

CURRICULUM VITA

PERSONAL

Ben B. Yaspelkis, III

Department of Kinesiology
California State University Northridge
18111 Nordhoff Street
Northridge, CA 91330-8287

Phone: 818-677-7509

Lab: 818-677-7576

Email: ben.yaspelkis@csun.edu

EDUCATION

Ph.D. The University of Texas at Austin; 1995
Major - Kinesiology (Exercise Science)

M.A. The University of Texas at Austin; 1990
Major - Kinesiology (Exercise Science)

B.S. Pepperdine University; 1988
Major - Sports Medicine

ACADEMIC EXPERIENCE

1996 - Present Assistant Professor, Department of Kinesiology; California State University Northridge, Northridge, CA.

1988 - 1995 Instructor, Department of Kinesiology and Health Education; The University of Texas, Austin, TX

RESEARCH EXPERIENCE

1998 - Present Director, Exercise Physiology and Biochemistry Laboratories. Department of Kinesiology, California State University-Northridge, Northridge, CA.

1996 - 1998 Supervisor, Exercise Biochemistry Laboratory. Department of Kinesiology, California State University-Northridge, Northridge, CA.

1995 - 1996 Post-doctoral Fellow: Supervisor - M.J. Birnbaum, M.D., Ph.D. Howard Hughes Medical Institute, University of Pennsylvania School of Medicine, Philadelphia, PA.

1988 - 1995 Graduate Research Assistant: Advisor - J.L. Ivy, Ph.D. Exercise Physiology and Metabolism Laboratory, The University of Texas, Austin, TX.

1986 - 1988 Student Laboratory Assistant: Advisor - H. S-H. MacRae, Ph.D., Human Performance Laboratory, Pepperdine University, Malibu, CA.

PROFESSIONAL ORGANIZATIONS

Membership

American College of Sports Medicine
American Diabetes Association
American Physiological Society
Sigma Xi – The Research Society
Southwest Chapter, American College of Sports Medicine

Officer and/or Board Member

Sigma Xi Scientific Research Society, CSUN Chapter – President Elect (2002-2003)

EDITORIAL RESPONSIBILITIES (*ad hoc*)

American Journal of Physiology: Endocrinology and Metabolism
International Journal of Sports Medicine
International Journal of Sports Nutrition and Metabolism
Journal of Aging and Physical Activity
Journal of Applied Physiology
Life Sciences
Strength & Conditioning Journal (Review Board Member, 2000)

HONORS

ARCS Foundation Scholar
Kappa Delta Pi Honor Society – Elected Member (1992)
Sigma Xi Scientific Research Society – Elected Member (1998)
American College of Sports Medicine – Elected Fellow (2001)
CSUN Sigma Xi George Lefevre Award for Distinguished Research (2002)

RESEARCH SUPPORT AND AWARDS

Effect of active water recovery on blood lactate concentration following intense exercise. Excel Sports Science, Inc. Research Project, 1996-97, \$1,213 (Principal Investigator)

The effect of active water recovery on blood lactate following intense exercise. Student Projects Committee, California State University, Northridge, 1997, \$999 (Thesis Chair)

The effects of active water recovery on blood lactate concentration following intense exercise. Center for Sports Medicine, California State University, Northridge, 1997, \$400 (Thesis Chair)

Effect of exercise training on skeletal muscle glucose transporter levels. Research, Scholarship, and Creative Activity Award, California State University, Northridge, 1997-98, \$5,000 (Principal Investigator)

Effects of chronic leptin administration on insulin sensitivity and responsiveness, Amgen, Inc. Research Project, 1997-98, \$43,562 (Principal Investigator)

Exercise during prenatal and postnatal periods: An approach for WIC participants. Center for Sports Medicine, California State University, Northridge, 1998, \$250 (Thesis Chair)

Fitness Expo '98. Associated Students Association, California State University, Northridge, 1998, \$800 (Thesis Chair)

Effects of chronic leptin administration on insulin-stimulated skeletal muscle glucose transport in insulin-resistant skeletal muscle, Amgen, Inc. Research Project, 1998-99, \$13,400 (Principal Investigator)

Probationary Faculty Support Program. Office of Graduate Studies, Research and International Programs, California State University, Northridge, 1999, \$7,064.

Effect of leptin on glucose uptake and transport in insulin-resistant skeletal muscle. NIH/NIGMS (S06) GM48680. Research Project, 1999-2001, \$185,907 (Principal Investigator)

Leptin treatment and skeletal muscle insulin-resistance. NIH/NIDDK (R15) DK57625. Research Project, 2000-2002, Approved, not funded. (Principal Investigator).

Does chronic leptin administration alter components of the insulin-signaling cascade? Graduate Student Research Award, Graduate Studies, Research and International Programs, California State University, Northridge, 2000, \$500 (Thesis Chair).

Development of a medically oriented fitness program for a 40+ population. Graduate Student Research Award, Graduate Studies, Research and International Programs, California State University, Northridge, 2000, \$200 (Thesis Chair).

Does chronic leptin administration alter components of the insulin-signaling cascade? Student Projects Committee, California State University, Northridge, 2000, \$1742 (Thesis Chair).

Leptin treatment and skeletal muscle insulin-resistance. NIH/NIDDK (R15) DK57625. Research Project, 2001-2003, \$142,100 (Principal Investigator).

Effect of leptin on insulin signaling and metabolism in insulin-resistant muscle. NIH/NIGMS (S06) GM48680. Research Project, 2001-2005, \$973,439 (Principal Investigator).

PUBLICATIONS

1. Yaspelkis III, B.B. and J.L. Ivy. Effect of carbohydrate supplements and water on exercise metabolism in the heat. *J. Appl. Physiol.* 71: 680-687, 1991.
2. Zawadzki, K.M., B.B. Yaspelkis III and J.L. Ivy. Carbohydrate-protein complex increases the rate of muscle glycogen storage after exercise. *J. Appl. Physiol.* 72: 1854-1859, 1992.
3. Brozinick J.T., Jr., G.J. Etgen Jr., B.B. Yaspelkis III and J.L. Ivy. Contraction-activated glucose uptake is normal in insulin-resistant muscle of the obese Zucker rat. *J. Appl. Physiol.* 73: 382-387, 1992.
4. Banks, E.A., J.T. Brozinick Jr., B.B. Yaspelkis III, H.Y. Kang and J.L. Ivy. Muscle glucose transport, GLUT-4 content, and degree of exercise training in obese Zucker rats. *Am. J. Physiol.* 263 (*Endocrinol. Metab.* 26): E1010-E1015, 1992.
5. Yaspelkis III, B.B., G.C. Scroop, K.M. Wilmore and J.L. Ivy. Carbohydrate metabolism during exercise in hot and thermoneutral environments. *Int. J. Sports Med.* 14: 13-19, 1993.

6. Brozinick J.T., Jr., G.J. Etgen Jr., B.B. Yaspelkis III, H.Y. Kang and J.L. Ivy. Effect of exercise training on muscle GLUT-4 protein content and translocation in the obese Zucker rat. *Am. J. Physiol.* 265 (*Endocrinol. Metab.* 28): E419-E427, 1993.
7. Yaspelkis III, B. B., J.G. Patterson, P.A. Anderla, Z. Ding and J.L. Ivy. Carbohydrate supplementation spares muscle glycogen during variable intensity exercise. *J. Appl. Physiol.* 75: 1477-1485, 1993.
8. Brozinick J.T., Jr., G.J. Etgen Jr., B.B. Yaspelkis III and J.L. Ivy. The effects of muscle contraction and insulin on glucose-transporter translocation in rat skeletal muscle. *Biochem. J.* 297: 539-545, 1994.
9. Brozinick J.T., Jr., G.J. Etgen Jr., B.B. Yaspelkis III and J.L. Ivy. Glucose uptake and GLUT-4 protein distribution in skeletal muscle of the obese Zucker rat. *Am. J. Physiol.* 267 (*Regulatory Integrative Comp. Physiol.* 36): R236-R243, 1994.
10. Yaspelkis III, B. B., P.A. Anderla, J.G. Patterson and J.L. Ivy. Ventilation tracks plasma potassium during incremental and variable intensity exercise. *Int. J. Sports Med.* 15: 460-465, 1994.
11. Brozinick Jr., J.T., B.B. Yaspelkis III, C.M. Wilson, K.E. Grant, E.M. Gibbs, S.W. Cushman and J.L. Ivy. Glucose transport and GLUT4 protein distribution in skeletal muscle of GLUT4 transgenic mice. *Biochem. J.* 313:133-140, 1996.
12. Moller, D.E., P-Y. Chang, B.B. Yaspelkis III, J.S. Flier, H. Wallberg-Henriksson and J.L. Ivy. Transgenic mice with muscle-specific insulin resistance develop increased adiposity, impaired glucose tolerance and dyslipidemia. *Endocrinology.* 137: 2397-2405, 1996.
13. Yaspelkis III, B. B., A.L. Castle, R.P. Farrar and J.L. Ivy. Contraction-induced intracellular signals and their relationship to muscle GLUT4 concentration. *Am. J. Physiol.* 272(*Endocrinol. Metab.* 35): E118-E125, 1997.
14. Fleck, E.S., B. Shannon, P. Piexoto, J. Golgert, P. Andrews, S. F. Loy and B.B. Yaspelkis III. Ready...Set...Glide? *ACE ConsumerMatters* 3(3): 1-3, 1997.
15. Loy, S.F., P.M. Andrews, J. Golgert and B.B. Yaspelkis III. Your 7-step guide to the 150 calorie expenditure. *ACSM's Health and Fitness Journal.* 1: 28-32, 1997.
16. Loy, S.F., P.M. Andrews, J. Golgert and B.B. Yaspelkis III. Tips for putting the SGR into practice: 7-step guide to motivating clients. *ACSM's Health and Fitness Journal.* 2: S5-S7, 1998.
17. Yaspelkis III, B. B., A.L. Castle, R.P. Farrar and J.L. Ivy. Effect of chronic electrical stimulation and β -GPA diet on GLUT4 concentration in rat skeletal muscle. *Acta. Physiol. Scand.* 163: 251-260, 1998.
18. Yaspelkis III, B. B., A.L. Castle, Z. Ding and J.L. Ivy. Attenuating the decline in ATP arrests the exercise training-induced increases in muscle GLUT4 protein and citrate synthase activity. *Acta. Physiol. Scand* 165: 71-80, 1999.
19. Yaspelkis III, B. B., L. Ansari, E.L. Ramey, G.J. Holland and S.F. Loy. Chronic leptin administration increases insulin-stimulated skeletal muscle glucose uptake and transport. *Metabolism* 48: 671-676, 1999.

20. Urbanski, R., S.F. Loy, W.J. Vincent and B.B. Yaspelkis III. Creatine supplementation differentially affects maximal isometric strength and time to fatigue in large and small muscle groups. *Int. J. Sport Nutr.* 9: 136-145, 1999
21. Hudson, O.D., S.F. Loy, W.J. Vincent and B.B. Yaspelkis III. Blood lactate concentration and rated perceived exertion following active recovery in water. *Sports Med. Train. Rehab.* 9 (1): 41-50, 1999.
22. Yaspelkis III, B. B. and J.L. Ivy. The effect of a carbohydrate-arginine supplement on post-exercise carbohydrate metabolism. *Int. J. Sport Nutr.* 9(3): 241-250, 1999.
23. Yaspelkis III, B. B., J.R. Davis, M. Saberi, T.L. Smith, R. Jazayeri, M. Singh, V. Fernandez, B. Trevino, N. Chinookoswong, J. Wang, Z.Q. Shi and N. Levin. Leptin administration improves skeletal muscle insulin responsiveness in diet-induced insulin-resistant rats. *Am. J. Physiol. Endocrinol. Metab.* 280: E130-E142, 2001.
24. Loy, S., M. Tanada, K. Tanaka, T. Okura, H. Nho, M. Nakagaichi, R. Shigematsu, and B. Yaspelkis. Health and Fitness. A question of lifestyle? Japanese living in Japan compared to Japanese living in the USA. *ACSM's Health and Fitness Journal.* 5: 15-19, 2001.
25. Castle, A., B.B. Yaspelkis III, C.H. Kuo and J.L. Ivy. Attenuation of insulin resistance by chronic β_2 -adrenergic agonist treatment: possible muscle specific contributions. *Life Sciences* 69: 599-611, 2001.
26. Yaspelkis III, B. B., M. Saberi, M. Singh, B. Trevino, and T.L. Smith. Chronic leptin treatment normalizes basal glucose transport in a fiber-type specific manner in high fat fed rats. *Metabolism (In press)*.
27. Yaspelkis III, B.B., M. Singh, B. Trevino, A. Krisan and D.E. Collins. Resistance training increases skeletal muscle glucose uptake and transport. *Acta. Physiol. Scand. (In press)*.

REFEREED CONFERENCE PRESENTATIONS

MacRae, H. and Yaspelkis, B. Maximal workload and VO_{2max} as determinants of cycling performance after acute exercise. American College of Sports Medicine Annual Meeting, May 25 - May 28, 1988, Dallas, TX.

Yaspelkis, B. and H. MacRae. The effects of treadmill protocol on determination of ventilatory and anaerobic threshold. American College of Sports Medicine Annual Meeting, May 31 - June 3, 1989, Baltimore, MD.

Yaspelkis, B.B. and J.L. Ivy. Thermoregulation and metabolism in the heat: effects of carbohydrate supplements and H_2O . Texas Regional ACSM Annual Meeting, Oct 27 - 28, 1989, Tyler, TX.

Yaspelkis, B. and J.L. Ivy. Thermoregulation and metabolism during exercise in the heat: effects of carbohydrate beverages and H_2O . American College of Sports Medicine Annual Meeting, May 29 - June 1, 1991, Orlando, FL.

Yaspelkis III, B.B., K.M. Zawadzki, G.J. Etgen Jr., and J.L. Ivy. The effect of carbohydrate-electrolyte beverages upon plasma volume shifts during moderately intense exercise in a warm environment. Texas Regional ACSM Annual Meeting, Oct 29 - 30, 1991, College Station, TX

Yaspelkis III, B. B., G.C. Scroop and J.L. Ivy. Carbohydrate metabolism during exercise in a hot and thermoneutral environment.. American College of Sports Medicine Annual Meeting, May 27 - 30, 1992, Dallas, TX.

Brozinick Jr., J.T., G.J. Etgen Jr., B.B. Yaspelkis III and J.L. Ivy. Glucose uptake in insulin resistant muscle of obese Zucker rats is fully activated by contraction. American College of Sports Medicine Annual Meeting, May 27 - 30, 1992, Dallas, TX.

Ivy, J.L., B.B. Yaspelkis III, P.A. Anderla and Z. Ding. Effect of liquid and solid carbohydrate supplements on muscle glycogen and performance during prolonged exercise. American College of Sports Medicine Annual Meeting, June 2 - 5, 1993, Seattle, WA.

Brozinick Jr., J.T., G.J. Etgen Jr., B.B. Yaspelkis III and J.L. Ivy. Glucose uptake and GLUT4 protein subcellular distribution in skeletal muscle of the obese Zucker rat. American Diabetes Association Annual Meeting, June 13 - 16, 1993, Las Vegas, NV.

Chang, P.Y., L. Goodyear, J.L. Ivy, B.B. Yaspelkis and D.E. Moller. Impaired insulin signaling and action in muscle of transgenic mice expressing dominant-negative insulin receptors (IRs). American Diabetes Association Annual Meeting, June 10 - 13, 1995, Atlanta, GA.

Yaspelkis III, B. B., A.L. Castle, R.P. Farrar and J.L. Ivy. Effect of chronic electrical stimulation and β -GPA diet on muscle GLUT4 protein concentration. American College of Sports Medicine Annual Meeting, May 28 - 29, 1997, Denver, CO.

Hudson, O.D., B.B. Yaspelkis III (Thesis Chair), S.F. Loy and W.J. Vincent. Effect of active water recovery on blood lactate concentration following intense exercise. Southwest Regional ACSM Annual Meeting, Nov 14 - 15, 1997, Las Vegas, NV.

Ansari, L., S.F. Loy, J. Golgert, M.D. Van Loan, B. Shannon, H. Kuwai, N. Briet, A. Hughes, T. Issacs, B.B. Yaspelkis III, P. Mole and R. Wiswell. Body composition of spinal cord injured individuals determined by densitometry, total body water (TBW) and dual-energy x-ray absorptiometry (DEXA). Southwest Regional ACSM Annual Meeting, Nov 14 - 15, 1997, Southwest Regional ACSM Annual Meeting, Las Vegas, NV.

Ansari, L. (Student Award – Third Place) and B.B. Yaspelkis III (Thesis Chair). Chronic leptin administration improves insulin-stimulated skeletal muscle glucose uptake. 1998 Sigma XI Student Research Competition, California State University Northridge, April 15, 1998.

Hughes, A. and B.B. Yaspelkis III (Thesis Chair). “Let’s Get Moving”: Physical activity during pregnancy. California Women, Infant and Children (WIC) Regional Meeting, May 15, 1998, Sacramento, CA.

B.B. Yaspelkis III, L. Ansari, E. Ramey, and S. Loy. Leptin Increases insulin-stimulated glucose uptake and transport in rat skeletal muscle. American Diabetes Association Annual Meeting, June 13 - 16, 1998, Chicago, IL.

Ansari, L. (1998 Student Research Award Runner-up) E. Ramey, S.F. Loy, G.J. Holland and B.B. Yaspelkis III (Thesis Chair). Chronic leptin administration improves insulin-stimulated skeletal muscle glucose uptake. Southwest Regional ACSM Annual Meeting, Nov. 13-14, 1998, Las Vegas, NV.

Urbanski, R.L., S.F. Loy, W.J. Vincent and B.B. Yaspelkis III (Thesis Chair). Effect of creatine supplementation on maximal strength and time to fatigue during repeated isometric contractions in large and small muscle groups. Southwest Regional ACSM Annual Meeting, Nov. 13-14, 1998, Las Vegas, NV.

Loy, S.F., J.L. Romack, W.C. Whiting and B.B. Yaspelkis III. ‘SUPER Assessment’ An assessment of students implementing their Kinesiology education in community service projects. National Association for Physical Education in Higher Education National Meeting, Jan. 6-10, 1999, San Diego, CA.

Broberg, M.A. W.C. Whiting, J.L. Romack and B.B. Yaspelkis III. Alterations in subtalar joint kinematics in response to muscular fatigue in running. American College of Sports Medicine Annual Meeting, June 2-5, 1999, Seattle, WA.

Zink, A., W.C. Whiting, A.J. McClaine and B.B. Yaspelkis III. The effects of a weight belt and leg muscle activity and joint kinematics during squat exercise. National Strength and Conditioning Association Conference, June 24, 1999, Kansas City, MO.

Saberi, M. (Graduate Student Award – Second Place) and B.B. Yaspelkis III. Skeletal muscle insulin-resistance is improved by leptin administration. 2000 Sigma XI Student Research Competition, California State University Northridge, May 4, 2000.

Smith, T. and B.B. Yaspelkis III. Leptin administration improves whole body glucose tolerance in a diet-induced insulin-resistant rodent model. 2000 Sigma XI Student Research Competition, California State University Northridge, May 4, 2000.

Jazayeri, R. (Undergraduate Student Award – Second Place) and B.B. Yaspelkis III. High energy phosphate substrates may serve as regulatory signals for exercise-induced changes in skeletal muscle GLUT4 protein concentration and citrate synthase activity. 2000 Sigma XI Student Research Competition, California State University Northridge, May 5, 2000.

B.B. Yaspelkis III, M. Saberi and T. Smith. Skeletal muscle insulin resistance is improved by leptin administration. American Diabetes Association Annual Meeting, June 9 - 13, 2000, San Antonio, TX.

M. Saberi (2000 SWACSM Student Research Award Winner), T. Smith, M. Singh, V. Fernandez, B. Trevino and B.B. Yaspelkis III (Thesis Chair). Skeletal muscle insulin resistance is improved by leptin administration. Southwest Regional ACSM Annual Meeting, Nov. 16-17, 2000, San Diego, CA.

Krisan, A. (Undergraduate Student Award – Second Place) and B.B. Yaspelkis III. Resistance training increases skeletal muscle glucose uptake and transport. 2001 Sigma XI Student Research Competition, California State University Northridge, May 4, 2001.

Singh, M. (Graduate Student Award – First Place) and B.B. Yaspelkis III. Leptin improves insulin-stimulated but not basal skeletal muscle glucose transport. 2001 Sigma XI Student Research Competition, California State University Northridge, May 4, 2001.

B.B. Yaspelkis III, M. Saberi, T. Smith, M. Singh, B. Trevino, W.C. Whiting, and S.F. Loy. Leptin treatment increases GLUT4 but not GLUT1 protein concentration in insulin-resistant muscle. American College of Sports Medicine Annual Meeting, May 30-June 2 2001, Baltimore, MD.

Singh, M. (2001 SWACSM Student Research Award Winner), B. Trevino, A. Krisan, D. Collins and B.B. Yaspelkis III. Resistance training increases skeletal muscle glucose uptake and transport in rodent skeletal muscle. Southwest Regional ACSM Annual Meeting, Nov. 16-17, 2001, Salt Lake City, UT.

Krisan, A. (Graduate Student Award – Second Place) and B.B. Yaspelkis III. Alterations in the Insulin-Signaling Cascade and Glucose Transport Capacity Contribute to Skeletal Muscle Insulin Resistance in High-fat Fed Rats. 2002 Sigma XI Student Research Competition, California State University Northridge, April 26, 2002.

Singh, M. (Graduate Student Award – Second Place) and B.B. Yaspelkis III. Leptin Administration Improves Insulin-Stimulated Skeletal Muscle Glucose Transport by Altering Components of the Insulin-Signaling Cascade. 2002 Sigma XI Student Research Competition, California State University Northridge, April 26, 2002.

B.B. Yaspekis III, M. Singh, A. Krisan, A. Crain, D. Collins and N. Chough. Leptin enhances insulin-stimulated skeletal muscle glucose transport by increasing PI 3-kinase activity. American Diabetes Association Annual Meeting, June 14 - 18, 2002, San Francisco, CA.

INVITED PRESENTATIONS

Effects of carbohydrate supplementation on exercise metabolism. Department of Chemistry, California State University Northridge, April 4, 1997.

Possible intracellular signals induced by skeletal muscle contractile activity and their relationship with GLUT4 protein concentration. Department of Movement and Exercise Science, Chapman University, Orange, CA. April 3, 1998.

Symposium Organizer/Speaker - "*Effects of Exercise Training on Skeletal Muscle Metabolism - Skeletal Muscle GLUT4 Protein Concentration*". American College of Sports Medicine, Southwest Region Annual Meeting, Las Vegas, NV. November 13, 1998.

Chronic leptin administration on skeletal muscle glucose uptake and transport. Department of Exercise Science, University of Southern California, Los Angeles, CA. December 4, 1998.

Can leptin administration improve skeletal muscle insulin resistance? Tutorial, Southwest Regional ACSM Annual Meeting, San Jose, CA, Nov. 12, 1999.

Can leptin administration improve skeletal muscle insulin resistance? Natural Science Seminar Series, Pepperdine University, Malibu, CA, Nov. 29, 2000.

CONTRIBUTIONS TO THE UNIVERSITY

University Committees

Institutional Animal Care and Use Committee (Member, 1996 – Present; Acting Chair, 1998 – 1999; Chair, 1999 - Present); Scholarly Publications Committee (Member, 1998 – Present; Chair, 1999, 2000, 2001); Sigma XI, California State University at Northridge Chapter (Student Awards Committee, Member, 1998 – 2001; Chair, 2000 – 2001); Minority Access to Research Careers (MARC) Advisory Committee (Member, 1998 – Present)

Department Committees

Computer Committee (Member, 1996 – 1997); Graduate Committee (Member, 1997 – Present); Teaching Assistant Selection Committee (Member, 1998 – Present); Search Committee - Measurement/Fitness and Wellness Lecturer (Member, 1998 - 1999); Faculty Retreat Planning Committee (Member, 1998 - 2000; Co-Chair, 2000); *Ad Hoc* Part-time Faculty Selection Committee (Member, 1999 – Present); Advisory and Oversight Committee (Member, 1999 – 2000), Web Page Committee (Member, 1999 – 2000)

Student Advisement and Mentoring

Academic Advisor for Exercise Science undergraduate students in department;
Chair, Master's Thesis Committees (21)
Member, Master's Thesis Committees (18)

Courses Taught

Undergraduate

KIN 346 - Physiology of Exercise

KIN 499 - Directed undergraduate research

Undergraduate(Senior level)/Graduate (First Semester)

KIN 446 - Research in Exercise Physiology (An advanced Exercise Physiology course)

KIN 446L - Research in Exercise Physiology Laboratory

Graduate

KIN 652 - Seminar in Muscle and Cellular Physiology

KIN 696 - Directed graduate research

KIN 698 - Graduate thesis supervision