIONS

- American College of Sports Medicine (1989-present)
- American Physiological Society (2001-present)
- Nebraska Physiological Society (2005-present)

PROFESSIONAL CERTIFICATIONS

- ACSM *Certified Clinical Exercise Specialist*® - American College of Sports Medicine

COURSES TAUGHT AT CREIGHTON UNIVERSITY

- Human Physiology
- Biomechanics
- Human Anatomy
- Directed Independent Research

COURSES TAUGHT AT OTHER INSTITUTIONS

- Exercise Physiology for Practitioners - University of Iowa, Iowa City, IA
- Exercise Physiology - St. Ambrose University, Davenport, IA
- Human Anatomy and Physiology - Kirkwood Community College, Cedar Rapids, IA

OTHER TEACHING EXPERIENCE

- Lectures on Fluid Balance During Exercise – Creighton University School of Medicine
- Lectures on GI Physiology - Advanced Exercise Physiology course - University of Iowa
- Lecture on Temperature Regulation - Human Physiology course - University of Iowa
- Graduate Teaching Assistant - Exercise Physiology Lab; Jogging - University of Iowa
- Undergraduate Teaching Assistant - Fitness for Life - Alma College

TEACHING RECOGNITION

- Who's Who Among America's Teachers (2005); nominated by former student

UNIVERSITY SERVICE (2002-present)

- Member - Faculty and Academic Council (Fall 2007-present)
- Member - Pre-Health Sciences Advisory Committee (2003-present)
- Chemical Hygiene Coordinator - Department of Exercise Science (Fall 2004-present)
- Faculty Representative - Skutt Student Center Advisory Board (2003-2007)
- Participation in Admission Fairs, Open Houses, Benefits Fair, etc. (2002-present)
- Participation in Exercise Science Major's Club (2002-present)