

# Mike Sherman Ph.D.

## ACADEMIC LEADERSHIP RESUME

### Current Titles:

Vice President for Innovation & Economic Development  
Chief Operating Officer-Research Foundation  
Professor

### Present Address:

Goodyear Polymer Center  
The University of Akron  
Akron, Ohio 44325  
[REDACTED]  
msherman@uakron.edu

### Education:

Doctor of Philosophy, The University of Texas  
Master of Science, Ball State University  
Bachelor of Science, Ohio University

### University Leadership Experience:

#### **Vice President for Innovation and Economic Development/Chief Operating Officer Research Foundation**

The University of Akron, January 2016-present

*Context:* Provide guidance and advise to the new vice provost for research in the Office of Academic Affairs. Stimulate and enable activities and initiatives that advance innovation and economic development. Connect the University to collaborations that support sustainable prosperity.

*Quick facts:* The University's strategy for distinction aligned with college strategic plans calls for increased focus and investments in polymer science and polymer engineering, corrosion, biomimicry, and data science & information technology.

*Community engagement:* Research areas in polymer science and polymer engineering; biomimicry; Great Lakes Biomimicry; JumpStart

#### **Senior Vice President and Provost; Chief Operating Officer**

([https://web.archive.org/web/\\*/uakron.edu/provost](https://web.archive.org/web/*/uakron.edu/provost) )

The University of Akron, June 2010 to December 2015

*Context:* Finalized the strategic plan-*Vision 2020: A New Gold Standard in University*

*Performance;* oversaw one comprehensive program review resulting in faculty senate endorsed adjustments to 44 programs/specializations; oversaw a \$2million selective investment initiative in biomimicry, proof of concept and entrepreneurship

*Quick facts:* ~26,000 students, 750 faculty, 1,700 contract professionals and staff, \$480 million total budget; \$200 million academic budget; in 2013, highest ever \$70 million in federal, state and local research expenditures; \$126 million endowment; in 2013, highest ever \$50 million annual fund-raising. Reaccredited by the Higher Learning Commission through 2023, faculty are members of American Association of University Professors

*Direct reports:* 9 deans; 4 vice provosts; 2 associate vice presidents

*Student Experience and Success:* Increased numbers of graduates annually except one year between 2010 and 2016; increased freshman retention from mid-60% to mid-70% (slightly above that predicted by academic preparation) and graduation rates from the mid-30% to mid-40% (slightly lower than that predicted by academic preparation; increased funding for peer-tutoring; increased number of living-learning communities; added a 500-bed residence hall via a public-private partnership; implemented UA Analytics to identify gateway courses and potential alternate degree paths based upon academic performance in those courses; implemented the Finish-in-Time initiative that increased from less than 40% to more than 55% students taking 15 credit hours or more per semester

*Diversity and Inclusive Excellence:* worked with the Chief Diversity Officer to redesign the Diversity Council to be more proactively focused at the vice presidential, college and academic unit levels; helped facilitate receipt of funding from the GAR Foundation for improving the educational outcomes for African American males; stimulated the increased interactions of academic programs with the Re-thinking Race and International Weeks; supported the enhancement of the national recognized Black Male Summit that moved to the John S. Knight Convention Center because it became so large with national and international attendees as well as involvement of high school students; instigator of involvement in collaboration with other Northeast Ohio institutions on funding from NSF to increase diversity in STEM degree programs

*Global Strategies and International Affairs:* helped solidify a bachelor's/master's degree program in polymer science and polymer engineering leading to about 100 students from Asia enrolled in this program; involved in facilitating an official collaboration for the nursing program with Hunan University in China

*Research and Economic Development:* Instigated with the vice president for research and dean of the graduate school the Achieving Distinction Initiative (\$2 million cash and continuing funds) that funded the multidisciplinary activities in the doctoral program in Integrated Biosciences, entrepreneurship across the curriculum and "Proof-of-Concept" to bridge the gap from ideation to licensing and commercialization; increased the number of faculty with NSF Career Development Awards; supported faculty member's receipt of a \$1 million Keck Foundation grant (they only fund research that no other agency will fund

*Innovations:* Submitted state capital request for a region of campus instead of specific buildings allowing real-time request for use of state capital funds; office of responsibility for Woodrow Wilson Teaching Fellowship program (\$1 million) and Choose Ohio First STEM Scholarship program (\$8 million); lead on a \$250,000 Transformational Planning Grant from Urban Serving Universities of the Association of Public and Land-Grant Universities via the Bill & Melinda Gates Foundation to modularize a Spanish for health professionals curriculum; convener of the institutions and agencies that led to the Akron Metropolitan Service Area (MSA) receiving the CEOsforCities \$1 million Talent Dividend Prize for the largest increase in post-secondary graduation rates per capita amongst 52 MSAs nationally; moved \$4 million from one capital project to another that permitted leveraging an external gift for an Engineering Research Center that has generated significant follow-on funding-original project was funded in the next capital cycle

*Community engagement:* Austen Bioinnovation Institute of Akron (biomedical innovation collaborative amongst three medical systems, UA and NEO College of Medicine); Innovation Alliance (collaboration with two community colleges to increase degree completion and reduce costs); STEM high school (collaboration with the Akron Public Schools); Northeast Ohio Council of Higher Education (provosts group); Inter University Council (represents the higher education

public institutions to the Department of Higher Education, legislators and the governor); Innovation Generation Scholarship Program (acquisition of a decommissioned high school adjacent to campus in exchange for scholarships); Summit Education Initiative (local cradle to career initiative with data-sharing agreements with all public schools in Summit County)

*Fund-raising:* \$150,000 leveraged \$1 million endowment from the Bernard Osher Foundation for adult re-entry scholarships; \$150,000 contributed to receipt of a \$1 million grant from the Keck Foundation; \$4 million capital re-allocation resulted in creation of a public-private open-innovation laboratory with licensing and commercialization opportunities and more than \$20 million in follow-on funding; interactions with Sherwin Williams led to \$250,000 of innovation funding; personal contributor to the university (Toqueville Society); worked with the vice president for development and deans to develop fund-raising strategies aligned with institutional goals and objectives

*Operational experiences:* Collaborated with the Chief of Staff to provide day-to-day guidance of university operations; convened the operational efficiency and effectiveness group and formed the integrated budget advisory group of unit-level finance and human resources officers; assured health and safety of the campus and created circumstances for table-top and simulated exercises to respond to situations threatening the health and safety of campus; helped revise and refine educational efforts related to sexual harassment and discrimination as well as assured the integrity of responsiveness to such allegations; executive sponsor for the revision of the master plan for the physical environment; strong supporter of and advocate of intercollegiate athletics and intramural and recreational sports

**Vice Provost for Academic Planning** (2009-2010) and **Academic Administration** (2005-2008) The Ohio State University

*Context:* Worked with the provost, vice provosts, and vice presidents for research and student affairs to stimulate and enable academic excellence; served as liaison to the Board of Trustees and University Senate executive officers; instigated college-level strategic planning

*Quick facts:* \$160 million; oversaw integrated planning for the physical environment linked to \$70 million state capital budget requests; worked with chief financial officer to develop the annual \$2 billion academic budget; inaugural member of the enterprise risk management committee

*Direct reports/oversight:* Deans/Directors of the regional campuses; John Glenn School of Public Affairs that has subsequently become a college; University Libraries; Chief Information Officer; ADA Coordinator; Office of International Affairs and Global Strategies; Faculty & TA Development; P-12 Project; Battelle Endowment for Technology & Public Affairs

*Community engagement/liaison:* Office of the Board of Trustees; University Senate Finance and Administration and Governmental Affairs Committees; office of the Vice President for Research; Office of the Vice President for Outreach and Engagement; Campus Partners for the University District

*Global strategies and international affairs:* redesigned the Office of International Affairs that increased study abroad and international engagement activities; co-convened the committee that developed the global and international affairs strategy that led to creation of a vice provost position that has now created the notion of "international hubs"

*Fund-raising:* Created the strategy that led to a \$4 million gift from Battelle for the John Glen Center for Public Affairs; helped develop the strategy that created a \$3.5 million matching gift for renovation of the Cartoon Library from the Charles Schulz Foundation; worked with the provost, vice president for development and deans to align college strategic plans with fund-raising strategies for a \$2 billion capital campaign

*Operational experiences:* Co-creator and facilitator of the Integrated Planning Committee for the Physical Environment; co-creator and facilitator of the Study Abroad Health and Safety Committee; Facilitated agenda planning for meetings with the Board of Trustees, University Senate Executive Committee, meeting of deans and meeting of department chairs/school directors; convened all of the units within the Office of Academic Affairs to coordinate strategic communications

**Inaugural Director, School of Physical Activity and Educational Services**

College of Education, The Ohio State University. (July 1996 - December 2004)

*Context:* Founding director of a newly created tenure-initiating unit of vastly different disciplines (health, physical education & recreation; special education; counselor education & rehabilitation counseling; school psychology; workforce development & education)

*Quick facts:* Worked with faculty, staff and students to create all aspects of operations, governance, and oversight; \$6million budget; \$1million external funding; 18,000 student contacts annually; provided oversight of a \$40million capital project that was a component of a \$139million recreation center

*Direct reports:* 5 heads of sections with 45 faculty and 28 staff; directors of two research centers

*Diversity and Inclusive Excellence:* Supported use of resources to fund efforts to enhance diversity of the students as well as faculty; facilitated scholarship opportunities for students from Costa Rica

*Academic Excellence:* four faculty members received the OSU Alumni Award for Distinguished Teaching; School was a finalist for the departmental Distinguished Teaching Award

*Community engagement:* Center for Special Needs Populations; Center on Education and Training for Employment

*Fund-raising:* \$300,000 for naming opportunities for a new building for the school (\$139 million collaborative project with the departments of athletics and recreational sports)

*Operational experiences:* Responsible for the day-to-day operations of all aspects of a School with more than 30,000 student contacts per quarter; originated with faculty and staff all documents of governance and operating procedures

**Interim Director**, July, 1998 to January, 2000 and then July, 2002 until December, 2004, **Center for Education and Training for Employment**, College of Education, The Ohio State University.

*Context:* Provided training and development activities for vocational and technical skills areas; developed educational materials for P-12 related to job and career readiness; assessed research and disseminated those findings related to these areas

*Quick facts:* Provided overall management and alignment with the college and university strategies; \$160,000 university funding; \$3-8million contracts and grants

*Direct reports:* 12-20 principal investigators with 30 staff

*Fund-raising:* \$80,000 leveraged \$3 million federal funding for resource development and distribution

### **National Level Contributions:**

Urban Serving Universities (USU) of the Association of Public and Land Grant Universities (APLU), "stand-in" for the president at Board meetings; coordinate the institutional participation in and contributions to this national network of universities, 2010-2015

Institutional Consortium for Personalized Learning of the Association of Public and Land Grant Universities (APLU), member of the initial executive committee that is developing the by-laws and framework for such a consortium, the objective of which is to secure collaboration amongst universities to retain ownership of intellectual property related to learning via electronic means (e.g., to not "give-up" the IP rights as has happened with research distributed in journals)

Judge, Innovation Challenge Pitch Session, Urban Serving Universities Session of the Annual meeting of the Association of Public and Land Grant Universities, November, 2014

### **System Level Contributions:**

Member, Chancellor's Ohio Post-secondary Attainment Goals Working Group, 2015-2016.

Co-convener, Chancellor's Prior Learning Assessment Consortium, 2013-2014.

Member, Chancellor's Complete College Ohio Task Force, report released November 2012; co-convener of the "Help me cross the finish line" subcommittee.

Member, Ohio Board of Regents Commercialization Task Force, report released June 2012; co-convener of the academic subcommittee, follow-up report released summer 2013.

Member, Advisory Board of OhioLink 2011-2014, chancellor's appointment; collaboration amongst the public and some private universities and some public libraries to share in the cost of electronic journals and other publications.

### **Higher Education-Related Publications and Addresses:**

Sherman, W.M. Testimony delivered to the Ohio House of Representatives Higher Education Reform Committee, September 9, 2013, Columbus State Community College  
<http://www.uakron.edu/provost/communication/remarks/testimony-2013.dot>

Sherman, W.M. A Better Measure of Student Success. [Akron Beacon Journal](#), August 1, 2013

Cain, T.J., J.J. Branin, and W.M. Sherman. Mapping Expertise, Catalyzing Collaboration and Synergizing Strategic Decision-Making: Knowledge Management in Practice at the Ohio State University. [EDUCAUSE Quarterly](#), vol 30, October-December, 2008  
<http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/KnowledgeManagementandtheAcade/163442>.

### **Board Member:**

United Way of Summit County, April 2014 forward  
Children's Hospital Community Benefits Committee, April 2013 forward  
Leadership Akron, October 2011 forward  
Summit Education Initiative, January 2011 forward  
Akron Roundtable, April 2011 through December 2015  
University of Akron Foundation (ex officio), June 2010 through December 2015

### **Honors:**

\$1million Talent Dividend Prize via the CEOsforCities: In collaboration with the Northeast Council on Higher Education (NOCHE), I convened the regional higher education institutions that produced the greatest increase in graduates per capita compared to 52 other metropolitan service areas between 2009-2010 and 2012-13

Hall of Honor Inductee, Department of Kinesiology and Health, College of Education, The University of Texas at Austin, May 2012

Presidential Honor Award, School of Physical Activity & Educational Services Alumni Society, College of Education, September 2006

Elected Fellow, American Academy of Kinesiology and Physical Education, 1999

Co-Editor-in-Chief, International Journal of Sports Medicine, 1994-2007

Visiting Research Scholar Award, American College of Sports Medicine, July 1991

Research Scholar Award, College of Education, 1990

Visiting Research Scholar, Flinders University, Adelaide, Australia, June-September 1988

Athletic Specialist to Chad and Cameroon via "Sports America," USAID, April 1988

Elected Fellow, American College of Sports Medicine, 1985

Elected member of Omicron Delta Kappa, national leadership honorary, 1976

Recipient of National Athletic Trainers Association "Robert H. Gunn Scholarship," and the National Athletic Trainers Association, District 4, "Living Memorial Scholarship," 1976

Elected member of Phi Kappa Phi, national scholastic honorary, 1976

# Mike Sherman Ph.D.

## ACADEMIC CURRICULUM VITAE

### Administrative

#### Titles:

Vice President for Innovation & Economic Development  
Chief Operating Officer-Research Foundation  
Professor

#### Present Address:

Goodyear Polymer Center  
The University of Akron  
Akron, Ohio 44325  
[REDACTED]  
msherman@uakron.edu

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

#### Education:

The University of Texas, Austin, Texas: 8/30/1982-12/20/1984  
Doctor of Philosophy (12/22/1984)-Physical and Health Education  
Specialization: Exercise Physiology

Ball State University, Muncie, Indiana: 9/6/1978-11/21/1980  
Master of Science (11/21/1980)-Biology  
Specialization: Human Bioenergetics

Ohio University, Athens, Ohio: 9/25/1974-6/10/1978 (with honor)  
Bachelor of Science in Education (11/23/1977)  
Major: Health Education  
Specialization: Athletic Training-certified

#### Board Member:

United Way of Summit County, April 2014 forward  
Children's Hospital Community Benefits Committee, April 2013 forward  
Leadership Akron, October 2011 forward  
Summit Education Initiative, January 2011 forward  
Akron Roundtable, April 2011 through December 2015  
University of Akron Foundation (ex officio), June 2010 through December 2015

#### Honors:

Hall of Honor Inductee, Department of Kinesiology and Health, College of Education,  
The University of Texas at Austin, May 2012  
Elected fellow, American Academy of Kinesiology and Physical Education, 1999  
Co-Editor-in-Chief, International Journal of Sports Medicine, 1994-2007  
Visiting Research Scholar, Flinders University, Adelaide, Australia, June-September 1988  
Elected Fellow, American College of Sports Medicine, 1985  
Elected member of Omicron Delta Kappa, national leadership honorary, 1976

#### University Leadership Experience (responsibilities and accomplishments listed in resume):

Vice President for Innovation and Economic Development/Chief Operating Officer Research  
Foundation, The University of Akron, January 2016-present

Senior Vice President and Provost; Chief Operating Officer, The University of Akron, June 2010 to  
December 2015

Vice Provost for Academic Planning (2009-2010) and Academic Administration (2005-2008)  
The Ohio State University

Founding Director, School of Physical Activity and Educational Services  
College of Education, The Ohio State University. (July 1996 - December 2004)

Interim Director, July, 1998 to January, 2000 and then July, 2002 until December, 2004, Center for Education and Training for Employment, College of Education, The Ohio State University.

### **National Level Contributions:**

Urban Serving Universities (USU) of the Association of Public and Land Grant Universities (APLU), "stand-in" for the president at Board meetings; coordinate the institutional participation in and contributions to this national network of universities, 2010-present.

Institutional Consortium for Personalized Learning of the Association of Public and Land Grant Universities (APLU), member of the initial executive committee that is developing the by-laws and framework for such a consortium, the objective of which is to secure collaboration amongst universities to retain ownership of intellectual property related to learning via electronic means (e.g., to not "give-up" the IP rights as has happened with research distributed in journals).

Judge, Innovation Challenge Pitch Session, Urban Serving Universities Session of the Annual meeting of the Association of Public and Land Grant Universities, November, 2014.

### **System Level Contributions:**

Member, Chancellor's Ohio Post-secondary Attainment Goals Working Group, 2015-2016.

Co-convener, Chancellor's Prior Learning Assessment Consortium, 2013-2014.

Member, Chancellor's Complete College Ohio Task Force, report released November 2012; co-convener of the "Help me cross the finish line" subcommittee.

Member, Ohio Board of Regents Commercialization Task Force, report released June 2012; co-convener of the academic subcommittee, follow-up report released summer 2013.

Member, Advisory Board of OhioLink 2011-2014, chancellor's appointment; collaboration amongst the public and some private universities and some public libraries to share in the cost of electronic journals and other publications.

### **Higher Education-Related Publications and Addresses**

Sherman, W.M. Testimony delivered to the Ohio House of Representatives Higher Education Reform Committee, September 9, 2013, Columbus State Community College  
<http://www.uakron.edu/provost/communication/remarks/testimony-2013.dot>.

Sherman, W.M. A Better Measure of Student Success. Akron Beacon Journal August 1, 2013.

Cain, T.J., J.J. Branin, and W.M. Sherman. Mapping Expertise, Catalyzing Collaboration and Synergizing Strategic Decision-Making: Knowledge Management in Practice at the Ohio State University. EDUCAUSE Quarterly, vol 30, October-December, 2008.  
<http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/KnowledgeManagementandtheAcade/163442>.

### **As a Faculty Member**

- Professor, June, 2010 to present; The University of Akron, Akron Ohio. Sport Science & Wellness Education, June 2010 to December 2015; Innovation and Economic Development, January 2016 to present. Faculty appointments held during which time I was senior vice president and provost/chief



operating officer and vice president for innovation and economic development and chief operating officer of the Research Foundation.

- **Professor**, October, 1993 to May, 2010; **Associate Professor**, October, 1989 to September, 1993; **Assistant Professor**, September, 1985 to September, 1989. School of Physical Activity & Educational Services, 1996 to 2010; School of Health, Physical Education and Recreation, 1985 to 1996, College of Education, **The Ohio State University**, Columbus, Ohio. Taught graduate and undergraduate courses in exercise physiology and related areas. Advised undergraduate, Master's, doctoral degree, and post-doctoral students. Conducted research. Provided leadership in service: undergraduate program coordinator; graduate program coordinator; Chair of graduate programs for School; member and chair of promotion and tenure committees at the unit, college, and university levels; review committee of the Graduate School; involved in budget system design; involved in the committees that helped restructure the College of Education in 1996.
- **Assistant Professor**, January, 1985 to August, 1985, Elouise B. Smith Human Performance Laboratory, **Texas A&M University**, College Station, Texas. Taught undergraduate and graduate courses in exercise physiology and related areas. Conducted research. Advised Masters and doctoral degree students.
- **Instructor**, September, 1980 to June, 1981, Human Performance Laboratory, **Ball State University**, Muncie, Indiana. Taught undergraduate courses in anatomy, physiology, and exercise physiology. Conducted independent research.

### **Publications (Peer-Reviewed)**

Winnick, J.J. W.M. Sherman, D.L. Habash, M.B. Stout, M.L. Failla, M.A. Belury, and D.P. Shuster. Short-Term Aerobic Exercise Training in Obese Humans with Type 2 Diabetes Mellitus Improves Whole-Body Insulin Sensitivity through Gains in Peripheral, not Hepatic Insulin Sensitivity. *The Journal of Clinical Endocrinology & Metabolism* 93: 771-778, 2007.

Gaillard, T.R., W.M. Sherman, S.T. Devor, T.E. Kirby, and K. Osei. Importance of Aerobic Fitness in Cardiovascular Risks in Sedentary Overweight and Obese African-American Women. *Nursing Research*. 56: 407-415, 2007.

Ramirez-Marrero, F A; Smith, B A; Sherman, W M; Kirby, T E Comparison of methods to estimate physical activity and energy expenditure in African American children. *Int. J Sports Med* 26: 363-71, 2005.

Jacobs, K.J., D.R. Paul, R.J. Georg, K.W. Hinchcliff, R.A. Sams, and W.M. Sherman. Dietary composition influences short-term endurance training-induced adaptations of substrate partitioning during exercise. *J. Sport Nutr. & Exerc. Metabol.* 14: 38-61, 2004.

Leenders, N., T. Nelson, and W.M. Sherman. Ability of different physical activity monitors to detect movement during treadmill walking. *Int. J. Sports Med.* 24:43-50, 2003.

Leenders, N., W.M. Sherman, P Ward. College physical activity courses: Why do students enroll, and what are their health behaviors? *Res Q Exercise Sport* 74: 313-318, 2003.

Ramirez-Ferraro, F.A., B.A. Smith, T.E. Kirby, N.J.M. Leenders, and W.M. Sherman. Evaluation of a step-counter during treadmill walking in 7-12 year old African-American children. *J. Natl. Black Nur. Assoc.* 13: 1-5, 2002.

Leenders, N., L. Wallace-Silver, S. L. White, J. Buckworth, and W.M. Sherman. Assessment of physical activity, exercise self-efficacy, and stages of change in college students using a street-based survey method. *Am. J. Health Ed.* 33: 199-205, 2002.

Silver, L.P., J. Buckworth, T.E. Kirby, and W.M. Sherman. Characteristics of exercise behavior among college students: application of social cognitive theory to predicting stage of change. *Prev. Med.* 31: 494-505, 2000.

Leenders, N., W.M. Sherman, and H.N. Nagaraja. Comparisons of four methods of estimating physical activity in adult females. *Med. Sci. Sports. Exerc.* 32: 1320-1326, 2000.

- Leenders N, W.M. Sherman, and D.R. Lamb DR. Creatine supplementation and swimming performance . Int. J. Sport Nutr. 9: 251-262, 1999
- Capriotti P.V., W.M. Sherman, and D.R. Lamb. Reliability of power output during intermittent high-intensity cycling. Med Sci Sport Exerc 31: 913-915, 1999.
- Jacobs K.A., W.M. Sherman. The efficacy of carbohydrate supplementation and chronic high-carbohydrate diets for improving endurance performance Int J Sport Nutr 9: 92-115, 1999.
- Sherman, W.M., D.M. Morris, T.E. Kirby, R.A. Petosa, B.A. Smith, and D.J. Frid. Evaluation of a commercial accelerometer (Tritrac-R3D) to measure energy expenditure during ambulation. Int. J. Sports Med. 19: 43-47, 1997.
- Friedman, J.E., C.M. Ferrara, K.S., Aulak, M. Hatzoglou, S.A. McCune, S. Park, and W.M. Sherman. Exercise training down regulates ob gene expression in the genetically obese SHHF/Mcc-fa (cp) rat. Horm Metab Res. 29: 214-219, 1997.
- Wimer, G.S., D.R. Lamb, W.M. Sherman, and S.C. Swanson. Temperature of ingested water and thermoregulation during moderate intensity exercise. Can. J. Appl. Physiol. 22:479-493, 1997.
- Ferrara, C.M., W.M. Sherman, N. Leenders, S.A. McCune, K. Roehrig. Exercise training and glucose transport system in obese SHHF/Mcc-fa (cp) rats. J. Appl. Physiol. 81: 1670-1676, 1996.
- Albright, A., J.D. Mahon, K.M. Ward, W.M. Sherman, and T.E. Kirby. The evolution of diabetic nephropathy in an aerobically trained rat model of mild type I diabetes. Med. Sci. Sports Exerc. 27: 1270-1277, 1995.
- Sherman, W.M. Metabolism of sugars and physical performance. Am. J. Clin. Nutr. 62: 228S-241S, 1995.
- Ward, K.M., J.D. Mahan, and W.M. Sherman. Aerobic training and diabetic nephropathy in the obese Zucker rat. Ann. Clin. Lab. Sci. 24: 266-277, 1994.
- Gao, J.P., W.M. Sherman, and S.A. McCune. Effects of acute running exercise on whole body insulin action in obese male SHHF/Mcc-fa rats. J. Appl. Physiol., 77: 534-541, 1994.
- Morris, G.S., P.V. Fiore, R.L. Hamlin, and W.M. Sherman. Effects of long-term cocaine administration and exercise on cardiac metabolism and isomyosin expression. Can. J. Physiol. Pharmacol. 72:1-5, 1994.
- Sherman, W.M., J.E. Friedman, J-P. Gao, M.J. Reed, and G.L. Dohm. Effects of hyperglycemia and exercise training on muscle GLUT-4 and glucose transport in the obese Zucker rat. Med. Sci. Sport Exerc. 25: 341-348, 1993.
- Doyle, J.A., W.M. Sherman, and R.A. Strauss. Carbohydrate feedings, eccentric exercise, and muscle glycogen synthesis. J. Appl. Physiol. 74: 1848-1855, 1993.
- Dernbach, A.R., W.M. Sherman, J.C. Simonsen, K.A. Flowers, and D.R. Lamb. No evidence of oxidant stress during high-intensity rowing training. J. Appl. Physiol. 74: 2140-2145, 1993.
- Betts, J.J., W.M. Sherman, J.P. Gao, and M.J. Reed. Effects of acute exercise on muscle glucose uptake in the obese Zucker rat. J. Obesity Res. 1: 295-302, 1993.
- Lugo, M., W.M. Sherman, G.S. Wimer, and K. Garleb. Metabolic responses when different forms of carbohydrate energy are consumed during cycling. Int. J. Sport Nutr. 3: 398-407, 1993.
- Sherman, W.M., J.M. Lash, and J.C. Simonsen. Effects of down-hill running on the responses to an oral glucose challenge. Int. J. Sports Nutr. 2: 251-259, 1992.
- Sherman, W.M., and D.R. Lamb (eds.). Nutrition for the Marathon and Other Endurance Sports. Med. Sci. Sport Exerc. 24 supplement: S309-S363, 1992.
- Girten, B; Cooper, J R; Sherman, W M; Niciforos, P; Merola, A J Muscular adaptations induced by dobutamine and their influence on G-tolerance in miniature swine. The Physiologist 35 supplement: S59-60, 1992

- Sherman, W.M. Recovery from endurance exercise. *Med. Sci. Sport Exerc.* 24 supplement: S336-S339, 1992.
- Sherman, W.M., J.A. Doyle, D.R. Lamb, and R.A. Strauss. Dietary carbohydrate and training and performance capabilities. *Am. J. Clin. Nutr.* 57: 27-31, 1992.
- Sherman, W.M. Carbohydrate meals before and after exercise. In: *Perspectives in Exercise Science and Sports Medicine, Vol. 4: Ergogenics: The Enhancement of Sports Performance*, D.R. Lamb, and M.A. Williams (eds.). Indianapolis, IN: Benchmark Press. 1991, pp. 1-34.
- Simonsen, J.C., W.M. Sherman, D.R. Lamb, A.R. Dernbach, J.A. Doyle, and R. Strauss. Dietary carbohydrate, muscle glycogen, and power output during rowing training. *J. Appl. Physiol.* 70: 1500-1505, 1991.
- Sherman, W.M., and G.S. Wimer. Insufficient dietary carbohydrate during training: Does it impair athletic performance? *Int. J. Sports Nutr.* 1: 28-44, 1991.
- Wright, D.A., W.M. Sherman, and A.R. Dernbach. Carbohydrate feedings before, during, or in combination improve cycling endurance performance. *J. Appl. Physiol.* 71: 1082-1088, 1991.
- Sherman, W.M., M.C. Peden, and D.A. Wright. Carbohydrate feedings 1 h before exercise improves cycling performance. *Am. J. Clin. Nutr.* 54: 866-870, 1991.
- Withers, R.T., W.M. Sherman, D.G. Clark, P.C. Esselbach, S.R. Nolan, M.H. Mackay, and M. Brinkman. Muscle metabolism during 30, 60, and 90 s of maximal cycling on an air-braked ergometer. *Eur. J. Appl. Physiol.* 63: 354-362, 1991.
- Morris, G.S., K.M. Baldwin, J.M. Lash, R.L. Hamlin, and W.M. Sherman. Exercise alters cardiac myosin isozyme distribution in obese Zucker and Wistar rats. *J. Appl. Physiol.* 69: 380-383, 1990.
- Friedman, J.E., W.M. Sherman, M.J. Reed, C.W. Elton, and G.L. Dohm. Exercise training increases glucose transporter protein GLUT-4 in skeletal muscle of obese Zucker (fa/fa) rats. *FEBS Letters* 268: 13-16, 1990.
- Lamb, D.R., K.F. Rinehart, R.L. Bartels, W.M. Sherman, and J.T. Snook. Dietary carbohydrate and intensity of interval swim training. *Am. J. Clin. Nutr.* 52: 1058-1063, 1990.
- Sherman, W.M., and D.A. Wright. Pre-exercise carbohydrate feedings enhance endurance performance. In: K. Wheeler, (ed.). *Carbohydrates and Athletic Performance*, Columbus, OH: Ross Laboratories, pp 30-46, 1989.
- Lash, J.M., W.M. Sherman, and R.L. Hamlin. Capillary basement membrane thickness and capillary density in sedentary and trained obese Zucker rats. *Diabetes.* 38: 854-860, 1989.
- Lash, J.M., W.M. Sherman, J. Betts, N. Rong, and R.L. Hamlin. Training-induced vascular and metabolic adaptations in normo- (11 week) and hyper- (18 week) -glycemic obese Zucker rats. *Int. J. Obesity.* 13: 777-789, 1989.
- Sherman, W.M., G. Brodowicz, D.A. Wright, W.K. Allen, J. Simonsen, and A. Dernbach. Effects of 4 h pre-exercise carbohydrate feedings on cycling performance. *Med. Sci. Sports Exerc.* 21: 598-604, 1989.
- Lash, J.M., and W.M. Sherman. Skeletal muscle adaptations to exercise. In: R. Pate (ed.). *American College of Sports Medicine Reference Manual on Exercise Guidelines for Exercise Leaders.*, Lea & Febinger, 1988, pp. 66-75, 1993, pp. 93-105.
- Fang, C-L., W.M. Sherman, S.F. Crouse, and H. Tolson. Exercise modality and selected coronary risk factors: a multivariate approach. *Med. Sci. Sports Exerc.* 20: 455-462, 1988.
- Sherman, W.M., C.L. Cutler, A. Katz, R.T. Withers, and J.L. Ivy. Glucose transport: Locus of insulin resistance in the obese Zucker rat. *Am. J. Physiol.* 255: E374-E382, 1988.
- Ivy, J.L., A.L. Katz, C.L. Cutler, W.M. Sherman, and E.F. Coyle. Muscle glycogen synthesis after exercise: Effect of time of carbohydrate ingestion. *J. Appl. Physiol.* 64: 1480-1485, 1988.

- Sherman, W.M., and D.R. Lamb. Nutrition for prolonged exercise. In: Perspectives in Exercise Science and Sports Medicine, Vol. 1: Prolonged Exercise, D.R. Lamb, and R. Murray (eds.). Indianapolis, IN: Benchmark Press. 1988, pp. 213-280.
- Sherman, W.M. Carbohydrates, muscle glycogen and improved performance. Physician Sportsmed. 2:157-164, 1987.
- Ivy, J.L., M.M.-Y. Chi, C.S. Hintz, W.M. Sherman, R.P. Hellendal, and O.H. Lowry. Muscle fiber recruitment during exercise of progressive work in humans. Am. J. Physiol. 252: C630-C639, 1987.
- Ivy, J.L., W.M. Sherman, C.L. Cutler, and R.L. Katz. Exercise and diet reduce muscle insulin resistance in the obese Zucker rat. Am. J. Physiol. 251: E299-E305, 1986.
- Sherman, W.M., J.L. Durstine, and J.L. Ivy. Marathon running and the effect of subsequent training on serum lipids in trained runners. In: Exercise Physiology: Current Selected Research, C.O. Ootsman, and J.H. Humphreys, (eds.). Vol. II., 63-71, 1986.
- Miller, W.J., W.M. Sherman, H.L. Dodd, and J.L. Ivy. Influence of dietary carbohydrate on skeletal muscle glucose uptake. Am. J. Clin. Nutr. 41: 526-532, 1985.
- Ivy, J.L., B.A. Frishberg, S.W. Farrell, W.J. Miller, and W.M. Sherman. Effects of elevated and exercise-reduced muscle glycogen levels on insulin sensitivity. J. Appl. Physiol. 59: 154-159, 1985.
- Apple, F.S., M.A. Rogers, W.M. Sherman, and J.L. Ivy. Creatine kinase MB isozyme adaptations in stressed human skeletal muscle. J. Appl. Physiol. 59: 149-153, 1985.
- Sherman, W.M., and D.L. Costill. The marathon: Dietary manipulation to enhance performance. Am. J. Sports Med. 12: 44-51, 1984.
- Apple, F.S., M.A. Rogers, W.M. Sherman, and J.L. Ivy. Creatine kinase isozyme composition in skeletal muscle biopsies obtained from marathon runners. In: Selected Topics in Clinical Enzymology, M. Werner and D.M. Goldberg (eds.). New York, NY: Walter de Gruyter. 1984, pp. 419-427.
- Sherman, W.M., L.E. Armstrong, T.M. Murray, F.C. Hagerman, D.L. Costill, and R.C. Staron. The effect of a 42.2-km footrace and subsequent rest or exercise on the recovery of muscular strength and work capacity. J. Appl. Physiol. 57: 1668-1673, 1984.
- Hagerman, F.S., R.S. Hikida, R.S. Staron, W.M. Sherman, and D.L. Costill. Muscle damage in marathon runners. Physician and Sportsmed. 12: 39-48, 1984.
- Apple, F.S., M.A. Rogers, W.M. Sherman, and J.L. Ivy. Comparison of serum creatine kinase MB activities post marathon race versus post myocardial infarction. Clin. Chem. Acta 138: 111-118, 1984.
- Apple, F.S., M.A. Rogers, W.M. Sherman, D.L. Costill, F.C. Hagerman, and J.L. Ivy. Profile of creatine kinase isozymes in skeletal muscle of marathon runners. Clin. Chem. Acta. 30: 413-416, 1984.
- Miller, W., W.M. Sherman, and J.L. Ivy. The effect of strength training on glucose tolerance and insulin sensitivity. Med. Sci. Sports Exerc. 16: 539-543, 1984.
- Sherman, W.M., D.L. Costill, W.J. Fink, F.C. Hagerman, L.E. Armstrong, and T.M. Murray. The effect of a 42.2-km footrace and subsequent rest or exercise on muscle glycogen and enzymes. J. Appl. Physiol. 55: 1219-1224, 1983.
- Durstine, J.L., W. Miller, S. Farrell, W.M. Sherman, and J.L. Ivy. Increases in HDL-cholesterol ratio during prolonged endurance exercise. Metabolism 32: 993-997, 1983.
- Ivy, J.L., W. Miller, V. Dover, L.J. Goodyear, W.M. Sherman, and S. Farrell. Endurance improved by ingestion of a glucose polymer supplement. Med. Sci. Sports Exerc. 15: 466-471, 1983.
- Sherman, W.M. Carbohydrate, muscle glycogen, and muscle glycogen supercompensation. In: Ergogenic Aids in Sport, M.H. Williams, and (ed.). Human Kinetics Publishers, Champaign, IL, 1983, pp. 1-26.

Sherman, W.M., D.L. Costill, W.J. Fink, L.E. Armstrong, F.C. Hagerman, and T.M. Murray. The marathon: Recovery from acute biochemical alterations. In: *Biochemistry of Exercise*. H.K. Knuttgen, J.A. Vogel, and J. Poortsman, (eds.), Champaign, IL: Human Kinetics Publishers. 1983, pp. 312-317.

Ivy, J.L., W.M. Sherman, W. Miller, S. Farrell, and B. Frishberg. Glycogen synthesis: Effect of diet and training. In: *Biochemistry of Exercise*, H.G. Knuttgen, J.A. Vogel, and J. Poortsman, (eds.). Champaign, IL: Human Kinetics Publishers. 1983, pp. 291-296.

Hikida, R.S., R.S. Staron, F.C. Hagerman, W.M. Sherman, and D.L. Costill. Muscle fiber necrosis associated with human marathon runners. *J. Neurol. Sci.* 59: 185-203, 1983.

Sherman, W.M., M.J. Plyley, D.R. Pearson, A.J. Habansky, D. A. Vogelgesang, and D.L. Costill. Isokinetic rehabilitation after meniscectomy: A comparison of two methods of training. *Physician and Sportsmed.* 11: 121-125, 132-133, 1983.

Miller, J.M., E.F. Coyle, W.M. Sherman, J.M. Hagberg, D.L. Costill, W.J. Fink, W.E. Terblanche, and J.O. Holloszy. Effect of glycerol feeding on endurance and metabolism during prolonged exercise in man. *Med. Sci. Sports and Exerc.* 15: 237-242, 1983.

Sherman, W.M., et al. Japanese translation of the above article appeared in *Jap. J. Sports Sci.* 2: 884-891, 1983.

Sherman, W.M., D.R. Pearson, M.J. Plyley, D.L. Costill, A.J. Habansky, and D.A. Vogelgesang. Isokinetic rehabilitation following surgery: A review of factors which are important for developing physiotherapeutic techniques following knee surgery. *Am. J. Sports Med.* 10: 155-161, 1982.

Ivy, J.L., W.M. Sherman, J.M. Miller, B.D. Maxwell, and D.L. Costill. The relationship between muscle QO<sub>2</sub> and fatigue during repeated isokinetic contractions. *J. Appl. Physiol.* 53: 471-474, 1982.

Withers, R.T., W.M. Sherman, W.M. Miller, and D.L. Costill. Japanese translation of The specificity of the anaerobic threshold in endurance trained cyclists and runners. in *Jap. J. Sports Sci.* 1: 50-54, 1982.

Sherman, W.M., M.J. Plyley, R.L. Sharp, P.J. Van Handel, R.M. McAllister, W.J. Fink, and D.L. Costill. Muscle glycogen and its relationship with water. *Int. J. Sports Med.* 3: 22-24, 1981.

Costill, D.L., W.M. Sherman, W.J. Fink, C. Maresh, J. Witten, and J.M. Miller. The role of dietary carbohydrates in muscle glycogen re-synthesis after strenuous running. *Am. J. Clin. Nutr.* 34: 1831-1836, 1981.

Sherman, W.M., D.L. Costill, W.J. Fink, and J.M. Miller. Effect of exercise-diet manipulation on muscle glycogen and its subsequent utilization during performance. *Int. J. Sports Med.* 2: 114-118, 1981.

Withers, R.T., W.M. Sherman, W.M. Miller, and D.L. Costill. The specificity of the anaerobic threshold in endurance trained cyclists and runners. *Eur. J. Appl. Physiol.* 47: 93-104, 1981.

Costill, D.L., W.M. Sherman, and D.A. Essig. Metabolic responses and adaptations to endurance running. In: *Proceedings of the Fourth International Symposium of the Biochemistry of Exercise.*, J. Poortsman, and H. Howald, (eds.). University Park Press, Baltimore, 1981, pp. 231-242.

Sherman, W.M., M.J. Plyley, D.A. Vogelgesang, A.J. Habansky, and D.L. Costill. Changes in isokinetic muscle strength following arthrotomy: Specificity of speed. *Athletic Training.* 16: 138-141, 1981.

### **Educational Peer-Reviewed Articles for Diverse Audiences:**

Sherman, W.M., M.A. Hagerman, P.A. Clarkson, and D.R. Lamb. How do I know if Purported Ergogenic Aids Work to Improve Athletic Performance? *Sports Sci. Exchange*, In preparation.

Jacobs, K.A., D.R. Paul, R.J. Geor, K.W. Hinchcliff, and W.M. Sherman. Dietary composition influences short-term endurance training-induced adaptations of substrate partitioning during exercise. *Int. J. Sport Nutr. Exercise Metab.* 14: 38-61, 2004.

Leenders, N.Y.J.M., W.M. Sherman W.M., P. Ward. College physical activity courses: Why do students enroll, and what are their health behaviors? *Research Quarterly For Exercise And Sport* 74: 313-318, 2003.

Leenders, N.Y.J.M., T.E. Nelson, W.M. Sherman. Ability of different physical activity monitors to detect movement during treadmill walking. *Int. J. Sports Med.* 24: 43-50, 2003.

Sherman, W.M., J.W. Farris, and K.A. Jacobs. Carbohydrate supplements as potential modifiers of physical activity. *Am. J. Clin. Nutr.* 2002.

Sherman, W.M. and N.L. Leenders. Limitations of human endurance performance: nutritional implications for the non-diabetic athlete. IN: *Handbook of Diabetes and Exercise-II*, Ruderman, N. (ed.). Alexandria, VA: American Diabetes Association. 2002.

Leenders, N., W.M. Sherman, H.N. Nagaraja, and C.L. Kien. Evaluation of methods to assess physical activity in free-living conditions. *Med. Sci. Sports Exerc.* 33:1233-1240, 2001.

Leenders, N.Y.J.M., W.M. Sherman, H.N. Nagaraja, and C.L. Kein. Evaluation of methods to assess physical activity in free-living conditions. *Med. Sci. Sport Exerc.* 33: 1233-1240, 2001.

Jacobs, K.A., D.R. Paul, and W.M. Sherman. Fat Metabolism. In: *Exercise and Sports Science*. Garrett, Jr., W.E. and D.T. Kirkendall (eds.). Philadelphia, PA: Lippincott Williams & Wilkins. 2000, pp. 9-18.

Leenders, N., W.M. Sherman, and H.N. Nagaraja. Comparisons of four methods of estimating physical activity in adult women. *Med. Sci. Sports Exerc.* 32:1320-1326, 2000.

Jacobs, K.A., and W.M. Sherman. The efficacy of carbohydrate supplementation and chronic high carbohydrate diets for improving endurance performance. *Int. J. Sport. Nutr.* 9: 92-115, 1999.

Leenders, N., W. M. Sherman, D.R. Lamb, and T.E. Nelson. Creatine supplementation and swimming performance. *Int. J. Sports Nutr.* 9: 251-262, 1999.

Sherman, W.M., K.A. Jacobs, and N. Leenders. Carbohydrate metabolism during endurance exercise. In: *Overtraining and overreaching in sport: physiological, psychological and biomechanical considerations*. Krieder, R.B, A.C. Fry, and M.L. O'Toole (eds.). Champaign, IL: Human Kinetics. 1998, pp. 289-307.

American College of Sports Medicine, Position Stand: Exercise and fluid replacement. *Med. Sci. Sports Exerc.* 28:i-vii, 1996. Written by committee whose membership was: Convertino, V.A. (chair), L.E. Armstrong, E.F. Coyle, G.W. Mack, M.N. Sawka, L.C. Senay, and W.M. Sherman.

Sherman, W.M and N. Leenders. Fat loading: The next magic bullet. *Int. J. Sports Nutr.* 5: S1-S12, 1995.

Sherman, W.M., Ferrara, C.F., and Schneider, B.S. Limitations of human endurance performance: nutritional implications for the non-diabetic athlete. IN: *Handbook of Diabetes and Exercise*, Ruderman, N., and J. Devlin (eds.). Alexandria, VA: American Diabetes Association. 1995, pp. 89-98.

Sherman, W.M. Nutrition for cycling performance. *Hi-Tech Cycling*, Burke E.R. (ed.). Human Kinetics: Champaign, pp. 185-206, 1995.

Sherman, W.M. Recovery after endurance exercise. *Med. Sci. Sport Exerc.* 24: S336-S339, 1992.

Sherman, W.M., and A. Albright. Exercise and type II diabetes. *Sports Sci. Exchange*, 4(37), March, 1992.

Sherman, W.M., and E.W. Maglisco. Minimizing athletic fatigue among swimmers: special emphasis on nutrition. *Sports Sci. Exchange* 4(35), November, 1991.

Sherman, W.M., and A. Albright. Exercise and type I diabetes. *Sports Sci. Exchange*, 3(25), May, 1990.

Sherman, W.M. Pre-event nutrition. *Sports Sci. Exchange* 1(12), February, 1989.

Sherman, W.M. Muscle glycogen supercompensation during the week before athletic competition. *Sports Sci. Exchange.* 2(16), June, 1989.

### **Published Abstracts:**

- Nelson, T.E., N.Y.J.M. Leenders, and W.M. Sherman. Comparison of activity monitors worn during treadmill walking. *Med. Sci. Sports. Exerc.* 30: S11, 1998.
- Leenders, N.Y.J.M., F.A. Ramirez, and W.M. Sherman. Assessment of physical activity in free-living conditions. *Med. Sci. Sports. Exerc.* 30: S12, 1998.
- Ramirez-Marrero, F.A., B.A. Smith, T.E. Kirby, W.M. Sherman, and M.I. Goran. Evaluation of methods to assess physical activity and energy expenditure in African American children. *Med. Sci. Sports. Exerc.* 30: S161, 1998.
- Silver, L.P., J. Buckworth, and W.M. Sherman. Physical activity patterns of college students. *Med. Sci. Sports. Exerc.* 30: S202, 1998.
- Leenders, N., F.A. Ramirez-Marrero, B.A. Smith, C. Munford, T.E. Kirby, W.M. Sherman, and G. Turner. Evaluation of a step counter in African American children. *Med. Sci. Sports. Exerc.* 29: S72, 1997.
- Ferrara, C.M., W.M. Sherman, N. Leenders, S. McCune, and K. Roehrig. Exercise training and the glucose transport system in SHHF/Mcc-facp rats. *Med. Sci. Sports. Exerc.* 27: S167, 1995.
- Sherman, W.M., D.M. Morris, R. Petosa, T.E. Kirby, B.A. Smith, and D. Frid. Validity of the Tritrac-R accelerometer. *Med. Sci. Sports Exerc.* 27: S76, 1995.
- Casenhiser-Sutterluety, A.J., T.E. Kirby, and W.M. Sherman. Effects of a low calorie diet in combination with resistance or aerobic training on metabolic rate. *Med. Sci. Sports Exerc.* 27: S72, 1995.
- Ferrara, C., W.M. Sherman, S. McCune, and K. Roehrig. The glucose transport system in SHHF/Mcc-fa cp rats. American Diabetes Association Research Symposium and ICO Satellite Conference: Obesity, Diabetes, and Insulin Resistance, Implications from Molecular Biology, Epidemiology, and Experimental Studies in Humans and Animals. August, 1994, Boston, MA.
- Reed, M.J., W.M. Sherman, and J.P. Gao. Electrical stimulation and glucose transporter translocation in the SHHF/Mcc-cp rat. *Med. Sci. Sports Exerc.* 24: S112, 1992.
- Gao, J.P., W.M. Sherman, K. Osei, and S.A. McCune. Acute exercise and whole-body insulin resistance in the SHHF/Mcc-cp rat. *Med. Sci. Sports Exerc.* 24: S89, 1992.
- Albright, A.L., W.M. Sherman, T.E. Kirby, K.M. Ward, and J.D. Mahan. Training and diabetic nephropathy. *Med. Sci. Sports Exerc.* 23: S83, 1991.
- Friedman, J.E., W.M. Sherman, G-P. Gao, M.J. Reed, W.J. Elton, and G.L. Dohm. Exercise training restores glucose transporter protein GLUT4 in hyperglycemic-obese Zucker (fa/fa) rats. *Med. Sci. Sports Exerc.* 23: S86, 1991.
- Reed, M.J., W.M. Sherman, and J-P. Gao. Training the obese Zucker rat (OZR). *Med. Sci. Sports Exerc.* 23: S86, 1991.
- Gao, J-P., W.M. Sherman, and M.J. Reed. Training, pancreatectomy, and the Zucker rat. *Med. Sci. Sports Exerc.* 23: S86, 1991.
- Plato, P., W.M. Sherman, R.L. Hamlin, and T.L. Marble. Training and cardiac function in obese Zucker rat. *Med. Sci. Sports Exerc.* 23: S89, 1991.
- Doyle, J.A., and W.M. Sherman. Eccentric exercise and glycogen synthesis. *Med. Sci. Sports Exerc.* 23: S98, 1991.
- Sherman, W.M., A.J. Doyle, and D.R. Lamb. Training, dietary carbohydrate, and muscle glycogen. *Med. Sci. Sports Exerc.* 23: S101, 1991.
- McCurdy, D., D.R. Lamb, and W.M. Sherman. The association between pre-exercise serum insulin and the exercise-induced increase in serum growth hormone. *Med. Sci. Sports Exerc.* 22: S32, 1990.

- Betts, J.J., W.M. Sherman, J-P. Gao, M.J. Reed, and J.M. Lash. Effects of acute exercise on muscle glucose metabolism of obese Zucker rats. *Med. Sci. Sports Exerc.* 22: S80, 1990.
- Simonsen, J.C., W.M. Sherman, D.R. Lamb, A.R. Dernbach, J.A. Doyle, R.A. Strauss, and J.T. Snook. Dietary carbohydrate and rowing training. *Med. Sci. Sports Exerc.* 22: S88, 1990.
- Reed, M., W.M. Sherman, and J.M. Lash. Capillary density and training in obese rats. *Med. Sci. Sports Exerc.* 21: S4, 1989.
- Plato, P., W.M. Sherman, J.J. Betts, and J.M. Lash. Eccentric and concentric exercise and insulin action. *Med. Sci. Sports Exerc.* 21: S30, 1989.
- Peden, C., W.M. Sherman, L. D'Aquisto, and D.A. Wright. One hour pre-exercise carbohydrate meals enhance performance. *Med. Sci. Sports Exerc.* 21: S59, 1989.
- Wright, D.A., and W.M. Sherman. Carbohydrate feedings 3 hours before and during exercise improve cycling performance. *Med. Sci. Sports Exerc.* 21: S58, 1989.
- Gao, J., W.M. Sherman, and N. Rong. Training mode and rat oxidative capacity. *Med. Sci. Sports Exerc.* 21: S71, 1989.
- Eichner, E.R., R.H. Strauss, W.M. Sherman, A. Dernbach, and D.R. Lamb. Intravascular hemolysis in elite college rowers. *Med. Sci. Sports Exerc.* 21: S78, 1989.
- Sherman, W.M., G. Brodowicz, and W. Allen. Carbohydrate in 4 h pre-exercise meals. *Med. Sci. Sport Exerc.* 19: S43, 1987.
- Moritani, T., and W.M. Sherman. Oxygen availability and motor unit activity in man. *Med. Sci. Sport Exerc.* 19: S28, 1987.
- Ivy, J.L. M.M.-Y. Chi, C.S. Hintz, W.M. Sherman, R.P. Hellendall, and O.H. Lowry. Muscle fiber recruitment during a lactate threshold test. *Med. Sci. Sport Exerc.* 19: S35, 1987.
- Simonsen, J., M. Sherman, W. Allen, S. Thompson, and J. Betts. Creatine kinase activity after exercise. *Med. Sci. Sport Exerc.* 19: S30, 1987.
- Lash, J., M. Sherman, and S. Bloomfield. Muscle soreness: glucose and insulin response. *Med. Sci. Sport Exerc.* 19: S75, 1987.
- Bachrach, D.W., W.M. Sherman, W.S. Barnes, and W. Gadberry. Muscle soreness and IEMG/force ratio. *Med. Sci. Sport Exerc.* 19: S36, 1987.
- Sherman, W.M., A.C. Katz, C.L. Cutler, J. Van Dyke, and J.L. Ivy. Effect of endurance training on insulin stimulated glucose uptake and transport in skeletal muscle of the obese Zucker rat. *Med. Sci. Sports Exerc.* 17: 279, 1985.
- Sherman, W.M., L.E. Armstrong, T.M. Murray, F.C. Hagerman, D.L. Costill, and R.C. Staron. Recovery of muscular strength, power, and work capacity following intense endurance exercise: The marathon. *Med. Sci. Sports Exerc.* 14: 161, 1982.
- Sherman, W.M., D.L. Costill, W.J. Fink, L.E. Armstrong, F.C. Hagerman, and T.M. Murray. The marathon: Recovery from acute biochemical alterations. Fifth International Symposium on the Biochemistry of Exercise, Boston, Massachusetts, 1982.
- Sherman, W.M., M.J. Plyley, R.L. Sharp, P.J. Van Handel, W.J. Fink, R.M. McAllister, and D.L. Costill. Muscle glycogen and its apparent association with water. Pan American Congress of Sports Medicine and Exercise Science, Miami Beach, Florida, 1981.
- Sherman, W.M., D.L. Costill, W.J. Fink, and J.M. Miller. Carbohydrate loading: A practical approach. *Med. Sci. Sports Exerc.* 13: 90, 1981.



Sherman, W.M., A.J. Habansky, M.J. Plyley, D.A. Vogelgesang, and D.L. Costill. Isokinetic strength changes during training following knee surgery. Annual meeting of the American Orthopedic Society for Sports Medicine. Lake Tahoe, Nevada, 1981.

Sherman, W.M., D.L. Costill, W.J. Fink, and J.M. Miller. Dietary influence on 24 hr muscle glycogen restoration following depletion. *Med. Sci. Sports Exerc.* 12: 127, 1980.

### **Notable Funded Projects:**

National Institutes of Health, "Exercise and energy/substrate utilization in blacks with NIDDM" (with D.P. Schuster, Co-investigator), \$106,676.00, 1 year, funded, January 2000.

Quaker Oats, "The influence of dietary composition on short-term aerobic training-induced adaptations in glucose kinetics" (with Kevin Jacobs, Co-investigator), \$12,763.00, 1 year, funded January 1998.

United States Olympic Committee, "Creatine supplementation and swimming performance." Co-Investigator (with David Lamb), \$13,634, 1 year, funded July 1996.

Ohio Division of Vocational and Adult Education, "Central Ohio vocational education personnel development center" (with D.L. Parks and W.E. Budke, Co-investigators), \$71,280.00, 1 year, July 1996.

Quaker Oats, "Carbohydrate/electrolyte beverages consumed before and during prolonged exercise: effects on serum hormone profiles." Co-investigator (with David Lamb), \$29,400, 1 year, funded March, 1995.

Quaker Oats, "Effects of increased quantity of training on indices of overwork and fatigue." Principal Investigator (with David Morris, Co-Investigator), \$3,000, 1 year, funded May, 1994.

Central Ohio Diabetes Association, "Effects of exercise training on glucose transporters in the SHHF/Mcc-cp rat." Principal Investigator, (with C. Ferrara, Co-Investigator) \$13,000, 1 year, funded January, 1993.

Quaker Oats, "Effects of antioxidants on muscle damage and glycogen synthesis after concentric and eccentric contractions." Principal Investigator (with S. Swanson, Co-Investigator), \$25,000, 1 year, funded November, 1993.

Quaker Oats Company, "Carbohydrate content and temperature of fluid replacement drinks: Effects on physiology and performance in prolonged running and cycling." Co-investigator (D.R. Lamb, Principal Investigator), \$26,159, 1 year, funded January, 1992.

Ross Laboratories, "Exercise capacity of pre-dialysis renal patients." Co-Investigator (with T.E. Kirby), \$25,310, 1 year, funded April, 1992.

Central Ohio Diabetes Association, "Effects of exercise and diet therapy on gestational diabetes mellitus." Co-investigator (T.E. Kirby and A. Casenheiser, Co-Investigators), \$13,790, 1 year, funded April, 1992.

Central Ohio Lung Association, "Comparison of fitness, cardiovascular risk factors and "camp" in asthmatic and non-asthmatic adolescents." Co-investigator (with Tim E. Kirby), \$13,000, 1 year, March, 1991.

Ross Laboratories, "Comparison of carbohydrate availability: sports bar versus fluid replacement energy drink". Principal Investigator, \$9,000, 1 year, funded June, 1991.

Ross Laboratories, "Rates of glycogen synthesis after exercise in the absence and presence of muscle inflammation." Principal Investigator (with A. Doyle), \$13,000, 1 year, funded January, 1990.

American Diabetes Association, Ohio Affiliate, "Acute exercise and the SHR, diabetic rat." Principal Investigator, \$6,142, 1 year, funded September, 1990.

American Diabetes Association, Ohio Affiliate, "Amylin's role in fetal diabetic macrosomia." Co-investigator, \$9,994, 1 year, funded September, 1990.

Central Ohio Diabetes Association, "Effects of electrical stimulation on the translocation of muscle glucose transporters in the obese Zucker rat." Principal Investigator, \$5,645, 1 year, funded October, 1990.

Ohio State University Interdisciplinary Grant Program, "Interdisciplinary approach to characterizing the SHR:Mcc-spp rat: A new model for human hypertensive diabetes.

Principal Investigator (S.A. McCune, Co-investigator, and M.A. White, Co-investigator), \$35,000, 1 year, funded July, 1990, (Interdisciplinary with the Department of Food Science and Technology and Department of Animal Science).

Ross Laboratories, "Effects of education on voluntary fluid consumption habits of workers in an industrial setting in a hot environment." Principal Investigator, \$5,000, 1 year, funded May, 1989.

Quaker Oats Company, "Muscle glycogen synthesis during daily training: Effect of carbohydrate content of the diet and exercise mode." Principal Investigator (with D.R. Lamb, and A. Doyle), \$42,164, 1 year, funded September, 1989.

United States Olympic Committee, "Blood indices of muscle oxidant stress as markers of overtraining for rowers." Principal Investigator, \$12,000, 1 year, March, 1988.

Central Ohio Diabetes Association, "Effects of endurance training on heart, kidney, and muscle function in the obese Zucker rat." Principal Investigator (with K. Osei, and R.L. Hamlin), \$16,233, 1 year, funded October, 1988. (Interdisciplinary with Department of Endocrinology, School of Medicine, and Department of Physiology and Pharmacology, School of Veterinary Medicine).

Quaker Oats Company, "Effect of a carbohydrate-electrolyte beverage on work production during simulated labor in a hot environment." Co-Principal Investigator (with D.R. Lamb and A. Doyle), \$44,344, 1 year, funded September, 1988.

United State Olympic Committee, "Glycogen depletion: A possible cause of overtraining for rowing." Principal Investigator (with D.R. Lamb, J.T. Snook, A. Dernbach, F.C. Hagerman), \$36,839, 1 year, September, 1987.

Ross Laboratories, "Dietary carbohydrate and rowing training." Principal Investigator, \$14,000, 1 year, October, 1987.

American Diabetes Association and American Diabetes Association, Ohio Affiliate, joint submission, "Effect of acute exercise on skeletal muscle insulin resistance in the obese Zucker rat." Principal Investigator, \$52,251, 2 years, June, 1987.

Spencer Foundation Grant, "Effect of concentric and eccentric exercise on whole body insulin action." Principal Investigator, \$5,000, 1 year, funded December, 1986.

The Ohio State University Seed Grant Program, "Effects of exercise, hyper-insulinemia and diet on skeletal muscle insulin action of the Wistar fatty rat." Principal Investigator, \$18,123, 1 year, funded April, 1986.

American Heart Association/Ohio Chapter Grant-In-Aid, "Exercise intervention of microvascular disease in diabetes." Principal Investigator (with Drs. Julia Lash and Robert Hamlin), \$15,509, 1 year, funded May, 1986.

The Ohio State University Equipment Grant to complete the Exercise Science Biochemistry Laboratory. Submitted through the School of HPER. \$100,000, funded June, 1986.

Quaker Oats Company, "A high carbohydrate diet during intensive physical training: Effects on the quality of training performance." Co-investigator, (David R. Lamb, Principal Investigator), \$13,129, 1 year, funded October, 1986.

Ross Laboratories, "Evaluation of the timing and content of pre-exercise carbohydrate meals," Primary Investigator, \$6,000, 1 year, funded September, 1986.

Air Force Office of Scientific Research, Research Initiation Program. "Effects of exercise and dobutamine on suspension hypokinesia/hypodynamia deconditioning in rats." Co-investigator, (Beverly E. Girten, Principal Investigator) (with Drs. David Lamb, Robert Hamlin, John Merola), \$26,767, 1 year, funded November, 1986.

Organized Research Fund, Texas A&M University. "Muscle fiber type and energy substrate utilization following high intensity muscular activity." Principal Investigator, \$10,000, funded Spring, 1985.

Biomedical Research Science Grant, Texas A&M University, "Does adenosine interact with fiber type specific insulin stimulated glucose uptake and transport?" Primary Investigator, \$5,300, funded Spring, 1985.

Graduate Student Research Grant, The University of Texas. "The evaluation of a perfusion technique which isolates muscles of known fiber types." Principal Investigator, \$200.00, one semester, funded Spring, 1983.

University Research Grant, The University of Texas, "Evaluation of a new glucose analog, 6-deoxy-D-glucose, for measuring glucose transport in situ in mammalian skeletal muscle. Co-investigator (John L. Ivy, Principal Investigator), \$4,000, funded Fall, 1983.

Sigma Xi, The Scientific Research Society, The University of South Carolina, "The recovery of oxidative capacity, serum enzymes, and strength, power, and work capacity as they related to EMG activity following marathon running." Principal Investigator, \$300.00, one quarter, funded Spring, 1982.

Sigma Xi, The Scientific Research Society, Ball State University, "Effect of diet and exercise on muscle glycogen stores in rat skeletal muscle: The activation of glycogen synthase." Principal Investigator, \$300.00, one quarter, funded Fall, 1981.

New Faculty Research Grant, Ball State University, "Effect of the velocity of isokinetic contractions on muscle fiber recruitment patterns." Principal Investigator, \$480.00, one quarter, funded Spring, 1980.

Graduate Student Research Fund, Ball State University. "Dietary manipulation to enhance endurance performance." Principal Investigator, \$195.00, one quarter, funded Winter, 1979.

### **Invited Presentation (United States):**

"Reflections on Leadership," Ohio Department of Education, Ohio Career-Technical Education Leadership Institute, Dublin, OH, 2000.

"Evaluating claims of sports nutrition supplements," Sports Nutrition: From Science To Practice Conference, Chicago, IL, June, 1999.

"Balancing fat and carbohydrate in athletes' diets," International Sports Nutrition Conference, Williamsburg, VA, September, 1997.

"Carbohydrate metabolism during endurance exercise," Overtraining and Overreaching In Sport: Physiological, Psychological, and Biomechanical Considerations Conference, Memphis, Tennessee, July, 1996.

"Influences of dietary carbohydrate and fat on exercise metabolism and performance," Rocky Mountain Chapter, American College of Sports Medicine, Frisco, CO, January, 1995.

"Substrate utilization in active people," American Dietetics Association, Orlando, FL, October, 1994.

"Physical activity and health," Sports Medicine and the Weekend Athlete, Center for Continuing Health Sciences Education, Ohio State University, June, 1994.

"Sugars and Physical Activity," Evaluation of the Nutritional and Health Aspects of Sugars, International Life Sciences Institute (ILSI), North American Branch, Washington, DC, May, 1994.

"Mechanisms for the effects of carbohydrate supplementation on improved exercise performance in athletes," Department of Biological Science, Ohio University, October, 1993.

"Effects of physical activity on type II diabetes," Central Ohio Diabetes Association, 1993 Education Series, Columbus, Ohio, May, 1993.

"Effects of exercise on the glucose transport system in insulin resistant muscle," Department of Food Science and Technology, The Ohio State University, May, 1993.

"Influences of glucose polymers on exercise metabolism and performance," Nutritional Science Council, Lecture No. 118, Wise and Helen Burroughs Fellowship, Iowa State University of Science and Technology, Ames, Iowa, February, 1993.

"Effects of pre-exercise carbohydrate feedings on athletic performance," presented at American Dietetic Association meeting, Indianapolis, IN, April, 1992.

"Recovery from the Marathon," presented at Nutrition for the Marathon and Other Endurance Sports, Columbus, OH, April, 1992.

"Why exercise: What is in it for me?," presented at the annual meeting of the Central Ohio Diabetes Association Meeting, Columbus, OH, April, 1992.

"Effects of exercise training on the glucose transport system in muscle of animal models of diabetes," Department of Physiology & Pharmacology, The Ohio State University, April, 1992.

"Effects of asthma on fitness and activity levels and cardiovascular disease risk factors in adolescent asthmatics and non-asthmatics", presented at the Central Ohio Lung Association board meeting with T.E. Kirby, Columbus, OH, March, 1992.

"Dietary carbohydrate and athletic fatigue," presented at Nutrition for the Athlete, Orlando, FL, March, 1991.

"Effects of exercise training on hyperglycemia in the obese Zucker rat," presented at the American Diabetes Association, Ohio Affiliate board Meeting, Columbus, OH, June, 1991.

"Effects of exercise on glucose transport in the SHHF/Mcc-cp rat," Department of Biochemistry, East Carolina State University, Greenville, NC, July, 1991.

"Effects of exercise training in the Zucker rat on muscle and cardiac tissues," presented at the Central Ohio Diabetes Association board meeting, Columbus, OH, November, 1991.

"Pre-exercise carbohydrate feedings and endurance performance," presented at the Midwest American College of Sports Medicine Meeting, Muncie, IN, October, 1990.

"Dietary carbohydrates and athletic performance," presented at the Sixth Annual Sports Medicine Seminar for Swimming, Diving and Rowing Coaches, Cincinnati, OH, September, 1990.

"Sports nutrition," presented at the XIV International Congress of Clinical Chemistry, in a workshop titled "Biochemistry of Exercise Related to Laboratory Medicine." San Francisco, CA, July, 1990.

"Carbohydrate metabolism in athletics and diabetes: a synopsis of research," Department of Physical Education, University of Texas @ Austin, Austin, TX, June, 1990.

"Effects of exercise on diabetes," presented at the annual board meeting of the American Diabetes Association, Ohio Affiliate, Columbus, OH, June, 1990.

"Dietary carbohydrate consumption and training, overwork, and overtraining," tutorial lecture, American College of Sports Medicine, Dallas, TX, May, 1990.

"Exercise physiology," presented at the American Association of Fitness Instructor's accreditation meeting in Columbus, OH, October, 1989.

"Nutrition for athletes," presented at St. Ann's Healthletics, Westerville, OH for the workshop titled "Working as a Sports Medicine Team." September, 1989.

"Effects of exercise on muscle glucose transport in the obese Zucker rat," Noll Physiology Laboratory, Penn State University, College Park, PA, August, 1988.

"Muscle's adaptations to exercise training," presented at the American Association of Fitness Instructor's accreditation meeting in Columbus, OH, May, 1988.

"Carbohydrate and athletic performance," presented at St. Vincent Hospital, Toledo, OH, for Nutritional Dietetics Department, October, 1987.

"Nutrition and the athlete," presented at the Ohio State Medical Association's annual meeting, Columbus, OH, September, 1987.

"Nutrition for the athlete," presented for the Nutrition Society of Youngstown State University, Youngstown, OH, April, 1987.

"Carbohydrates and athletic performance," presented at the National Nutrition Month Physician's luncheon sponsored by the Food Services Department, St. Vincent Hospital, Indianapolis, IN, March, 1987.

"Effects of exercise on insulin resistance in animal models of diabetes," Department of Physiology, The Ohio State University, November, 1986.

"Concepts to improve your fitness index," presented at the annual meeting of the Ohio Dental Expanded Function Association, Columbus, OH, September, 1986.

"Muscle soreness: causes and relief's," presented at "Commitment to Wellness" program sponsored by the Stark County Department of Public Health, Akron, OH, September, 1986.

"Overview of the availability of ingested carbohydrate," presented at the 1986 American College of Sports Medicine, Indianapolis, IN, May 1986.

"Carbohydrate metabolism during exercise," presented at Newark Public Schools for "Sports Medicine Update" for CME credit for high school coaches and athletic trainers, Newark, OH, February, 1986.

"Substrate utilization during long term performance," presented at the First National Conference on Physiological Performance Evaluation: Overreaching versus overtraining, Colorado Springs, CO, 1985.

"Energy for muscle function," and "The application of muscle physiology to the development and evaluation of isokinetic rehabilitation programs," presented at the Cybex Seminar series at Kansas City, MO, and Washington, D.C, 1983.

"Training for neuromuscular strength, power, and endurance," presented at Rehab '83, Los Angeles, CA, 1983.

"Carbohydrates and performance," and "The role of protein and fat in athletic performance," presented at the Nutrition and the Athlete Symposium, Colorado Springs, CO, 1983.

"Carbohydrate, muscle glycogen, and muscle glycogen supercompensation as determinants of athletic performance," presented at American College of Sports Medicine, Minneapolis, MN, 1982.

"The application of muscle physiology to the development and evaluation of isokinetic rehabilitation programs," presented at the Cybex Seminar series, Las Vegas, NV, 1982.

"The role of dietary carbohydrate in athletic performance," presented at the Pan American Congress and International Course on Sports Medicine and Exercise Science, Miami Beach, FL, 1980.

### **Invited Presentations (International):**

"Carbohydrate feedings and performance." Sixth International Conference on Equine Exercise Physiology, Lexington, Kentucky, USA, September, 2002.

"Influences of chronic carbohydrate and fat diets on athletic performance, " "Mechanisms of improved performance with carbohydrate feedings during exercise," and "Dietary supplements as ergogenic aids: their use to improve sports performance. Seventh International Symposium of Actualization on Sports Sciences, Rosario, Argentina, 1999.

"Carbohydrate supplementation and high performance," Canadian Society for Exercise Physiology, Quebec City, Canada, October, 1995.

"Nutritional implications and manipulations of fat metabolism during exercise," International Workshop on Nutrition, Gatorade Sports Science Institute of Venezuela, Caracas, Venezuela, May, 1994.

"Pre-exercise carbohydrate feedings and endurance performance," and "Post-exercise carbohydrate feedings and endurance performance," presented at First International Conference on Sports Nutrition, Barcelona, Spain, June, 1991.

"Exercise training in Zucker rats," presented at Diabetes and Exercise '90, Dusseldorf, West Germany, May, 1990.

"Sports Medicine," was presented at the United States Embassy at Ndjamen, Chad, and "Exercise in a hot and humid environment: The marathon," was presented at the University of Cameroon, Yaoundé, Cameroon, Africa, April, 1988.

"Muscle metabolism during exercise, Carbohydrates and performance during prolonged exercise, and Recovery after prolonged exercise," presented at the International Sports Science Conference sponsored by the National Society of Physical Education and the Minister of Education, Republic of China, January, 1987.

"Nutrition for prolonged exercise," Conference on Prolonged Exercise, Warwick, Bermuda, June, 1987.

### **Mentoring Post-Doctoral Fellows:**

"Motivational factors for enrollment and health behavior characteristics." Nicole Leenders, Ph.D, 1998 to 2001. College of Education & School of Physical Activity & Educational Services.

College of Education, Postdoctoral fellowship, \$34,000, funded for 2 years for Leslie Pruitt, PhD, September, 1989.

NIH Individual National Research Service Award, Postdoctoral fellowship (with Robert Hamlin, Department of Physiology & Pharmacology), "Diabetic microvascular disease: exercise intervention." \$21,000, funded for 1 year for Julia M. Lash, PhD, January, 1987.

American Heart Association, Ohio Chapter, Inc., Postdoctoral fellowship (with Robert Hamlin, Department of Veterinary Physiology & Pharmacology), "Exercise intervention of microvascular disease in diabetes." \$17,000, funded for 1 year for Julia M. Lash, PhD, January, 1986.

### **Editorial Boards and Editorships:**

Newsletter editor, American Academy of Kinesiology & Physical Education, 2001 to 2006.

Co-Editor-In-Chief, Western Hemisphere, International Journal of Sports Medicine, 1993-2007.

Member, editorial board, International Journal of Sports Nutrition, 1990-1993.

### **Professional Memberships:**

Sigma Xi, The Scientific Research Society, 1990-inactive.

Professional Member, American Diabetes Association, 1986-1993, inactive.

Member beginning 1978, Fellow beginning 1985, American College of Sports Medicine.

Certified Member, National Athletic Trainers Association beginning 1976, inactive.

### **Service to Professional Organizations:**

Newsletter editor, American Academy of Kinesiology & Physical Education, 2001 to 2006.

Abstract reviewer for the muscle biochemistry section for the American College of Sports Medicine's 1994 meeting.

Member of the American College of Sports Medicine Position Stand writing committee for "Hydration and Exercise," April, 1994.

Abstract reviewer for the muscle biochemistry section for the American College of Sports Medicine's 1994 meeting.

Member of the American College of Sports Medicine Position Stand writing committee for "Hydration and Exercise," April, 1994.

Abstract reviewer for the sport nutrition section and endocrinology section for the American College of Sports Medicine's 1993 meeting.

Abstract reviewer for the American Alliance for Health, Physical Education, Recreation and Dance's 1993 meeting.

Abstract reviewer for the sport nutrition section and endocrinology section for the American College of Sports Medicine's 1993 meeting.

Abstract reviewer for the American Alliance for Health, Physical Education, Recreation and Dance's 1993 meeting.

Participant in a Sports Nutrition Roundtable at the American College of Sports Medicine, January, 1992.

Abstract reviewer for the American Alliance for Health, Physical Education, Recreation, and Dance's 1992 meeting.

Participant in a Sports Nutrition Roundtable at the American College of Sports Medicine, January, 1992.

Abstract reviewer for the American Alliance for Health, Physical Education, Recreation, and Dance's 1992 meeting.

Abstract reviewer for the Carbohydrate Metabolism Section for the American College of Sports Medicine's 1989 meeting.

Abstract reviewer for the Carbohydrate Metabolism Section for the American College of Sports Medicine's 1989 meeting.

Abstract reviewer and section coordinator of abstract reviews for the Carbohydrate Metabolism Section for the American College of Sports Medicine's 1988 meeting.

Member, Committee on Research, American Diabetes Association, Council on Exercise, 1987-1988.

Abstract reviewer and section coordinator of abstract reviews for the Carbohydrate Metabolism Section for the American College of Sports Medicine's 1987 meeting.

Abstract reviewer and section coordinator of abstract reviews for the Carbohydrate Metabolism Section for the American College of Sports Medicine's 1986 meeting and moderator of free communication session A-1, "Carbohydrates and Exercise I."

Abstract reviewer for the American College of Sports Medicine's 1985 meeting and moderator of free communication session B-6, "Exercise and carbohydrate metabolism."

Elected member of the editorial board for the journal of the National Athletic Trainers Association, Athletic Training, 1985-1988.

Abstract reviewer for the American College of Sports Medicine's 1984 meeting and moderator of free communication session F-9, "Muscle damage and adaptations as a result of severe exercise."

**Community Service:**

Panelist, "Practical approaches to managing obesity in your practice," The Epidemic of the 21st Century: Obesity Conference, Columbus Department of Health, December 10, 2004.

Member, Ad Hoc Committee, "Tool-kit" about childhood obesity developed for health care professionals, Columbus Department of Health, 2003-2004.

Member, Committee on Research, Central Ohio Diabetes Association, 1988 to 1993. Chairperson, 1995 to 1996.

Guest "Expert Speaker." Journalism Association of Ohio Schools/ OSU Journalism School Alumni Society Fall Workshop, November, 1993.

Member, Committee on Research, Central Ohio Lung Association, 1991 to 1994.

Member, Sports Nutrition Advisory Committee, United States Olympic Committee, 1991 to 1992.

Member, grants-in-aid review Committee, American Diabetes Association, December, 1991.

Member, Nutrition Committee, United States Olympic Sports Medicine Committee, 1988-1989.

**Educational Service Impacting Wide Audiences:**

Co-organizer (with D.R. Lamb, and M.E. Kanter) of the conference titled "Nutritional ergogenic aids." November 11-12, 1994, sponsored by the Gatorade Sports Science Institute. Resulted in a full publication of the proceedings in Int. J. Sport Nutr. 5: S1-S131, 1995.

United States Navy, Seal Computer-Assisted Medical Reference System, reference to published work, 1993, 1994.

Sherman, W.M., and J.S. Rudd. Eating for recovery. Olympic Coach 4: 12-13, 1994.

Sherman, W.M., and J.S. Rudd. Carbohydrate requirements for strength athletes. Strength & Conditioning. 16: 42-43, 1994.

"Importance of physical activity in the management of diabetes," patient and public education lecture series, Central Ohio Diabetes Association, May, 1993.

"Effects of aerobic training on heart function in the obese Zucker rat," Diabetes Directions, 3: 8, 1993.

Co-organizer (with D.R. Lamb) of the conference titled "Nutrition for the marathon and other endurance sports." April 9-10, 1992, sponsored by the Gatorade Sports Science Institute. Resulted in a full publication of the proceedings in Med. Sci. Sports Exerc. 24: S309-S363, 1992.

**Professional Academic Service:**

External evaluator, dissertation Capetown , South Africa, 1994, 1995, 1999, 2000.

Reviewer of an application to the Joint Infrastructure fund of the Wellcome Trust and the United Kingdom for sport and exercise science research laboratories submitted by John Evans and Clyde Williams from Loughborough University, 10,268,345 pounds, 1999.

External evaluator, thesis, University of South Australia, Adelaide, Australia, 1998.

Expert juror, for a survey on high school athlete nutritional practices developed by Susan Massad, RD, doctoral candidate, Department of Applied Health Science, Indiana University, Bloomington, IN, for a



study titled "High school athletes and nutritional supplements: a study of knowledge and use," May, 1993.

### **Student Advising:**

Major advisor for twenty-five recipients of the Doctor of Philosophy Degree since 1985.

Major advisor for forty recipients of the Master of Arts degree since 1985.

Major advisor for more than 100 undergraduate students 1985-1996.

### **Teaching:**

PE 800 (Mechanisms of fatigue during exercise), 802 (Endocrinological aspects of muscle and cardiovascular adaptations to exercise), and 803 (Carbohydrate metabolism during exercise): Graduate level courses for doctoral students in the exercise science program. These are seminar-based courses with readings in the current literature and discussions related to history, methods, controversies, and concepts for selected topics in each course. I developed the 803 course.

PE 867 (Laboratory methods in the assessment of human performance): This is a biochemistry laboratory course teaching wet-laboratory concepts required for data collection and analysis of human and animal tissue and blood analysis. I developed this course.

PE 714 (Organic science as applied to physical and health education): This is a team-taught course for Master's degree students entering the exercise science program.

PE 414 (Applied exercise physiology I): Adaptations of the human body to acute and chronic exercise. I developed this course with D. Lamb

PE 414Pt (Applied exercise physiology I): Adaptations of the human body to acute and chronic exercise for physical therapists. I developed this special offering required course for students in the OSU physical therapy BS program.

PE 514 (Applied exercise physiology II): Adaptations of the human body to acute and chronic exercise. Collaboratively I developed this course with A. Coggan and D. Lamb.

PE 567 (Contemporary Issues in Physical Activity, Fitness, and Health): Description and explanation of the relationships among physical activity, fitness, and health. T. Kirby and I developed. This is a capstone course for the general education curriculum was not adopted by the OSU GEC committee.

### **Grants and Awards to Students:**

Cindy Ferrara, Harriet B. Lawrence Scholarship, American Diabetes Association, Ohio Affiliate, 1993.

### **Academia, College, and University Service:**

Speed to Scale Task Force-Central State University, Ohio Board of Regents, 2007-2009.

Governing Board, OhioLink, 2006-2009.

Fiscal Committee, University Senate, 2004-2005.

Alternate, College of Education representative to the University Senate, 2004-2005.

Member, Provost's ad hoc committee on work-life, Winter quarter, 2004.

Panel participant for plenary session titled, "What is in it for me? The benefits, challenges and possibilities for university community engagement," at the conference titled "Ohio State-The 21st century model for outreach & engagement," April 30, 2004.

Member NCAA Fiscal Integrity Sub-committee of the NCAA Steering Committee for the NCAA review of the Department of Athletics during 2003-04.

Opening remarks for the Office of Academic Affairs and Office of Human Resources "Books & Breakfast" program. Introduced the book for discussion titled, "Execution: The Discipline of Getting Things Done," December 18, 2003.

Budget Restructuring I and II Taskforces- member for the College of Education, 2001-2003.

Panel participant, University-wide department chairpersons meeting to review budget restructuring at OSU, spring, 2002.

Panel participant, on "interpreting documentation of teaching," as part of the Office of Faculty & TA Development workshop on "Evaluation of Teaching: A Faculty Responsibility, spring quarter, 2002.

Coordinator, Information and data collection, College of Education, 2000-2005.

Committee Member, Search committee for the Dean of the College of Education, 1999 and 2000.

Speaker, New department chairperson orientation, September, 1999 and September, 2000.

Delegate, Committee on Institutional Cooperation Leadership Institute, Big 10 Center, Chicago, IL, 1997.

Member, Ad hoc committee for the College of Education to devise its staff performance management system, 1997-1998.

Member, Promotion and Tenure Committee, Office of Academic Affairs, 1996-1999.

Member, Transition Team Implementation Committee, College of Education, 1996.

Convener, proposed School of Physical Activity & Human Services in the restructured College of Education, 1996.

Member, College of Education, Ad Hoc Governance Committee related to restructuring, 1994-1995.

Chairperson, School of HPER, Ad Hoc Graduate Committee related to restructuring, 1994-1995.

Chairperson, College of Education Promotion and Tenure Committee, November, 1994.

Member, Distinguished Scholar Award Committee, Office of Research, 1995.

Member, Graduate School Review Committee, Office of Academic Affairs, 1995.

Member, College of Education, Transition Team related to restructuring; Chairperson, Subcommittee on Budget, 1995.

Chairperson, School of HPER, Search Committee, Sport and Exercise Science position, 1995.

Portfolio essay and examination evaluator for the Presidential-Medalist competition, 1993.

Member, College of Education Promotion and Tenure Committee, December, 1993.

Member, Undergraduate Curriculum Comm., School of Health, Physical Education, and Recreation, 1991-1995.

Member, Presidential Fellowship Review Committee, Graduate School, 1991-1993.

Coordinator, exercise physiology/health & fitness demonstration for Young Scholars Program, 1991-1992.

Member, NCATE Oversight Committee, College of Education, 1991-1992.

Ad hoc Member, College of Education focus group for the University's academic planning process, 1991.

Member, Task Force, School of Health, Physical Education & Recreation, 1991.

Graduate Studies Committee Chairperson, School of Health, Physical Education, and Recreation, 1990-95.

Search Committee Chairperson, School of Health, Physical Education and Recreation, Assistant Professor in Exercise Physiology, 1990.

Judge, ICSABER Graduate Student Research Day, 1990.

Search Committee Member, School Health, Physical Education and Recreation. Associate/Assistant Professor in Exercise Physiology, 1989.

At-large Member, Personnel Committee, College of Education, 1989.

Coordinator, Undergraduate Exercise Science Major, 1989-1996.

Ad hoc Member, College of Education Research Committee, 1989-1991.

Graduate Studies Committee, School of Health, Physical Education and Recreation. 1987 to 1990.

College of Education review committee for applications for the Graduate Student Alumni Research Awards, 1987-88.

### **Leadership Development:**

Created a Community Leadership Institute for 25 individuals at the University of Akron in collaboration with Leadership Akron, 2014.

Attended Insight Akron of Leadership Akron, September, 2010.

Administrative Portfolio, Baldwin Wallace College Division of Continuing Education, April, 2004.

Speaker on Sexual Harassment issues for Ohio State University via completion of the OSU Sexual Harassment speakers' group training program. Approved speaker beginning autumn, 2004.

Leadership Institute for Department Chairpersons, American Association of Colleges for Teacher Education, April, 2002.

Dale Carnegie graduate, November, 2002.