

Vitae
Pat Roy Vehrs, Ph.D., FACSM

Education:

Doctor of Philosophy. Exercise Physiology.
Brigham Young University. December 1991.
Advisor: Dr. Garth Fisher.
Dissertation Topic: Magnetic Resonance Imaging of Body Fat in Young Adult Men.

Masters of Science. Exercise Physiology.
Northern Illinois University. August 1986.
Advisor: Dr. Sharon Plowman.
Thesis Topic: Exercise During Gravity Inversion: Acute and Chronic Effects

Bachelors of Science. Marketing/Physical Education.
Northern Illinois University. August 1984.

Academic Appointments:

- 2000 - Present Associate Professor of Exercise Physiology.
Department of Exercise Sciences.
Brigham Young University.
Continuing Faculty Status (2006)
- 1995 – 2000 Assistant Professor of Pediatrics.
Department of Pediatrics / Adolescent Medicine & Sports Medicine Section.
Baylor College of Medicine.
- Exercise Physiologist / Director - Wellness Center.
Texas Children's Hospital.
- 1992 - 1995 Assistant Professor of Exercise Physiology.
Department of Health & Human Performance.
University of Houston.
- 1991 - 1992 Part-Time Faculty. Department of Physical Education / Brigham Young University.
- 1986 Faculty Assistant. Department of Physical Education / Northern Illinois University.

Published Books or Chapters in Books

Vehrs, P.R. Exercise Physiology: An incremental approach. BYU Academic Publishing. Last Revision and Printing (3rd Ed) – 2018. Available in printed copy and e-book (RedShelf).

Vehrs, P.R. Exercise Physiology Lab Manual. BYU Academic Publishing. Last Revision and Printing (2nd Ed) - 2016

Vehrs, P.R. Strength training in children and adolescents. In: UpToDate, Rose BD (Ed), UpToDate, Wellesley, MA, 2007 (Last Revision and Printing - 2017).

Creative Works

Wall-to-Wall Racquetball. Instructional DVD for EXSC 146/147 Beginning and Intermediate Racquetball. Funded by a Fellowship grant from the Center for Instructional Design. April 2006.

Submitted Manuscripts (In Review) (names in blue ink are students)

[Vehrs, Z.](#), Hager, R., George, J.D., Myrer, J., Vehrs, P.R., Eggett, D.L. Effect of Egoscue Method corrective exercise prescription on acute and short-term chronic knee and hip pain.

[Hopkins, B.C.B.](#), [Vehrs, P.R.](#), George, J.D., Ridge, S.T., Hager, R.L., and Fellingham, G.W. Validity of standing posture measurements using a mobile application. *Journal of Manipulative and Physiological Therapeutics*.

[Hurst, J.](#), Feland, J.B., Fellingham, G.W., [Vehrs, P.R.](#) The effects of mouthguard and facemask type on ventilation and oxygen consumption during exercise. *Journal of the American Dental Association*. Submitted December 2018.

Refereed Published Manuscripts (names in blue ink are students)

[Hafen, Paul](#), [Vehrs, P.R.](#) Sex-related differences in the MLSS. *Sports*. 2018, 6, 154; doi:10.3390/sports6040154

[MacDonald, E.Z.](#), [Vehrs, P.R.](#), Fellingham, G.W., Eggett, D., George, J.D., and Hager, R. (2017). Validity and reliability of assessing body composition using a mobile application. *Medicine and Science in Sports and Exercise*. 49(12), 2593-2599.

[Perry, J.](#), Johnson, A.W., Fellingham, G.W., [Vehrs, P.R.](#) (2017). Heart rate and VO₂ responses to treadmill running with body weight support using the GlideTrak. *Journal of Exercise Science and Fitness*, 15(1), 32-36.

George, J.D., [Tolley, J.R.](#), [Vehrs, P.R.](#), [Reece, J.D.](#), [Akay, M.F.](#), & [Cambridge, E.D.J.](#), A new approach in assessing core muscle endurance using ratings of perceived exertion. *Journal of Strength and Conditioning Research*, Oct 30, 2017 Published ahead of Print. DOI: 10.1519/JSC.0000000000001915

[Black, N.E.](#), [Vehrs, P.R.](#), George, J.D., and Hager, R. Prediction of VO₂max in children and adolescents using exercise testing and physical activity questionnaire data. *Research Quarterly for Exercise and Sport*, 87(1): 89-100, 2016.

Mitchell, U.H., Johnson, A.W., [Vehrs, P.R.](#), Feland, J.B., and Hilton, S.C. Performance on the functional movement screen in older active adults. *Journal of Sport and Health Science*. 5: 119-125, 2016.

[Rencher, N.](#), George, J.D., [Vehrs, P.R.](#), Ridge, S.T., and Fellingham, G.W. The acute effects of whole-body corrective exercise on postural alignment. *International Journal of Exercise Science*, 8(3): 213-223, 2015.

[Webb, C.](#), [Vehrs, P.R.](#), George, J.D., and Hager, R.L. Estimating VO₂max using a personalized step test. *Measurement in Physical Education and Exercise Science*, 18: 184-197, 2014.

Uvacsek, M., Kneffel, K., Toth, M., Johnson, A.W., **Vehrs, P.R.**, Myrer, J.W., Hager, R.L. 10 year cardiovascular risk assessment in university students. *Acta Physiologica Hungarica*, 101(3): 321-328, 2014.

Riding, T., Hopkins J.T., **Vehrs P.R.**, Draper D.O. Contributions of muscle fatigue to a neuromuscular neck injury in female ballroom dancers. *Medical Problems of Performing Artists*, 28: 84-90, 2013.

Mooney, A., **Kelsey, L.**, Fellingham, G.W., George, J.D., Hager, R.L., Myrer, J.W., **Vehrs, P.R.** Assessing body composition of children and adolescents using dexa, skinfolds, and electrical impedance. *Measurement in Physical Education and Exercise Science*, 15(1):2-17, 2011.

Nielson, R., **Vehrs, P.R.**, Prusak, K., Hager, R. and Fellingham, G.W. Step counts and energy expenditure as estimated by pedometry during treadmill walking at different stride frequencies. *Journal of Physical Activity and Health*, 8: 1004-1013, 2011.

Vehrs, P.R. Assessment and management of clients with obesity. ACSM's Certified News. 20(4):3-4, 2010. (Featured Article)

Nelson, D.E., George, J.D., **Vehrs, P.R.**, Hager, R.L., **Webb, C.V.** Predicting VO₂max in college-aged participants using cycle ergometry and perceived functional ability. *Measurement in Physical Education and Exercise Science*. 14(4): 252-264, 2010.

Vilamonte, R., **Vehrs, P.R.**, Feland, J.B., and Johnson, A.W., Seeley, M.K. and Eggett, D. Reliability of 16 balance tests in individuals with Down syndrome. *Perceptual and Motor Skills*. 11(2):530-542, 2010.

Rife, R.K., Myrer, J.W., **Vehrs, P.R.**, Feland, J.B., Hunter, I., and Fellingham, G.W. Water treadmill parameters needed to obtain land treadmill intensities in runners. *Medicine and Science in Sports and Exercise*. 42(4):733-738, 2010.

Thomas, C., **Vehrs, P.R.**, Fellingham, G. Development of a notational analysis system for selected soccer skills of a women's college team. *Measurement in Physical Education and Exercise Science*. 13(2):108-121, 2009.

George, J.D., **Paul, S.L.**, **Hyde, A.**, **Bradshaw, D.I.**, **Vehrs, P.R.**, Hager, R.L., and Yanowitz, F.G. Prediction of maximal oxygen uptake using both exercise and non-exercise data. *Measurement in Physical Education and Exercise Science*. 13 (1):1-12, 2009.

Florence, L. W., Fellingham, G. W., **Vehrs, P. R.**, and **Mortensen, N. P.** Skill Evaluation in Women's Volleyball. *Journal of Quantitative Analysis in Sports*. 4(2): Article 14. 2008.

George, J.D., **Bradshaw, D.**, **Hyde, A.**, LaMonte, M.J., **Vehrs, P.R.**, Hager, R.L., & Yanowitz, F.G., A maximal graded exercise test to accurately predict VO₂max in 18-65-year-old adults. *Measurement in Physical Education and Exercise Science*. 11(3):149-160, 2007.

Vehrs, P.R., George, J.D., Fellingham, G.W., Plowman, S.A., **Dustin-Allen, K.** A submaximal treadmill exercise test to predict VO₂max in fit adults. *Measurement in Physical Education and Exercise Science*. 11(2): 61-72, 2007.

Vehrs, P.R., **Keller, D.M.**, **Hoyt, G.H.**, George, J.D., Hager, R.L., Fellingham, G.W. Monitoring changes in VO₂max during 14 weeks of endurance training using the cardio coach®. *Journal of Strength and Conditioning Research*. 21(1):62-66, 2007.

Vehrs, P.R. and Hager, R. Science, assessment and interpretation of body composition in physical education. *Journal of Physical Education Recreation and Dance*. 77(7):46-51, 2006.

Vehrs, P.R. and Fellingham, G.W. Heart rate and VO₂ responses to cycle ergometry in White and African American men. *Measurement in Physical Education and Exercise Sciences*. 10(2): 109-118, 2006.

Bradshaw, D., George, J.D., **Hyde, A.**, LaMonte, M.J., **Vehrs, P.R.**, Hager, R.L., & Yanowitz, F.G. An accurate VO₂max non-exercise regression model for 18 to 65 year-old adults. *Research Quarterly for Exercise and Sport*. 76(4): 426-432, 2005.

Vehrs, P.R. Strength training in children and adolescents - Part One. *ACSM's Health and Fitness Journal*. 9(4):8-12, 2005.

Vehrs, P.R. Strength training in children and adolescents - Part Two. *ACSM's Health and Fitness Journal*. 9(4):13-18, 2005.

Drummond, M., **Vehrs, P.R.**, Schaalje, B., and Parcell, A. Aerobic and resistance exercise sequence affects excess post-exercise oxygen consumption. *Journal of Strength and Conditioning Research*. 19(2):332-337, 2005

Vehrs, P.R. and Kaiser, D. Sportaerobics: The sport and its athletes. *ACSM's Health and Fitness Journal*. 8(3):16-20, 2004.

George, J.D., **Vehrs, P.R.**, **Babcock, G.J.**, **Etchie, M.P.**, **Chinevere, T.D.**, and Fellingham, G.W. A modified submaximal cycle ergometer test designed to predict treadmill VO₂max. *Measurement in Physical Education and Exercise Science*. 4(4): 229-243, 2000.

Hunt, B.R., George, J.D., **Vehrs, P.R.**, Fisher, A.G., and Fellingham, G.W. Validity of a sub-maximal 1-mile track jog test in predicting VO₂max in fit teenagers. *Pediatric Exercise Science*. 12(1):80-90, 2000.

Non-Refereed Publications

Vehrs, P.R. Physical activity and exercise for children with special health care needs. Part 1 - Benefits, barriers, assessment and programs. *Nutrition Focus for Children with Special Health Care Needs*. 22(4):1-8, 2007.

Vehrs, P.R. Physical activity and exercise for children with special health care needs. Part 2 - Selected Conditions and Considerations. *Nutrition Focus for Children with Special Health Care Needs*. 22(5): 1-8, 2007.

Published Abstracts:

Vehrs, P.R., **MacDonald, E.Z.**, **Hamblin J.**, **Brown, N.** Validity and reliability of estimates of body composition using a photographic methods and OMRON. *Medicine and Science in Sport and Exercise*. 48(5), Abstract #3615. 2016.

MacDonald, E.Z., **Brown, N.**, **Hamblin, J.**, **Vehrs, P.R.** Validity and reliability of estimates of body composition using circumferences measured photographically and manually. *Medicine and Science in Sport and Exercise*. 48(5), Abstract #3570. 2016.

- MacKay, M., Hafen, P., Larsen, A., Rosengreene, K., Mooth, A., Savio, G., Wood, P., M Catlett, S., Grier, A., **Vehrs, P.** A comparison of the intensity of exercise at different definitions of the lactate threshold. *Medicine and Science in Sport and Exercise*. 47(5), Abstract #829. 2015.
- Savio, G., Hafen, P., Larsen, A., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Whole blood lactate levels measured using the YSI analyzer and the NOVA Lactate Plus. *Medicine and Science in Sport and Exercise*. 47(5), Abstract #2928. 2015.
- Hafen, P., Savio, G., Larsen, A., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Respiratory exchange ratio as an index for endurance training intensities. *Medicine and Science in Sport and Exercise*. 47(5), Abstract #2820. May 27- 2015.
- Larsen, A., Hafen, P., Savio, G., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** A respiratory exchange ratio = 1.0 overestimates the maximal lactate steady state. *Medicine and Science in Sport and Exercise*. 47(5), Abstract #828. 2015.
- Mooth, A., Hafen, P., Larsen, A., Rosengreene, K., Savio, G., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Blood lactate levels measured using finger prick vs venous blood draw methods. *Medicine and Science in Sport and Exercise*. 47(5), Abstract #2929. 2015.
- Vehrs, P.R., Black, N.,** George, J.D., and Hager, R.L. Prediction of VO₂max in children and adolescents with non-exercise data. *Medicine and Science in Sport and Exercise*. 47(5), Abstract #440. 2015.
- Vehrs, P.R.,** Hager, R., Eggett, D. The relationship between carotid IMT and blood pressure, BMI, 10-year risk and physical activity categories. *Medicine and Science in Sport and Exercise*. 46(5), Abstract #1398. 2014.
- Vehrs, P.R.,** Hager, R., Eggett, D. A comparison of the ACSM, Framingham, and Reynolds risk stratifications. *Medicine and Science in Sport and Exercise*. 46(5), Abstract #3045. 2014.
- Hafen, P., **Vehrs, P.R.,** Santo, A. Effect of racing flats on running economy in male adolescent runners. *Medicine and Science in Sport and Exercise*. 46(5), Abstract #3523. 2014.
- Uvacsek, M., Zsuzsanna, K., Miklos, T., Johnson, A.W., **Vehrs, P.R.,** Myrer, J.W., Hager, R.L. Egyetemi hallgatók 10 éves szívé és errendszere kockázatelemzése. Mozgasbiológiai Konferencia, 43, 2013.
- Zanandrea, M.B., **Vehrs, P.R.** Developing and infusing disability examples into a Physiology of Exercise course for Physical Education majors. Book of Proceedings of ISAPA, 1(1), 2013.
- Johnson, A.W., **Vehrs, P.R.,** George, J.D., **Perry, J.,** and Fellingham, G.W. Cardiovascular and metabolic responses to exercising with the GlideTrak compared to running. *Medicine and Science in Sport and Exercise*. 44(5), Abstract 3355. 2012.
- Brooks, C.,** Johnson, A.W., Myrer, J.W., Uvacsek, M., Toth, M., **Vehrs, P.R.,** Hager, R.L. **Symres, A.** Multifidus cross sectional area in Hungarian Gymnasts with and without back pain - A preliminary study. *Medicine and Science in Sport and Exercise*. 44(5), Abstract 2975. 2012.
- George, J.D., Hager, R.L., **Vehrs, P.R.** and Akay, M.F. Predicting maximum oxygen uptake from submaximal endurance exercise involving walking, jogging, or running. *Medicine and Science in Sport and Exercise*. 43(5), Abstract 2328. 2011.

Vehrs, P.R., Robinson, L., Corey, M., Nielson, R. and Padfield, G. Validity of a Bioelectrical impedance body composition measurement device used in public schools. *Research Quarterly for Exercise and Sport*. 75(1). Abstract A32. 2004.

Phillips, M.D. and **Vehrs, P.R.** Comparison of body composition assessments in junior high school students using two methods. *Research Quarterly for Exercise and Sport*. 75(1). A12. 2004.

Pennington, T, **Vehrs, P.R.**, Padfield, G.J., **Wilson, A., Allen, A., Pearson, J.** Junior high school students' attitudes toward physical education: Does the LIFT America Program make a difference. *Research Quarterly for Exercise and Sport*. 75(1). Abstract A78. 2004.

Abbott, R., Phillips, M., Vehrs, P. R., Pennington, T., Padfield, G. Changes in body composition following 16 weeks of two different junior high school physical education programs. SWACSM Web Page (<http://jan.ucc.nau.edu/%7Eswacsm-p/>), Nov 2003.

Allen, A., Tegeder, A., Pearson, J., Pennington, T., Padfield, G., and **Vehrs, P.R.** Strength gain comparison of two junior high school physical education curricula. SWACSM Web Page (<http://jan.ucc.nau.edu/%7Eswacsm-p/>), Nov 2003.

Phillips, M., Abbott, R., Vehrs, P.R., Pennington, T., Padfield, G., Comparison of two methods of estimating body composition in 12-15 year olds. SWACSM Web Page (<http://jan.ucc.nau.edu/%7Eswacsm-p/>), Nov 2003.

Tegeder, A., Pearson, J., Pennington, T., Padfield, G., **Vehrs, P.R.** Fitness test comparison of two junior high school physical education curricula. SWACSM Web Page (<http://jan.ucc.nau.edu/%7Eswacsm-p/>), Nov 2003.

Keller, D.M., Vehrs, P.R., George, J.D., Hager, R. Monitoring Changes in VO₂max during 14 weeks of endurance training using the Cardio Coach. *Medicine and Science in Sport and Exercise*. 34 (5): Abstract S192. 2003.

Taylor, W.D., George, J.D., Allsen, P.E., **Vehrs, P.R.**, Hager, R.L., **Roberts, M.P.** Estimation of VO₂max from a 1.5 mile endurance test. *Medicine and Science in Sport and Exercise*. 34 (5): Abstract S257. 2003.

Drummond, M.J., Vehrs, P.R., Schaalje, G.B., Parcell, A.C. Sequencing of concurrent treadmill and resistance exercise and its acute effects upon post-exercise oxygen consumption. *Medicine and Science in Sport and Exercise*. 34 (5): Abstract S227. 2003.

George, J.D., **Larsen, G.E., Alexander, J.L., Vehrs, P.R.**, Hager, R.L., & Fellinghan, G.W. Prediction of maximum oxygen consumption from walking, jogging, and running. *Medicine and Science in Sport and Exercise*. 34 (5): Abstract 22. 2002.

Keller, D.M., Parcell, A.C., **Hoyt, G., Vehrs, P.R.** Validity of a portable device to measure VO₂max. *Medicine and Science in Sport and Exercise*. 34 (5): Abstract 830. 2002.

Vehrs, P.R., Drummond, M., Keller, D.M. Accuracy of five heart rate monitors during exercise. *Medicine and Science in Sport and Exercise*. 34 (5): Abstract 1526. 2002.

Zhou, B., George, J.D., **Vehrs, P.R.** Factors associated with maximal oxygen consumption in untrained female college students versus collegiate distance runners. Proceedings of the SW District/Utah AHPERD Convention, Park City, UT, June 2001.

Vehrs, P.R., George, J.D., Fellingham, G.W., Plowman, S.A., [Ryan, N.](#), and [Dustman-Allen, K.](#) Multiple-site validation of a single stage submaximal treadmill exercise test to predict VO₂max. (Abstract No. 263). *Medicine and Science in Sports and Exercise*. 33(5): Abstract S46. 2001.

Vehrs, P.R., Sallis, J.F., Pate, R.R., Weschler, H., and Dietz, W. Strategies for the prevention of childhood obesity. (Abstract No. 1254). *Medicine and Science in Sports and Exercise*. 32(5): Abstract S258. 2000.

Professional Presentations

Seminar. **Vehrs, P.R.** Does Slow and Steady Really Win the Race - What Exercise Physiology Teaches us about the Tortoise and the Hare. Female Athlete Conference, June 6-8, 2019, Babson College (Boston, MA).

Poster. [Adams, S.](#), [Massey, K.](#), [Tafuna'i, N.](#), [Hanson, B.](#), **Vehrs, P.R.** The effects of gender on the HR-VO₂ relationship during treadmill running. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 26-27, 2018, Costa Mesa, CA.

Poster. [Massey, K.](#), [Adams, S.](#), [Tafuna'i, N.](#), [Hanson, B.](#), **Vehrs, P.R.** The effects of gender on the HR-VO₂ relationship during cycling. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 26-27, 2018, Costa Mesa, CA.

Poster. [Tafuna'i, N.](#), [Adams, S.](#), [Massey, K.](#), [Hanson, B.](#), **Vehrs, P.R.** The effects of mode of exercise (Running vs Cycling) on the HR-VO₂ relationship. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 26-27, 2018, Costa Mesa, CA.

Poster. **Vehrs, P.R.**, [Adams, S.](#), [Massey, K.](#), [Tafuna'i, N.](#), [Hanson, B.](#) Estimation of running and cycling VO₂max using the Heart Rate Ratio Method. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 26-27, 2018, Costa Mesa, CA.

Oral Presentation. **Vehrs, P.R.**, [MacDonald, E.Z.](#), Eggett, D. Estimates of body composition in normal weight and overweight adults using the LeanScreen™ app. Annual Conference of the American College of Sports Medicine. May 31, 2017, Denver, CO.

Workshop. **Vehrs, P.R.**, George, J.D. A new approach to the assessment and training of core stability muscles. Regional Conferences of the National Strength and Conditioning Association. June 3, 2017, Salt Lake City, UT.

Poster. **Vehrs, P.R.**, [MacDonald, E.Z.](#), [Hamblin, J.](#), [Brown, N.](#) Validity and reliability of estimates of body composition using a photographic methods and OMRON. Annual Conference of the American College of Sports Medicine. June 4, 2016, Boston, MA

Poster. [MacDonald, E.Z.](#), [Brown, N.](#), [Hamblin, J.](#), **Vehrs, P.R.** Validity and reliability of estimates of body composition using circumferences measured photographically and manually. Annual Conference of the American College of Sports Medicine. June 4, 2016, Boston, MA

Colloquia. **Vehrs, P.** The past, present, and future of functional fitness assessment and training. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 21-22, 2016, Costa Mesa, CA.

Colloquia. **Vehrs, P.**, [Hafen, P.](#) Lactate and performance 101: LT, MLSS, Training and Performance. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. October 16-17, 2015, Newport Beach, CA.

Poster. Tolley, J.R., George, J.D., **Vehrs, P.R.**, Reece, J.D., Akay, M.F., Sow, B., & Cambridge, E.D.J., Prediction of maximum endurance times involving five core stabilization exercise assessments. Annual Conference of the Southwest Chapter of the American College of Sports Medicine, Abstract #135, October 16-17, 2015, Newport Beach, CA.

Poster. MacKay, M., Hafen, P., Larsen, A., Rosengreene, K., Mooth, A., Savio, G., Wood, P., M Catlett, S., Grier, A., **Vehrs, P.** A comparison of the intensity of exercise at different definitions of the lactate threshold. Annual Conference of the American College of Sports Medicine. May 27, 2015, San Diego, CA.

Poster. Savio, G., Hafen, P., Larsen, A., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Whole blood lactate levels measured using the YSI analyzer and the NOVA Lactate Plus. Annual Conference of the American College of Sports Medicine. May 27, 2015, San Diego, CA.

Poster. Hafen, P., Savio, G., Larsen, A., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Respiratory exchange ratio as an index for endurance training intensities. Annual Conference of the American College of Sports Medicine. May 27, 2015, San Diego, CA.

Poster. Larsen, A., Hafen, P., Savio, G., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** A respiratory exchange ratio = 1.0 overestimates the maximal lactate steady state. Annual Conference of the American College of Sports Medicine. May 27, 2015, San Diego, CA.

Poster. Mooth, A., Hafen, P., Larsen, A., Rosengreene, K., Savio, G., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Blood lactate levels measured using finger prick vs venous blood draw methods. Annual Conference of the American College of Sports Medicine. May 27, 2015, San Diego, CA.

Poster. **Vehrs, P.R.**, Black, N., George, J.D., and Hager, R.L. Prediction of VO₂max in children and adolescents with non-exercise data. Annual Conference of the American College of Sports Medicine. May 27, 2015, San Diego, CA.

Poster. Catlett, S., Hafen, P., Larsen, A., Rosengreene, K., Mooth, A., Savio, G., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** A comparison of the intensity of exercise at different definitions of the lactate threshold. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 17-18, 2014, Costa Mesa, CA.

Poster. Hafen, P., Savio, G., Larsen, A., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Respiratory exchange ratio as an index for endurance training intensities. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 17-18, 2014, Costa Mesa, CA.

Poster. Larsen, A., Hafen, P., Savio, G., Rosengreene, K., Mooth, A., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** A respiratory exchange ratio = 1.0 overestimates the maximal lactate steady state. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 17-18, 2014, Costa Mesa, CA.

Poster. Mooth, A., Hafen, P., Larsen, A., Rosengreene, K., Savio, G., Catlett, S., Wood, P., MacKay, M., Grier, A., **Vehrs, P.** Blood lactate levels measured using finger prick vs venous blood draw methods. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 17-18, 2014, Costa Mesa, CA.

Poster. [Savio, G.](#), [Hafen, P.](#), [Larsen, A.](#), [Rosengreene, K.](#), [Mooth, A.](#), [Catlett, S.](#), [Wood, P.](#), [MacKay, M.](#), [Grier, A.](#), [Vehrs, P.](#) Whole blood lactate levels measured using the YSI analyzer and the NOVA Lactate Plus. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 17-18, 2014, Costa Mesa, CA.

Colloquia. [Vehrs, P.R.](#) Assessment and correction of posture and function. Annual Conference of the Southwest Chapter of the American College of Sports Medicine. Oct 17-18, 2014, Costa Mesa, CA.

Colloquia. [Vehrs, P.R.](#) Assessment of posture and function in athletes. Annual conference of the Utah Athletic Trainers Association. Weber State University, Ogden, UT, November, 2014.

Poster. [Vehrs, P.R.](#), Hager, R., Eggett, D. The relationship between carotid IMT and blood pressure, BMI, 10-year risk and physical activity categories. Annual National Conference of the American College of Sports Medicine and World Congress on the Role of Inflammation in Exercise, Health and Disease. Orlando, FL, May 29, 2014.

Poster. [Vehrs, P.R.](#), Hager, R., Eggett, D. A comparison of the ACSM, Framingham, and Reynolds risk stratifications. Annual National Conference of the American College of Sports Medicine and World Congress on the Role of Inflammation in Exercise, Health and Disease. Orlando, FL, May 30, 2014.

Poster. [Hafen, P.](#) and [Vehrs, P.R.](#) Effect of racing flats on running economy in male adolescent runners. Annual National Conference of the American College of Sports Medicine. Orlando, FL, May 31, 2014.

Colloquia. [Vehrs, P.R.](#) How does posture fit into the exercise plan? In a Colloquia entitled: Functional movement assessment and corrective exercise strategies. Southwest Chapter of the American College of Sports Medicine. Newport Beach, CA, October 2013.

Colloquia. [Vehrs, P.R.](#) Neuromotor exercise: ACSM Guidelines. In a Colloquia entitled: Postural assessment and corrective exercise strategies. Southwest Chapter of the American College of Sports Medicine. Newport Beach, CA, October 2013.

Oral Presentation. [Vehrs, P.R.](#) Performance on the Functional Movement Screen is related to BMI and physical activity levels in senior men and women. Utah Physical Therapy Association, Layton UT, Oct 12, 2013.

Poster. [Vehrs, P.R.](#), [Black, N.](#), George, J., Hager, R.L. Prediction of VO₂ in children and adolescents using physical activity questionnaires. Southwest Chapter - American College of Sports Medicine. Newport Beach, CA, October 2013.

Poster. [Vehrs, Z.F.](#), [Vehrs, P.R.](#), Johnson, A.W., Mitchell, U., [Nomiya, M.](#), [Barker, H.](#), Uvacek, M., Toth, M., [Mako, L.](#) Functional Movement Screen performance and its relationship to BMI and body fat in children. Utah Physical Therapy Association, Layton UT, Oct 12, 2013.

Poster. [Vehrs, Z.F.](#), [Vehrs, P.R.](#), Johnson, A.W., Mitchell, U., [Nomiya, M.](#), [Barker, H.](#), Uvacek, M., Toth, M., [Mako, L.](#) The functional movement screen is negatively correlated to BMI and body fat in children. Southwest Chapter - American College of Sports Medicine. Newport Beach, CA, October 2013.

Poster. [Nomiya, M.](#), Johnson, A.W., Mitchell, U., [Vehrs, P.R.](#), [Barker, H.](#), [Vehrs, Z.F.](#), Uvacek, M., Toth, M., [Mako, L.](#) Gender differences in Hungarian Children aged 10-12 years on the Functional Movement Screen and elbow flexor and extensor strength. Utah Physical Therapy Association, Layton UT, Oct 12, 2013.

Poster. [Nomiyaami, M.](#), Johnson, A.W., Mitchell, U., **Vehrs, P.R.**, [Barker, H.](#), [Vehrs, Z.F.](#), Uvacek, M., Toth, M., [Mako, L.](#) Gender differences in Hungarian Children aged 10-12 years on the Functional Movement Screen and elbow flexor and extensor strength. Southwest Chapter - American College of Sports Medicine. Newport Beach, CA, October 2013.

Poster. **Vehrs, P.R.**, [Webb, C.](#), George, J.D., and Hager, R. Estimating VO₂max Using a Personalized Step Test. Southwest Chapter - American College of Sports Medicine Annual Meeting. Newport Beach, CA., October 2012.

Poster. Hager, R., [DaSilva, K.](#), George, J., and **Vehrs, P.** Healthy and unhealthy dietary intake and carotid intima media thickness. Southwest Chapter - American College of Sports Medicine Annual Meeting. Newport Beach, CA, October 2012.

Poster. Johnson, A.W., **Vehrs, P.R.**, George, J.D., [Perry, J.](#), Fellingham, G.W. Cardiovascular and metabolic responses to exercising with the GlydeTrak compared to running. Annual National Meeting of the American College of Sports Medicine. San Francisco, CA, 2012.

Poster. [Brooks, C.](#), Johnson, A.W., Myrer, J.W., Uvacek, M., Toth, M., **Vehrs, P.R.**, Hager, R.L. Multifidus cross sectional area in Hungarian Gymnasts with and without back pain - A preliminary study. Annual National Meeting of the American College of Sports Medicine. San Francisco, CA, 2012.

Poster. [Perry, J.](#), Johnson, A.W., **Vehrs, P.**, Fellingham, G.W., George, J.D., [DeFrancis, Z.](#), and [Jordan, D.](#) Effective Physical Therapy Aids: Discovering the Potential Cardiovascular Benefits of the GlideCycle. Utah Physical Therapy Association, Layton, UT. October, 2011.

Poster. George, J.D., Hager, R.L., **Vehrs, P.R** and [Akay, M.F.](#) (2011). Predicting maximum oxygen uptake from submaximal endurance exercise involving walking, jogging, or running. Annual National Meeting of the American College of Sports Medicine, Denver, CO, June, 2011.

Oral Presentation. [Villamonte, R.](#), **Vehrs, P.R.**, Feland, J.B., Johnson, A.W., Seeley, M., Eggett, D. Reliability of Sixteen Balance Tests in Individuals with Down Syndrome. Latin American Physical Education Congress. Carlos Paz, Argentina. September 2010.

Poster. [Mooney, A.](#), [Kelsey, L.](#), George, J.D. Hager, R.L., Myrer, W., and **Vehrs, P.R.** Assessing body composition of children and adolescents using dexta, skinfolds, and electrical impedance. Southwest Chapter - American College of Sports Medicine Annual Meeting. San Diego, October 22-23, 2009.

Poster. Hager, R., [Johnson, S.](#), George, J.D., and **Vehrs, P.R.** A Comparison of lifestyle risk factors and participation rates in the Wellness program at NuSkin International. Southwest Chapter - American College of Sports Medicine Annual Meeting. San Diego, October 22-23, 2009.

Poster. George, J.D., [Neilson, D.E.](#), **Vehrs, P.R.**, Hager, R.L., [Webb, C.V.](#) Predicting VO₂max in college-aged participants using cycle ergometry and perceived functional ability. Southwest Chapter - American College of Sports Medicine Annual Meeting. San Diego, October 22-23, 2009.

Oral Presentation. [Villamonte, R.](#), Vehrs, P.R., Feland, J.B., Johnson, A.W., Seeley, M., Eggett, D. Reliability of Sixteen Balance Tests in Individuals with Down Syndrome. International Mosaic Down Syndrome Conference, Cincinnati, OH. July 2009.

Oral Presentation. **Vehrs, P.R.** Body Composition Assessments in Public School Physical Education Programs. National AAHPERD Annual Conference, Salt Lake City, April, 2006.

Half-Day Workshop. **Vehrs, P.R.** Strength training children and adolescents. National AAHPERD Annual Conference. Sponsored by NASPE's Youth Sport Coalition. Salt Lake City, April, 2006.

Poster. [Drummond, M.J.](#), Conlee, R.K. **Vehrs, P.R.**, Winder, W., Schaalje, B. Parcell, A.C. Acute Myogenic Responses to Resistance Exercise Are Influenced by Exercise. Southwest Chapter - American College of Sports Medicine Annual Meeting, San Diego, November 2006.

Poster. [Riding, T.](#), Hopkins, T., **Vehrs, P.**, and Draper D. Contributions of muscle fatigue to a neuromuscular neck injury in female standard ballroom dancers. Rocky Mountain Athletic Training Association, April 21, 2006.

Poster. [Brodegard, W.C.](#), [Thomas, C.](#), and **Vehrs, P.** Effects of multi-modal training in athletes. Presidents's Leadership Council. March 2, 2006. ORCA Recipient. Brigham Young University.

Seminar. **Vehrs, P.** Strength Training Children and Adolescents - Guidelines and Recommendations. SW-AHPERD Annual Convention, Phoenix, Arizona, February 2005.

Poster. [Villamonte, R.](#), **Vehrs, P.**, Parcell A. The effect of carbohydrate supplementation on multiple endurance performances. Southwest Chapter - American College of Sports Medicine Annual Meeting. Las Vegas, NV, November, 2005

Oral Presentation. **Vehrs, P.R.**, [Robinson, L.](#), [Corey, M.](#), [Nielson, R.](#), Padfield, G. Validity of a Bioelectrical impedance body composition measurement device used in public schools. National AAHPERD Annual Conference, New Orleans, LA, April, 2004.

Poster. [Phillips, M.D.](#) and **Vehrs, P.R.** Comparison of Body Composition Assessments in Junior High School Students Using Two Methods. National AAHPERD Annual Conference, New Orleans, LA, April, 2004.

Symposium. Pennington, T., **Vehrs, P.**, Padfield, G., [Holley, K.C.](#), and [Johnson, T.](#) The NSFF LIFT America Program: It is working? SW-AHPERD Annual Convention, Santa Anna Pueblo, New Mexico, 2004.

Symposium. Pennington, T., Vehrs, P., Padfield, G., [Wilson, A.](#), [Allen, A.](#), and [Pearson, J.](#) Junior High School Students' Attitudes Toward Physical Education: Does the LIFT America Program Make a Difference?" National AAHPERD Annual Conference, New Orleans, LA, 2004.

Symposium. **Vehrs, P.R.**, Pennington, T., Padfield, G. Model School Project. Utah AHPERD, April 12, 2003.

Poster. [Abbott, R.](#), [Phillips, M.](#), **Vehrs, P.R.**, Pennington, T., and Padfield, G. Changes in body composition following 16 weeks of two different junior high school physical education programs. Southwest Chapter - American College of Sports Medicine Annual Meeting. Las Vegas, NV Nov 8, 2003.

Poster. [Allen, A.](#) [Tegeger, A.](#), [Pearson, J.](#), Pennington, T., Padfield, G. and **Vehrs, P.R.** Strength gain comparison of two junior high school physical education curricula. Southwest Chapter - American College of Sports Medicine Annual Meeting. Las Vegas, NV Nov 8, 2003.

Poster. [Phillips, M.](#), [Abbot, R.](#), Pennington, T., Padfield, G. and **Vehrs, P.R.** Comparison of two methods of estimating body composition in 12-15 year olds. Southwest Chapter - American College of Sports Medicine Annual Meeting. Las Vegas, NV Nov 8, 2003.

Poster. [Tegeuder, A.](#), [Pearson, J.](#), Pennington, T., Padfield, G. and **Vehrs, P.R.** Fitness test comparison of two Junior High School physical education curriculum. Southwest Chapter - American College of Sports Medicine Annual Meeting. Las Vegas, NV Nov 8, 2003.

Poster. [Keller, D.](#), **Vehrs, P.R.**, George, J.D., Hager, R. Monitoring Changes in VO₂max during 14 weeks of endurance training using the Cardio Coach. Annual National Meeting of the American College of Sports Medicine, San Francisco, CA. 2003.

Oral Presentation. George, J.D., [Larsen, G.E.](#), [Alexander, J.L.](#), **Vehrs, P.R.**, Hager, R.L., & Fellinghan, G.W. Prediction of maximum oxygen consumption from walking, jogging, and running. Annual National Meeting of the American College of Sports Medicine, St. Louis, MO. 2002.

Poster. [Keller, D.M.](#), Parcell, A.C., [Hoyt, G.](#), **Vehrs, P.R.** Validity of a portable device to measure VO₂max. Annual National Meeting of the American College of Sports Medicine, St. Louis, MO. 2002.

Poster. [Zhou, B.](#), George, J.D., **Vehrs, P.R.** Factors associated with maximal oxygen consumption in untrained female college students versus collegiate distance runners. SW District/Utah AHPERD Convention, Park City, UT, June 2001.

Oral Presentation. **Vehrs, P.R.**, George, J.D., Fellingham, G.W., Plowman, S.A., [Dustin-Allen, K.](#) Multiple-site validation of a single stage submaximal treadmill exercise test to predict VO₂max. Annual National Meeting of the American College of Sports Medicine. Baltimore, May 30. 2001.

Symposium. **Vehrs, P.R.** Childhood Obesity. American College of Sports Medicine Annual Conference, Indianapolis, June 2, 2000.

Other Professional Presentations (non-peer reviewed)

Vehrs P. Strength Training. Well and Wise Seminar - BYU Wellness Program. Jan 27, 2005.

Vehrs P. "Why Water?". Well and Wise Seminar - BYU Wellness Program. July 21, 2004.

Vehrs P, Vincent S. Women's Conference. Physical activity recommendations for children. 2008.

Thesis and Dissertation Committees:

Thesis Chair: (abbreviated titles) * = published

Nicole Denney. Femoral blood flow at various occlusion pressured at rest and during exercise.

*Liza MacDonald. Validity and reliability of photographic assessment of body composition. 2016

Jamie Pratt. The effects of employee health promotion programs on health behaviors. 2014.

*Breanna Hopkins. Validity of PostureScreen Mobile Measurement of Standing Posture. 2014

*Catherine Webb. Validation of a step test to predict VO₂max in young healthy adults. 2011.

*Angela Mooney. Validation of body composition assessments in children. 2009.

*Nathan Black. Development of a submaximal exercise test to predict VO₂max in children. 2009.

Laurie Weisler. Perception of healthy body size in college aged males and females. 2008.

* Rishann Nielsen. Energy expenditure during walking as different stride frequencies. 2007.

Kelly Miner Jennings. Creatine and nutritional supplementation in adolescent athletes. 2008
Nina Mortensen. A notational analysis system to evaluate setting performance in volleyball. 2007
Marisha Corey. Heart rate responses to track and treadmill jogging. 2005.
Laurel Robinson. Variance in percent body fat between and within families. 2004.
* David Keller. Monitoring changes in VO₂max during 14 weeks of endurance training. 2002.

Thesis Committee (abbreviated titles):

Brady Hanson. The role of vascular endothelial function in blood flow and vascular conductance.
Nicole Rencher. The acute effects of whole-body corrective exercise on postural alignment. 2014.
Zachary Vehrs. The effect of Egoscue corrective exercises on chronic knee and hip pain. 2014.
Kelsey DaSilva. Dietary habits and carotid artery IMT 2012.
Jayson Gifford. The effect of local heating on interstitial ATP in human skin. 2011.
Cheryl Stapley. Relationship between physical activity and cIMT in physically active seniors. 2011.
Robert Thiebaud. The role of Nitric oxide on skin blood flow. 2010.
Crystelle Hansen. Influence of cardiac output on oxygen uptake kinetics. 2010.
Jenny Willis. Body composition and carotid artery IMT in children and adolescents. 2009.
Stephanie Jones Zobell, Lactate threshold: The comparison of running on land and in water. 2009
* David Nielsen. Predicting VO₂max in college aged participants using cycle ergometry. 2009.
Nathan Bexfield. Plasma Volume and Albumin mRNA Expression in Exercise Trained Rats. 2007.
Jill Marble Johnson. Ventilatory Responses to Exercise While Wearing a Mouthguard. 2007.
* Rachel Kemp Rife. Physiological difference between land and water treadmill running. 2007.
* Teri Riding. Muscle fatigue and neuromuscular neck injury in female ballroom dancers. 2006.
Heidi Sneider. Fiber type specific desmin content in human single muscle fibers. 2005.
Benjamin Bikman. Changes in body fat, body weight and serum C-reactive protein. 2005
Heather Hart. The effects of lifestyle modification on carotid intima media thickness. 2004.
Jeffrey Hurst. The effects of wearing a mouthguard on VO₂, ventilation and RPE. 2004.
* Annette Hyde. Prediction of maximal oxygen uptake in healthy adults. 2004
Mary Shaw. Management's perspective of health promotion programs. 2004
* Danielle Bradshaw. A VO₂ non-exercise regression model for 18-65 year old adults. 2003.
* Samantha Paul. A multi-stage submaximal treadmill test to predict VO₂max. 2002.
Hank Taylor. Estimation of VO₂max from a 1.5 mile endurance test. 2001.
Mike Roberts. Estimation of VO₂max from a submaximal walking treadmill test. 2001.

Dissertation Chair:

*Romina Villamonte. Reliability of 16 balance tests in individuals with Down Syndrome, 2009.
*Camille Thomas, Development of a notational analysis system for selected soccer skills of a women's college team. 2006

Dissertation Committee:

Paul Hafen. Deep tissue heating as a therapeutic intervention to prevent skeletal muscle atrophy.
Eli Lankford. The intensity of exercise eliciting maximal fat oxidation.
Micah Drummond. Acute myogenic responses to resistance exercise.

Student Mentored Research Experiences (non-thesis)

2018 David Rule, Sabrina Adams, Kaylee Browning, Addison Walter, Britt Lewis, Tyler Cannon, Brian Quinlan
A comparison of the HR-VO₂ relationship during running and cycling.

2015 Jami Hamblin, Nicole Brown.
Validity and reliability of photographic assessment of body composition.

- 2014 Andy Larsen, Kurtis Rosengreen, Audriana Mooth, Sean Catlett, Parker Wood, Gregory Savio, Amanda Gier, Mark MacKay.
Comparison of laboratory measures of maximal lactate steady-state.
- 2013 Misa Nomiyami and Hailey Barker and Zachary Vehrs
Functional Movement Screen research in Hungary and Germany.
- Cameron King, Ben Otto, and Brian Ross
Reliability of PostureScreen Mobile and the 3D motion analysis assessments of standing posture.
- Brennan Wright, Andrew Barrett, Hayden Smith, JuYeon Lee
Functional Movement Screen in Seniors.
- 2011 Trevor Barney, Brett LeFevre, Emily Morgan, Dennis Blackwelder
Carotid IMT research of BYU Students.
- Brett LeFevre, Emily Morgan, Dennis Blackwelder, Alyssa Symres Evanson, Caisa Brooks
Carotid IMT Research in Hungary.
- 2010 Robert Chestnut - Honors student
- 2010-2012 Carotid IMT research at the Senior Games (An average of 20 students/year)
- 2000-2005 BYU Pow-Wow. 30-40 students per year
- 2005 William Bordergard - ORCA Grant. Effects of multi-modal training in athletes.
Selected to represent the College in a presentation to the President's Leadership Council
- 2002 - 2004 Research Project (Mentoring Environment Grant) at Lakeridge Jr High. Over 70 undergraduate students and student teachers.
- Fall 2001 20 Exercise Science students host the SWACSM Annual Conference

Student Teaching Experiences

- EXSC 464 Teaching Assistants
- 2018 Brady Hanson, Nicole Tafunai, Victoria Violet, Joshua Kelly, David Rule, Sabrina Adams, Taysom Wallace, Kyle Anderson
- 2017 Paul Hafen, Jacob Sorenson, Mark Olsen, Brady Hanson, Nicole Tafunai, Victoria Violet, Kyle Anderson
- 2016 Paul Hafen, Jacob Sorenson, Mark Olsen, Victoria Violet
- 2014 Paul Hafen, Jacob Sorenson, Tiffany Devries, Heath Partington
- 2013 Paul Hafen, Katy Neeves, Jamie Pratt, Gabriel LeCheminant

EXSC 463	Teaching Assistants
2018	Brady Hanson, Nicole Tafunai, Alyson Whitworth,
2017	Nicole Tafunai, Nicole Rencher, Blake Cowan
2016	Ashley Russell, Javier Asconio-Pellon
2015	Preston Hatch, Ashley Russell, Melanie Evans, Javier Asconio-Pellon
2014	Caitlin Dudley, Dexter Nye
2013	Nora Glead, Tiffany Devries, Ben Larsen

Student Awards and Grants

David Keller	· Research Presentation Award; Office of Graduate Studies; 2002
Micah Drummond	· Research Presentation Award; Office of Graduate Studies; 2002 Smith Foundation Research Grant. \$1,400. Sequencing of concurrent treadmill and resistance exercise and its acute effect upon EPOC, 2002. Smith Foundation Research Grant. \$1,143. Precision of the BOD POD under hypo-hydrated and hyper-hydrated conditions, 2003. Norman James Student Research Award, \$500; SW-ACSM, 2004
Romina Villamonte	· Smith Foundation Research Grant. · Mary Lou Fulton Chair - Research Grant, \$1400, \$779
Kelly Jennings	· Mary Lou Fulton Chair - Research Grant, \$4,300, 2007
Jenny Willis	· Mary Lou Fulton Chair - Research Grant, \$6,740, 2008
Angela Mooney	· Mary Lou Fulton Chair - Research Grant, \$2050, 2008
Nathan Black	· Mary Lou Fulton Chair - Research Grant, \$2450, 2008
Carrie Webb	· Mary Lou Fulton Chair - Research Grant
William Brodegard	· ORCA Grant. 2005.

Grants Currently in Review

None

Grants Received

Vehrs, P. Electronic whiteboard presentations in Exercise Physiology. Teaching Enhancement Grant. College of Life Sciences. November, 2016. \$2,268.

Vehrs, P., LeCheminant, J., Bailey, B. Role of a nutritional supplement in increasing energy expenditure at rest and during exercise. Zija Corporation, January 2013. \$14,400. (Note: This grant was awarded and then returned by BYU Administration due the nature of the research).

Holt-Lundstat, J., Hedges, D., Hager, R., **Vehrs, P.** The association between social relationships and cardiovascular aging. Family Studies Center. Fall 2011. \$6,500.

Hedges, D., Holt-Lundstat, J. **Vehrs, P.**, Nielson, B., and Call, V. Associations Between Genetic Polymorphisms Associated with Stress Tolerance and Healthy Aging. Family Studies Center. Fall 2011. \$6,500.

Vehrs, P. Kennedy Center for International Studies. Comparison of cardiovascular risk and carotid IMT between BYU and Hungarian coeds. Fall 2010 - 2011. \$5000.

Vehrs, P. and Hager, R. Gerontology Research Grant. Carotid Artery Intima-Media Thickness and its Relationship to Cardiovascular Risk. (\$4,000; Dec 2010)

Vehrs, P. Women's Research Initiative Grant. Development of normative values for carotid artery intima-media thickness in women. (June 2010; \$5,000)

Vehrs, P. and Villamonte, R. Mary Lou Fulton Chair. Reliability of sixteen balance tests in Down Syndrome. (2009, \$1,400).

Vehrs, P. and Hager, R.L. Gerontology Research Grant. Carotid artery intima-media thickness and its relationship to cardiovascular risk. (December 2009; \$9,950).

Vehrs, P. and Jennings, K. Mary Lou Fulton Chair. Knowledge, beliefs and prevalence of creatine use in young athletes attending BYU summer sports camps. (February 2007, \$4,300).

Vehrs, P. and Black, N. Mary Lou Fulton Chair. Development of a submaximal exercise test to predict VO₂max in children and adolescents. (August 2008, \$2,450).

Myrer, J.W., Hager, R., George, J.D., Prusak, K., **Vehrs, P.R.** Gerontology Research Grant. Characteristics and correlates of lifelong physical activity in a large senior population. (January, 2008; \$7,728)

Vehrs, P. Walk4Life. Energy Expenditure of Walking on the Treadmill at Different Step Frequencies. (February 2006), Equipment grant of \$2,445.

Vehrs P. Center for Instructional Design. Wall-to-Wall Racquetball; Instructional DVD for Beginning and Intermediate Racquetball. Funded (June 2004, \$20,000)

Vehrs, P., Pennington, T., Padfield, G. Environments in Mentoring Grant, (February 2004), \$11,116. Efficacy of the LIFT America Strength Training Program in US Public Schools

Vehrs, P. AAHPERD Research Consortium, (May 2003) \$13,059. Validity of a bioelectrical impedance body composition measurement device used in public schools.

Vehrs, P., Pennington, T., Padfield, G. Tech 360 - Bio Mass, (May 2003), \$5000. Evaluation of fitness technology in junior high school physical education.

Vehrs, P. Pennington, T. Padfield, G. Environments in Mentoring Grant, (February 2003), \$19,400. The effects of traditional physical education and the Leadership in Fitness Training (LIFT) program in junior high school physical education curriculum.

Vehrs, P. Korr Medical Technologies, (December 2001) Equipment grant of \$4,500.
Validity of Cardio-Coach in measuring VO₂max before, during and after 16 weeks of training.

Vehrs, P. Faculty Fellowship Award, College of Health & Human Performance, (January 2001)
\$6,900. Changes in stroke volume during graded exercise in world-class female distance runners
by a non-invasive acetylene re-breathing method.

Grant Applications - Not Funded

Hafen, P. and Vehrs, P. Graduate Fellowship Award (Graduate School)

Vehrs, P. Graduate Mentoring Award (Graduate School). Estimation of maximal lactate steady
state in trained cyclist and runners. (\$14,000; 2015)

Vehrs, P. Mentoring Environment Grant. Estimation of maximal lactate steady state in trained
male and female cyclist and runners. (\$20,000; 2014)

Vehrs, P., Johnson, A.W., Feland, B, Mitchell, U. Gerontology Research Grant. Performance on
the FMS and standard clinical assessments of function in senior men and women. (\$4,000; 2013)

Vehrs, P., Feland, J.B., Johnson, W.A., Mitchell, U.H., and George, J.D. Efficacy of the functional
movement screen in assessing function in senior men and women. Gerontology, \$6,310, 2012.

Mitchell, R., **Vehrs, P.**, and Bickman, B. Mentoring Environment Grant. The role of ceramide as a
mediator of aging-associated atherosclerotic development via altered nitric oxide synthesis. 2012.

Mitchell, R., **Vehrs, P.**, and Bickman, B. Gerontology Grant. The role of ceramide as a mediator
of aging-associated atherosclerotic development via altered nitric oxide synthesis. Fall 2012.

Vehrs, P.R. Kennedy Center for International Studies. Comparison of cardiovascular risk and
carotid IMT between seniors in the U.S and Hungary. Fall 2011. \$5000.

Vehrs, P. and Hager, R. Association Between Inflammatory Markers and Carotid Artery Intima-
Media Thickness. Gerontology Research Grant, Fall 2011. \$8,000.

Vehrs, P. and Hager, R. AtraZeneca Pharmaceuticals. Cardiovascular Risk Profiles of Physically
Active Seniors, \$20,000, June 2011.

Vehrs, P. and Hager, R. CG Charitables. Cardiovascular Risk Profiles of Physically Active
Seniors, \$18,000. June 2011

Vehrs, P., Hager, R., Hedges, D., Holt-Lundstat, J. The influence of early childhood “risky family”
psychosocial environment on cardiovascular risk later in life. Family Studies Center. Fall 2011.
\$11,000.

Vehrs, P. and Hager R. Environments in Mentoring Grant, (2010). Carotid artery intima media
wall thickness and cardiovascular risk. (\$20,000).

Vehrs, P. and Hager R. Environments in Mentoring Grant, (2008). Cross sectional and
longitudinal changes in carotid artery wall thickness in an aging athletic population. (\$18,979)

Professional Certifications:

Program Director; ACSM
Certified Clinical Exercise Specialist (formerly Exercise Specialist); ACSM
Certified Exercise Physiologist (formerly Health Fitness Instructor); ACSM
Exercise Test Technologist; ACSM

Membership in Professional Organizations:

American College of Sports Medicine
South West Chapter of the American College of Sports Medicine

University Teaching Experience: (Brigham Young University)

Exercise Physiology, EXSC 463 (Fall, Winter, Sp/Su; 2000 - Present)
Exercise Physiology, EXSC 463 Independent Study (Winter 2017 – Present)
Introduction to Electrocardiography, EXSC 466 (New Course, Fall 2018)
Exercise Testing and Prescription, EXSC 669 (Winter; 2001 - Present)
Basic Electrocardiography, EXSC 670 (New course Winter 2006 - 2012)
Reading Seminar, EXSC 699 (Fall 2013, 2015)
Exercise Physiology for Physical Educators, EXSC 366 (Fall; 2005 – 2008, 2014-2015)
Laboratory Methods and Procedures, EXSC 667 (Fall; 2003 - 2005)
Cardiovascular Physiology, EXSC 766 (Winter; 2001, 2003)
Sport Medicine Pharmacology, EXSC 501 (Guest lecturer, Winter 2004 - 2007)
HEPE 129, Cardiovascular unit lecturer (Fall 2004)
Student Activity Classes (STAC): Beginning Golf, Weight Training & Intermediate Racquetball

Service to the University

Service to the Department of Exercise Sciences
Department Awards Committee (2018 to present)
EXSC 464 Coordinator (2000 to present)
Exercise Science Advisor (2001 to present)
Undergraduate Curriculum Committee (2001 – 2009; 2016-Present)
Graduate Curriculum Committee (2016- 2017)
Faculty Annual Review Committee (2015)
Faculty Advancement Review Committee (2014-2015)
Exercise Science Program Committee (2001 to 2012)
Rank and Advancement Committee (2011)
Ad hoc Committee - Department Mission Statement (2011)
Ad hoc Committee - Spring Summer Teaching (2010)
Exercise Science Search Committee (2004 – Biomechanics; 2007 - Anatomy)
Exercise Science Search Committee Chair (2003 - Exercise Physiology and Biomechanics)
Exercise Science Program Coordinator (2001 to 2009)
Exercise Physiology Lab Coordinator (2001 to 2005)
Faculty Social (Fall 2001)
Spring Social photographer (Winter 2002)
Information Booth at SW-ACSM annual meeting (2003, 2004)
Racquetball Coordinator (2004- present)
Recruitment Booth at BYU (2007) and UVU (2008)

Service to the College

Graduate Research Fellowship reviewer (2017)
MEG Review Committee (2010, 2011, 2012, 2013)
Career Options seminar (Fall 2001 to 2009)
New Faculty Seminar panel discussion member (Spring 2002)
Information Booth at SW-ACSM annual meeting (2003, 2004)

Service to the University

Institutional Review Board for the use Human Subjects in Research (2007- 2013)
Center for Instruction Design, Faculty Advisory Board (Winter 2005 to 2007)
Center for Instruction Design, Faculty Fellowship Review Com. (Winter 2005 to 2007)
Well and Wise Seminar. Strength Training. January 27, 2005.
Well and Wise Seminar. "Why Water?". July 21, 2004.
Faculty Writers Group Leader, (Winter 2002)
BYU Merit Badge Pow-Wow (2000 - 2006)

Service to the Profession

American College of Sports Medicine - National

Professional Education Committee (2000 to 2009)
Health and Fitness Instructor Examination Certification Director (U of U, 2003; BYU 2003).
Health and Fitness Instructor certification practical exam examiner (U of U, 2002)
Committee on Certifications and Registry (2001 to 2003)
Academic Standards & Clinical Competencies Committee (2001 to 2003)
Certification & Education Committee (2000 to 2002)
Health & Fitness Track Subcommittee (2000 to 2002)
Chair: Slide Presentation session E33b; National Convention, St. Louis MO, 2002
Chair: Symposium. Childhood Obesity; National Convention, Indianapolis IN 2000.

American College of Sports Medicine - Southwest Chapter

Nominee for President Elect (2002, 2007, 2016)
Moderator. Two symposia, Annual meeting, Newport Beach, CA. (Oct 18-19, 2013)
Board Member at Large, Meeting Administration (2006 to 2007)
Moderator, Annual meeting, San Diego, CA (October 22, 2004)
Moderator. Two symposia, Annual meeting, San Diego, CA.. (November 7-8, 2003)
Board Member at Large, Membership and Program Development (2003 to 2005)
Host Site Coordinator, Annual meeting, Salt Lake City UT. (November 2001)
Moderator, Annual meeting, San Diego, CA. (November 17-19, 2000)

Reviewer

Research Quarterly for Exercise and Sports (2018)
International Journal of Sports Medicine (2018)
Journal of Pediatrics (2017)
European Journal of Sport Science (2017)
Biology of Sport (2015)
Journal of Sport Sciences (2015)
Journal of Physical Activity & Health (2010 to 2013)
Measurement in Physical Education and Exercise Science (2008)
Medicine and Science in Sports and Exercise (2004 - 2006)
Journal of Applied Physiology (2001)

Service to the Community

Boy Scouts of America
BYU Merit Badge Pow Wow, November, 2000 - 2007

Church of Jesus Christ of Latter-day Saints
Ward Financial Clerk
Ward Historian
Scout Committee Chair
Scout Master
Primary Teacher
High Priest Group Leader
1st Counselor in Bishopric

Professional / Personal Development

Writing Matters Seminar, 2007.
Faculty Writers Group, Winter Semester 2001 and 2002
BYU Seminar. "Publish don't perish - Write more and worry less." 2001.
BYU Faculty Development Series, 2000