

CURRICULUM VITAE

Alvaro N. Gurovich, PT, PhD, FACSM

The University of Texas at El Paso, Doctor of Physical Therapy

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Education:

Post-Doctoral Associate, University of Florida College of Medicine, Department of Physiology and Functional Genomics. August 2010 – December 2011

Ph.D. Health and Human Performance, Minor in Physiology and Functional Genomics, University of Florida, College of Health and Human Performance, Department of Applied Physiology and Kinesiology. August 2006 – August 2010

Exercise Sciences Graduate Certificate, Instituto Biosystem, Rosario-Argentina. March 1990 – March 1991

Physical Therapist, Pontificia Universidad Católica de Chile. March 1986 – September 1990

Licensure Information/Registration Number:

PT Texas License # 1303089

Certifications:

Certified Anthropometry Instructor, International Society for the Advancement in Kinanthropometry (ISAK). July 2003 – November 2020.

Employment and Positions Held:

Associate Professor
Tenured
Program Director
Doctor of Physical Therapy
The University of Texas at El Paso
September 2017 to present

Associate Professor of Physical Therapy
Tenured
Department of Applied Medicine and Rehabilitation, Indiana State University
Terre Haute, Indiana
August 2015 to August 2017

Affiliate Faculty
School of Medicine, Indiana University at Terre Haute
Terre Haute, Indiana
September 2015 to August 2017

Assistant Professor of Physical Therapy
Pre-tenure
Department of Applied Medicine and Rehabilitation, Indiana State University
Terre Haute, Indiana
January 2012 to July 2015

Post-Doctoral Associate
Department of Physiology and Functional Genomics,
University of Florida College of Medicine
Gainesville, Florida
August 2010 to December 2011

Teaching/Research Assistant
Department of Applied Physiology and Kinesiology,
College of Health and Human Performance, University of Florida
Gainesville, Florida
August 2006 to July 2010

Associate/Academic Chair
School of Physical Therapy and Kinesiology,
College of Sciences, Pontificia Universidad Católica de Valparaíso
Valparaiso, Chile
August 2002 to July 2006

Associate Professor
Tenured
School of Physical Therapy and Kinesiology,
College of Sciences, Pontificia Universidad Católica de Valparaíso
Valparaiso, Chile
August 2002 to July 2006

Extension/Communications Director
School of Physical Therapy and Kinesiology,
College of Sciences, Pontificia Universidad Católica de Valparaíso
Valparaiso, Chile
August 2000 to July 2002

Assistant Professor
Pre-tenure
School of Physical Therapy and Kinesiology,
College of Sciences, Pontificia Universidad Católica de Valparaíso
Valparaiso, Chile
August 2000 to July 2002

Part-time Lecturer
School of Physical Therapy and Kinesiology,
College of Sciences, Pontificia Universidad Católica de Valparaíso
Valparaiso, Chile
August 1998 to July 2000

Physical Therapist
Director Sports Rehabilitation clinic at 'Habilitas' Health Center
Viña del Mar, Chile
August 2004 to July 2006

Physical Therapist
PT Director Outpatient clinic at 'Javiera Carrera-Hospital Alemán' Health Center
Valparaíso, Chile
November 1997 to July 2004

Physical Therapist
Chair Sports Science Lab and Head Physical Therapist in Cardiovascular Prevention
and Rehabilitation at 'Clínica Reñaca'
Viña del Mar, Chile
March 1994 to July 2004

Scientific Advisor
Chilean High Performance Athlete program,
Chilean Sports and Recreation Department
Santiago, Chile
January 1993 to March 1994

Physical Therapist
Cardiovascular ICU, inpatient, and outpatient treatment
Navy Hospital
Viña del Mar, Chile
December 1991 to November 1992

Physical Therapist (part-time and on call) in inpatient and outpatient
Orthopedics (Hospital de la Mutual de Seguridad and Hospital del Trabajador)
Cardiopulmonary ICU and inpatient (Hospital Clínico de la Pontificia Universidad
Católica de Chile)
Santiago, Chile
January 1991 to November 1991

Independent Scientific Advisor in Sports and Human Performance (e.g. professional
cyclists and soccer players, tennis, and rugby players, recreational triathletes and
marathoners) and in Ergonomics (e.g. cooper and gold mining companies, Health and
Private Corporations)
April 1994 to present

Intellectual Property

F MORALES-ACUNA, L OCHOA, **AN GUROVICH**. Ultrasound Transducer Holder For Vascular Assessments During Hyperemic Blood Flow. Provisory Patent filled November 16th, 2018

Peer Reviewed Publications:

AN GUROVICH, L RODRIGUEZ, M GOMEZ, P CARAVEO, L OCHOA, F MORALES-ACUNA. Imaging Ultrasound Assessment of Exercise-Induced Endothelial Shear Stress of the Brachial and Carotid Arteries. *Cardiopulmonary Physical Therapy Journal* (under review).

AN GUROVICH, S TIWARI, S KEHL, E UMUCU, L PEÑAILILLO. A novel “eccentric” therapeutic approach for individuals recovering from COVID-19. *Cardiopulmonary Physical Therapy Journal* (under review).

CR CARRIKER, CD HARRISON, E BOCKOVER, BJ RATCLIFFE, S CROWE, F MORALES-ACUNA, **AN GUROVICH**. Endothelial Function, Arterial Stiffness and Central Blood Pressure are Not Affected by a Single Dose of Dietary Nitrate in Males and Females. *Nutrition in Clinical Practice* (under review).

J RASCON, E TRUJILLO, F MORALES-ACUÑA, **AN GUROVICH**. Differences between Males and Females in Determining Exercise Intensity. (2020) *International Journal of Exercise Sciences*. 13(4): 1305-1316.

R SEVERIN & **AN GUROVICH**. Putting the Physiology Back in Physiotherapy. (2019) *Cardiopulmonary Physical Therapy Journal*. 30, 4: 136–138. doi: 10.1097/CPT.000000000000124

CR CARRIKER, CD HARRISON, E BOCKOVER, BJ RATCLIFFE, S CROWE, F MORALES-ACUNA, **AN GUROVICH**. Acute Dietary Nitrate Does Not Reduce Resting Metabolic Rate or Oxidative Stress Marker 8-isoprostane in Healthy Males and Females. (2019) *International Journal of Food Sciences and Nutrition*, 70:7, 887-893, doi: 10.1080/09637486.2019.1580683

F MORALES-ACUNA, B RATCLIFFE, C HARRISON, S CROWE, E BOCKOVER, R PAWLAK, AND **AN GUROVICH**. Comparison between Cuff-Based and Radial Tonometry Exercise-Induced Central Blood Pressure. (2019) *Eur JAP*, 119 (4), 901-911. doi: 10.1007/s00421-019-04079-9

F MORALES-ACUNA, L OCHOA, C VALENCIA, **AN GUROVICH**. Characterization of Blood Flow Patterns and Endothelial Shear Stress during Flow Mediated Dilatation. *Clinical Physiology and Functional Imaging*. (2019) 39: 240-245. doi:10.1111/cpf.12564

DANIEL COOVERT, LEVISA D. EVANS, STEVEN JARRETT, CARLA LIMA, NATALIA LIMA, **ALVARO N. GUROVICH**. Blood Flow Patterns during Incremental and Steady-State Aerobic Exercise. *J Sports Med Phys Fitness*. (2018) 58(10), 1537-1543. doi: 10.23736/S0022-4707.17.07142-0.

ALVARO N. GUROVICH, BRITTANY HEISER, CHASE HAYES, EMILY MARSHALL, STEPHANIE TOBIN, NEIL G. KABOUS. Clinical Variables Surrogate Blood Lactate during Graded Exercise Testing Only during Low Intensity Exercise in Patients with Coronary Artery Disease. *Cardiopulmonary Physical Therapy Journal*. (2018) 29 (4), 144-151

BRYCEN RATCLIFFE, ROBERT PAWLAK, FRANCISCO MORALES, CALEB HARRISON, **ALVARO N. GUROVICH**. Internal Validation of an Automated System for Brachial and Femoral Flow Mediated Dilatation. *Clin Hypertension*. (2017) 23:17 DOI 10.1186/s40885-017-0073-1

ROY W. GEIB, PHIL J. SWINK, ALYSSA J. VOREL, CYNTHIA S. SHEPARD, **ALVARO N. GUROVICH**, GABI N. WAITE. The bioengineering of changing lifestyle and wearable technology: a mini review. *Biomed Sci Instrum*, 51: 69-76, 2015.

ALVARO N GUROVICH, JOSEPH C AVERY, NICHOLAS B HOLTGRIEVE, AND RANDY W BRAITH. Flow-mediated dilation is associated with endothelial oxidative stress in human venous endothelial cells. *Vasc Med*, 19(4): 251-256, 2014.

DARREN T BECK, JEFFREY S MARTIN, WILMER W NICHOLS, **ALVARO N GUROVICH**, RANDY W BRAITH. Validity of a Novel Wristband Tonometer for Measuring Central Hemodynamics and Augmentation Index. *Am J Hypertens*, 27(7): 926-931, 2014.

ALVARO N. GUROVICH, ORLANDO E. FLORES, RIENZI A. DIAZ, Blood Lactate-Based Exercise Intensity vs. Heart Rate-Based Methods in Cardiovascular Rehabilitation. *Cardiopulmonary PT Journal*, 25(2): 50-54, 2014.

ALVARO N. GUROVICH, WILMER W. NICHOLS, RANDY W. BRAITH, C. RICHARD CONTI. Patients with refractory angina have increased aortic wave reflection and wasted left ventricular pressure energy. *Artery Research*, 8(1):9-15, 2014.

AMY L. SINDLER, RAFAEL A. REYES, BEI CHEN, PAYAL GHOSH, **ALVARO N. GUROVICH**, LORI S. KANG, ARTURO J. CARDOUNEL, MICHEAL D. DELP, AND JUDY M. MULLER-DELP Age and exercise training alter signaling through reactive oxygen species in the endothelium of skeletal muscle arterioles. *J Appl Physiol*; 114:681-693, 2013.

ALVARO N. GUROVICH, AND RANDY W. BRAITH. Enhanced External Counterpulsation Creates Acute Blood Flow Patterns Responsible for Improved Endothelial Function in Humans. *Hypertension Research*; 36:297-305, 2013.

KAHANOV L., EBERMAN L.E., TOWNSEND C.M, **GUROVICH A.N.** Creatine Kinase and Myoglobin as Biochemical Markers of Muscle Damage in Division-1 Collegiate Football Players. *Online Journal of Medicine and Medical Science Research Volume 1*, Issue 5, pp. 96-103; 2012.

ALVARO N. GUROVICH, AND RANDY W. BRAITH. Analysis of Both Pulsatile and Streamline Blood Flow Patterns During Aerobic and Resistance Exercise. *Eur J Appl Physiol*; 112:3755-3764, 2012.

ALVARO N. GUROVICH. Controlled Re-Injury of a Thigh Muscle Tear in A Soccer Player: A Case Study. *Journal of Physical Therapy Science*, 24(3): 295-299, 2012.

ALVARO N. GUROVICH, JUDY M. MULLER-DELP, DEMETRA CHRISTOU, AND CHRISTIAAN LEEUWENBURGH. Redox Balance in the Aging Microcirculation: New friends, new foes, and new clinical directions. *Microcirculation*, 19(1): 19-28, 2012.

GUROVICH AN, BRAITH RW. Pulse wave analysis and pulse wave velocity techniques: are they ready for the clinic? *Hypertens Res*, 34(2):166-169, 2011.

MARTIN JS, CASEY DP, **GUROVICH AN**, BECK DT, BRAITH RW. Association of Age With Timing and Amplitude of Reflected Pressure Waves During Exercise in Men. *Am J Hypertens*, 24(4):415-420, 2011.

JEFFREY S. MARTIN, DARREN T. BECK, **ALVARO N. GUROVICH**, RANDY W. BRAITH. Adverse Effects of Smokeless Tobacco on Central Hemodynamics. *Exp Biol Med (Maywood)*, 235(10):1263-1268, 2010.

ERIC J. ADKISSON, DARREN P. CASEY, DARREN T. BECK, **ALVARO N. GUROVICH**, JEFFERY S. MARTIN, RANDY W. BRAITH. Central, Peripheral, and Resistance Arterial Reactivity Fluctuates During The Phases of The Menstrual Cycle. *Experimental Biology and Medicine*, 235:111-118, 2010.

ALVARO N. GUROVICH, DARREN T. BECK, AND RANDY W. BRAITH. Aortic Pulse Wave Analysis Is Not a Surrogate for Central Arterial Pulse Wave Velocity. *Experimental Biology and Medicine*, 234:1339-1344, 2009.

ALMAGIÀ, A.; **GUROVICH, A.**; AROCA, A.; IVANOVIC, D.; BINVIGNAT, O.; TORO, T. & CABRERA, E. Estudio comparativo entre la masa ósea evaluada por protocolos Kineantropométricos v/s la densidad ósea medida por densitometría fotónica dual. *Rev. Chil. Anat.*, 17(2):189-196, 1999.

ALMAGIA A., **GUROVICH A.**, IVANOVIC D., TORO T., BINVIGNAT O.; Estudio y Análisis etario del Dimorfismo Sexual a través de la Composición Corporal. *Revista Chilena de Anatomía*, 15(2):141-149, 1997.

ALMAGIA A., TORO T., **GUROVICH A.**, CABRERA E., MARINAO A., BINVIGNAT O.; Determinación y análisis de la morfoestructura de un equipo de fútbol profesional. *Revista Chilena de Anatomía*, 14(1):87-95, 1996.

GUROVICH A., DEMPSTER P., Mac MILLAN N, ALMAGIA A.; Validación de un método kineantropométrico (estudio en una muestra de deportistas chilenos de alto rendimiento). *Revista Chilena de Anatomía*, 13(1):5-9, 1995.

GUROVICH A., ALMAGIA A.; Estudio de la Validación del Método Kineantropométrico de la Estimación de la Composición Corporal en Cinco Componentes, en una muestra de 822 Escolares de la Comuna de Las Condes, Santiago de Chile. *Rev. Intern. Antropol. Biol.*, 3(2):1-4, 1995.

GUROVICH A.; Validación del Método Kineantropométrico de Fraccionamiento Corporal en cinco componentes en una muestra de escolares chilenos de 6 a 20 años. *Kinesiología*, 38 (1):4-10, 1994.

Published Abstracts of Peer Reviewed Presentations:

JC MAZZA, RR FESTA, SL PRIETO, G D'ANDREA, MB PASQUALI, AN GUROVICH. Blood Lactate Steady State Is Maintained During Moderate Intensity Interval Training Depending Rest Time Duration. *Medicine & Science in Sports & Exercise*. 2020;52, S834.

M GOMEZ, F MORALES-ACUNA, **AN GUROVICH**. Comparison Of Oxyhemoglobin, Deoxyhemoglobin, Tissue Oxygen Saturation, And Venous Occlusion Plethysmography. *Medicine & Science in Sports & Exercise*. 2020;52, S801.

F MORALES-ACUNA, M GOMEZ, L RODRIGUEZ, **A GUROVICH**. Effects Of Boxing Training On Peripheral And Central Blood Pressure And Arterial Stiffness In Prehypertension. *Medicine & Science in Sports & Exercise*. 2020;52, S628.

P CARAVEO, F MORLES-ACUNA, A RICO, C REHBEIN, M GOMEZ, L RODRIGUEZ, **AN GUROVICH**. Boxing Training Effects On Brachial And Popliteal Endothelial Function In Prehypertensive Individuals. *Medicine & Science in Sports & Exercise*. 2020;52, S628.

JB JUAREZ, RE LARA, F MORALES-ACUNA, K IRIGOYEN, M GOMEZ, **A GUROVICH**. Boxing Training Effects On Cardiorespiratory Fitness In Individuals With Prehypertension. *Medicine & Science in Sports & Exercise*. 2020;52, S348.

KF CARRILLO, F MORALES-ACUNA, M GOMEZ, L RODRIGUEZ, P CARAVEO, **AN GUROVICH**. Endothelial Shear Stress In The Common Carotid Artery During Boxing Training. *Medicine & Science in Sports & Exercise*. 2020;52, S173.

EA SOSA, F MORALES-ACUNA, M GOMEZ, L RODRIGUEZ, P CARAVEO, J JUAREZ, **AN GUROVICH**, VO2Max And Ventilatory Threshold Comparison Between Boxing And Arm-crank Exercise Tests. *Medicine & Science in Sports & Exercise*. 2020;52, S41.

D CONDE, M GOMEZ, M GARCIA, F MORALES-ACUNA, **A GUROVICH**. Effects of in-vitro exercise-induced endothelial shear stress on adhesion molecule gene expression. *The FASEB Journal*. 2020; 34 (S1), 1-1

M GOMEZ, F MORALES-ACUNA, L RODRIGUEZ, P CARAVEO, **AN GUROVICH**. Endothelial shear stress in the common carotid artery during boxing training in prehypertension. *The FASEB Journal*. 2020; 34 (S1), 1-1

M GARCIA, F MORALES-ACUNA, D CONDE, **AN GUROVICH**. Effects of in Vitro Exercise-Induced Endothelial Shear Stress on Oxidative Stress and Vasoconstriction Gene Expression. *The FASEB Journal*. 2020;34, 1-1

RODRIGUEZ LA, MORALES-ACUNA F, AGUILERA J AND **GUROVICH AN**. Reliability of a Novel Ultrasound Transducer Holder for Flow-Mediated Dilatation. The FASEB Journal. 2020;34:1-1.

RASCON JA, TRUJILLO E, AGUILAR BC, GUERRERO M, KELLER AA, RICO AA, NUNEZ VA AND **GUROVICH A**. PhUn Day: Third Times a Charm. The FASEB Journal. 2020;34:1-1.

MORALES-ACUNA F AND **GUROVICH A**. Effects of Pulsatile Exercise-induced Shear Stress on eNOS, SOD, VCAM-1, and ICAM-1 mRNA Expression of Human Carotid Artery Endothelial Cells. Artery Research. 2020.

CK MONTENEGRO, D VASQUEZ, J RASCON, J MADDOX, F MORALES, **AN GUROVICH**. (2020) Exercise-Induced Blood Flow Patterns in Patients with Coronary Artery Disease. Cardiopulmonary Physical Therapy Journal. 31(1):e18

AD MOLINAR, C IBE, J RASCON, L RODRIGUEZ, F MORALES, **AN GUROVICH** (2020). Differences in Wasted Left Ventricular Energy between Patients with CAD and Sex-, Age-Matched Active Controls. Cardiopulmonary Physical Therapy Journal. 31(1):e19

J RASCON, E TRUJILLO, FJ MORALES-ACUNA, **A GUROVICH**. (2019) Differences in Determining Exercise Intensity in Males and Females. Medicine & Science in Sports & Exercise 51 (5S), 765-766

FJ MORALES-ACUNA, L OCHOA, C VALENCIA, **A GUROVICH**. (2019) Blood Flow Patterns during Flow-Mediated Dilatation. Medicine & Science in Sports & Exercise 51 (5S), 6

JC MAZZA, R FESTA, S PRIETO, P COSOLITO, **A GUROVICH**. (2019) Lactate Threshold Velocity At 4 mMol/l Does Not Maintain Blood Lactate Levels During Steady State Intensity. Medicine & Science in Sports & Exercise 51 (5S), 6

M PENA, FJ PENA, L RODRIGUEZ, FJ MORALES-ACUNA, **A GUROVICH**. (2019) Differences in Exercise-Induced Blood Flow Patterns between Apparently Healthy Female and Male Subjects. The FASEB Journal 33 (1_supplement), 534.4-534.4

E TRUJILLO, J RASCON, J MADDOX, FJ MORALES-ACUNA, **A GUROVICH**. (2019) Heart Rate Differences in Males and Females during Similar Physiological Work. The FASEB Journal 33 (1_supplement), 534.5-534.5

J RASCON, E TRUJILLO, M PENA, FJ PENA, J RAMIREZ, G MELENDEZ, C LAZCANO, **A GUROVICH**. (2019) PhUn Week: Bigger and Better. The FASEB Journal 33 (1_supplement), 766.15-766.15

C VALENCIA, F MORALES, **A GUROVICH**. (2019) Gender Differences in Cardiovascular Reactivity to Experimental Pain Assessment in Pain-Free Adults. The Journal of Pain 20 (4), S58-S59

F MORALES-ACUNA, D CONDE, M AMADOR, **A GUROVICH**. (2019) Effects of Pulsatile Exercise-Induced Shear Stress on eNOS, SOD, VCAM-1, and ICAM-1 mRNA

Expression of Human Carotid Artery Endothelial Cells. International Journal of Exercise Science 2 (11), 33.

RR FESTA, JC MAZZA, L RUFFO, C GROppo, P COSOLITO, **A GUROVICH**. (2018) Impact Of The Fractioned Distance On Endurance Training In Soccer Players. Medicine & Science in Sports & Exercise 50 (5S), 138

EJ BOCKOVER, S CROWE, BJ RATCLIFFE, CD HARRISON, A FRIEDMANN, FJ MORALES, CR CARRIKER, **AN GUROVICH**. (2018) Effect of Increased Nitric Oxide Bioavailability on Endothelial Function and Pulse Wave Velocity. Medicine & Science in Sports & Exercise 50 (5S), 592-593

J RASCON, FJ MORALES, BJ RATCLIFFE, CD HARRISON, EJ BOCKOVER, S CROWE, CR CARRIKER, **AN GUROVICH**. (2018) Acute Dietary Nitrate Supplementation has no Significant Effect on Wasted Left Ventricular Energy in Young Healthy Individuals. Medicine & Science in Sports & Exercise 50 (5S), 592

BJ RATCLIFFE, CD HARRISON, EJ BOCKOVER, S CROWE, A FRIEDMANN, FJ MORALES, CR CARRIKER, **AN GUROVICH**. (2018) Changes in Oxidative Stress and Resting Metabolic Rate after Acute Dietary Nitrate Supplementation. Medicine & Science in Sports & Exercise 50 (5S), 592

JC MAZZA, RR FESTA, L RUFFO, P COSOLITO, SL PRIETO, **A GUROVICH**. (2018) Blood Lactate Steady state Level Sustained During Rest Time In Moderate Intensity Interval Training. Medicine & Science in Sports & Exercise 50 (5S), 137-138

FJ MORALES, BJ RATCLIFFE, CD HARRISON, EJ BOCKOVER, S CROWE, CR CARRIKER, **AN GUROVICH**. (2018) Comparison of Exercise-induced Endothelial Shear Stress Between Poiseuille's Law and Womersley's Approximation. Medicine & Science in Sports & Exercise 50 (5S), 181

F MORALES-ACUNA, D COOVERT, **AN GUROVICH**. (2018) Effects of Exercise-Induced Shear Stress on Endothelial Gene Expression. FASEB JOURNAL 32 (1)

J RASCON, FJ PENA, JA RAMIREZ, M PENA, E TRUJILLO, G MELENDEZ, C LAZCANO, FJ MORALES, B GUROVICH, C VALENCIA, **AN GUROVICH**. (2018) Middle School Females Have More Efficient Multitasking Abilities than Males. FASEB JOURNAL 32 (1)

J RASCON, FJ PENA, JA RAMIREZ, M PENA, E TRUJILLO, G MELENDEZ, C LAZCANO, FJ MORALES, B GUROVICH, C VALENCIA, **AN GUROVICH**. (2018) EMG Comparison between Sixth Grade Students. FASEB JOURNAL 32 (1)

AN GUROVICH, J RASCON, FJM ACUNA, C SHELTON. (2018) PhUn week 101: New Institution, New Partners, New Hope. FASEB JOURNAL 32 (1)

KE STORO, CD HARRISON, EJ BOCKOVER, BJ RATCLIFFE, S CROWE, FJ MORALES, HM FAIR, **AN GUROVICH**, CR CARRIKER. (2018) Endothelial Function, Arterial Stiffness and Central Blood Pressure are Not Affected by a Single Dose of Dietary Nitrate in Healthy Normotensive Females. Circulation 137 (Suppl 1), AP243-AP243

HM FAIR, CD HARRISON, EJ BOCKOVER, BJ RATCLIFFE, S CROWE, FJ MORALES, KE STORO, **AN GUROVICH**, CR CARRIKER. (2018) Dietary Nitrate Does not Reduce Resting Metabolic Rate or Oxidative Stress in Healthy Males. *Circulation* 137 (Suppl 1), AP242-AP242

PAWLAK, R., RATCLIFFE, B., HARRISON, C., MORALES, F., **GUROVICH, A.N.** (2017) "Exercise-Induced Blood Flow Patterns Changes Based on Lactate Levels. *Medicine and Science in Sports and Exercise*. 49 (5S), 253-254

RATCLIFFE, B., PAWLAK, R., MORALES, F., HARRISON, C., **GUROVICH, A.N.** (2017) Internal Validation of an Automated System for Brachial and Femoral Flow Mediated Dilation. *Medicine and Science in Sports and Exercise*. 49 (5S), 812

HARRISON, C., PAWLAK, R., RATCLIFFE, B., MORALES, F., CARRIKER, C., **GUROVICH, A.N.** (2017) Dietary Nitrate and Pulse Wave Analysis: Preliminary results. *Medicine and Science in Sports and Exercise*. 49(5S), 818

VALENCIA, C., BROWN, J., MAIR, A., SMITH, C., **GUROVICH, A.N.** (2017) Heart rate variability response to experimental pain procedure. *The Journal of Pain* 18(4), S59

GUROVICH, A.N., MORALES, F., TERRY, K. (2017) Clinical Research 101: a Way to Showcase Healthcare Professions in High-School students using PhUn week. *The FASEB Journal* 31:576.21.

GUROVICH, A.N., BRZUZY, E., CARSON, J., CURRY, J., FELKER, S., STEWART, J.C., HIRSH, A.T., VALENCIA, C. (2016) Acute Pain Elicits Changes in Pulse Wave Analysis and Pulse Wave Velocity. *Medicine and Science in Sports and Exercise*. 48(5), s371.

GUROVICH, A.N., COOVERT, D., MILLSPAUGH-STORMS, B., TERRY, K. (2016) Combining Physiology and Health Care Professions Education in High School-aged students: High Tech PhUn! *The FASEB Journal*. 30(1 Supplement), 553.3-553.3.

COLE, S.N., HAYSLIP, R., JARRETT, S., MILLER, B., DOADES, S., **GUROVICH, A.N.** (2016) Teaching Muscle Recruitment using Applied Technology in High School Students. *The FASEB Journal*. 30(1 Supplement), lb751-lb751.

PAWLAK, R., EVANS, L., ANDREASEN, N., ANTHIS, T., **GUROVICH, A.N.** (2016) Measuring Brain Wave Activity in High School Students through Biopac Science Lab. *The FASEB Journal*. 30(1 Supplement), lb750-lb750.

ANTHIS, T.N., BROWN, C., COLE, S.N., CRECELIUS, A., PAWLAK, R., JARRETT, S., MILLER, B., **GUROVICH, A.N.** (2016) Teaching Reaction Time using Applied Technology in High School Students. *The FASEB Journal*. 30(1 Supplement), lb752-lb752.

VALENCIA, C., BRZUZY, E., CARSON, J., CURRY, J., FELKER, S., STEWART, J., HIRSH, A., **GUROVICH, A.N.** (2016) Relationship between central pain mechanisms and arterial blood pressure in pain free subjects. *The Journal of Pain*.17:S22.

GUROVICH, A. N., HANNAN, J., OLIVER, S., SIMS, L., VALENCIA, C. (2015). Bone Mineral Density In Women 45 To 65 Years Of Age Is Associated With Height And Body Weight At A Younger Age. *Medicine & Science In Sports & Exercise*, 47(5), s492-s493.

FORD, L., FORTNEY, J., HARPENAU, O., **GUROVICH, A. N.** (2015). Bone Mineral Density in Women 65 to 95 Years of Age is Associated with Current Body Weight Rather than Age or Physical Activity. *Medicine & Science In Sports & Exercise*, 47(5), s494.

MAZZA, J. C., FESTA, R. R., COSOLITO, P., RUFFO, L., PRIETO, S., **GUROVICH, A. N.** (2015). Comparison of Whole Blood Lactate Values Between YSI 1500 Sports and Lactate Plus. *Medicine & Science In Sports & Exercise*, 47(5), s11.

FESTA, R. R., RUFFO, L., MAZZA, J. C., COSOLITO, P., PRIETO, S., **GUROVICH, A. N.** (2015). Effect Of Different Cool-down Protocols In Swimmers. *Medicine & Science In Sports & Exercise*, 47(5), s428.

GUROVICH, A. N., ANTHIS, T., BARRETT, E., BROWN, C., BROWN, J., COLE, S., EVANS, L., FAGG, B., HAMILTON, S., HARPENAU, O., others (2015). How to teach physiology to 4th-grade children? High Tech PhUn! *The FASEB Journal*, 29(1 Supplement), 541–11.

HAMILTON, S., BROWN, C., EVANS, L., MAJORS, K., THOMAS, D., **GUROVICH, A. N.** (2015). Measuring Brain Activity in Fourth Grade Students Through Biopac Science Lab. *The FASEB Journal*, 29(1 Supplement), 541–14.

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GUROVICH A., ALMAGIA A. Arterial Pressure in Sportsmen like Epidemic Antecedent in school population. **First Interamerican Meeting of Kinesiology in Cardiology and Cardiovascular Surgery**, Santiago- Chile, December 1995.

GUROVICH A., ALMAGIA A. Work Heart Frequency of Work: a controversial topic to our current demands. **First Interamerican Meeting of Kinesiology in Cardiology and Cardiovascular Surgery**, Santiago- Chile, December 1995.

ALMAGIÀ A., TORO T., Mac MILLAN N. & **GUROVICH A.**, "Blood Pressure, and Body Composition Relationship in Young males and females 15 to 23 years of age from Viña del Mar-Chile" presented at **V^a Physical Therapy Meeting in Cardiology and Cardiovascular Surgery**, Viña del Mar, December 1994.

GUROVICH, A., MACMILLAN, N., DEMPSTER, P.: "Estudio de validación del método Kineantropométrico de Estimación de la Composición Corporal en Cinco Componentes en una muestra de Deportistas Chilenos de Alto Rendimiento" **XIV Chilean Congress of Anatomy**, Valparaíso, November 1993.

GUROVICH, A., NEIRA, W., GONZALEZ, J.: "Análisis de la Validación de la Estimación de la Composición Corporal a través del método Kineantropométrico de Fraccionamiento Corporal en Cinco Componentes en una muestra de Escolares del Sistema Educacional de Las Condes" **XIV Chilean Congress of Anatomy**, Valparaíso, November 1993.

ALMAGIÀ A., TORO T., **GUROVICH A.**, "Aproximación al Perfil Biotipológico, Composición Corporal y Dimorfismo Sexual en jóvenes de 15 a 23 años de edad " **XIV Chilean Congress of Anatomy**, Valparaíso, November de 1993.

TORO T., ALMAGIÀ A., **GUROVICH A.**, "Análisis y Evaluación nutricional retrospectiva y tendencias futuras, considerando el ingreso a la escolaridad" *XIV Chilean Congress of Anatomy*, Valparaíso, November 1993.

GUROVICH, A. "Validación del método de 5 Componentes de Composición Corporal en una muestra de 500 escolares chilenos", *III Physical Therapy Valparaiso Regional Meeting*, Valparaíso, October 1992.

GUROVICH, A., GONZALEZ, J., "Validación del método de Fraccionamiento Corporal de Deborah Kerr, en una muestra de 800 chilenos" *III Chilean Meeting in Cardiology and Cardiovascular Surgery Physical Therapy*, La Serena, December 1992.

GUROVICH, A., NEIRA, W., DEMPSTER, P., "Factores de riesgo cardiovascular en una muestra de 800 escolares de Las Condes" *III Chilean Meeting in Cardiology and Cardiovascular Surgery Physical Therapy*, La Serena, December 1992.

GUROVICH, A., GONZALEZ, J., "Sedentarismo y Obesidad como Factores de riesgo Cardiovascular en Población Escolar" *IX Health Education National Meeting*, Santiago, November 1991.

GUROVICH, A., HOPMAN, A., GONZALEZ, J., "Somatotipo del Nadador Chileno", *1990 National Meeting of the Chilean Sports Medicine Society*, Santiago, November 1990.

Non-Peer Reviewed Publications:

GUROVICH, A.; "Science and Triathlon". Sports and Recreation Magazine (DIGEDER-Chile), V, N°14, 1994

Non-Peer Reviewed Presentations:

Finis Terrae University, Master Program in Clinical Exercise Physiology:
'**Cardiovascular Pathophysiology and Rehabilitation course** (20 teaching hours).
Santiago, Chile, July 1st – 5th, 2017.

International Society for the Advancement in Kinanthropometry: **International Certification Course** (18 teaching hours), Department of Dietetics and Food Science, Wayne State University, Detroit, MI, March 15th – 18th, 2017.

International Society for the Advancement in Kinanthropometry: **International Certification Course** (18 teaching hours), ETSU Center for Excellence in Sport Science and Coaching, East Tennessee State University, Johnson City, TN, February 10th – 12th, 2017.

Cardiovascular Section Opening Remarks: **Cardiopulmonary Physical Therapy Research: Vision, Facts, Future**. APTA's Combined Section Meeting, San Antonio, TX, February 17th, 2017.

Finis Terrae University, Master Program in Clinical Exercise Physiology:
'**Cardiovascular Pathophysiology and Rehabilitation course** (20 teaching hours).
Santiago, Chile, June 20th – 24th, 2016.

Indiana University School of Medicine's 21st Annual Mini Medical School: **"You Can't Beat a Healthy Heart: Atherosclerosis and Exercise"**. Terre Haute, IN, March 1st, 2016.

International Society for the Advancement in Kinanthropometry: **International Certification Course** (24 teaching hours), US-Army at Fort Bragg, Fort Bragg, Fayetteville, NC, December 3rd – 6th, 2015.

Finis Terrae University, Master Program in Clinical Exercise Physiology: **'Cardiovascular Pathophysiology and Rehabilitation course** (20 teaching hours). Santiago, Chile, June 22nd – 26th, 2015.

International Society for the Advancement in Kinanthropometry: **International Certification Course** (24 teaching hours), ETSU Center for Excellence in Sport Science and Coaching, East Tennessee State University, Johnson City, TN, May 1st – 4th, 2015.

Indiana University School of Medicine's Research faculty seminar: **"Endothelial oxidative stress and exercise"**. Terre Haute, IN, April 4th, 2013.

Bradley University, Physical Therapy Seminar: ***Finding The Right Exercise Dosage: The Impact On Endothelial Function And Endothelial Oxidative Stress***. Peoria, IL, December 5th 2011.

University of Tennessee Health Science Center, Physical Therapy Seminar: ***Finding The Right Exercise Dosage: The Impact On Endothelial Function And Endothelial Oxidative Stress***. Memphis, TN, December 2nd 2011.

Indiana State University, Physical Therapy Seminar: ***Pathogenesis of Endothelial Dysfunction and Atherosclerosis***. Terre Haute, IN, October 17th, 2011.

University of North Texas Health Science Center, Physical Therapy Seminar: ***Finding The Right Exercise Dosage: The Impact On Endothelial Function***. Fort Worth, TX, August 24th 2011.

Virginia Commonwealth University, Physical Therapy Seminar: ***Finding The Right Exercise Dosage: The Impact On Endothelial Function***. Richmond, VA, August 10th 2011.

University of South Florida, Physical Therapy Seminar: ***Blood Flow Patterns, Endothelial Function, And Vascular Oxidative Stress***. Tampa, FL, March 2011.

University of Florida, Physiology and Functional Genomics Seminar: ***Blood Flow Patterns and Endothelial Function***. Gainesville, FL, September 13th, 2010.

University of Florida, Department of Physical Therapy "Neuro-noons": ***Blood Flow Patterns, Endothelial Function, And Exercise***, Gainesville, FL, July 2010.

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology 10th Aniversary special presentation: ***Physical Therapy in Europe, United States of America, and Chile: perspectives for our School***. Valparaíso, Chile, August 2007.

COMIN Health Center, Sports Medicine Seminar Series: **General Considerations of Physical Activity in the Youth when Thinking in High Performance.** Viña del Mar, Chile, October 2005.

Chilean Sports Medicine Society Valparaíso Regional Chapter, Clinical Lecture: **Muscle Tear in a Soccer Player: A Case Report.** Viña del Mar, Chile, July 2005.

Pontificia Universidad Católica de Valparaíso, School of Physical Education, Seminar Series: **Functional Characteristics of Muscle and Work.** Viña del Mar, Chile, January 2003.

Rancagua's Municipal Corporation for Education and Health, 1st Community Seminar Series in Adolescence: **Growth and Physical Activity.** Rancagua, Chile, November 2002.

Santa Paula University, 1st International Meeting of Physical Therapy, Scientific Lecture: **Physiological Bases of Exercise Training.** La Fortuna, Costa Rica, October 2002.

Panathlon International's 5th Panamerican Congress. **Physical Activity in the Infants: from Health to High Performance.** Santiago-Chile, September 2002.

Chilean Pediatrics Society, IX Winter Meeting Lecture: **Growth and Physical Activity.** Santiago, Chile, August 2002.

Chilean Physical Therapy Association, XIV National Meeting, Scientific Lecture: **Applied Sciences to Physical Activity.** Viña del Mar, Chile, October 2001.

Chilean Physical Therapy Association, XIV National Meeting, Workshop: **Kinanthropometry.** Viña del Mar, Chile, October 2001.

Chilean Pediatrics Society, Monthly Adolescence Work Meeting Seminar: **Exercise Training and its relationship with Obesity.** Santiago, Chile, July 2001.

Fédération Internationale de Médecine Sportive, Team Physician Course Level 1, **Kinanthropometry.** Santiago-Chile, July 2000.

Chilean Anatomy Society, XVII Chilean Anatomy Meeting, Lecture: **Applied Sciences to Cardiovascular Rehabilitation.** Valparaíso, November 1997.

Chilean High Performance Center, Chilean Soccer federation, and Professional Soccer Association of Chile, 1st seminar about Applied Sciences in Soccer, Lecture: **Physiological Factors in High Performance Soccer.** Santiago, Chile, October 1996.

Chilean Physical Therapy Association, XII National Meeting, Lecture: **Energy Systems and Training.** La Serena, Chile, November 1996.

Chilean Sports Medicine Society, Sports Medicine Seminar Series, Lecture: **Assessment of High Performance Athletes.** Valparaíso, Chile, November 1995.

Pontificia Universidad Católica de Valparaíso, School of Physical Education, 1st Chile-Brazil Seminar Series, Lecture: **Assessment of Chilean High Performance Athletes**. Valparaíso, Chile, April 1993.

Chilean Anatomy Society, XIV Chilean Anatomy Congress, Current Aspects in Physical Anthropology Course, Lecture: **Current aspects in Body Composition**. Valparaíso, Chile, November 1993.

Universidad de la Frontera, Department of Physical Education, Sports, and Recreation, II National Meeting of Research in Physical Education, Lecture: **Scientific Aspects of Athletic Assessment**. Temuco, Chile, December 1993.

Maccabi-Israeli Sports Club, Lecture: **Sports Accident: prevention and treatment**. Santiago, Chile, February 1990.

Funded/In Review Grant Activity:

2020

Gurovich, Alvaro (PI), ARTERY SOCIETY'S CARTESIAN STUDY (COVID-19 ARTERIAL STIFFNESS AND VASCULAR AGING). Sponsored by Association for Research into Arterial Structure and Physiology

Gurovich, Alvaro (Co-PI), ENDOTHELIAL-PROTECTIVE MECHANISMS ASSOCIATED WITH EXPOSURE TO EXERCISE-INDUCED ENDOTHELIAL SHEAR STRESS (ON BEHALF OF MANUEL AMADOR). Sponsored by American Physical Therapy Association

Gurovich, Alvaro (PI). SYNTHETIC 3D MODEL OF THE CAROTID ARTERY TO STUDY EXERCISE-INDUCED CHANGES IN ENDOTHELIAL GENE EXPRESSION. NIH (SCORE-2), NATL INST OF GEN MEDICAL SCIENCES (under review)

2019

Sarkodie-Gyan, Thompson (PI), Gurovich, Alvaro (CO-PI), Sirmon-Taylor, Bess (CO-PI), Gutierrez, Michelle L (CO-PI), Bialunska, Anita (CO-PI). DEVELOPMENT OF AN EFFICIENT AND RELIABLE DIAGNOSIS AND PROGNOSIS SYSTEM OF (MILD) TRAUMATIC BRAIN INJURIES. Sponsored by J. Edward Stern and Helen M.C. Stern. *Funded*

Gurovich, Alvaro (Principal), Carriker, Colin (Supporting), "CHRONIC DIETARY NITRATE INTAKE PRODUCES DIFFERENT CARDIOVASCULAR EFFECTS IN HISPANICS VS. NON-HISPANICS," Sponsored by NIH - R21, Federal. *Not funded*

Gurovich, Alvaro (Principal), Boland, Thomas (Co-Principal), "FINDING THE BEST FLOW FOR HISPANICS: A REVERSE TRANSLATIONAL APPROACH TO EXERCISE-INDUCED BLOOD FLOW PATTERNS TO PREVENT ATHEROSCLEROSIS," Sponsored by STERN FOUNDATION, Foundation. *Currently Under Review*

Fierro, Cecilia (Principal), Valencia, Carolina (Co-Principal), Echegoyen, Lourdes (Co-Principal), Gurovich, Alvaro (Co-Principal), Umucu, Emre (Co-Principal), Bialunska, Anita

(Co-Principal), Lara, Patricia (Co-Principal), "UNDERGRADUATE RESEARCH IN GERIATRICS (URGE) PROGRAM," Sponsored by NIH - R25. *Not funded*

Gurovich, Alvaro (Principal), Boland, Thomas (Supporting), "A 3D synthetic model of the carotid artery to study the effects of exercise-induced blood flow patterns in endothelial cell gene expression," Sponsored by NIH - R21. *Not Funded*

2018

Co-Investigator (\$3,182,220) "Development of a Neurotechnology for Diagnosis and Prognosis of (Mild) Traumatic Brain Injuries". NIH-UO1 (Collaboration with Engineer) *Not funded*

Principal Investigator (\$ 2,214,454) "EXERCISE-INDUCED BLOOD FLOW PATTERNS IN THE CAROTID ARTERY MODULATE ENDOTHELIAL CELL FUNCTION AT THE GENETIC, TRANSCRIPTIONAL, AND MOLECULAR LEVEL". NIH-R01 (Collaboration with Bioinformatics and BBRC). *Not funded*.

Principal Investigator (\$5,000) "EFFECTS OF BIO-PHYSICAL AGENTS, ULTRASOUND AND LASER, IN LIMB BLOOD FLOW". Texas Physical Therapy Foundation. *Not funded*.

Co-Investigator (\$14,334) "EFFECTS OF ECCENTRIC EXERCISE, AS DOWNHILL WALKING, ON ARTERIAL STIFFNESS, PHYSICAL FUNCTION, QUALITY OF LIFE, AND ITS RELATIONSHIP WITH OXIDATIVE STRESS". COMISION NACIONAL DE CIENCIA Y TECNOLOGIA (CHILE). In Collaboration with Universidad Finis Terrae. *Not funded*

2017

Principal Investigator (\$4,500) "Exercise-Induced Blood Flow Patterns in Patients with Coronary Artery Disease" APTA Cardiovascular and Pulmonary section Research Grant. *Funded*

Principal Investigator (\$750) "Clinical Research 101: Healthcare Professions Showcase to High-School students" Presentation Related Travel grant, sponsored by Indiana State University, Center for Community Engagement. *Funded*

2016

Principal Investigator (\$950) "Prevail Prosthetics & Orthotics Field Trip" Course Related Travel grant, sponsored by Indiana State University, Center for Community Engagement. *Funded*

Sponsor (\$600) funded to Morales, F. "Aortic Root Dimensions in Elite Athletes with Bicuspid Aortic Valve" Travel grant sponsored by College of Graduate and Professional Studies Student Research Fund.

Principal Investigator (\$850). Clinical Research 101: Healthcare Professions Showcase to High-School students. Sponsored by West-central AHEC. *Funded*

Principal Investigator (\$750). Physiology Understanding Week 2016. Sponsored by American Physiological Society. *Funded*

2015

Principal Investigator (\$1,072). Healthcare Professions Showcase to High-School students using High-Tech Physiological Applications. Sponsored by West-central AHEC. *Funded*

Principal Investigator (\$750). Physiology Understanding Week 2015. Sponsored by American Physiological Society. *Funded*

Co-Principal Investigator (\$10,000). Effects of Acute Dietary Nitrate Supplementation on Arterial Stiffness and Endothelial Function. ISU's COMPETE internal grant to collect preliminary data. *Funded*

Principal Investigator (\$2,500). Practicum in Exercise Testing and Interpretation. Continuum Education grant through WI-AHEC. *Funded*.

Sponsor (\$510) funded to Beydoun, A. "Flow Mediated Dilation as a Clinical Tool for patients with Coronary Artery Disease.," Research grant sponsored by College of Graduate and Professional Studies Student Research Fund.

Sponsor (\$510) funded to Gorman, E. "Flow Mediated Dilation as a Clinical Tool in Young, Healthy Controls as Baseline to Compare to Patients with Coronary Artery Disease," Research grant sponsored by College of Graduate and Professional Studies Student Research Fund.

Principal Investigator (\$1,500) "Bone Health within the Terre Haute Community." Travel grant, sponsored by Indiana State University, Center for Community Engagement.

Sponsor (\$1,200) funded to Ford, L. and Fortney, J. "Bone Mineral Density in Women 65 to 95 Years of Age is Associated with Current Body Weight Rather than Age or Physical Activity." Travel grant sponsored by College of Graduate and Professional Studies Student Research Fund.

Principal Investigator (\$1,716). Travel to EB 2015 to present PhUn week. Sponsored by Indiana State University, Center for Community Engagement.

Principal Investigator (\$4,992). PhUn week workshop at Experimental Biology 2015: Presenting our BIOPAC project. Sponsored by West-central AHEC.

Principal Investigator (\$2,334), PhUn week at Experimental Biology 2015. ISU's leading the way for community engagement in science education. Sponsored by Indiana State University, Center for Community Engagement.

2014

Principal Investigator (\$10,000). Effects of Exercise-Induced Blood Flow Patterns on Endothelial Cell Gene Expression. ISU's COMPETE internal grant to collect preliminary data. *Funded*

Principal Investigator (\$3,445). Showing Healthcare Professions to K-12 School Age Students using High-Tech Physiological Applications. Sponsored by West-central AHEC.

Principal Investigator (\$750). Physiology Understanding Week 2014. Sponsored by American Physiological Society.

2013

Principal Investigator (\$21,801). Effects of Therapeutic Laser In Limb Blood Flow. Multi Radiance Technologies research grant. *Pending*

Indiana State University, Research/Creative Project Support Student Wages: "Summer Research Student Wages". (\$3,000)

American Physiological Society, International Travel Grant. "2013 IUPS at Birmingham, UK". (\$1,000)

Indiana State University, Center for Community Engagement, Faculty Conference Travel Grant. American Physiological Society, PhUn week presentation, Boston, MA (\$1,500)

Indiana State University, Center for Undergraduate Research and Creativity, Faculty Travel Grant. American Physiological Society, PhUn week presentation, Boston, MA (\$200)

Indiana State University, University Research Committee grant. Flow Mediated Dilation (FMD): translating vascular physiology to the cardiovascular clinic. (\$4,500)

American Physiological Society Physiology Understanding (PhUn) week. (\$600)

College of Graduate and Professional Studies Student Research Fund. Exertional Rhabdomyolysis: Studying the Perfect Storm. (\$600) Funded to N. Holtgrieve

College of Graduate and Professional Studies Student Research Fund Effects of an interactive science activity on elementary-aged children's physiology understanding, (\$300) Funded to J. Edleman,

2012

Indiana State University, Community Engagement Grant Focus Indiana, Stroke Support Center. (\$5,000)

Indiana State University, Research/Creative Project Support Student Wages: American Physiological Society Physiology Understanding (PhUn) week preparation grant. (\$3,300)

2007

University of Florida Pepper/Institute of Aging grant. The Influence of Resistance Exercise on Physical Function, Depression, Quality of Life, Muscle Morphology and Bone Metabolism in Stroke Patients. Co-Investigator. (\$75,000)

2005

Catholic University of Valparaiso-Chile internal research grant: "Control of the DOMS, after a submaximal eccentric exercise, with a combined physical agent treatment, Ultrasound and Ice dosificated." (DI-PUCV # 127.705/2005). (\$ 2,000)

Viña del Mar Navy Hospital-Chile external research grant: "Planned Physical Activity as the center of a Pulmonary Rehabilitation Program for COPD patients". (\$2,000)

Valparaiso-Chile Municipal Health system external research grant: "Planned Physical Activity in a Pulmonary Rehabilitation Program for Asthmatic children". (\$2,000)

2004

Catholic University of Valparaiso-Chile internal research grant: "Effects of the Ultrasound and Ice in the control of the DOMS and muscle repair, after an eccentric exercise." (DI-PUCV # 127.704/2004). (\$2,000)

1991

Las Condes Municipality's Education and Health Corporation-Chile research grant : "Body Composition, Sedentarism. And Cardiovascular risk factors among school boys and girls from 1st to 12th grade". (\$5,000)

Research Activity:

Early Vascular Aging in patients recovering from COVID-19

Effects of Dietary Nitrates on Vascular Function and Resting Metabolic rate

Exercise-induced blood flow patterns and its relationship with endothelial function, atherosclerosis prevention and progression, and cardiovascular risk factors.

Flow-Mediated Dilation and its relationship with endothelial function and cardiovascular risk factors

Kinanthropometric assessment of Body Composition and its relationship with cardiovascular risk factors

Physical Agents in Rehabilitation, specifically the use of therapeutic ultrasound in muscle healing

Membership In Scientific/Professional Organizations:

Chilean College of Physical Therapy since 1991

Chilean Society of Sports Medicine since 1992

American College of Sports Medicine since 1998
Fellow member since April 2011

International Society for the Advancement in Kinanthropometry (ISAK) since 2003

American Physiological Society since 2010

American Physical Therapy Association (APTA) since 2013

APTA's Cardiopulmonary Section since 2013

Society for Experimental Biology and Medicine since 2013

Consultative and Advisory Position Held:

Tenure and Promotion external reviewer

- Indiana University, School of Health and Rehabilitation Sciences, Department of Physical Therapy (Summer 2016)
- Georgia State University, Byrdine F. Lewis College of Nursing and Health Professions, Department of Physical Therapy (Summer 2019)

Associate Editor

- Cardiopulmonary Physical Therapy Journal

Manuscript Reviewer (since 2010)

- AJP- Regulatory, Integrative and Comparative Physiology
- Applied Physiology, Nutrition and Metabolism
- Archives of Gerontology and Geriatrics
- BioMed Central
- Clinical Physiology and Functional Imaging
- Cardiopulmonary Physical Therapy Journal
- European Heart Journal-Cardiovascular Imaging
- European Journal of Heart Failure
- European Journal of Echocardiography
- Experimental Biology and Medicine
- Frontiers in Physiology
- Gerontology
- Hypertension Research
- International Journal of Sports Medicine
- Journal of Sports Medicine and Physical Fitness
- Journal of Strength and Conditioning Research
- Journal of Orthopaedic and Sports Physical Therapy
- Journal of Applied Physiology
- Journal of Visualized Experiments
- Medicine & Science in Sports & Exercise
- Physiological Genomics
- Reproductive Sciences

Book Review

- Routledge Books (ISBN 978-0-415-43720-2)

Thesis/Dissertations/Projects (A Thesis is a Chilean PT programs' graduation requirement)

Committee Chair, University of Texas at El Paso, College of Health Sciences, Doctor of Physical Therapy Program Capstone project. **Effects of 1 MHz Therapeutic Ultrasound on Limb Blood Flow and Microvascular Reactivity.** (Megan Waters, Branko Miljkovic). Expected defense May 2021

Committee Chair, University of Texas at El Paso, College of Health Sciences, Doctor of Physical Therapy Program Capstone project. **Endothelial-Protective Mechanisms Associated with Exposure to Exercise-Induced Endothelial Shear Stress** (Manuel Amador, Jonathan Huerta). Expected defense May 2021

Committee Chair, University of Texas at El Paso, College of Health Sciences, PhD dissertation in Interdisciplinary Health Sciences. **Boxing Training Effects on Cardiovascular Risk, Quality Of Life, Endothelial Function, and Blood Flow Patterns in Individuals with Elevated Blood Pressure or Stage 1 Hypertension** (Francisco Morales). May 2020

Committee Chair, University of Texas at El Paso, College of Health Sciences, Doctor of Physical Therapy Program Capstone project. **Exercise-Induced Blood Flow Patterns in Patients with Coronary Artery Disease** (Cynthia K. Montenegro, Delfina Vasquez). May 2020

Committee Chair, University of Texas at El Paso, College of Health Sciences, Doctor of Physical Therapy Program Capstone project. **Differences in Wasted Left Ventricular Energy between Patients with Coronary Artery Disease and Sex-, Age-Matched Active Controls** (Alexandria Molinar, Christian Ibe). May 2020

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Doctor in Physical Therapy Research project. **Exercise-induced blood flow patterns in patients with CAD.** (Katherine Karch, Logan Norquist, Justin Applegate). February 2018

Committee member, Indiana State University, Department of Applied Medicine and Rehabilitation, Doctor in Physical Therapy Research project. **Association between pain regulation and heart rate variability.** (Courtney Smith, Jordan Brown, Ashley Mair). February 2018

Committee member, Indiana State University, Department of Kinesiology, Recreation, and Sport, Master's Thesis in Exercise Sciences. **Analysis of the Forces Transferred Through the Cushioning Of Running Shoes.** (Gustavo Sandri Heidner). April 2016.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Flow Mediated Dilation**

normalization: one step closer to clinical application. (Amal H. Beydoun, Chelsea A .Elwood, Eryn R. Gorman). February 2016.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Osteoporosis Risk Factors in postmenopausal women in a rural community.** (Lauren Ford and Jenifer Fortney). February 2016.

Committee Member, Indiana State University, Department of Applied Medicine and Rehabilitation, Occupational Therapy Research project. **Relationship between Central Pain mechanisms and resting Central Arterial Blood Pressure Between patients with Chronic Pain and Healthy Controls.** (Jennifer Curry, Emily Brzuzy, Stephanie Felker, Jeremy Carson) February 2016.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Flow Mediated Dilation normalization using physiological and mathematical models.** (Eric Spenner, Christina McDaniel). February 2015.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Blood Flow Mediated blind validation.** (Kelsey Sellnow, Andrew Mathis, Nikoo Fatemi). February 2015.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Does Early Adulthood Weight Impact Bone Mineral Density after Menopause?** (Jenna Hannan, Shantial Oliver, Lindsey Sims). February 2015.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Athletic Trainer Master Thesis. **Exertional Rhabdomyolysis – Studying the Perfect Storm** (Nicholas Holtgrieve). February 2014.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Athletic Trainer Master Thesis. **Effects of a PhUn week activity in Second Graders.** (James Edelman). February 2014.

Committee Chair, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Rate of Perceive Exertion is not a Surrogate of Physiological Demands in Patients with Coronary Artery Disease.** (Chase Hayes, Brittany Heiser, Emily Marshall, Stephanie Tobin). February 2014.

Committee Member, Indiana State University, Department of Applied Medicine and Rehabilitation, Physician Assistant Research project. **Case Study: Asymptomatic Presentation of Coronary Artery Disease (CAD) in Elderly Women.** (Brooke Dailey, Colt Cansler, Lindsey Graft, Jay Swanson). February 2014.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: **Effects of Ultrasound in Muscle Skeletal Cell Differentiation: an in Vitro Study.** December 2008.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Detraining effects after 12-week physical rest in patients with Chronic Pulmonary Obstructive Disease.*** March 2006.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Analysis of Physical Therapy in Psico-Motor learning in children under state coverage between 1999 and 2003.*** August 2005.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effects of a Physical Therapy intervention in Schizophrenic patients.*** July 2005.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Analysis of Clinical vs. Radiographic assessment in Iliac Torsion.*** June 2005.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Immediate effects of hamstring stretch, Neuromuscular Facilitation vs. Passive stretch, on maximal torque.*** May 2005.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effects of a Pulmonary rehabilitation Program based on Exercise Physiology, Training Theory, and education in patients with COPD.*** March 2005.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Morbidity and Functional Effects of a 12-week Exercise Training program in children 9-14 years of age with asthma.*** March 2005.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Detraining effects after 10-week physical rest in children with asthma.*** March 2005.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effectiveness of combining cryotherapy and ultrasound therapy in DOMS and exercise- induced muscle damage.*** March 2005.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Sensory substitution therapy and phantom member pain.*** May 2004.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Postural Evaluation in children with Bucal Respiration vs. Normal Breathing.*** April 2004.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effects of cryotherapy on controlled eccentric exercise-induced damage.*** March 2004.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effects of physical agents, as ultrasound and ice, on muscle healing after eccentric exercise.*** March 2004.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Body Composition, Somatotype, Body Mass Index, and Waist to Hip Ratio in the Elderly of Both Sex that are and are not Physically Active.*** July 2003.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Morfo-structural assessment of male ECOCHALLENGE Athletes and the comparison with other international athletes.*** July 2003.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Quadriceps Femoris Maximal Torque produced with three different electrical currents, most used in Chile.*** June 2003.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Cardiovascular Stress Assessment during the Sexual Act in Young Married Couples.*** March 2002.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effects of AG-AI LASER on inflammation after third molar surgery.*** March 2003.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Effects of therapeutic ultrasound in muscle healing of young people.*** March 2003.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Cardiovascular risk factor assessment based on anthropometry and blood pressure in Firefighters from Viña del Mar.*** March 2003.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Metabolic and Cardiovascular differences between lab and field tests.*** March 2002.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Morpho-structural changes in young soccer players: assessment for high performance.*** March 2002.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Evidence Based Practice in Effects of Exercise Training on the Immune System.*** March 2002.

Committee Chair, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Heart Rate Validity as Exercise intensity marker in Cardiovascular Rehabilitation.*** March 2002.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Comparison of Graphic Expression of Body Image in Abandoned Children.*** March 2002.

Committee Member, Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology: ***Computer Gait Analysis in patients with Parkinson disease.*** March 2002.

Committee Chair, Universidad Católica del Maule, School of Physical Therapy and Kinesiology: ***Kinanthropometric profile in children with Myelomeningocele.*** March 2002.

Committee Chair, Universidad Católica del Maule, School of Physical Therapy and Kinesiology: ***Kinanthropometric profile in young soccer players before and after resting phase.*** April 2000.

Committee Chair, Universidad Playa Ancha, School of Physical Education: ***Creatine Monohydrate supplement in Physical Education freshmen: effects on submaximal strenght.*** March 2000.

Committee Member, Universidad Católica del Maule, School of Physical Therapy and Kinesiology: ***Body Composition based on Dual Photonic Absorciometry vs. Kinanthropometry.*** March 2002.

Committee Member, Universidad Católica del Maule, School of Physical Therapy and Kinesiology: ***Fat Mass percentage correlation between three different methods in men and women.*** March 1995.

Committee Chair, Universidad Católica del Maule, School of Physical Therapy and Kinesiology: ***Lactate threshold changes vs. Actual skating speed in Chilean team roller skaters after 6-week basic training.*** June 1994.

Committee Chair, Universidad Católica del Maule, School of Physical Therapy and Kinesiology: ***Kinanthropometric profile in school children 1st to 8th grade from public education system in Las Condes Municipality.*** May 1991.

Continuing Education Workshops Conducted/Organized:

International Society for the Advancement in Kinanthropometry: **International Certification Course**, Department of Dietetics and Food Science, Wayne State University, Detroit, MI, March 15th – 18th, 2017. (18 teaching hours)

International Society for the Advancement in Kinanthropometry: **International Certification Course**, ETSU Center for Excellence in Sport Science and Coaching, East Tennessee State University, Johnson City, TN, February 10th – 12th, 2017. (18 teaching hours)

International Society for the Advancement in Kinanthropometry: **International Certification Course**, US-Army at Fort Bragg, Fort Bragg, Fayetteville, NC, December 3rd – 6th, 2015. (24 teaching hours)

International Society for the Advancement in Kinanthropometry: **International Certification Course**, ETSU Center for Excellence in Sport Science and Coaching, East Tennessee State University, Johnson City, TN, May 1st – 4th, 2015. (24 teaching hours)

Indiana State University, Department of Applied Medicine and Rehabilitation, and the International Society for the Advancements in Kinanthropometry (ISAK): **International certification in Kinanthropometry ISAK Levels 1 & 2**. Terre Haute, IN, November 23rd – 27th, 2014 (36 hours).

Indiana State University, Department of Applied Medicine and Rehabilitation's Speaker Series: Perspectives in Medicine "**Stroke Rehabilitation: a Cardiovascular Approach to a Cardiovascular Disease**". Terre Haute, IN, March 22nd, 2013 (1 INAPTA CEU).

Union Hospital, Medical Education Conference: "**Endothelial Dysfunction & Oxidative Stress: Clinical Assessment & Future Developments**". Terre Haute, IN, August 23rd, 2012. (2 AMA-PRA cat 1 credits)

Princeton University, UHS department of Athletic Medicine and the International Society for the Advancement in Kinanthropometry (ISAK), Lecturer: **International Certification in Kinanthropometry**. Princeton, NJ, June 2012. (28 Hours)

Florida Hospital CME Activity, Lecture: **Cardio-Pulmonary Stress Testing**. Orlando, FL, October 23rd, 2007. (6 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology and the International Society for the Advancement in Kinanthropometry, Organizer and Lecturer: **International Certification in Kinanthropometry**. Viña del Mar, Chile, December 2007. (40 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology and the International Society for the Advancement in Kinanthropometry, Organizer and Lecturer: **International Certification in Kinanthropometry**. Viña del Mar, Chile, June 2006. (30 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology and the International Society for the Advancement in Kinanthropometry, Organizer and Lecturer: **International Certification in Kinanthropometry**. Viña del Mar, Chile, December 2005. (40 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology, Valparaíso Municipal Health Corporation, Organizer and Lecturer: **Postural Hygiene and Control course**. Viña del Mar, Chile, December 2005. (40 Hours)

Chilean Sports Medicine Society Valparaíso Regional Chapter, Organizing Committee member: **First Regional Meeting**. Viña del Mar, Chile, July 2005. (12 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology, Organizer: **Functional Taping course, Level 3**. Viña del Mar, Chile, November 2002. (12 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology, Organizer: **Functional Taping course, Level 2**. Viña del Mar, Chile, May 2002. (12 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology, Organizer: **Functional Taping course, Level 1.** Viña del Mar, Chile, November 2001. (12 Hours)

Pontificia Universidad Católica de Valparaíso, School of Physical Therapy and Kinesiology, Aconcagua Municipal Health Corporation, Organizer and Lecturer: **Postural Hygiene and Control course.** Viña del Mar, Chile, June-July 2000. (40 Hours)

Clínica Reñaca, Sports Sciences Lab, Organizer and Lecturer: **Advance Exercise Physiology course: Physiological Bases of Exercise and Lactate Metabolism in Sports and rehabilitation featuring Dr. Karlman Wasserman from UCLA's Cardiopulmonary Test Lab.** Viña del Mar, Chile, November 1998. (30 Hours).

Clínica Reñaca, Sports Sciences Lab, Organizer and Lecturer: **Second Advanced Course in Physical Anthropology: International bases of Kinanthropometry and Body Composition.** Viña del Mar, Chile, July 1998. (30 Hours)

Chilean Physical Therapy Association, Magallanes Regional Chapter, Lecturer: **Applied Physiology to Sports and Rehabilitation.** Punta Arenas, Chile, May 1997. (15 Hours)

Clínica Reñaca, Sports Sciences Lab, Organizer and Lecturer: **First Advanced Course in Physical Anthropology: International bases of Kinanthropometry and Body Composition.** Viña del Mar, Chile, January 1996. (30 Hours)

Community Service:

November '19 American Physiological Society K-12 outreach program, PhUn week. El Paso Elementary School, El Paso, TX

November '18 American Physiological Society K-12 outreach program, PhUn week. Tippin Elementary School, El Paso, TX

November '17 American Physiological Society K-12 outreach program, PhUn week. Dr. Hornedo Middle School, El Paso, TX.

November '16 American Physiological Society K-12 outreach program, PhUn week. South Vermillion High School, Clinton, Indiana

October 2016 IU Medicine/Vigo County Health Fair, Vigo County, Indiana

October 2016 PT Annual check-up to Foster Grandparents, Vigo County, Indiana

Fall 2016 Vigo County Youth Soccer Association: Soccer Coach

Spring 2016 Vigo County Youth Soccer Association: Soccer Coach

Winter 2016 Boys and Girls Club of Terre Haute: Indoor Soccer coach

November '15 American Physiological Society K-12 outreach program, PhUn week.
South Vermillion High School, Clinton, Indiana

October 2015 IU Medicine/Vigo County Health Fair, Vigo County, Indiana

October 2015 PT Annual check-up to Foster Grandparents, Vigo County, Indiana

Fall 2015 Vigo County Youth Soccer Association: Soccer Coach

Spring 2015 Vigo County Youth Soccer Association: Soccer Coach

Winter 2015 Boys and Girls Club of Terre Haute: Indoor Soccer coach

November '14 American Physiological Society K-12 outreach program, PhUn week.
Dixie Bee Elementary School, Terre Haute, Indiana

Fall 2014 Vigo County Youth Soccer Association: Soccer Coach

November '13 American Physiological Society K-12 outreach program, PhUn week.
Marshall Elementary School, Marshall, Illinois

November '12 American Physiological Society K-12 outreach program, PhUn week.
Dixie Bee Elementary School, Terre Haute, Indiana

Spring 2012 Vigo County Youth Soccer Association: Soccer Coach

Spring 2010 Chile's Earthquake fundraiser: Organizer and Board (Treasure) member

Summer 2009 YMCA North-Central Florida, Youth Soccer Coach

Fall 2009 YMCA North-Central Florida, Youth Basketball Assistant Coach

2008-2009 University of Florida, Graduate and Family Housing: Maguire Village
Mayor

2008-2009 University of Florida, Mayors Council: Board Member

Services to University/College/School on Committees/Councils/Commissions:

National/International/Federal Agencies

2019 – present Associate Editor, Cardiopulmonary Physical Therapy Journal

2014 – present APTA Cardiopulmonary section grant reviewer.

2013 – present National Institutes of Health, Center for Scientific Review, Early
Career Reviewer.

2013 – present APTA Cardiopulmonary section, CSM abstract reviewer.

2012 – present U.S. Department of Health and Human Services, Health Resources and Services Administration Grant reviewer.

The University of Texas at El Paso:

2019 – present College of Health Sciences -RISE, Research Director
2018 – 2020 College of Health Sciences Research Committee Chair
2018 – present College of Health Sciences Research Committee Member
2017 – present Doctor of Physical Therapy Admissions Committee member
2018 – 2019 College of Health Sciences Faculty Evaluation sub-committee, Committee Member

Indiana State University:

Fall 2016 Member of the Evaluation Committee of Dean Lynn Maurer, dean of the College of Graduate and Professional Studies
2016 – present Chair Admissions Committee, Doctorate of Physical Therapy program
2015 – present Department of Applied Medicine and Rehabilitation Faculty Affair Committee member (Chair: August 2015-July 2016; Secretary: since August 2016)
2015 – 2016 Department of Applied Medicine and Rehabilitation, Chair Search Committee for Physical Therapy Faculty.
2013 – present Graduate Council member (Vice-Chair: August 2015- July 2016; Secretary: since August 2016)
2012 – 2016 Department of Applied Medicine and Rehabilitation Speaker Series Committee member
2012 – present Indiana State University, University Athletic Committee member.
February 2015 Indiana State University Theodore Dreiser Distinguished Research/Creativity Award Committee
September 2013 College of Graduate and Professional Studies' Dean Search Committee member.
August 2013 Department of Applied Medicine and Rehabilitation, Physical Therapy Faculty Search Committee member
April 2013 Department of Applied Medicine and Rehabilitation, Occupational Therapy Faculty Search Committee member

- 2012 – 2016 Doctor in Physical Therapy program, Curriculum Committee member
- 2012 – 2013 Department of Applied Medicine and Rehabilitation, Doctor in Physical Therapy program director Search Committee chair.
- June 2012 Department of Applied Medicine and Rehabilitation, Occupational Therapy program director Search Committee member
- 2012 – 2013 Faculty Senator
- September 2012 Department of Applied Medicine and Rehabilitation, Assistant/Associate Professor of Gross Anatomy Search Committee member.

Pontificia Universidad Católica de Valparaíso:

- 2006 President Advisory Committee member: Evaluation and Advice to the President of the University about internal and external matters to consider his re-election.
- 2005 School of Physical Therapy and Kinesiology: Chair Curriculum Committee. Evaluation and Advice to the School Council about new Physical Therapy Curriculum, based on the American Physical Therapy Association recommendations (CAPTE).
- 2003 – 2005 School of Physical Therapy and Kinesiology: Accreditation Committee member. Evaluation and Advice to the College of Sciences and the President of the University about the School's strengths and weaknesses on the voluntary Accreditation process.
- 2000 – 2002 School of Physical Therapy and Kinesiology: Chair of Marketing and School's website Webmaster.
- 1994 – 1995 College of Sciences and Presidency: Author of the academic project for the School of Physical Therapy and Kinesiology.

Honors and Awards:

- 2018** College of Health Sciences Charles H. & Shirley T. Leavell Faculty Fellow for Translational Research, The University of Texas at El Paso
- 2017** American Physiological Society, Teaching Section, 5-year Physiology Understanding (PhUn) Week planning Award.

Sycamore Undergraduate Research Mentor Award, Center for Undergraduate Research and Creativity, Indiana State University.
- 2010** Outstanding Leadership & Distinguished Service Award, International Honorary for Leaders in University Apartment Communities, University of Florida

- 2009** Lea-McCachren Endowed Graduate Scholarship, University of Florida, College of Health and Human Performance.
- 2008** Department of Applied Physiology and Kinesiology and College of Health and Human Performance International Student of the year.
- 2007** Certificate of Achievement Award, University of Florida, International Center.
- 2007** David & Linda McCaughey Graduate Scholarship, University of Florida, College of Health and Human Performance.
- 2006** Certificate of Achievement Award, University of Florida, International Center.
- 2006** Grinter Fellowship, University of Florida, Graduate School.
- 2002** First runner-up abstract, 1st International Congress of Physical Therapy, Costa Rica.
- 1997** Best abstract (Boheringer-Mannheim lactate award), 42nd Chilean Congress of Sports Medicine, Santiago de Chile.
- 1996** Best abstract (POLAR Heart rate monitors award), 7th South-American Congress of Sports Medicine, Santiago de Chile.
- 1994** Best manuscript, Chilean Physical Therapy Association Journal (revista de Kinesiologia), Santiago de Chile.
- 1990** Graduated with honors Physical Therapy Class 1990, Pontificia Universidad Católica de Chile, Talca.
- 1990** Fellowship (half-fee waiver Scholarship) Exercise Science Diploma, Instituto Biosystem, Rosario, Argentina.

Continuing Education Attended:

2020

Conference Attendance, "APTA's Combined Section Meeting," American Physical Therapy Association, Denver, CO, USA. (February 13, 2020 - February 15, 2020).

Continuing Education Program, "CAPTE Program Assessment Module", American Physical Therapy Association, E-Learning (January 26, 2020).

2019

Workshop, "Team-Based Learning," UTEP Team-Based Learning Institute, El Paso, United States, USA. (December 16, 2019 - December 18, 2019).

Conference Attendance, "2019 SACNAS - The National Diversity in STEM," Honolulu, HI, USA. (October 31, 2019 - November 1, 2019).

Conference Attendance, "Education Leadership Conference," American Physical Therapy Association, Bellevue, WA, USA. (October 18, 2019 - October 20, 2019).

Conference Attendance, "Texas Interprofessional Education Consortium Fall Meeting," Texas IPE Consortium, El Paso, TX, USA. (September 25, 2019 - September 26, 2019).

Continuing Education Program, "Inaugural Sun City Cardiovascular Summit," Texas Tech University Health Sciences Center El Paso Paul L. Foster School of Medicine, El Paso, TX, USA. (September 13, 2019).

Conference Attendance, "ACSM Annual Meeting," American College of Sports Medicine, Orlando, FL, USA. (May 28, 2019 - June 1, 2019).

Tutorial, "UTEP AWARE Class XXVIII," The University of Texas at El Paso, El Paso, Texas, United States. (August 31, 2018 - May 10, 2019).

Continuing Education Program, "Of Molecules, Mice, and Men: PT Faculty-Led Basic and Translational Research," American Physical Therapy Association, Washington, DC, USA. (January 26, 2019).

Continuing Education Program, "Personalized Physical Therapy: The Time Is Now! (Genomics Session Sponsored by the APTA FiRST Council)," American Physical Therapy Association, Washington, DC, USA. (January 26, 2019).

Conference Attendance, "APTA's Combined Section Meeting," American Physical Therapy Association, Washington, DC, USA. (January 23, 2019 - January 26, 2019).

Continuing Education Program, "Can I Stop Now? 2.0: Intervention and Progression of Endurance Performance," American Physical Therapy Association, Washington, DC, USA. (January 25, 2019).

Continuing Education Program, "Cardiopulmonary Section Platform Presentations 1," American Physical Therapy Association, Washington, DC, USA. (January 25, 2019).

Continuing Education Program, "CAPTE Writing Workshop for Self-Study Report," American Physical Therapy Association, Washington, DC, USA. (January 21, 2019 - January 23, 2019).

2018

Tutorial, "UTEP AWARE Class XXVIII," The University of Texas at El Paso, El Paso, Texas, United States. (August 31, 2018 - May 10, 2019).

Conference Attendance, "Education Leadership Conference 2018," American Physical Therapy Association, Jacksonville, FL. (October 12, 2018 - October 14, 2018).

Continuing Education Program, "The "US" in TRUST: Academic and Clinical Faculty as Role Models," American Physical Therapy Association. (September 27, 2018).

Conference Attendance, "2018 Annual Meeting," American College of Sports Medicine, Minneapolis, MN. (May 29, 2018 - June 2, 2018).

Conference Attendance, "EXPERIMENTAL BIOLOGY 2018," American Physiological Society, San Diego, CA. (April 21, 2018 - April 25, 2018).

Conference Attendance, "2018 Combined Sections Meeting," American Physical Therapy Association, New Orleans, LA. (February 21, 2018 - February 24, 2018).

Continuing Education Program, "Cardiovascular and Pulmonary Section Platform Presentations 2: Prevention to Intervention for Patients with Pulmonary Disease," American Physical Therapy Association, New Orleans, LA. (February 23, 2018).

Continuing Education Program, "Reach for the Stars: Faculty Research Development," American Physical Therapy Association, New Orleans, LA. (February 23, 2018).

Continuing Education Program, "Can I Stop Now? The Importance of Measuring and Progressing Endurance in Adults," American Physical Therapy Association, New Orleans, LA. (February 22, 2018).

Continuing Education Program, "Cardiac Rehabilitation: Increasing Awareness, Referral, and Participation," American Physical Therapy Association, New Orleans, LA. (February 22, 2018).

Continuing Education Program, "The Linda Crane Lecture 2018: Synthesis: Causal Models, Causal Knowledge," American Physical Therapy Association, New Orleans, LA. (February 22, 2018).

2017

American College of Sports Medicine Annual Meeting, Denver, CO

- Influences of Physical Activity-Exercise on Cognitive Health across the Life Span
- Neural Control of the Circulation in Type 2 Diabetes
- Is exercise really Medicine?
- Neurobiological Effects of Physical Exercise
 - High Intensity Training in Old Age to Improve Memory and Hippocampal Function
 - Neural Circuits Controlling Exercise-Modulation of Fear and Anxiety
 - Exercise-induced Lactate is the Key to Fix the Brain!
- The Opioid Epidemic: How can the Sports Medicine Community Respond?
- Recommendations for Establishing Cardiorespiratory Fitness as a Vital Health Measure.
- Physiological Impact of Inactivity and Prolonged Sitting: Implications for Cardiovascular Health
 - Impact of Short Term Reductions in Physical Activity on Cardiometabolic Health
 - Prolonged sitting and Increased Cardiovascular Risk
 - Sex Differences in Physiological Response to Inactivity
 - Central Cardiovascular Concerns Related to Inactivity: Implications for Spinal Cord Injury

Experimental Biology, Chicago, IL

- The Walter B. Cannon Memorial Award Lecture: Insights into the Pathogenesis of Cystic Fibrosis Lung Disease

American Physical Therapy Association, Combined Section Meeting, San Antonio, TX

- Cardiopulmonary Platforms 1
- Cardiopulmonary Platforms 2
- Exercise and Cancer Rehabilitation: The Past, the Present, and the Future

2016

Innovative Educational Services, Ethics and Jurisprudence Indiana Physical Therapy

American College of Sports Medicine Annual Meeting, Boston, MA

- Regulation of Body Weight: Physics, Physiology and Behavior
- Energy Balance: A Framework for Appetite Regulation
- Lack of Association Between Energy Expenditure and Weight Gain: Examples from Across the Epidemiologic Transition
- Energy Balance: Challenge and Solutions for the Mid-west Exercise Trials
- The Evolution of Dietary Intake Methods and The Effects of Energy Expenditure on Energy and Macronutrient Intake
- Exercise-Induced Hypoalgesia in Healthy Populations
- Physical Activity, Sedentary Behaviors and Pain Sensitivity in Healthy Populations
- Physical Activity, Exercise, and Pain Modulation in Clinical Pain Populations
- Mechanisms of Exercise-Induced Hypoalgesia
- Musings of a Sports Physician's Perspective of the History of his Specialty
- Effect of Rest Time in Sprint Training in Young Soccer Players
- Exercise Training Effects on Elevated NOX-Dependent ROS and Microvascular Endothelial Dysfunction in Obese Humans

Experimental Biology, San Diego, CA

- Refresher Course on Ionic Homeostasis and Systems Physiology
 - Regulation of Sodium Homeostasis and Hypertension
 - Cardiac Ischemia: Ionic Currents and the ECG
- The Walter B. Cannon Memorial Award Lecture: Muscle-Immune Cell Crosstalk in the Genesis of Insulin Resistance
- Deep Brain Stimulation for Hypertension
- Carotid Sinus Stimulation for Hypertension
- Vagal Nerve Stimulation for the Treatment and Prevention of Heart Failure
- Vagal nerve Stimulation for Arrhythmias

2015

The Division of Respiratory and Critical Care Physiology and Medicine, Los Angeles Biomedical Research Inst. at Harbor-UCLA Medical Center, Los Angeles, CA

- A PRACTICUM: Exercise Testing and Interpretation
 - Physiological Basis of Exercise Testing
 - Introduction to Patho-Physiology of Exercise Intolerance I
 - Pathophysiology of Exercise Intolerance II
 - Tutorial Sessions: Small Group
 - Laboratory Demonstrations
 - Conducting the Clinical Test
 - Basis of Graphical Data Display
 - Are “Normal” Values Normal?
 - Applications of CP Exercise Testing I
 - Applications of CP Exercise Testing II
 - Tutorial Sessions: Small Group
 - Calibration and Quality Control
 - Laboratory Workshop
 - Constant Work Rate Testing
 - Dry Lab: Gas Exchange Calculations
 - Typical Pathophysiological Responses
 - The “Integrated” Interpretation of Exercise Tests (Writing the Report)
 - Tutorial Sessions: Small Group
 - Case Interpretation Exam

American College of Sports Medicine Annual Meeting, San Diego, CA

- The Scientific Evolution of our Understanding of Resistance Training as We Know It Today
- History of Fatigue: Where Did we Come From and How Did we Get Here?
- Debate - Acidosis: Friend or Foe?
- Revisiting CPX Applications
- Translating Fatigue to Human Performance
- Can Endurance Exercise Hurt the Heart?
 - Acute Exercise-induced Cardiovascular Risks
 - Evidence of Acute Myocardial Injury
 - Cardiac Adaptations Due to Long-term Exercise Training
 - Potential Maladaptations to Lifelong Exercise
- Landmarks in the Development of Sports Nutrition
- The Unsolved Dilemma of Diabetic Cardiac Dysfunction: The Need for Effective Exercise Interventions
 - The Diabetic Heart: Impact on Exercise Capacity
 - The Effect Of High-Intensity Interval Exercise On Endothelial Function In Type 2 Diabetes
 - High Intensity Interval Training to Normalize Diabetic Myocardial Dysfunction
- The Two Faces of Heart Failure: Exercise Intolerance in HFrEF vs HFpEF Patients
 - Cardiac Responses to Acute Exercise: HFrEF vs. HFpEF
 - Peripheral Vascular Function: HFrEF vs. HFpEF
 - Skeletal Muscle Vasodilation during Exercise: HFrEF vs. HFpEF
 - Skeletal Muscle Abnormalities during Exercise: HFrEF vs. HFpEF

Experimental Biology, Boston, MA

- Refresher Course on Exercise Physiology: the Brain and Systems Control
 - The Brain and the Cardiovascular System
 - The Brain and the Immune System
 - The Brain and the Respiratory System
 - The Brain and the Gut
- The Walter B. Cannon Memorial Award Lecture: Solving the Mystery of Sleep: from Orphan Receptors to Forward Genetics
- Translational Insights Into Inflammation in the Pathogenesis of Hypertension
- Translational Insights Into the Role of Reactive Oxygen Species in Diabetes
- Abnormal CV response to exercise in hypertension
- Importance of Physical Activity-induced Remodeling of Striated Muscle Vasculature in Treatment of T2D

American Physical Therapy Association, Combined Section Meeting, Indianapolis, IN

- Venous Thromboembolism and Heart Failure: Current Clinical Practice Guidelines
- Cardiovascular & Pulmonary Section Moderated Platform Presentations 2
- Acute Care Lecture: Solidifying the Future of the PT Profession in ICU: The Time Is Now
- Research Funding Symposium

2014

American College of Sports Medicine Annual Meeting, Orlando, FL

- Move to Live! Should Couches Be Sold With a Health Warning?
- Cardiac Rehabilitation: The Past, the Present and the Future symposium
 - Past Talk - From Heberden to Hambrecht: The History of Cardiac Rehabilitation
 - Present Talk - Cardiac Rehabilitation Today; The Right Pieces are in Place to Practice What We've Been Trained for and to Grow our Programs
 - Future Talk - Forecasting the Future: Moving from Disease Management to Disease Prevention
- The Science Behind Diabetes - Understanding New Research and Their Clinical Applications
- Exercise Training in Cardiac Patients
- Can Lactate Sampling Improve Prescription and Monitoring of Interval Training in Cardiovascular Disease?
- Lactate And Heart Rate Variability Threshold During Resistance Exercise In Coronary Artery Disease Patients.
- Living High: A History of High Altitude and Sports Medicine
- The 2 Hour Marathon and Human Performance symposium
 - 2 Hours: Is There a Comparable Barrier for Women?
 - Stalking the 2 Hour Marathon
 - Physiological Limiting Factors; the 2 Hour Marathon

- Are we Genetically Predisposed to Run a Sub 2h Marathon?

Experimental Biology, San Diego, CA

- Refresher Course on Exercise Physiology: The Role of Exercise in Disease Prevention, Treatment, and Optimal Aging
 - Exercise, cognitive function, and aging.
 - Lifestyle factors that influence vascular aging.
 - Effects of physical activity on aging and disease: role of redox signaling.
 - Exercise-induced protection against type II diabetes.
- The Walter B. Cannon Memorial Award Lecture: The contribution of paracellular transport to epithelial homeostasis.
- Influence of sexual dimorphism on endothelial morphology, metabolism and mechanics
- Diabetes-related Contractile Dysfunction of the Heart symposium
 - Diabetic cardiomyopathy: pathology, diagnosis and epidemiology.
 - The damaging effects of hyperglycemia on the heart.
 - Exercise and its beneficial role on the diabetic heart.
- Effects of aerobic or resistance exercise training in the management of genetic predisposition to obesity.

American Physical Therapy Association, Combined Section Meeting, Las Vegas, NV

- Physical Therapy in the ICU: The Past, Present, and Future
- Effects of Exercise Intervention on Metabolic Abnormalities Associated With Metabolic Syndrome
- Cardiovascular & Pulmonary Section Moderated Platform Presentations 1
- Cardiovascular & Pulmonary Section Moderated Platform Presentations 2
- Differential Diagnosis of Leg Pain: Could It Be Vascular
- Reducing Readmission for Heart Failure

2013

World Congress of Physiology IUPS 2013

- Physiology moves back onto centre stage: a new synthesis with evolutionary biology
- Skeletal muscle dysfunction in heart failure and its reversal by exercise training
- Maintaining skeletal muscle mass: lessons learned from hibernation
- Health-promoting effects of exercise in diabetes and obesity: from molecular mechanisms to clinical action
- The Rhythms of Life – What your body clock means to you from eye disease to jet lag
- Central neuronal mechanisms underlying the central post stroke pain
- Atheroprotective effects of shear stress through the regulation of the renin-angiotensin system
- Regulation of proinflammatory signaling pathways by shear stress in vascular endothelial cells
- Athero-susceptibility of the stressed endothelium
- Vasomotor properties of collateral arteries: effects of exercise training

- Integration and modulation of intercellular signalling underlying blood flow control
- The renin-angiotensin system: new concepts and perspectives

American College of Sports Medicine Annual Meeting, Indianapolis, IN

- Exercise is Good Medicine
- Assessing Vascular Function: Past, Current and Future Promises symposium
 - Vascular Function Assessed by Post Cuff Occlusion Flow Mediated Vasodilation: After 20 Years, Where do we Stand?
 - Featured Session Abstract: Evidence that endothelial vasodilator and constrictor function are endothelium-dependent in humans: Use of a denudation model
 - Progressive Handgrip Exercise: A New Tool for Assessing Nitric Oxide-Dependent Vasodilation in Health and Disease
 - Vascular Function Assessed During Active and Passive Exercise: Is this the Way of the Future?
- Lipid Metabolism: Molecular Regulation and Integrated Responses to Exercise symposium
 - Lipid Droplet Remodeling and Control of Lipolysis
 - Regulation of Lipid Storage and Mobilization
 - Plasma Triglyceride and Fatty Acid Kinetics Following Exercise
 - Muscle Lipid Metabolism in Relation to Exercise and Insulin Sensitivity
- Contemporary Issues in Cardiac Rehabilitation symposium
 - Keys to Improving Delivery and Value of Cardiac Rehabilitation
 - New Opportunities: Changes in Medicare Coverage for Cardiac Rehabilitation
 - Making the Assist: How Exercise Training can Benefit Patients with Left Ventricular Assist Devices
 - Prescribing Exercise With No Exercise Test

Experimental Biology, Boston, MA

- The Walter B. Cannon Memorial Award Lecture: Is physiology redundant?
- Role of microglia in regulation of vascular reparative and inflammatory cells in hypertension.
- Molecular Imaging for Physiological Understanding symposium
 - Targeted ultrasound imaging of the vasculature and myocardium.
 - Radiotracer based imaging of angiogenesis: focus on instrumentation.
 - Imaging of inflammation and vascular remodeling.
- The Remarkable Anti-aging Effects of Aerobic Exercise on Arteries.
- Cardiorespiratory Function/Integration in Health and Disease symposium
 - Importance of cardiorespiratory coupling in health and disease.
 - Cardiorespiratory coupling from bench to bedside.
 - Hypothalamic neuropeptides and cardiorespiratory interactions.
 - Central mechanisms of cardio-espriatory coupling.

American Physical Therapy Association, Combined Section Meeting, San Diego, CA

- Best Practices Update for Chronic Fatigue Syndrome/Myalgic Encephalomyelitis: The IACFS/ME Primer for Clinical Practitioners
- Cardiovascular and Pulmonary Research Update: Several Years in Review
- Linda Crane Lecturership From Silos to Bridges: Preparing Effective Teams for a Better Delivery System

2012

American College of Sports Medicine Annual Meeting, San Francisco, CA

- Physical Activity and Bone Health: Conventional Wisdom, Contemporary Ideas
- Body Composition is Associated with Arterial Stiffness and Physical Function in Chronic Kidney Disease Patients
- Under Pressure: Is Shear the Principle Mediator of Exercise-induced Vascular Adaptation symposium
 - Shear Stress and/or Pressure Play a Key Roles as Mediators of Exercise-Induced Adaptations on Arterial Vascular Function and Structure
 - Shear Stress and/or Pressure Play a Key Roles as Mediators of Exercise-Induced Adaptations in Arterial Wall Thickness
 - Racial Differences in Oxidative Stress in Cultured Endothelial Cells; Interactions with Shear Stress in Mediating Endothelial Phenotype
- Cerebral Lactate Metabolism During Exercise
- The Physiology of Exercise in Heart Failure symposium
 - Mechanisms of the Exaggerated Pressor Reflex in Heart Failure
 - Muscle Afferent Activity in Heart Failure
 - Baroreflex Control During Exercise in Heart Failure
 - Limb-Specific Responses to Volitional Exercise in Heart Failure
 - Cardiovascular Responses to Passive Limb Movement in Heart Failure
- Exercise as a Countermeasure for Aging: From Mice to Humans
- Lactate and Cancer symposium
 - A Brief History of Lactate and Cancer: From Warburg to Today
 - Monocarboxylate Transporters and Cancer
 - Hyperlactatemia, Hypoglycemia, and Cancer
 - Exercise and Cancer
- Meaning of the Maximal Lactate Steady State symposium
 - Lactate Steady State - Implications of the Lactate Shuttle Theory
 - Metabolic Regulation of Exercise at and Above the Maximal Lactate Steady State (MLSS)
 - Glucose and Lactate Kinetics at and Below the MLSS.
 - Blood Lactate Concentration Differences Among Cyclists of Different Competitive Levels
- Adiposity, Fitness and Cardiometabolic Health: The Tale of the Tape
- Role of Glycogen in Regulating Skeletal Muscle Function symposium
 - The Regulation of Muscle Glycogen: The Granule and its Proteins
 - Role of Glycogen in Skeletal Muscle Function

- Regulation of Skeletal Muscle AMP-activated Protein Kinase by Glycogen
- Glycogen Phosphate: Metabolism and Significance
- Skeletal Muscle Blood Flow Studied Sans Metabolism: Implications from Basic Science to Rehabilitative Medicine symposium
 - Impact of Body Position and Afferent Feedback on Central and Peripheral Hemodynamic Contributions to Movement-Induced Hyperemia: Implications for Rehabilitative Medicine
 - Attenuated Exercise Induced Hyperaemia with Age: Mechanistic Insight from Passive Limb Movement
 - Passive Limb Movement: A New Tool for Assessing Nitric-Oxide Mediated Vascular Function
 - Passive Movement Training: Impact on Angiogenic Factors and Capillary Growth in Human Skeletal Muscle

Experimental Biology, San Diego CA

- The Walter B. Cannon Memorial Award Lecture: The nitric oxide-carbon monoxide module: a fundamental mechanism of cellular resistance to stress.
- The Role of Oxygen Metabolism for the Development of Kidney Disease symposium
 - Renal oxygen metabolism in health and disease
 - Deranged oxygen metabolism in the renal complications of diabetes.
 - Oxygen metabolism and hypertensive kidney damage.
 - Hypoxia inducible factor in chronic kidney disease and renal cell carcinoma.
- Sympathetic Nerve Activity in Heart Failure: A Critical Role for Central Angiotensin II Receptors.
- Angiotensin and Sympathetic Nerve Activity mini-symposium
 - Angiotensin receptor subtypes in CNS cardiovascular control
 - Neural regulation of blood pressure and T lymphocytes in stress-dependent hypertension.
 - Angiotensin-sympathetic nervous system interactions in humans: myth or reality?
- Understanding of Obesity as a Disorder of Energy Homeostasis.
- Exercise Only Affects Muscles? Fat Chance.
- Tales from the Heart: A Comparative and Evolutionary Perspective of the Vertebrate Circulatory System
- NIH peer review: where are we and where are we going?
- Regulation of Muscle Blood Flow by ATP during Exercise symposium
 - Intra-arterial, intra-venous, and interstitial levels of ATP during contractions: insights into purinergic regulation of muscle blood flow during exercise.
 - The red blood cell as a source of dilatory ATP during exercise: mechanisms and implications.
 - The relative maintenance of skeletal muscles vasoconstriction during exercise in the aged: is ATP involved?

2011

American College of Sports Medicine Annual Meeting, Denver, CO

- High Intensity Exercise Training in Clinical Populations
- Assessment of Physical Activity and Inactivity Using Wearable Monitors: Past, Present and Future Directions
- Outliers Matter! The Important Clues in Cardiovascular Response Heterogeneity
- Effects of Shear Stress on Endothelial Cell Phenotype: Insights into the Effects of Exercise
- Neural-Vascular Alterations in Insulin Resistant States: Treatment with Exercise

Experimental Biology, Washington, DC

- The Walter B. Cannon Memorial Award Lecture: The nitric oxide-carbon monoxide module: a fundamental mechanism of cellular resistance to stress.
- Mechanisms and function of the vascular myogenic response.
- A physiologist's evolution: from coronary circulation to adenylyl cyclase type 5 inhibition.
- Featured Topic: Vascular Adaptation to Exercise in Atherosclerosis
 - Vascular adaptations to exercise in cardiovascular disease: insights from animal studies.
 - Exercise attenuates reductions in intimal smooth muscle K^+ , but not Ca^{2+} currents in a swine model of coronary artery disease.
 - Acute and chronic endurance exercise effects on nitric oxide, superoxide, and redox-related gene expression in circulating $CD34^+$ cells.
 - Vascular adaptations to exercise in cardiovascular disease: insights from human studies.
- Cardiovascular Consequences of Type 2 Diabetes on Exercise Capacity symposium
 - Exercise effects on body composition- mediator of metabolism and cardiovascular risk.
 - Exercise testing and training for patients with diabetes: physiologic concerns.

2010

American College of Sports Medicine Annual Meeting, Baltimore, MD

- VO_2 max and Exercise Tolerance
- Daily Step Count, Gait Parameters, Strength, And Function In Children With Duchenne Muscular Dystrophy
- Microvascular Aging: Distribution and Sex Differences symposium
 - Hemodynamics with Advancing Age: Role of Adipose Tissue
 - Differences in Skeletal Muscle Hyperemia and Cardiovascular Regulation with Age
 - Age-Induced Endothelial Dysfunction is Sex-Specific

- Aging and Estrogen Deficiency: Effects on Cardiac Mitochondrial Signaling and Function

Experimental Biology, Anaheim, CA

- Cardiovascular Physiology Refreshing course (4 hours)
 - Cardiac mechanics: from syncytium to pump.
 - Local control of blood flow.
 - Neural control of the circulation.
 - Blood pressure in humans: regulation via integration!
- Mathematical models of physiological transport processes at the cellular level (Workshop)
- The Walter B. Cannon Memorial Award Lecture: A Hard Day in the Life of a Soft Cell: Physical Laws Governing Cytoskeletal Deformation, Contraction, and Remodeling.
- Heart Failure symposium
 - Potential of miRNAs as therapeutics in heart failure.
 - Stem cell therapy in heart failure.
 - Novel natriuretic peptides as therapeutics for decompensated heart failure.
 - Clinical efficacy of selective adenosine A1 antagonism in heart failure.
- Myocardial Contraction-Relaxation Coupling
- Vascular Ageing symposium
 - Aging, habitual exercise and endothelium-dependent dilation in humans.
 - Mechanisms of age and habitual exercise on vasomotor function in rodents.
 - Aging, habitual exercise and fibrinolytic function.
 - Aging, habitual exercise and large elastic artery stiffness.

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| 2009 | American College of Sports Medicine Annual Meeting, Seattle, WA |
| 2008 | American College of Sports Medicine Annual Meeting, Indianapolis, IN |
| 2007 | American College of Sports Medicine Annual Meeting, New Orleans, LO |
| 2006 | American College of Sports Medicine Annual Meeting, Denver, CO |
| 2005 | American College of Sports Medicine Annual Meeting, Nashville, TN |
| 2004 | American College of Sports Medicine Annual Meeting, St. Louis, MO |
| 2003 | American College of Sports Medicine Annual Meeting, Indianapolis, IN |
| 2002 | American College of Sports Medicine Annual Meeting, San Francisco, CA |
| 2001 | American College of Sports Medicine Annual Meeting, Baltimore, MD |
| 1999 | American College of Sports Medicine Annual Meeting, Seattle, WA |

1998

American College of Sports Medicine Annual Meeting, Orlando, FL

Current Teaching Responsibilities in the Entry-level Physical Therapy Program:

Term 1

DRSC 5301 Normal Physiology/Embryology

Term 2

PT 5104 Spanish Medical terminology (coordinator)
DRSC 5388 Pathophysiology in Rehabilitative Sciences

Term 5

PT 6116: PT Capstone Project I

Term 6

PT 6111 Integrative Seminar II

Term 7

PT 6211 Emerging Trends in PT Practice

Term 9

PT 6117: PT Capstone Project II

Current Teaching Responsibilities in other Programs:

Spring

CHSC 6350 Scientific and Grant Writing (Interdisciplinary Health Sciences PhD program)