CURRICULUM VITAE

NAME Vincent James Caiozzo

DATE OF BIRTH March 4, 1951

PLACE OF BIRTH Los Angeles, California

CITIZENSHIP U.S.A.

MARITAL STATUS Married
Karen Jean

CHILDREN Katie Anne
John James

HOME ADDRESS 25602 Maximus
Mission Viejo, CA 92691
Phone (949) 837-7835
FAX (949) 586-9234

EDUCATION

Ph.D., 1991,
Major: Developmental and Cell Biology
University of California
Irvine, CA

Committee Members: Kenneth M. Baldwin, Ph.D.
Robert K. Josephson, Ph.D.
Albert F. Bennett, Ph.D.

M.S., 1979,
Major: Kinesiology-Physiology
University of California
Los Angeles, CA

Adviser: V. Reggie Edgerton, Ph.D.

B.A., 1974,
Major: Physical Education
Minor: Biology
California State University
Long Beach, CA

A.A., 1972,
Major: Physical Education
Minor: Biology
El Camino College
Torrance, CA

CREDENTIALS

Standard Secondary Teaching
Credential
No. STC 329376
State of California

Community College Instructor
Credential Biological Sciences
State of California
No. 367478, 3-3-Cai-001

HONORS

Research Assistantship, 1975
California State University
Long Beach, CA

AWARDS

Intercollegiate Athletic Competition
Award (Track), 1971
El Camino College
Torrance, CA

Special Performance Award, 1983
University of California
Irvine, CA

Teacher of the Year Award-1994
Irvine Valley College
Irvine, CA

Basic Science Faculty Teaching Award-2003
Department of Orthopaedics
College of Medicine
University of California

NASA Special Commendation Award
Human Research Program
March 11, 2008

Distinguished Service Award
Institute for Clinical and Translational Science
University of California
Irvine, CA
2010

PROFESSIONAL SOCIETIES

American Physiological Society
(APS)

Federation of American
Societies for Experimental Biology
(FASEB)

American Association for the Advancement of Science (AAAS)

Orthopaedic Research Society (ORS)

American Federation for Clinical Research (1980-1991)

Association of the Clinical Faculty University of California at Irvine

American College of Sports Medicine (ACSM; 1975-present)

FELLOW

American College of Sports Medicine

ACADEMIC APPOINTMENTS, RESEARCH & OTHER PROFESSIONAL EXPERIENCE

1979-present
Director of Neuromuscular Research Laboratory
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

2008-present
Professor Step III-Accelerated Promotion
Department of Orthopaedics
School of Medicine
College of Health Sciences
University of California
Irvine, CA

2005-2008
Professor Step I
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

1999-2005
Associate Professor
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

1999-present
Joint Appointment
Department of Physiology and Biophysics
College of Medicine
University of California

Irvine, CA

2001-present
Joint Appointment
Department of Otolaryngology
College of Medicine
University of California
Irvine, CA

2003-present
Joint Appointment
Department of Toxicology and Environmental Medicine
College of Medicine
University of California
Irvine, CA

1999-present
Director
Exercise Science Laboratory
NIH General Clinical Research Center
College of Medicine
University of California
Irvine, CA

2002-present
Coordinator
NIH T-32 Training Program
UCI Multidisciplinary Exercise Sciences Training Grant

1994-present
Faculty Member
Graduate Program in Molecular Biology, Genetics, and Biochemistry
University of California
Irvine, CA

1990-present
Instructor
School of Life Sciences
Irvine Valley College
Irvine, CA

1994-1999
Assistant Professor
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

1994-1999
Assistant Professor-Joint Appointment
Department of Physiology and Biophysics
College of Medicine
University of California
Irvine, CA

1983-1994
Clinical Associate
Division of Orthopaedics
Department of Surgery
College of Medicine
University of California
Irvine, CA

1982-1983
Lecturer
Graduate Division
School of Applied Arts and Sciences
California State University
Long Beach, CA

1980-1987
Consultant
Work Physiology Laboratory
Southern Occupational Health Center
Department of Community Health and
Environmental Medicine
College of Medicine
University of California
Irvine, CA

1979-1994
Staff Research Assistant
Division of Orthopaedics
Department of Surgery
College of Medicine
University of California
Irvine, CA

1979
Advisory Medical Committee
State Athletic Commission
Department of Consumer Affairs
State of California

1977-1979
Director
Human Performance Laboratory

National Athletic Health Institute
Inglewood, CA

1977-1979
Coordinator
Sports Injury Clinic
Centinela Medical Hospital
Inglewood, CA

EDITORIAL DUTIES (BOARD MEMBER)

Journal of Applied Physiology
Associate Editor (2008-present)

Journal of Applied Physiolgy
Editorial Board (2003-2005)

Clinical Orthopaedics and Related Research
Guest Editor (October 2002 Supplement)

EDITORIAL DUTIES (REVIEWER)

Acta Anatomica

American Journal of Physiology

American Journal of Sports Medicine

Anatomical Record

Annals of Biomedical Engineering

Brain Research

Canadian Journal of Physiology and Pharmacology

Clinical Orthopaedics and Related Research

Clinical Science

European Journal of Applied and Occupational Physiology

Journal of Applied Physiology

Journal of Biomechanical Engineering

Journal of Experimental Biology

Journal of Histochemistry and Cytochemistry

Journal of Orthopaedic Research

Journal of Physiology

Medicine and Science in Sports and Exercise

Paraplegia

Physiological and Biochemical Zoology

Respiration Physiology

Sports Medicine

Abstract Review
Section: Respiratory Physiology
1985 Annual Meeting
American College of Sports Medicine

NATIONAL COMMITTEES

National Institutes of Health
College of CSR Reviewers
2010-present

National Institutes of Health
CTSA Review Committee (Study Section)
(2011)

National Institutes of Health
Member of Study Section Panel
Program Project in Respiratory Muscle Failure
(2010)

National Institutes of Health
Member of Study Section Panel
Program Project in Respiratory Muscle Failure
(2009)

National Institutes of Health
Member of Study Section Panel
Modeling and Analysis of Biological Systems Study Section
(2009)

American Physiological Society
Councilor
Environmental and Exercise Physiology Section
(2006-2008)

National Institutes of Health
Member of Study Section Panel
Research Program Project in Respiratory Muscle
(2008)

National Space Biology Research Institute (NSBRI)
National Aeronautical Space Administration (NASA)
Associate Leader of Physical Fitness, Nutrition, and Rehabilitation Team (2004-2008)

National Aeronautical Space Administration (NASA)
Lunar Biomedical Research Workshop (2007)

American College of Sports Medicine
Program Planning Committee (2006-2010)

National Science Foundation (NSF)
Adhoc Reviewer (2004-2006)

American College of Sports Medicine
Chair
Molecular and Cellular Regulatory Mechanisms Interest Group (2004-2008)

National Institutes of Health
Member of NCRR Site Visit Team (2004)

National Institutes of Health
Panel Member of NCCAM 5 Year Strategic Plan (2004)

American College of Sports Medicine
Research Advisory Committee (2000-2003)

National Institutes of Health
Chair
Special Emphasis Panel
Molecular and Cellular Basis of Contractures for Design of Therapeutic Interventions.(March 2003)

National Institutes on Deafness and Other Communications Disorders
Special Emphasis Panel (Sp 2001)

National Aeronautical Space Administration (NASA)
Musculoskeletal Review Panel (2001)

Department of Veterans Affairs
Adhoc Merit Reviewer (Spr 2001)

Association Francoise centre les Myopathies (2001)

American College of Sports Medicine
Chairman
Research Review Committee (1999-2002)

National Institutes of Health
Geriatrics and Rehabilitation Study Section
(Su2000)

American College of Sports Medicine
Research Review Committee
Member (1994-2002)

American College of Sports Medicine
Research Review Committee for Minorities and
Women (1994-2002)

National Science Foundation
Adhoc Reviewer (Fall 2000)
Integrative Animal Biology Section

American College of Sports Medicine
Web Site Task Force (2000)

Department of Veterans Affairs
Adhoc Merit Reviewer (Su 1999)

Department of Veterans Affairs and Department of Defense
Review Panel

Physiological Foundations of Physical Performance and
Combat Readiness (S99)

National Institutes of Health
Geriatrics and Rehabilitation Study Section (F98)

Abstract Review Committee for the Orthopaedic Research
Society (1998)

National Aeronautical Space Administration (NASA)
Muscle Physiology Study Section (1996)

National Aeronautical Space Administration (NASA)
Muscle Physiology Study Section (1994)

REGIONAL COMMITTEES

Program Planning Committee
Annual Meeting
Southwest American College of Sports Medicine

UNIVERSITY COMMITTEES

Irvine Divisional Senate Assembly (Academic Senate)
University of California
Irvine, CA
2010-2012

Chancellor's CoHS Academic Senate Leadership Committee
University of California
Irvine, CA
2009-2010

Executive Vice Chancellor's Faculty Budget Advisory Committee
University of California
Irvine, CA
2009-2010

Dean's Advocacy Council
College of Health Sciences
University of California
Irvine, CA
2009-2010

Chair
Financial Foundation and Infrastructure Committee
Strategic Plan
School of Medicine
University of California
Irvine, CA
2010

Member
Strategic Planning Steering Committee
School of Medicine
University of California
Irvine, CA
2009-present

Chair
Committee on Planning, Budget, and Facilities
College of Health Sciences
University of California
Irvine, CA
2008-2011

Executive Committee
College of Health Sciences
University of California
Irvine, CA
2006-2011

Irvine Divisional Senate Assembly (Academic Senate)
University of California
Irvine, CA
2006-2007

Scientific Review Committee
College of Health Sciences
University of California
Irvine, CA
2006-2008

Chair of the Academic Senate
College of Health Sciences
University of California
Irvine, CA
2006-2008

Vice Chancellor's Advisory Board
College of Health Sciences
University of California
Irvine, CA
2006-2007

Dean's Advisory Board
School of Medicine
University of California
Irvine, CA
2006-2008

Irvine Divisional Senate Assembly (Academic Senate)
University of California
Irvine, CA
2006-2007

Planning and Budget Committee
University of California
Irvine, CA
2006-2008

Academic Planning Group
University of California
Irvine, CA
2006-2008

Irvine Divisional Senate Assembly (Academic Senate)
University of California
Irvine, CA
2003-2005, 2006-2008

Space Resource Allocation Committee
School of Medicine

University of California
Irvine, CA
2005-2007

Member of GCRC Advisor Committee (GAC)
College of Medicine
University of California
Irvine, CA
2000-2010

U.C. Irvine NIH General Clinical Research Center
College of Medicine
University of California
Irvine, CA
2000-2010

Chair (2000-present)
Exercise Science Laboratory Oversight Committee
U.C. Irvine NIH General Clinical Research Center
College of Medicine
University of California
Irvine, CA

Mentor Committee
College of Medicine
University of California
Irvine, CA
2002-2006

College of Medicine Representative Assembly
College of Medicine
University of California
Irvine, CA
2002-2011

University of California Pacific Rim Project
Ad Hoc Committee Member 2002
University of California
Irvine, CA

Task Force on In-Residence Faculty (Fall 2000)
College of Medicine
University of California
Irvine, CA

Resident Selection Committee (1987 to present)
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

Faculty Admissions Interview Committee (1994-2004)
College of Medicine
University of California
Irvine, CA

Orthopaedic Research Committee (1996-2004)
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

Search Committee for Admissions Officer (1998)
College of Medicine
University of California
Irvine, CA

Education Committee (1998-2006)
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

Search Committee for Physical Education Instructor (1998)
School of Life Sciences
Irvine Valley College
Irvine, CA

Search Committee for Biology Instructor (1996)
School of Life Sciences
Irvine Valley College
Irvine, CA

Search Committee for Physical Education Instructor (1996)
School of Life Sciences
Irvine Valley College
Irvine, CA

Search Committee for Otolarygeal, Head and Neck Surgery (1996)
College of Medicine
University of California
Irvine, CA

Search Committee for Biology Instructor (1994)
School of Life Sciences
Irvine Valley College
Irvine, CA

Animal Research Committee
University of California, Irvine
1990-1993

Search Committee for Athletic Director (1992)
School of Life Sciences
Irvine Valley College
Irvine, CA

Surgery Research Committee
Department of Surgery
College of Medicine
University of California
Irvine, CA 1986-1990

TEACHING EXPERIENCE

Human Physiology
F90, S90, F90, F91, S91, S92, F92, S93, F93, S94, F94, S95, F95, S96, F96, S97, F97, S98, F98, S99, F99, S00, F00, S01, F01, S02, F02, S03, S04, S07, S08, S11, F11
School of Life Sciences
Irvine Valley College
Irvine, CA

Human Physiology and Anatomy
F03, F04, S05, F05, S06, F06, F07, F08, F09, F10
School of Life Sciences
Irvine Valley College
Irvine, CA

Human Anatomy
S10
School of Life Sciences
Irvine Valley College
Irvine, CA

Medical Physiology
W97, W98, W99, F99, F00, F01, F02, F03, F04, F05, F06, F07, F08, F09, F10
College of Medicine
University of California
Irvine, CA

The Basic Science of Orthopaedics: From Muscles to Bones
1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011
Department of Orthopaedics
College of Medicine
University of California
Irvine, CA

Biomedical Engineering 120/220 – Sensory and Motor Systems
F07, F08, F09, F10
Department of Biomedical Engineering
University of California
Irvine, CA

The Comparative Physiology of Exercise (Bio 183)
F94, F96, F97, F98, F00, F01, F02, S03, F05, F06, S09, S10, S11
Department of Ecology and Evolutionary Biology
University of California
Irvine, CA

Biochemistry and Biophysics for Health Science Majors
F01, F02, S02 , Su02, S03, F03, Su04, F04, S05, Su05, F05, S06, F06, S07, Su07, Su08, S09, Su09, Su10, Su11
School of Life Sciences
Irvine Valley College
Irvine, CA

The Structural and Functional Plasticity of Skeletal Muscle
F04, F05, F06, F07, F08, F09, F10, F11
Department of Physical Therapy
University of California
San Francisco, CA

Physiology in Extreme Environments (Bio 155A)
F04
Department of Ecology and Evolutionary Biology
University of California
Irvine, CA

Hispanic Center of Excellence (HCOE)
Biology
S93, Su93, Su94, Su95, Su96, Su97, Su98, Su99, Su00, Su01, Su02, Su03, Su04
College of Medicine
University of California
Irvine, CA

The Patient-Doctor II
F94-S95, F95-S96, F96-S97, F97-S98, F98-S99, F99-S00, F00-S00, F01-S01
College of Medicine
University of California
Irvine, CA

Cell Biology
S93

School of Life Sciences
Irvine Valley College
Irvine, CA

General Biology
F91, S92, F08, S11
School of Life Sciences
Irvine Valley College
Irvine, CA

Diversity of Life (Bio 90)
F84,S85,F86,F88
School of Biological Sciences
University of California
Irvine, CA

Physiology
W88
School of Biological Sciences
University of California
Irvine, CA

Exercise Physiology
Graduate Division
School of Applied Arts and Sciences
California State University
Long Beach, CA

Cardiovascular Physiology
Graduate Division
School of Applied Arts and Sciences
California State University
Long Beach, CA

FACULTY SPENDING SABBATICAL IN LAB

Catherine Sassoon, M.D.
Department of Medicine
University of California
Irvine, CA
1/2001 to 6/2001
Project: Mechanical properties of single fibers from the diaphragm.

Kathy Schmeidler, Ph.D.
Irvine Valley College
Irvine, CA
1-2002 to 9/2002
Project: Segmental variations in MyHC isoform expression.

Lisa Klig, Ph.D.
Department of Biology

California State University
Long Beach, CA
9/2003 to 6/2004
Project: Differential gene expression in skeletal muscle.

RESIDENTS TRAINED IN RESEARCH

C.A. Wills, M.D., 1982-1983
R.F. Nickel, M.D., 1983
V.O. Gardner, M.D., 1985
A. Kreitenberg, M.D., 1986
E. Kahn, M.D., 1986
R. Ahern, M.D., 1987
S.P. Washburn, M.D., 1988
J.C. Lange, M.D., 1992
J. Ballard, M.D., 1992
C. Carmindy, M.D., 1993
E. Horton, M.D., 1993-4
J. Clifford, M.D., 1994
G. Anderson, M.D., 1994
D. McAllister, M.D., 1995
B. Rodriguez, M.D., 1996
D. Valeroso, M.D., 2001
S. Kaska, M.D., 2001
H. Chou, M.D., 2002
Jenny Cho, M.D., 2010

ORTHOPAEDIC RESIDENTS RECEIVING RESEARCH AWARDS

J.C. Lange, M.D.
1994 Nicholas Andry Research Award
E. Horton, M.D.
1995 Rancho Los Amigos Research Award
G. Anderson, M.D.
1995 Western Orthopaedics Association Research Award
D. McAllister, M.D.
1996 AOA Zimmer Award
E. Horton, M.D.
1996 Senior Paper Day Award
J. Clifford, M.D.
1996 Senior Paper Day Award
G. Anderson, M.D.
1996 Rancho Los Amigos Research Award
D. McAllister, M.D.
1997 Senior Paper Day Award

POST-DOCTORAL FELLOWS

Ya Zhen Wu, M.D.
1997-2006

Ali Utkan, M.D.
1997-1999

Bryan Rourke, Ph.D.
2001-2004
Mechanistic Basis of Muscle Rehabilitation
National Institutes of Health
F32-AR47749-01
Assistant Professor
Department of Biological Sciences
California State University
Long Beach, CA

Mark Pierre, Ph.D.
2004-2006
Mathematical Models to Predict Foot Reaction Forces under Hypergravity Conditions
National Space Biomedical Research Institute (NASA)
Boston Scientific

Yifan Ying, Ph.D.
2005-2008
Artificial Gravity and a Unique Loading Modality and Countermeasure to Microgravity
National Space Biomedical Research Institute (NASA)

Jason Blank, Ph.D.
2007-2008
Cardiovascular Responses to Training under Artificial Gravity Conditions
National Institutes of Health
Assistant Professor
Department of Biological Sciences
California Polytechnic State University
San Luis Obispo, CA

Tomasz Oliewerksz, Ph.D.
2007-2009
Unique Countermeasure Approaches
National Institutes of Health
Research Specialist
Department of Physiology & Biophysics
University of California
Irvine, CA

Josh Cotter, Ph.D.
2010-present
Oxidative Stress, Myogenic Stem Cells, and Muscle Growth
National Institutes of Health

MEDICAL STUDENTS RECEIVING RESEARCH AWARDS

Vu Anthony Hyunh
1995-Summer Research Fellow, College of Medicine, University of California, Irvine, CA

Vu Anthony Hyunh
1996 National AOA Research Award

Hassan Borazjani
1999 NIH Summer Research Fellow
College of Medicine
University of California
Irvine, CA

Heather Richmond
2003 Summer Research Fellow
College of Medicine
University of California
Irvine, CA

Randy Roy
2004 Summer Research Fellow
College of Medicine
University of California
Irvine, CA

Adam Kaplan
2005 Summer Research Fellow
College of Medicine
University of California
Irvine, CA

Steve Ericson
2005 Summer Research Fellow
College of Medicine
University of California
Irvine, CA

UNDERGRADUATE STUDENTS RECEIVING RESEARCH AWARDS

Heena Chandra
2000-2001-Undergraduate Research Opportunities Program. University of California, Irvine, CA

Jamie Lin
2001-2001-Undergraduate Research Opportunities Program. University of California, Irvine, CA

Alexandra Gangi
2001-Summer Undergraduate Research Program Fellow, University of California, Irvine, CA

Neda Mehr
2001-Summer Undergraduate Research Program
Fellow, University of California, Irvine, CA

Saba K. Al-Hashimi
2007 - Undergraduate Research Opportunities
Program. University of California, Irvine, CA

THESES COMMITTEES

Doctoral Theses

Huaxan Gao
Comprehensive Exam Committee
Su 1997

Chris Riegle
Preadvancement Exam
F 1997

Chris Riegle
Advancement Exam
Su 1998

Jeng Gen
Comprehensive Exam Committee
Su 1998

Chris Riegle
Thesis Committee
Su 1999

Nick DiMaso
Advancement Committee
Su 2000

Mike Sugarman
Thesis Committee
2002

Clay Pandorf
Chair
First Year Comprehensive Exam Committee
F 2003

Lynn Hartzler
Thesis Committee
Su 2004

Nick Di Maso
Thesis Committee
F 2004

Clay Pandorf
Advancement Exam Committee
2006

Clay Pandorf
Dissertation Defense
2008

Master's Theses:

Susan C. Long
1988
Master's Thesis of the Year Award
School of Applied Arts and Sciences
California State University
Long Beach, CA

Teresa L. Mattos
1988
An Electromyographic Study of Fatigue Characteristics of the Medial Head of the Gastrocnemius During Plantar Flexion in Advanced University Dancers
School of Fine Arts
University of California
Irvine, CA

Ada H. Martin
1988
Influence of Final Ankle Joint Alignment Upon the Electromyographic Activity in the Medial Gastrocnemius During the Eleve' to Full Point in Dance
School of Fine Arts
University of California
Irvine, CA

Michael J. Baker
1996
Interaction of Thyroid Hormone and Hindlimb Suspension on the Myosin Heavy Chains of the Rat Soleus Muscle
School of Biological Sciences
California State University
Long Beach, CA

Undergraduate Thesis:

Jeff Azus
Honors in Biological Sciences
Detecting the Anaerobic Threshold
from Gas Exchange Analysis
J. Undergrad. Res. in Biol. Sciences
11:212-222, 1981.

Richard Amstadter
Do Changes in Metabolic State Affect the Relationship Between CO2 output and Minute Ventilation During Exercise?
J. Undergrad. Res. in Biol. Sciences
12:224-233, 1982.

Tony Hawksworth
The Effect of Glycogen Depletion on Determinations of the Anaerobic Threshold
J. Undergrad. Res. in Biol.
12:323-335, 1982.

Diane Barriman
Do Minute Ventilation and Carbon Dioxide Output Remain Coupled Following High Intensity Exercise?
J. Undergrad. Res. in Biol.
13:234-245, 1983.

Eric Horton
Normative Data on the In Vivo Force-Velocity Relationship of Human Muscle for Clincal Use
J. Undergrad. Res. in Biol.
15:339-350, 1985.

Susan K. Munden
The Role of the NMDA Receptor in Calcium Mediated Protein Degradation in Spinal Cord Neurons
J. Undergrad. Res. in Biol.
19:504-512, 1989.

Richard Chou
Mechanisms Regulating the Longitudinal Growth of Skeletal Muscle
J. Undergrad. Res. in Biol.
***, 2000

Heena Chandra
Sarcomerogenesis: Length-Sensor Hypothesis
Eigth Annual UCI Undergraduate Research Symposium
8:34, 2001

EXTRACUR-RICULAR CLUBS

CLUBS

Health Sciences Society
Irvine Valley College
Founder and Faculty Advisor
1996-1997, 1997-1998, 1999-2000

RESEARCH STATEMENT

My current research interests are focused upon 3 key aspects of skeletal muscle: *i*) the mechanistic role of contractile and regulatory proteins in muscle mechanics; *ii*) the mechanistic basis of muscle plasticity; and *iii*) the application of the first two pursuits to clinically relevant pathologies.

Regarding the first area, previous studies conducted in my laboratory have focused upon the relationship between myosin isoforms and maximal shortening velocity. Current studies are directed at a more complete understanding of the role of myosin using whole muscle, single motor unit, and single fiber studies. Using the novel work loop technique, I have been able to develop a model that describes the role of activation and relaxation processes in limiting the mechanical work produced by skeletal muscle during repetitive contractions. These studies have shown that relaxation plays a major role in limiting the amount of mechanical work that can be produced by skeletal muscle, and that relaxation is length and strain dependent. Future studies with single fibers will specifically focus upon the role of myosin, troponin-C , and the sarcoplasmic reticulum in the relaxation process by using caged chelators of calcium that are activated by laser flash photolysis.

Skeletal muscle fibers are known to possess a high degree of plasticity. The basic underlying mechanisms responsible for this malleability remain obscure. Current studies being conducted in my laboratory are focused upon understanding the influence of mechanical loading upon muscle phenotype. These experiments are being conducted at the protein and mRNA levels. These experiments represent the initial steps in exploring the process of mechanotransduction in skeletal muscle.

From a clinical perspective, the Ilizarov technique is used to lengthen long bones and salvaging limb length following traumatic injuries. While previous studies have exclusively focused upon issues related to bone, very little is known about the response of skeletal muscle, connective tissue, nerve, or vessels to distraction. The ability to lengthen bone using the Ilizarov technique is thought to be limited by the soft tissues adjacent to the bone defect. As a result of constant bone lengthening, skeletal muscles are also under constant stretch. Currently, it is not known what effect bone lengthening has on the contractile, biochemical, and molecular properties of skeletal muscle. As a result, we have developed a rodent Ilizarov model that simulates that used in humans. Our current interests are to examine the adaptability of the flexors and extensors of a joint to constant stretch. By developing an understanding of the adaptation of skeletal muscle to the Ilizarov technique, more optimal methods of bone lengthening should be developed.

PROFESSIONAL PRESENTATIONS:

1. ***Maximizing Performance in Track and Field Sports.*** Centinela Medical Hospital, Inglewood, California. February 19, 1978. Director and Coordinator.

2. ***Exercise for a Healthy Heart Symposium.*** Daniel Freeman Hospital, Inglewood, California. March 23, 1978. Title of presentation: "Guidelines for safer exercise."

3. ***Cycling for Health, Recreation, and Transportation Conference.*** Technical University of Cologne, Germany. March 4, 1978. Title of presentation: "Predicting human power vehicle performance using ergometry and aerodynamic drag measurements."

4. ***Lower Extremity Problems in Athletes.*** University of Southern California. Los Angeles, California. November 28, 1978. Title of presentation: "New concepts in lower extremity rehabilitation."

5. ***Exercise for a Healthy Heart Symposium.*** Daniel Freeman Hospital, Inglewood, California. February 28, 2979. Title of presentation: "Guidelines for safer exercise."

6. ***Biomechanics Symposium California College of Podiatric Medicine.*** San Francisco, California. January 19, 1979. Title of presentation: "Evaluation of injuries by the Cybex."

7. ***VIII Panamerican Congress of Sports Medicine and Exercise Science.*** San Juan, Puerto Rico. March 14-17, 1979. Title of presentation: "Patterns of limb impairment."

8. ***International Conference on the Planning, Design, and Implementation of Bicycle, Pedestrian, and Moped Facilities.*** San Diego, California. July 3, 1980. Title of presentation: "Predicting human power vehicle performance."

9. ***Annual Meeting American College of Sports Medicine.*** Las Vegas, Nevada. May 22-26, 1980. Title of presentation: "Alteration in the in vivo force-velocity relationship."

10. ***VI Annual Meeting American Orthopaedic Society for Sports Medicine.*** Big Sky, Montana. June 30-July 3,1980. Title of presentation: "Anaerobic thresholds in elite middle and long distance runners."

11. ***VI Annual Meeting American Orthopaedic Society for Sports Medicine.*** Big Sky, Montana. June 30-July 3, 1980. Title of presentation: "Patterns of limb impairment: Suggestions for rehabilitation."

12. ***American Medical Joggers Association Scientific Symposium.*** Boston, Massachusetts. April 17-18, 1981. Title of presentation: Anaerobic thresholds in elite middle and long distance runners."

13. ***Third Annual UCI Alumni Day.*** University of California, Irvine, California, May 14, 1981. Title of presentation: "Partial menisectomy techniques: Objective comparison using the force-velocity relationship."

14. ***Third Annual UCI Alumni Day.*** University of California, Irvine, California. May 14, 1981. Title of presentation: "The effect of isometric precontractions on the slow velocity-high force region of the in vivo force-velocity relationship."

15. ***Third Annual UCI Alumni Day.*** University of California, Irvine, California. May 14, 1981. Title of presentation: "Detecting the anaerobic threshold: Application to orthopaedics."

16. ***Panamerican Congress of Sports Medicine and Exercise Science.*** Bal Harbor, Florida. May 23-26, 1981. Title of presentation: "Determination of the anaerobic threshold using a semi-automated ventilatory and gas exchange system."

17. ***Annual Meeting American College of Sports Medicine.*** Bal Harbor, Florida. May 26-29, 1981. Title of presentation: "The affect of isometric pre-contractions on the slow velocity-high force region of the in vivo force-velocity relationship."

18. ***VII Annual Meeting American Orthopaedic Society for Sports Medicine.*** Lake Tahoe, Nevada. June 21-25, 1981. Title of presentation: " The time-course of change in the in vivo force-velocity relationship after transarthroscopic (partial) menisectomy."

19. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 20-22, 1981. Title of presentation: "The effects of menisectomy of isokinetic torque production: A comparison of arthrotomy and transarthroscopic approach."

20. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 20-22, 1981. Title of presentation: "Arterialization of venous blood."

21. ***International Human Powered Vehicle Association Scientific Symposium.*** Anaheim, California, November 22, 1981. Title of presentation: "Experiments in human ergometry."

22. ***Fourth Annual UCI Alumni Day.*** University of California, Irvine, California. May 18, 1982. Title of presentation: "Anaerobic threshold of elderly arthritic patients."

23. ***Fourth Annual UCI Alumni Day.*** University of California. May 18, 1982. Title of presentation: "Do precontractions enhance training induced alterations of the in vivo force-velocity relationship?"

24. ***Annual Meeting American College of Sports Medicine.*** Minneapolis, Minnesota. May 26-29, 1982. Title of presentation: "The use of precontractions to enhance the in vivo force-velocity relationship."

25. ***VIII Annual Meeting of the American Orthopaedic Society for Sports Medicine.*** Lake of the Ozarks, Missouri. July 12-15, 1982. Title of presentation: "Closed

versus open partial menisectomy: post-operative changes in the force-velocity relationship of muscle."

26. ***XXXIII Annual Meeting of the American Physiological Society.*** San Diego, California. October 23, 1982. Title of presentation: "Does exercise-induced reduction of muscle glycogen alter the anaerobic threshold?"

27. ***University of California Extension Courses.*** San Diego, California. October 23, 1982. Title of presentation: "Fitness profile for tri-athletes."

28. ***University of California Lecture Series.*** Irvine, California. October 27, 1982. Title of presentation: "The effects of exercise of the human body."

29. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 19-20, 1982. Title of presentation: "A comparison of two isokinetic methods used for determining the in vivo force-velocity relationship of human skeletal muscle."

30. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 19-20, 1982. Title of presentation: "The effect of a special preseason basketball training program."

31. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 19-20, 1982. Title of presentation: "Changes in the in vivo force-velocity relationship after arthrotomy."

32. ***School of Applied Arts and Sciences.*** California State University, Long Beach, California. Title of presentation: "Modeling mechanical properties of in vivo muscle."

33. ***Annual Meeting American College of Sports Medicine.*** Montreal, Canada. May 19-23. Title of presentation: "A comparison of arthrographic and arthroscopic techniques used to identify meniscal lesions."

34. ***Fifth Annual UCI Alumni Day.*** University of California, Irvine, California. June 14, 1983. Title of presentation: "Muscle fiber composition in elderly arthritic patients."

35. ***Fifth Annual UCI Alumni Day.*** University of California, Irvine, California. June 14, 1983. Title of presentation: "A comparison of the force-velocity relationships of the knee flexors and extensors."

36. ***Grand Rounds.*** Department of Anesthesia, Saint Joseph's Hospital. Orange, California. August 31, 1983. Title of presentation: "Factors regulating ventilation during exercise."

37. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. Title of presentation: "The in vivo force-velocity relationship of elderly arthritic patients."

38. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 19, 1983. Title of presentation: "Muscle fiber composition of elderly arthritic patients."

39. ***Southwest Chapter American College of Sports Medicine.*** Las Vegas, Nevada. November 19, 1983. Title of presentation: "Complications and recovery from vastus lateralis muscle biopsy in swimmers and divers."

40. ***National Conference on Musculoskeletal Diseases In the Aged.*** Saint Luke's Hospital, Phoenix, Arizona. January 26-28, 1984. Title of presentation: "Muscle fiber composition of elderly arthritic patients."

41. ***Western Section American Federation for Clinical Research.*** Carmel, California. February 9, 1984. Title of presentation: "The influence of osteoarthritis on slow and fast skeletal muscle fibers."

42. ***Grand Rounds.*** Division of Orthopaedics, Department of Surgery, University of California, Irvine, California. March 21, 1984. Title of presentation: "Cosmas and Damian Visit the 1984 Olympics."

43. ***55th Annual Scientific Meeting of the Aerospace Medical Association.*** San Diego, California. May 8, 1984. Title of presentation: "Reproducibility of detecting the anaerobic threshold noninvasively."

44. ***Annual Meeting American College of Sports Medicine.*** San Diego, California. May 23-26, 1984. Title of presentation: "The effect of prior high intensity exercise on minute ventilation and carbon dioxide output during steady state exercise."

45. ***Annual Meeting American College of Sports Medicine.*** San Diego, California. May 23-26, 1984. Title of Presentation: "Anaerobic threshold for leg cycling and arm cranking."

46. ***Annual Meeting American College of Sports Medicine.*** San Diego, California. May 23-26, 1984. Title of presentation: "The effect of tourniquet ischemia on the contractile properties of slow and fast muscle."

47. ***Annual Meeting American College of Sports Medicine.*** San Diego, California. May 23-26, 1984. Title of presentation: "Aerobic capacity of elderly arthritic patients."

48. ***Annual Meeting American College of Sports Medicine.*** San Diego, California. May 23-26, 1984. Title of presentation: "Muscle fiber composition and torque-velocity relationship of the knee extensors in elderly arthritic patients."

49. ***Sixth Annual UCI Alumni Day.*** University of California, Irvine, California. June 16, 1984. Title of presentation: "Modeling the effects of tourniquet ischemia."

50. ***X Annual Meeting American Orthopaedic Society for Sports Medicine.*** Anaheim, California, July 26, 1984. Title of presentation: "The effect of tourniquet ischemia on the contractile properties of slow and fast muscle."

51. ***XXXI Annual Meeting Orthopaedic Research Society.*** Las Vegas, Nevada. January 24, 1985. Title of presentation: "Direct and indirect stimulation of ischemic muscle."

52. ***XXXI Annual Meeting Orthopaedic Research Society.*** Las Vegas, Nevada. January 21, 1985. Title of presentation: "The effect of arterial occlusion upon the tension output of slow and fast motor units."

53. ***69th Annual Meeting Federation of American Societies for Experimental Biology.*** Anaheim, California. April 24, 1985. Title of presentation: "Twitch tension of fast motor units following a one or two hour ischemic episode."

54. ***69th Annual Meeting Federation of American Societies for Experimental Biology.*** Anaheim, California. April 24, 1985. Title of presentation: "Alterations in the mechanical behavior of fast muscle due to an ischemic episode."

55. ***69th Annual Meeting Federation of American Societies for Experimental Biology.*** Anaheim, California. April 24, 1985. Title of presentation: "Direct and indirect stimulation of fast muscle following an ischemic episode."

56. ***Grand Rounds.*** Division of Orthopaedics, Department of Surgery, University of California, Irvine, California. May 22, 1985. Title of presentation: "Exercise physiology: Overview."

57. ***Combined Staff Conference.*** Department of Medicine, University of California, Irvine, California. May 29, 1985. Title of presentation: "Physiological determinants of exercise physiology."

58. ***Seventh Annual UCI Alumni Day.*** Division of Orthopaedics, Department of Surgery, University of California, Irvine, California. June 9, 1985. Title of presentation: "Tourniquet ischemia: The debate continues."

59. ***Eighteenth Annual Meeting American Burn Association.*** Chicago, Illinois. April 9-12, 1986. Title of presentation: "Cyclosporine and muscle allografts in rats: Preliminary studies of the functional and histochemical properties."

60. ***XXXIII Annual Meeting Orthopaedic Research Society.*** San Francisco, California. January 19-22, 1987. Title of presentation: "Age associated alterations of the in vivo force-velocity relationship."

61. ***Grand Rounds.*** Division of Respiratory Medicine and Physiology, Department of Medicine, Harbor-UCLA Medical Center, Torrance, California. July 29, 1987. Title of presentation: "The effect of high intensity exercise on the VE-VCO2 relationship and the anaerobic threshold."

62. ***XXXVIII Annual Meeting of the American Physiological Society.*** San Diego, California. October 11-15, 1987. Title of presentation: "Cross-sectional area of fast glycolytic (FG) muscle fibers in muscle allografts enhanced via cyclosporine."

63. ***XXXVIII Annual Meeting of the American Physiological Society.*** San Diego, California. October 11-15, 1987. Title of presentation: "The effect of a four hour ischemic episode on the subcellular localization of calpain I in slow and fast skeletal muscle."

64. ***The Second International Congress on Cyclosporine.*** Washington, D.C. November 4-7, 1987. Title of resentation: "Cross-sectional area of fast glycolytic (FG) muscle fibers in muscle allografts enhanced via cyclosporine."

65. ***72nd Annual Meeting of the Federation of American Societies for Experimental Biology (FASEB).*** Las Vegas, Nevada. May 1-5, 1988. Title of presentation: "Fast muscle fibers are more susceptible to ischemic insult: Possible role of calpain I."

66. ***Pediatric Orthopaedic Society Tutorial.*** Rancho Los Amigos Hospital, Los Angeles, California. December 1, 1988. Title of presentation: "The importance of myosin on the shape of the in vivo force-velocity relationship: The 82 fiber solution."

67. ***CSULB Anatomy & Physiology Seminar Series.*** California State University, Long Beach, California. December 1, 1989. Title of presentation: "Myosin isoforms and the force-velocity relationship: A.V. Hill's 82 Fiber Solution."

68. ***36th Annual Meeting of the Orthopaedic Research Society.*** New Orleans, Louisiana. February 5-8, 1990. Title of presentation: "Fast muscle fibers are more susceptible to ischemia."

69. ***American Academy of Orthopaedic Surgeons Tools for Assessment and Treatment of Occupational Soft Tissue Injuries.*** Newport Beach Marriott Hotel, Newport Beach, California. March 18, 1990. Title of presentation: "Applied physiology for neuromotor function."

70. ***American Academy of Orthopaedic Surgeons Tools for Assessment and Treatment of Occupational Soft Tissue Injuries.*** Newport Beach Marriott Hotel, Newport Beach, California. March 19, 1990. Title of presentation: "Physiologic justification for function specific training."

71. ***74th Annual Meeting of the Federation of American Societies for Experimental Biology (FASEB).*** Washington, D.C.. April 1-5, 1990. Title of presentation: "The influence of hyperthyroidism on maximal shortening velocity of slow and fast skeletal muscle."

72. ***37th Annual Meeting of the American College of Sports Medicine.*** Salt Lake City, Utah. May 21-26, 1990. Title of presentation: "Differences between Vo and Vmax: The importance of myosin isoform distribution."

73. ***25th Annual Scoliosis Research Society Meeting.*** September 23-27, 1991. Title of presentation: "A functional in vitro model for exploring cellular and molecular basis of spinal cord injury."

74. ***37th Annual Meeting of the Orthopaedic Research Society.*** Anaheim, California. March 4-7, 1991. Title of presentation: "The influence of

hyperthyroidism on the myosin isoform distribution and mechanical properties of slow skeletal muscle."

75. ***37th Annual Meeting of the Orthopaedic Research Society.*** Anaheim, California. March 4-7, 1991. Title of presentation: "Influence of hyperthyroidism on the diversity of contractile proteins in a slow skeletal muscle."

76. ***37th Annual Meeting of the Orthopaedic Research Society.*** Anaheim, California. March 4-7, 1991. Title of presentation: "The statistical nature of the force-velocity relationship: The 82 fiber soultion."

77. ***38th Annual Meeting of the American College of Sports Medicine.*** Orlando, California. May 29-June 1, 1991. Title of presentation: "Quantitative single fiber analysis of Type IIA myosin heavy chain distribution in hyperthyroid soleus."

78. ***Grand Rounds Department of Neurology.*** University of California, Irvine, California. September 25, 1991. Title of presentation: "Is neural activation the only factor affecting skeletal muscle phenotype."

79. ***38th Annual Meeting of the Orthopaedic Research Society.*** Washington, D.C. February 17-20, 1992. Title of presentation: "A new animal model for exploring the modulation of myosin isoform expression by altered mechanical activity."

80. ***39th Annual Meeting of the American College of Sports Medicine.*** Dallas, Texas, May 27-30, 1992. Title of presentation: "Modulation of myosin heavy chain isoform expression by altered mechanical activity."

81. ***39th Annual Meeting of the Orthopaedic Research Society.*** San Francisco, California. February 15-18, 1993. Title of presentation: "Determinants of mechanical work produced by skeletal muscle: the role of myosin and other factors."

82. ***40th Annual Meeting of the American College of Sports Medicine.*** Seattle, Washington. June 2-5, 1993. Title of presentation: "Is myosin the dominant factor dictating the production of mechanical work by slow skeletal muscle?"

83. ***American Physiological Society Conference: Physiology and Pharmacology of Motor Control.*** San Diego, CA. October 2-5, 1993. Title of presentation: "The influence of muscle strain on stimulus duration of slow muscles performing simulated locomotory activity."

84. ***Annual Meeting of the American Society for Gravitational and Space Biology.*** Washington, D.C. October 20-23, 1993. Title of presentation: "Altered protein and mRNA expression of myosin heavy chain isoforms following spaceflight."

85. ***Annual Meeting of the American Society for Gravitational and Space Biology.*** Washington, D.C. October 20-23, 1993. Title of presentation: "Contractile properties of slow skeletal muscle following a 6 day spaceflight mission."

86. ***Department of Orthopaedics Grand Rounds.*** Irvine, CA. December 15, 1993. Title of presentation: "New perspectives on muscle fiber types."

87. ***40th Annual Meeting of the Orthopaedic Research Society.*** New Orleans, LA. February 21-24, 1994. Title of presentation: "The influence of mechanical loading on the myosin heavy chain content of a fast skeletal muscle: a time-course study."

88. ***Seminar***. Department of Physiology and Biophysics. University of California, Irvine, CA. April 15, 1994. Title of presentation: "Determinants of mechanical work produced by skeletal muscle: the role of myosin and other factors."

89. ***Experimental Biology 1994.*** Anaheim, CA. April 24-28, 1994. Title of presentation: "The effects of a 14 day spaceflight mission on the mechanical properties of an antigravity muscle."

90. ***41st Annual Meeting of the American College of Sports Medicine.*** Indianapolis, IN. June 1-4, 1994. Title of presentation: "The influence of mechanical loading upon myosin heavy chain protein and mRNA isoform expression: a time-course study."

91. ***Phi Delta Kappa South Orange County Chapter.*** Lake Forest, CA. September 21, 1994. Title of presentation: "Decoding DNA to teaching".

92. ***41st Annual Meeting of the Orthopaedic Research Society.*** Orlando, FL. February 13-16, 1995. Title of presentation: "The influence of mechanical loading on single fiber myosin heavy chain isoform distribution".

93. ***41st Annual Meeting of the Orthopaedic Research Society.*** Orlando, FL. February 13-16, 1995. Title of presentation: "A rodent animal model to examine the influence of distraction on skeletal muscle."

94. ***Seminar.*** Environmental Toxicology Seminar Series, Department of Community and Environmental Medicine. April 14, 1995. Title of presentation: "Functional and cellular adaptations of rodent skeletal muscle to spaceflight".

95. ***42nd Annual Meeting of the American Collegeo of Sports Medicine.*** Minneapolis, MN. May 31-June 3, 1995. Title of presentation: "The competitive interaction of high resistance training and thyroid hormone on myosin heavy chain isoform expression".

96. ***AOA North American Traveling Fellows Meeting.*** Orange, CA. September 20, 1995. Title of presentation: "Modulation of myosin heavy chain isoforms: the role of mechanical loading."

97. ***Department of Physiology and Biophysics 1995 Retreat.*** Newport Beach, CA. September 29-30, 1995. Title of presentation: "Modulation of myosin neavy chain isoforms: the concentric-eccentric force-frequency paradigm."

98. ***42nd Annual Meeting of the Orthopaedic Research Society***. Atlanta, GA. February 18-22, 1996. Title of presentation: "A novel method for studying the

modulation of myosin heavy chain protein isoform expression by mechanical loading: the concentric-eccentric force-frequency paradigm".

99. ***The 11th Annual Applied Neural Control Research Day***: Cleveland, OH. May 14, 1996. Title of presentation: "Cellular and molecular mechanisms involved in muscle fiber conversion."

100. ***43rd Annual Meeting of the American College of Sports Medicine.*** Cincinatti, OH. May 27-June 1, 1996. Title of presentation: "The effect of thryoid hormone and suspension upon maximal shortening velocity: is there an additive effect?"

101. ***1996 Intersociety Conference: The Integrative Biology of Exercise.*** Vancouver, CAN. October 16-19, 1996. Title of presentation: "The effects of thyroid hormone (T3) and hindlimb suspension (HS) on myosin heavy chain mRNA isoforms in the soleus muscle.

102. ***Center for Exercise Science Symposium***. Gainesville, FL. October 28, 1996. Title of presentation: "The modulation of MHC isoforms by mechanical loading".

103. ***43rd Annual Meeting of the Orthopaedic Research Society*** San Francisco, CA. February 12, 1997. Title of presentation: "Myosin heavy chain isoform plasticity: an interaction between thyroid hormone and mechanical unloading?"

104. ***44th Annual Meeting of the American College of Sports Medicine.*** Denver, CO. May 28-31, 1997. Title of presentation: "Effects of hypothyroidism and overload on MHC protein isoform composition in fast skeletal muscle."

105. ***1997 Annual Fall Meeting of the Biomedical Engineering Society.*** San Diego, CA. October 2-5, 1997. Title of presentation: "Modualtion of myosin heavy chain isoform expression: do mechanical loading and thyroid hormone share a common pathway?"

106. ***University of Southern California Physical Therapy Department***. Los Angeles, CA. March 5, 1998. Title of presentation: "The importance of mechanical load in modulating the molecular and cellular properties of skeletal muscle."

107. ***44th Annual Meeting of the Orthopaedic Research Society.*** New Orleans, LA. March 16-19, 1998. Title of presentation: "The effects of mechanical unloading upon single fiber myosin heavy chain isoform composition."

108. ***ASAMI International Meeting.*** New Orleans, LA. March 15-17, 1998. Title of presentation: "The effect of limb lengthening on muscle satellite cells."

109. ***Research Forum.*** University of California, Irvine, CA. May 17, 1998. Title of presentation: "The 'm' in 'orthopaedics' stands for 'muscle'."

110. ***45th Annual Meeting of the American College of Sports Medicine.*** Orlando, FL. June 2-7, 1998. Title of presentation: "Are skeletal muscle fibers obligated to follow the I↔IIA↔IIX↔IIB scheme of MyHC isoform plasticity?"

111. ***45th Annual Meeting of the Orthopaedic Research Society.*** Anaheim, CA. February 2, 1999. Title of presentation: "Mechanisms regulating the longitudinal growth of adult skeletal muscle: influence of stretch on cyclin D1 and cardiotrophin-1 mRNA levels."

112. ***Department of Kinesiology Seminar Series.*** Madison, WIS. April 6, 1999, Title of presentation: "An integrative approach for studying muscle mechanics."

113. ***Research Forum.*** University of California, Irvine, CA. May 12, 1999. Title of presentation: "Factors regulating the longitudinal growth of skeletal muscle during distraction osteogenesis."

114. ***45th Annual Meeting of the American College of Sports Medicine.*** Seattle, WA. June 2-5, 1999. Title of presentation: "Potential mechanisms modulating muscle fiber length during limb lengthening."

115. ***Exercise Science Seminar Series.*** Davis, CA. January 21, 2000. Title of presentation: "Single Fiber Myosin Heavy Chain Polymorphism: Mechanical Consequences and Molecular Control".

116. ***46th Annual Meeting of the Orthopaedic Research Society***. Oralando, FL. March 12-15, 2000. Title of presentation: "Sarcomere remodeling induced by distraction: architectural analyses."

117. ***46th Annual Meeting of the American College of Sports Medicine.*** Indianapolis, IND. May 30 to June 3, 2000. Title of presentation: "Sarcomere remodeling following muscle lengthening: architectural analyses".

118. ***46th Annual Meeting of the American College of Sports Medicine.*** Indianapolis, IND. May 30 to June 3, 2000. Title of presentation: "Single fiber myosin heavy chain polymorphism".

119. ***22nd Annual Graduate Research Forum.*** Orange, CA. June 8, 2000. Title of presentation: "Physiology of muscle and tendon transfers."

120. ***Exercise Science Research Seminar Series***. University of Florida. September 22, 2000. Title of presentation: "Mechanisms controlling the longitudinal growth of skeletal muscle".

121. ***Introduction to Physical Medicine and Rehabilitation Seminar Series***. Long Beach Veterans Administration Health Center. Septermber 28, 2000. Title of presentation: "Structural and functional basis of muscle performance".

122. ***Physiology Seminar Series***. University of California. Irvine, CA. October 2, 2000. Title of presentation: "Muscle fiber polymorphism: its physiological implications".

123. ***47th Annual Meeting of the Orthopaedic Research Society.*** San Francisco, CA. February 25-28, 2001. Title of presentation: "Sarcomerogenesis during passive stretch: the length-sensory hypothesis."

124. ***Grand Rounds.*** Department of Anesthesiology. University of California, Irvine, CA. March 6, 2001. Title of presentation: "What goes around comes around".

125. ***Physiology Seminar Series.*** University of California, San Diego, CA. March 9, 2001. Title of presentation: "Muscle fiber types and sarcomeric contractile protein polymorphism."

126. ***Biology 210A Seminar Series in Comparative Physiology.*** University of California, Irvine, CA. May 11, 2001. Title of presentation: "Contractile protein isoforms and their functional significance".

127. ***American Laryngology Association***. Palm Springs, CA. May 13, 2001. Title of presentation: "New perspectives on the phenotypic regulation of laryngeal muscle".

128. ***National Space Biology Research Institute (NSBRI) Workshop on Skeletal Muscle.*** Irvine, CA. May 15, 2001. Title of presentation: "What goes around comes around: The Space Cycle".

129. ***Interdisciplinary Training Program in Muscle Biology.*** Department of Biochemistry, University of Maryland. May 28, 2001. Title of presentation: "Mechanisms regulating muscle growth".

130. ***47th Annual Meeting of the American College of Sports Medicine.*** Baltimore, Maryland. May 30, 2001. Title of presentation: "Longitudinal growth of skeletal muscle: the length-sensor hypothesis".

131. ***23rd Annual Graduate Research Forum.*** Orange, CA. June 8, 2001. Title of presentation: "Sarcomerogenesis during distraction: the length-sensor hypothesis."

132. ***Association of Bone and Joint Surgeons Workshop on Muscle Plasticity***. Tampa, FL. November 8-11, 2001. Title of presentation: "The 'm' in 'orthopaedics' stands for 'muscle'."

133. ***Association of Bone and Joint Surgeons Workshop on Muscle Plasticity***. Tampa, FL. November 8-11, 2001. Title of presentation: "Mechanisms underlying sarcomerogenesis during distraction".

134. ***48th Annual Meeting of the Orthopaedic Research Society.*** Dallas, TX. February 10-13, 2002. Title of presentation: "Mechanical behavior of skeletal muscle during stretch: influence of muscle atrophy".

135. ***2002 National GCRC Meeting.*** Baltimore, MD. April 11-14, 2002. Title of presentation: "A proposal for the development of standardization, innovation, and bioinformatics in the national GCRC exercise laboratories".

136. ***Experimental Biology 2002.*** New Orleans, LO. April 23, 2002. Title of presentation: "Mechanisms associated with skeletal muscle growth".

137. ***1st Annual Multidisciplinary Exercise Group Miniretreat***. Newport Beach, CA. May 16-17, 2002. Title of presentation: "Plasticity of Skeletal Muscle Phenotype: Effects of Inactivity/Activity".

138. ***48th Annual Meeting of the American College of Sports Medicine.*** St. Louis, MO. May 30, 2002. Title of presentation: "Global gene expression during muscle growth: gene chip and RT-PCR analyses."

139. ***Third Annual Otolaryngology Research Symposium.***. Orange, CA. June 14, 2002. Title of presentation: "Mechanisms controlling the phenotypic expression of laryngeal muscle."

140. ***American Laryngology Association***. San Diego, CA. September 23, 2002. Title of presentation: "New directions on the phenotypic regulation of laryngeal muscle: moving towards a national strategy?"

141. ***The Role of Tissue Mechanics in Biological Responses to Mechanical Loading.*** University of Notre Dame Center for the Study of Biocomplexity. Southbend, ID. November 8-10, 2002. Title of presentation: "Phenotypic plasticity of skeletal muscle: mechanical consequences."

142. ***The UC Irvine Genomics Forum.*** University of California, Irvine, CA. November 19, 2002. Title of presentation: "Differential gene expression during skeletal muscle growth".

143. ***The Physical Therapy and Biokinesiology Seminar Series.*** University of Sourthern California, Los Angeles, CA. November 21, 2002Title of presentation: "Control of cell cycle during skeletal muscle growth".

144. ***Associate Meeting of the Christopher Reeve Paralysis Foundation (CRPF) Research Consortium.*** University of California, Irvine, CA. January 16, 2003.

Title of presentation: "Differential gene expression during skeletal muscle growth: focus on cell cycle".

145. ***49th Annual Meeting of the Orthopaedic Research Society.*** New Orleans, LA. February 2, 2003. Title of presentation: "Gene expression during longitudinal growth of skeletal muscle: focus on cell cycle".

146. ***2003 National GCRC Meeting.*** Baltimore, MD. March 13-16, 2003. Title of presentation: "Space Cycle: A countermeasure to microgravity?".

147. ***Experimental Biology 2003***. San Diego, CA, April 13, 2003. Title of presentation: "The response of GADD45 mRNA levels to stretch in skeletal muscle."

148. ***50th Annual Meeting of the American College of Sports Medicine.*** San Francisco, CA. May 28-31, 2003. Title of presentation: "Cell cycle gene expression during skeletal muscle growth."

149. ***50th Annual Meeting of the American College of Sports Medicine.*** San Francisco, CA. May 28-31, 2003. Title of presentation: "The effects of mechanical loading on extracellular matrix gene expression in skeletal muscle."

150. ***Endocrinology Seminar Series***. Los Angeles, CA. October 21, 2003. Drew University of Medicine and Science. Title of presentation: "Mechanisms regulating the growth of skeletal muscle."

151. ***50th Annual Meeting of the Orthopaedic Research Society.*** San Francisco, CA. March 7-10, 2004. Title of presentation: "Are satellite cells required for the longitudinal growth of skeletal muscle?"

152. ***Experimental Biology 2004***. Washington, DC. April 17, 2004. Title of presentation: "Effects of muscle recovery on the expression of molecular markers of growth."

153. ***51st Annual Meeting of the American College of Sports Medicine.*** Indianapolis, IN. June 2, 2004. Title of Free Communication session: "Cellular/Molecular aspects of muscle injury."

154. ***Bioastronautics Investigators' Workshop***. Galveston, TX. January 10-12, 2005. Title of presentation: "Hypergravity resistance training: countermeasure to microgravity".

155. ***4th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. May 19-20, 2005. Title of presentation: "Fly Me to the Moon…and to Mars."

156. ***52nd Annual Meeting of the American College of Sports Medicine.*** Nashville, TN. June 1-6, 2005. Title of presentation: "The effects of loading and stretch on transcriptional and translational markers."

157. ***National Space Biomedical Research Institute Annual Investigator Retreat.*** Clearwater, TX. February 27-29, 2006. Title of presentation: "Evolution of Space Cycle: development of a hypergravity resistance-training countermeasure to microgravity."

158. ***52nd Annual Meeting of the Orthopaedic Research Society.*** Chicago, IL. March 19-22, 2006. Title of presentation: "Effect of stretch on cell cycle regulation in skeletal muscle."

159. ***Experimental Biology 2006***. San Francisco, CA. April 2, 2006. Title of presentation: "Effects of muscle recovery on the expression of molecular markers of growth." "Effect of immobilization and stretch on skeletal muscle cell cycle control genes."

160. ***53rd Annual Meeting of the American College of Sports Medicine.*** Denver, CO. May 31 to June 3, 2006. Title of presentation: "Hypergravity resistance training as a countermeasure to microgravity: evolution of the space cycle."

161. ***53rd Annual Meeting of the Orthopaedic Research Society***. San Diego, CA. February 11-14, 2007. Title of presentation: "Reloading skeletal muscle and its effects on translational markers."

162. ***National Space Biomedical Research Institute Annual Investigator Retreat.*** Clearwater, TX. February 12-14, 2007. Title of presentation: "Hypergravity resistance exercise: use of artificial gravity as a potential countermeasure to microgravity."

163. ***National Aeronautical Space Administration IMAG Pilot Study: Artificial Gravity as a Multi-System Countermeasure to Bed Rest Deconditioning Preliminary Findings Conference***. Clear Lake, TX. March 7, 2007. Title of presentation: "Muscle function and morphology."

164. ***International Society for Gravitational Physiology Annual Meeting***. San Antonio, TX. April 8-13, 2007. Title of presentation: "The artificial gravity bed rest pilot project: effects on knee extensor and plantar flexor muscle groups."

165. ***Experimental Biology 2009.*** New Orleans, LA. April 19, 2009. Title of presentation: "Hypergravity resistance training on a human powered centrifuge."

166. ***56th Annual Meeting of the American College of Sports Medicine.*** Seattle, WA. May 27-31, 2009. Title of presentation: "Is artificial gravity an effective countermeasure to microgravity?"

167. ***57th Annual Meeting of the American College of Sports Medicine.*** Baltimore, MD. June 1-5, 2010. Title of presentation: "The effects of hypergravity resistance training on cytoskeletal mRNA levels and translational markers".

168. ***53rd Annual Meeting of the Orthopaedic Research Society***. Long Beach, CA. January January 13-16, 2011. Title of presentation: "Satellite cells say 'No' to irradiation".

PROFESSIONAL PRESENTATIONS (CHAIRED SYMPOSIUM/COLLOQUIUM):

1. ***Annual Meeting American College of Sports Medicine.*** Montreal, Canada. May 19-23, 1983. Title of colloquium: "Total joint replacement in elderly arthritic patients."

2. ***40th Annual Meeting of the American College of Sports Medicine.*** Seattle, Washington. June 2-5, 1993. Title of Free Communication session: "Skeletal Muscle I".

3. ***42nd Annual Meeting of the American College of Sports Medicine.*** Minneapolis, Minnesota. May 31-June 3, 1995. Title of symposium: "The modulation of muscle plasticity: The influence of electrical stimulation".

4. ***43rd Annual Meeting of the American College of Sports Medicine.*** Cincinatti, Ohio. May 29-June 3, 1996. Title of Free Communication session: "Skeletal Muscle: Unloading II"

5. ***44th Annual Meeting of the American College of Sports Medicine.*** Denver, CO. May 28-June 1, 1997. Title of Free Communications session: "Spaceflight, muscle, and VO2."

6. ***45th Annual Meeting of the Orthopaedic Research Society***. Anaheim, CA. February 2, 1999. Title of Free Communication session: "Skeletal Muscle I".

7. ***45th Annual Meeting of the American College of Sports Medicine.*** Seattle, WA. June 2-6, 1999. Title of Free Communication session: "Cellular Regulatory Mechanisms".

8. ***1st Annual U.C. Irvine Comparative Physiology of Exercise Symposium***. Irvine, CA. December 1, 2000. Symposium Organizer.

9. ***UCI Department of Orthopaedics 2000 Biannual Retreat.*** Lake Arrowhead, CA. March 15-17, 2002. Retreat Organizer.

10. ***Association of Bone and Joint Surgeons Workshop on Muscle Plasticity***. Tampa, FL. November 8-11, 2001. Workshop Organizer and Chair.

11. ***Association of Bone and Joint Surgeons Workshop on Muscle Plasticity***. Tampa, FL. November 8-11, 2001. "Breakout Session I: Muscle Function and Injury".

12. ***Association of Bone and Joint Surgeons Workshop on Muscle Plasticity***. Tampa, FL. November 8-11, 2001. "Breakout Session II: Muscle Growth and Genetic Engineering".

13. ***2nd Annual U.C. Irvine Comparative Physiology of Exercise Symposium***. Irvine, CA. November 30 to December 1, 2001. Symposium Organizer.

14. ***UCI Department of Orthopaedics 2002 Biannual Retreat.*** Lake Arrowhead, CA. March 15-17, 2002. Retreat Organizer.

15. ***1st Annual Multidisciplinary Exercise Group Miniretreat***. Newport Beach, CA. May 16-17, 2002. Retreat Organizer.

16. ***3nd Annual U.C. Irvine Comparative Physiology of Exercise Symposium***. Irvine, CA. December 7-14, 2002. Symposium Organizer.

17. ***2nd Annual Multidisciplinary Exercise Group Miniretreat***. Newport Beach, CA. May 15-16, 2003. Retreat Organizer.

18. ***UCI Department of Orthopaedics 2004 Biannual Retreat.*** Lake Arrowhead, CA. March 25-27, 2004. Retreat Organizer.

19. ***3rd Annual Multidisciplinary Exercise Group Miniretreat***. Newport Beach, CA. May 13-14, 2004. Retreat Organizer.

20. ***Molecular and Cellular Regulatory Mechanisms Special Interest Group of the American College of Sports Medicine***. May 31-June 2, 2004

21. ***1st Annual Extreme Physiology Symposium***. Irvine, CA. December 14, 2004. Symposium Organizer.

22. ***4th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. May 19-20, 2005. Retreat Organizer.

23. ***Molecular and Cellular Regulatory Mechanisms Special Interest Group of the American College of Sports Medicine***. Nashville, TN. June1-3, 2005

24. ***4th Annual U.C. Irvine Comparative Physiology of Exercise Symposium***. Irvine, CA. December 2-3, 2005. Symposium Organizer.

25. ***5th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. June 15-26, 2006. Retreat Organizer.

26. ***6th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. June 17-18, 2007. Retreat Organizer.

27. ***54th Annual Meeting of the American College of Sports Medicine***. Title of Colloquim: "Muscles as Dynamic Joint Stabilizers." New Orleans, LA. May 30 – June2, 2007

28. ***Molecular and Cellular Regulatory Mechanisms Special Interest Group of the American College of Sports Medicine***. New Orleans, LA. May 30-June2, 2007

29. ***54th Annual Meeting of the American College of Sports Medicine***. Title of Symposium: "Comparative Skeletal Muscle Biology." New Orleans, LA. May 31, 2007

30. ***7th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. May 22-23, 2008. Retreat Organizer.

31. ***8th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. May 21-22, 2009. Retreat Organizer.

32. ***9th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. May 20-21, 2010. Retreat Organizer.

33. ***10th Annual Multidisciplinary Exercise Group Miniretreat***. Irvine, CA. May 19-20, 2010. Retreat Organizer.

34. ***57th Annual Meeting of the American College of Sports Medicine.*** Title of Symposium: "The Exercise Pill: Too Good to Be True? Baltimore, MD. June 4, 2010. **HIGHLIGHTED SYMPOSIUM**

PROFESSIONAL PRESENTATIONS (SYMPOSIUM):

1. ***41st Annual Meeting of the American College of Sports Medicine***. Indianapolis, IN. June 1-4, 1994. Title of symposium: "Sarcomere mechanics: An update on current findings." Title of presentation: "Power production in skeletal muscle: The role of myosin and other muscular processes."

2. ***Annual Meeting of the American Society for Gravitational and Space Biology.*** San Francisco, CA. October 23, 1994. Title of symposium: "SLS-2 Science Results Symposium". Title of presentation: "Effects of a 14 day spaceflight on skeletal muscle: contractile, protein, and mRNA alterations."

3. ***1994 Annual Meeting of the Southwest American College of Sports Medicine***. San Diego, CA. November 18-19, 1994. Title of tutorial: "Structural and Functional Organization of Skeletal Muscle".

4. ***1994 Annual Meeting of the Southwest American College of Sports Medicine***. San Diego, CA. November 18-19, 1994. Title of symposium: "Myosin isoforms: their role in dictating the mechanical behavior of skeletal muscle". Title of presentation: "Myosin: from crossbridge cycling to mechanical measurements".

5. ***16th Annual International Gravitational Physiology Meeting.*** Reno, NV. March 19-24, 1995. Title of symposium: "Animal and human skeletal muscle plasticity in response to weightlessness". Title of presentation: "Functional and cellular adaptations to weightlessness in rodents".

6. ***42nd Annual Meeting of the American College of Sports Medicine.*** Minneapolis, Minnesota. May 31-June 3, 1995. Title of symposium: "The modulation of muscle plasticity: The influence of electrical stimulation". Title of presentation: "Myosin heavy chain isoform shifts induced by electrical stimulation: The role of mechanical loading."

7. ***1996 Annual Meeting of the Sourthwest American College of Sports Medicine.*** Las Vegas, NV. November 15, 1996. Title of symposium: "Role of hormonal factors in muscle development and compensatory growth". Title of presentation: "Interaction of hyperthyroidism and muscle unloading on myosin gene expression in slow skeletal muscle."

8. ***1997 Annual Fall Meeting of The Biomedical Engineering Society.*** San Diego, CA. October 2-5, 1997. Title of symposium: "New Frontiers in Skeletal Muscle". Title of presentation: "Modulation of myosin heavy chain isoform expression: Do mechanical loading and thyroid hormone share a common pathway?"

9. ***The Role of Tissue Mechanics in Biological Responses to Mechanical Loading***. South Bend, IN. November 8-10, 2002. Title of presentation: "The plasticity of skeletal muscle: mechanical consequences."

10. ***50th Annual Meeting of the American College of Sports Medicine.*** San Franscisco, CA. May 28-31, 2003. Title of symposium: "Dynamic Neuromusculr Function: From Isolated Muscle to Voluntary Human Activity". Title of presentation: "The work loop as a conceptual basis for understanding factors that limit the production of mechanical work."

11. ***25th Annual Meeting of the Southwest Chapter of the American College of Sports Medicine.*** November 11-12, 2005. Title of symposium: "Muscle Plasticity: Factors Regulating Muscle Mass and Contractile Phenotype". Title of presentation: "Myosin Heavy Chain Polymorphism in Skeletal Muscle: Implications for Muscle Performance and Adaptation."

12. ***State of Science Workshop-Functional Restoration for the Stroke Survivor: Informing the Efforts of Engineers***. La Jolla, CA. March 7–8, 2006. Title of presentation: "Mechanical/biological control of muscle longitudinal growth."

13. ***54th Annual Meeting of the American College of Sports Medicine.*** New Orleans, LA. May 31, 2007. Title of symposium: "Comparative Skeletal Muscle Biology". Title of presentation: "Introduction and Overview."

14. ***54th Annual Meeting of the American College of Sports Medicine.*** New Orleans, LA. May 31, 2007. Title of colloquim: "Muscles as Dynamic Joint Stabilizers". Title of presentation: "Muscles as Dynamic Joint Stabilizers."

15. ***Adult Skeletal Muscle Symposium: Growth, Function and Mobility***. Indianapolis, ID. June 22, 2007. Title of presentation: "Skeletal Muscle physiology in vivo."

16. ***55th Radiation Research Society: Stress responses in Stem Cells***. Savannah, GA. October 7, 2009. Title of presentation: "The Effects of γ-irradiation on satellite cell proliferation."

17. ***54th Annual Meeting of the American College of Sports Medicine.*** Baltimore, MD. June 4, 2010. Title of presentation: "The Exercise Pill: Too Good to Be True?".

PROFESSIONAL PRESENTATIONS (FEATURED SPEAKER):

1. ***Basic Science Lecture: Annual Southeast American College of Sports Medicine Meeting.*** Atlanta, GA. January 29, 2003. Title of presentation: "Mechanisms of skeletal muscle growth: new approaches".

2. ***Molecular and Cellular Regulatory Mechanisms Special Interest Group of the American College of Sports Medicine***. Nashville, TN. June 1-3, 2005. Title of presentation: "Fly me to the moon … and to mars."

3. ***54th Annual Meeting of the American College of Sports Medicine.*** New Orleans, LA. May 31, 2007. Title of colloquim: "Muscles as Dynamic Joint Stabilizers". Title of presentation: "Muscles as Dynamic Joint Stabilizers."

4. ***Neuromuscular Plasticity Symposium***. Gainesville, Florida. January 31, 2008. Title of presentation: "Molecular Markers of Longitudinal and Radial Growth of Skeletal Muscle."

5. ***American Physical Therapy Research Retreat On Mechanisms Underlying Disordered Movement: Imparment With Force Generation.*** August 10, 2009. Title of presentation: "Skeletal Muscle Response to Overuse."

6. ***NASA Human Research Program Investigator's Workshop: Human Research in the Post Shuttle Era.*** Houston, Texas. February 3, 2010. Title of presentation: "For Every Inaction There Is a Reaction: Newton's fourth Law and Muscle Plasticity."

7. ***NIH Workshop on Improving Musculoskeletal Outcomes for Individuals with Osteogenesis Imperfecta.*** Chicago, IL. April 8, 2010. Title of presentation: "Messages From Outerspace: Lessons Learned On Bone and Muscle Loss and Recovery."

PUBLICATIONS (BOOKS/BOOK CHAPTERS)

1. Caiozzo, V.J., and V.O. Gardner. Cell biology of spinal cord injury. In: ***The Pediatric Spine.*** Edited by S.L. Weinstein. (Raven Press, N.Y.). Pgs 709-724, 1994.

2. Caiozzo, V.J., and F. Haddad. Thyroid hormone: modulation of muscle structure, function, and adaptive responses to mechanical loading. In***: Medicine and Science in Sports and Exercise Reviews.*** Edited by J. Hollozy. 24:321-361, 1996

3. Caiozzo, V.J. Cell biology of spinal cord injury. In: ***The Pediatric Spine Principles and Practices.*** Second Edition. Edited by S.L. Weinstein. (Raven Press, N.Y.). Pgs 537-551, 2001.

4. Caiozzo, V.J. Skeletal muscle. In: ***Current Diagnosis and Treatment in Orthopaedics***. Third Edition. H. Skinner (editor). Pgs 15-28, 2003.

5. Caiozzo, V.J. Chapter 5: The structural and functional plasticity of skeletal muscle. In: ***Graduate Text in Exercise Physiology.*** First Edition. C.M. Tipton (editor). Pgs 112-143, 2005.

6. Caiozzo, V.J. Skeletal muscle. In: ***Current Diagnosis and Treatment in Orthopaedics***. Fourth Edition. H. Skinner (editor). Pgs 15-28, 2005.

7. Caiozzo, V.J. Chapter 4: The structural and functional plasticity of skeletal muscle. In: ***Graduate Text in Exercise Physiology.*** Second Edition. C.M. Tipton (editor). Pgs 112-143, 2011.

PUBLICATIONS (EDITORSHIPS)

1. Caiozzo, V.J., and S.Green. ***Clinical Orthopaedics and Related Research-Supplemental Issue on Muscle Plasticity.*** 403s: 1-265, 2002

PUBLICATIONS (MANUSCRIPTS; PUBLISHED OR ACCEPTED):

1. Kyle, C.R., V.J. Caiozzo, and M. Palombo. Predicting human powered vehicle performance using ergometry and aerodynamic drag measurements. ***Transactions of the International Meeting on Human Powered Transportation.*** Published by MAUDEP, New York, NY, pp. 211-220, 1978.

2. Caiozzo, V.J. and C.R. Kyle. The Effect of external loading upon power output in stair climbing. ***Eur. Appl. Physiol***., 44:217-222, 1980.

3. Caiozzo, V.J., J.J. Perrine, and V.R. Edgerton. Training induced alterations of the in vivo force-velocity relationship of human muscle. ***J. Appl. Physiol. Respirat. Environ. Exer. Physiol***, 51:750-754, 1981.

4. Prietto, C.A., V.J. Caiozzo, J.F. Ellis, J.A. Davis, and W.C. McMaster. Anaerobic thresholds in elite and middle long distance runners. ***Am. Med. J. Assoc***., 10:12-15, 1981.

5. Caiozzo, V.J., J.A. Davis, J.F. Ellis, J.L. Azus, R.B. Vandagriff, C.A. Prietto, and W.C. McMaster. A comparison of gas exchange indices used to detect the anaerobic threshold. ***J. Appl. Physiol. Respirat. Environ. Exer. Physiol***., 53(5):1184-1189, 1982.

6. Wills, C.A., V.J. Caiozzo, D.I. Yasukawa, C.A. Prietto, and W.C. McMaster. The effects of immobilization on human skeletal muscle. ***Clin. Orthop. and Rel. Res.***, 11(11):57-64, 1982.

7. Davis, J.A., V.J. Caiozzo, N. Lamarra, J.F. Ellis, R.B. Vandagriff, C.A. Prietto, and W.C. McMaster. Does the anaerobic threshold discerned from gas exchange occur at a fixed blood lactate concentration? ***Int. J. Sports Med.***, 4(2):89-93, 1983.

8. Prietto, C.A., V.J. Caiozzo, P.P. Prietto, and W.C. McMaster. Closed vs. open partial menisectomy: Postoperative changes in force-velocity relationship of muscle. ***Am. J. Sports Med.***, 11(4):189-194, 1983.

9. Gerard, B., B. Rubin, C.A. Prietto, V.J. Caiozzo, and D.D. Davidson. Complications and recovery from muscle biopsy. ***JAMA***, 252940:482-483, 1984.

10. Gardner, V.O., V.J. Caiozzo, S.C. Long, J. Stoffel, R.A. Baird, W.C. McMaster, and C.A. Prietto. Contractile properties of slow and fast muscle following tourniquet ischemia. ***Am. J. Sports Med.***, 12(6):417-423, 1984.

11. Kyle, C.R., and V.J. Caiozzo. A comparison of the effect of external loading upon maximal power output in stair climbing and running up a ramp. ***Eur. J. Appl. Physiol.***, 54:99-103, 1985.

12. Kyle, C.R., and V.J. Caiozzo. Modeling the effect of athletic clothing aerodynamics upon running speed. ***Med. Sci. Sports Exer.,*** 18(5):509-515, 1985.

13. Wills, CA., S. Washburn, V.J. Caiozzo, and C.A. Prietto. Achilles tendon rupture: A comparison of surgical vs. nonsurgical treatment. ***Clin. Orthop. and Rel. Res.***, 207:156-163, 1986.

14. Kyle, C.R., and V.J. Caiozzo. Experiments in human ergometry as applied to the design of human powered vehicles. ***Int. J. Sports Biomech.***, 2(1):6-19, 1986.

15. Gerard, E.S., V.J. Caiozzo, B.D. Rubin, C.A. Prietto, and D.D. Davidson. Skeletal muscle profiles among elite long, middle, and short distance swimmers. ***Am. J. Sports Med.***, 14(1):77-82, 1986.

16. Prietto, C.A. and V.J. Caiozzo. The in vivo force-velocity relationship of the knee flexors and extensors. ***Am. J. Sports Med.***, 17(5):607-611, 1989.

17. Gerard, E.S., V.J. Caiozzo, B.D. Rubin, C.A. Prietto, and D.D. Davidson. Skeletal muscle profiles in elite springboard and platform divers. ***Am. J. Sports Med.***, 15(2):125-128, 1987.

18. Caiozzo, V.J., J.A. Davis, D.J. Berriman, R.B. Vandagriff, and C.A. Prietto. The effect of high intensity exercise on the VE-VCO2 relationship. ***J. Appl. Physiol. Respirat. Environ. Exer. Physiol.***, 62(4):1460-1464, 1987.

19. Black, K.S., C.W. Hewitt, G.R. Grisham, V.J. Caiozzo, E.B. Howard, and B.M. Achauer. Two new composite tissue allograft models in rats to study neuromuscular functional return. ***Transplan. Proc.***, 19(1):1118-1119, 1987.

20. Caiozzo, V.J., K.S. Black, C.W. Hewitt, G.P. Grisham, B.M. Achauer, and C.A. Prietto. Histochemical properties of muscle allografts enhanced via cyclosporine. ***Transplantation***, 48(5):840-844, 1989.

21. Black, K.S., C.W. Hewitt, V.J. Caiozzo, G.P. Aniel, G.P. Grisham, B.M. Achauer, and C.A. Prietto. Neuromuscular capabilities in long term composite tissue allografts. ***Transplan. Proc.***, 2:269-271, 1988.

22. Kleinman, M.T., D.M. Davidson, R.B. Vandagriff, V.J. Caiozzo, and J.L. Whittenberger. Carbon monoxide health effects in subjects with coronary artery disease. ***Archiv. Environ. Health***, 44:361-369, 1989.

23. Storer, T.W., J.A. Davis, V.J. Caiozzo, and K. Wasserman. Accurate prediction of VO2MAX in cycle ergometry. ***Med. Sci. Sports Exer.*** 22(5):704-712, 1990

24. McMaster, W.C., S.C. Long, and V.J. Caiozzo. Isokinetic torque imbalances in the rotator cuff of the elite water polo player. ***Am. J. Sports Med.*** 19(1):72-75, 1991

25. Gardner, V.O., V.J. Caiozzo, S.K. Munden, and R.J. Bridges. Excitotoxins can produce protein degradation in the spinal cord. ***Spine*** 15(9):858-863, 1990

26. Diffee, G.M., V.J. Caiozzo, R.E. Herrick, and K.M. Baldwin. Contractile and biochemical properties of rat soleus and plantaris following hindlimb suspension. ***Am. J. Physiol (Cell Physiol.)***:260:C528-C534, 1991

27. Caiozzo, V.J., R.E. Herrick, and K.M. Baldwin. The influence of hyperthyroidism on the maximal shortening velocity and myosin isoform distribution of slow and fast skeletal muscle. ***Am. J. Physiol. (Cell Physiol.)*** 261:C285-C295, 1991

28. Gardner, V.O., and V.J. Caiozzo. Medical management of spinal cord injury. ***West. J. Med.*** 155(2):169-170, 1991

29. McMaster, W.C., S.C. Long, and V.J. Caiozzo. Shoulder torque changes in the swimming athlete. ***Am. J. Sports. Med.*** 20(3):323-327, 1992

30. Caiozzo, V.J., R.E. Herrick, and K.M. Baldwin. The response of slow and fast skeletal muscle to hypothyroidism: Maximal shortening velocity and myosin isoform distribution. ***Am. J. Physiol. [Cell Physiol.]*** 263:C86-C94, 1992

31. Matheson, L., V. Mooney, V.J. Caiozzo, G. Jarvis, J. Pottinger, C. DeBerry, K. Backlund, K. Levin, J. Antoni. Effect of instructions on isokinetic trunk strength, variability, reliability, absolute value, and predictive validity. ***Spine*** 17(8):914-921, 1992

32. Washburn, S.P., V.J. Caiozzo, C.A. Wills, B.J. Hunt, and C.A. Prietto. Alterations in the in vivo torque-velocity relationship following achilles tendon rupture: Further evidence of speed-specific impairment. ***Clin. Orthop. and Rel. Res.*** 279:237-245, 1992

33. Caiozzo, V.J., E. Ma, S. McCue, E. Smith, R.E. Herrick, and K.M. Baldwin. A new animal model for modulating myosin isoform expression by altered mechanical activity. ***J. Appl. Physiol.*** 73(4):1432-1440, 1992

34. Caiozzo, V.J., S. Swoop, M. Tao, D.B. Menzel, and K.M. Baldwin. Quantitative single fiber analysis of type IIA myosin heavy chain in hyper- and hypothyroid soleus. ***Am. J. Physiol. 265 [Cell Physiol. 34])***:C842-C849, 1993

35. Takeda, H., V.J. Caiozzo, and V.O. Gardner. A functional in vitro model for studying the cellular and molecular basis of spinal cord injury. ***Spine*** 18(9):1125-1133, 1993

36. Diffee, G.M., V.J. Caiozzo, S.A. McCue, R.E. Herrick, and K.M. Baldwin. Activity induced regulation of myosin isoform distribution: isovelocity versus isometric contractile activity. ***J. Appl. Physiol.*** 74(5):2509-2516, 1993

37. Caiozzo, V.J., M.J. Baker, R.E. Herrick, and K.M. Baldwin. Effect of spaceflight on skeletal muscle: mechanical properties and myosin isoform content of a slow antigravity muscle. ***J. Appl. Physiol.*** 76(4):1764-1773, 1994

38. Swoap, S.J., F. Haddad, V.J. Caiozzo, R.E. Herrick, S.A. McCue, and K.M. Baldwin. Interaction of thyroid hormone and functional overload on skeletal muscle isomyosin expression. ***J. Appl. Physiol.*** 77(2):621-629, 1994

39. Caiozzo, V.J., F. Haddad, and K.M. Baldwin. Functional and cellular adaptations of rodent skeletal muscle to weightlessness. ***J. Grav. Physiol.*** 2(1):P39-P42, 1995

40. Caiozzo, V.J., F. Haddad, M.J. Baker, and K.M. Baldwin. The influence of mechanical loading upon myosin heavy chain protein and mRNA isoform expression. ***J. Appl. Physiol.*** 80(5):1503-1512, 1996

41. Herb, R.A., S.K. Powers, D.S. Criswell, V.J. Caiozzo, I.S. Vrabas, and S.L. Dodd. Alterations in phenotypic and contractile properties of the rat diaphragm: influence of hypothyroidism. ***J. Appl. Physiol.*** 80(6):2163-2170, 1996

42. Caiozzo, V.J., F. Haddad, M.J. Baker, R.E. Herrick, N. Prietto, and K.M. Baldwin. Microgravity induced transformations of myosin isoforms and contractile properties of skeletal muscle. ***J. Appl. Physiol.*** 81(1):123-132, 1996

43. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. The modulation of myosin isoform expression by mechanical loading: The importance of stimulation frequency. ***J. Appl. Physiol.*** 82(1), 211-218, 1997

44. Hiro, T., C. Leung, S. deGuzman, V.J. Caiozzo, A. Farvid, H. Karimi, R. Heifant, and J. Tobis. Are "soft echoes" really soft?: Intravascular ultrasound assessment of mechanical properties in human atherosclerotic tissue. ***Am. Heart J***. 133(1):1-7, 1997

45. Caiozzo, V.J. and K.M. Baldwin. Determinants of mechanical work produced by skeletal muscle: the role of myosin and other factors. ***Am. J. Physiol. [Cell Physiol. 42]*** 273: C1049-C1056, 1997

46. Swoap, S.J., V.J. Caiozzo, and K.M. Baldwin. Optimal shortening velocities for in situ power production of rat soleus and plantaris muscles. ***Am. J. Physiol. [Cell Physiol. 42]*** 273: C1057-C1063, 1997

47. Caiozzo, V.J., M.J. Baker, S. McCue, K.M. Baldwin. Single fiber and whole muscle analyses of MHC isoform plasticity: an interaction between thyroid hormone and mechanical loading. ***Am. J. Physiol. [Cell Physiol. 42]***. C944-C952, 1997

48. Davis, J.A., T.W. Storer, and V.J. Caiozzo. Prediction of normal values for lactate threshold in adult males and females. ***Eur. J. Appl. Physiol.*** 76:157-164, 1997

49. Baldwin, K.M., V.J. Caiozzo, and F. Haddad. Interactive effects of loading and thyroid states on skeletal isomyosins. ***Int. J. Sports Med. Suppl***. 4:S296-298, 1997

50. Kreitenberg, A, K.M. Baldwin, J.P. Bagian, S. Cotton, J. Wittmer, and V.J. Caiozzo. The "Space Cycle" self powered human centrifuge: a proposed countermeasure for prolonged human spaceflight. ***Aviat. Space Environ. Med.*** 69(1): 66-72, 1998

51. Wu, Y.Z., M.J. Baker, R.L. Crumley, R.H. Blanks, and V.J. Caiozzo. A new concept in laryngeal muscle: multiple myosin isoforms in single fibers of the lateral cricoarytenoid. ***Otolaryngol Head Neck Surg***. 118(1):86-94, 1998

52. Levins, A, H. Skinner, and V.J. Caiozzo. Adaptive gait responses to plantar heel pain. ***J. Rehab. Res. Devel.*** 35(3):28-33, 1998

53. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. Novel transitions in myosin isoforms: separate and combined effects of thryroid hormone and mechanical unloading. ***J. Appl. Physiol.*** 85(6):2237-2248, 1998

54. Kleinman, M.T., D.A. Leaf, E. Kelly, V. Caiozzo, K. Osann, and T. O'Niell. Urban angina in the mountains: effects of carbon monoxide and mild hypoxemia on subjects with chronic stable angina. ***Arch. Environ. Health.*** 53(6):388-397, 1998

55. Caiozzo, V.J., S. McCue, F. Haddad, and K.M. Baldwin. MyHC polymorphism in rodent plantaris muscle: effects of mechanical overload and hypothyroidism. ***Am.. J. Physiol.).*** 278:C709-C717, 2000.

56. DiMaso, N., V.J. Caiozzo, K.M. Baldwin. Single fiber myosin heavy chain polymorphism during postnatal development: modulation by hypothyroidism. ***Am. J. Physiol.*** 278:R1099-R1106, 2000.

57. Wu. Y.Z., M.J. Baker, R.L. Crumley, and V.J. Caiozzo. Single fiber MyHC isoform composition of rodent laryngeal muscle: modulation by thyroid hormone. ***Arch. Otolaryn.*** 126:874-880, 2000

58. Wu, Y.Z., R.L. Crumley, and V.J. Caiozzo. New perspectives on human laryngeal muscle: single fiber analyses and interspecies comparisons. ***Arch. Otolaryn.*** 126:857-864, 2000

59. Wu, Y.Z., R.L. Crumley, R.H. Blanks, and V.J. Caiozzo. Are hybrid fibers a common motif of canine laryngeal muscles: single fiber analyses of myosin heavy chain isoform composition. ***Arch. Otolaryn***. 126:865-873, 2000

60. Sassoon, C.S.H., V.J. Caiozzo, A. Manka, and G.C. Sieck. Altered diaphragm contractile properties with controlled mechanical ventilation. ***J. Appl. Physiol.*** 92:2585-2595, 2002

61. Adams, G.R., V.J. Caiozzo, F. Haddad, and K.M. Baldwin. Cellular and molecular responses to increased skeletal muscle loading after irradiation. ***Am. J. Physiol.*** 283:C1182-C1195, 2002

62. R.J. Talmadge, R.R. Roy, V.J. Caiozzo, and V.R. Edgerton. Mechanical properties of rat soleus muscle following long-term spinal cord injury. ***J. Appl. Physiol.*** 93:1487-1497, 2002

63. Davis, J.A., T.W. Storer, V.J. Caiozzo, P.H. Pham. Lower reference limit for maximal oxygen uptake in men and women. ***Clin. Physiol. Functional Imag***. 22:332-338, 2002

64. Caiozzo, V.J. Plasticity of skeletal muscle phenotype: mechanical consequences. ***Muscle and Nerve*** 26:740-768, 2002

65. Caiozzo, V.J., and S. Green. Editorial comment: The "m" in "orthopaedics" stands for "muscle". . ***Clin. Ortho. Rel. Res.*** 403:s2-s5, 2002

66. Green, S.A., M.J. Baker, and V. Caiozzo. Distraction of skeletal muscle: evolution of a rat model. ***Clin. Ortho. Rel. Res.*** 403:s126-s132, 2002

67. Caiozzo, V.J., A. Utkan, R. Chou, A. Khalafi, H. Chandra, M.J. Baker, B. Rourke, and S.A. Green. The effects of distraction on muscle length: underlying mechanisms involved in serial sarcomerogenesis. ***Clin. Ortho. Rel. Res.*** 403:s133-s145, 2002

68. Caiozzo, V.J., and S.A. Green. Breakout session 1: Muscle mechanics. ***Clin. Ortho. Rel. Res.*** 403:s77-s80, 2002

69. Caiozzo, V.J., and S.A. Green. Breakout session 2: Muscle injury. ***Clin. Ortho. Rel. Res.*** 403:s120-s125, 2002

70. Caiozzo, V.J., and S.A. Green. Breakout session 3: Issues related to muscle growth, atrophy, and tissue engineering. ***Clin. Ortho. Rel. Res.*** 403:s252-s261, 2002

71. Caiozzo, V.J., K. Huang, M.J. Baker, and K.M. Baldwin. Single fiber myosin heavy chain polymorphism: how many patterns and what proportions? ***Am. J. Physiol.*** 285:R570-R580, 2003

72. Adams, G.R., V.J. Caiozzo, and K.M. Baldwin. Invited review: skeletal muscle unweighting: spaceflight and ground based models. ***J. Appl. Physiol.*** 95:2185-2201, 2003.

73. Caiozzo, V.J., C. Gottron, K.M. Baldwin, J. Hicks, A. Kreitenburg. Space cycle hypergravity exercise-hemodynamic response. ***Aviat. Environ. Space Med.*** 75:101-108, 2004

74. Rourke, B.C., Y. Yokoyama, Y.Z. Wu, W.K. Milsom, and V.J. Caiozzo. Myosin isoform expression and MAFbx mRNA levels in hibernating golden-mantled ground squirrels (*Spermophilus lateralis*). ***Physiol. Biochem. Zool.*** 77(4):582-593, 2004

75. Wu, Y.Z., M.J. Baker, J.P. Marie, R. Crumley, and V.J. Caiozzo. The plasticity of denervated and reinnervated laryngeal muscles: focus on single fiber myosin heavy chain isoform expression. ***Arch. Otolaryn***. 130 (9):1070-1082, 2004

76. **HIGHLIGHTED Article**

77. Caiozzo, V.J., Y.Z. Wu, M.J. Baker, and R. Crumley. Effects of denervation on cell cycle control in laryngeal muscle. ***Arch. Otolaryn***. 130 (9):1056-1068, 2004

78. Connolly, P, V.J. Caiozzo, F. Zaldivar, D. Nemet, D. Heck, W. Hatfield, and D. Cooper. Effects of exercise on differential gene expression in human periperhal blood mononuclear cells. ***J. Appl. Physiol.*** 97:1461-1469, 2004

79. Sassoon, C, E. Zhu, and V.J. Caiozzo. Assist-control mechanical ventilation attenuates ventilator-induced diaphragmatic dysfunction. ***Am. J. Resp. Crit. Care Med.*** 170(5):626-632, 2004

80. Rourke, B.C., K.M. Baldwin and V.J. Caiozzo. Cloning and sequencing of myosin heavy chain isoform cDNAs in golden-matled ground squirrels (Spemophilus lateralis): effects of hibernation on mRNA expression. ***J. Appl. Physiol***. 97:1985-1991, 2004

81. Andersen, J.B., B.C. Rourke, V.J. Caiozzo, A. Bennett, and J.W. Hicks. Postprandial cardiac hypertrophy in pythons. ***Nature.*** 434:37-38, 2005

82. Zhu, E., C.S.H. Sassoon, H.T. Pham, L. Zhu, M.J. Baker, and V.J. Caiozzo. The early effects of mechanical ventilation on isotonic contractile properties and MAFbx gene expression in the diaphragm. ***J. Appl. Physiol.*** 99(2):747-756, 2005

83. Davis, J.A., L.D. Wilson, V.J. Caiozzo, T.W. Storer, and P.H. Pham. Is maximal oxygen uptake at the same fat-free mass the same for men and women? ***Clin. Physiol. Funct. Imaging*** 26:61-66, 2006

84. Sugarman, M.C., M. Kitazawa, M. Baker, H.W. Querfurth, V.J. Caiozzo, and F.M. LaFerla. Vulnerability of fast twitch muscle fibers to damaqge and APP accumulation in IBM patients and in a transgenic model. ***Neurobiol. Aging*** 27(3):423-32, 2006

85. Rourke, B.C., C. Cotton, H.J. Harlow, and V.J. Caiozzo. Seasonal changes in myosin isoform protein and mRNA expression in overwintering populations of black bears (Ursus americanus) and prairie dogs (Cynomys leucurus and ludovicianus). ***J. Comp. Physiol. B: Biochemical, Systemic, and Environmental Physiology***. 176(7):709-720, 2006

86. Yang, Y., A. Kaplan, M. Pierre, G. Adams, P. Cavanagh, C. Takahashi, A. Kreitenberg, J. Hicks, and V.J. Caiozzo. Space Cycle: a human powered centrifuge that can be used for hypergravity resistance training. 78:2-9, 2007

87. Davis, J.A., T.W. Storer, V.J. Caiozzo, and P.H. Pham. Scaling of lactate threshold by peak oxygen uptake and by fat-free mass0.67. Clin. Physiol. Funct. Imaging 27:138-143, 2007

88. Caiozzo, V.J., H. Richmond, S. Kaska, and D. Valeroso. The mechanical behavior of activated skeletal muscle during stretch: effects of muscle unloading and MHC isoform shifts. J. Appl. Physiol. 103: 1150-1160, 2007

89. Lee, Y.S., C.Y. Lin, V. Caiozzo, R. Robertson, and V.W. Lin. Repair of spinal cord transection and its effects on muscle mass and single fiber myosin heavy chain isoform phenotype. J. Appl. Physiol. 103: 1808-1814, 2007

90. Yang, Y., M. Baker, S. Graf, J. Larson, P. Cavanagh, V. J. Caiozzo. Hypergravity resistance exercise: the use of artificial gravity as potential countermeasure to microgravity. J. Appl. Physiol. 103: 1879-1887, 2007

91. Sassoon, C.S.H., E. Zhu, H.T. Pham, R.S. Nelson, M.J. Baker, F. Haddad, and V.J. Caiozzo. Acute effects of high-dosage methylprednisolone on rabbit diaphragm contractile properties. ***Muscle Nerve***. 38(3):1161-72, 2008

92. Davis J.A., V.J. Caiozzo, T.W. Storer, P.H. Pham. Lactate threshold at the same fat-free mass and age is larger in men than women. ***Eur J Appl Physiol***. 104(5):919-27, 2008

93. Caiozzo, V.C., F. Haddad, S. Lee, M. Baker, W. Paloski, and K.M. Baldwin. Is artificial gravity an effective countermeasure to microgravity: effects on knee extensor and plantar flexor muscle groups. ***J. Appl. Physiol.*** 107(1):39-46, 2009

94. Sassoon, C.S.H., and V.J. Caiozzo. Bench-to-bedside Review: Diaphragm muscle function in disuse and acute high-dose corticosteroid treatment. ***Crit. Care*** 13:221, 2009

95. Pandorf, C.E., V.J. Caiozzo, F. Haddad, and K.M. Baldwin. A rationale for SDS-PAGE of MHC isoforms as a gold standard for determining contractile phenotype. ***J. Appl. Physiol.*** 108:222, 2010

96. Rowshan, K., S. Hadley, R. Grumet, V.J. Caiozzo, T.Q. Lee, and R. Gupta. The development of fatty atrophy after rotator cuff injuries in an animal model. ***J. B.J.S.).*** 92(13):2270-2278, 2010

97. Caiozzo, V.J., E. Giedzinski, M. Baker, A. Izadi, M. Lan, J. Cho-Lim, B Tseng, and C. Limoli. The radiosensitivity of satellite cells: cell cycle regulation, apoptosis, and oxidative stress. ***Rad. Res.*** 174(5):582-589, 2010

98. Sassoon, C.S.H., E. Zhu, H.T. Pham, G.Jiaol, K. Ramar, L.R. Tom, M.J. Baker, and V.J. Caiozzo. Interactive effects of corticosteroid and mechanical ventilation on diaphgram muscle function. ***Muscle and Nerve.*** 43(1):103-11, 2011

99. Badadania, M., A. Nalbandian, G.D. Watts, J. Vesa, M. Kitazawa, H. Su, J. Tanaja, E. Dec, D.C. Wallace, J. Mukherjee, V. Caiozzo, M Warman, and V. E. Kimonis. VCP associated inclusion body myopathy and Paget disease of bone knock-in model exhibits tissue pathology typical of human disease. ***PLoS One***. 5(10): 1-15, 2010

100. Cho, J., V.J. Caiozzo, E. Giedzinski, M.J. Baker, B. Tseng, and C. Limoli. Satellite cells say NO to irradiation. ***Rad. Res.*** 175(5):561-568, 2011 (***selected as top article for monthly journal podcast***)

101. Blank, J., F. Haddad, M. Baker, A. Kreitenburg, J. Hicks, G. Adams, K. M. Baldwin, V. J. Caiozzo. To G or not to G: That is the question! (submitted to ***Nature***).

102. Caiozzo, V.J., F. Haddad, M.J. Baker, S. Green, G.R. Adams, and V.J. Caiozzo. Effects of stretch and reloading on molecular markers of skeletal muscle growth. (submitted to ***J. Appl. Physiol.***).

103. Caiozzo, V.J., M.J. Baker, S. Bhasin, N.F. Gonzalez-Cadavid, and S. Reisz-Porszasz. Mechanical and biochemical properties of skeletal muscle in myostatin knockout mice. (submitted to ***J. Appl. Physiol.)***

104. Caiozzo, V.J., and K. M. Baldwin. Relaxation and unrealized mechanical work in super slow and super fast soleus muscles. (in preparation for ***Am. J. Physiol.***).

105. Caiozzo, V.J., A. Utkan, M. Baker, and S. Green. Sarcomere remodeling following muscle lengthening: architectural analyses. (in preparation for ***Am. J. Physiol.***)

106. Caiozzo, V.J., M.J. Baker, and S. Green. Sarcomere remodeling following muscle lengthening: mechanistic role of satellite cells. (in preparation for ***Am. J. Physiol.***)

107. Chou, H.H., M.J. Baker, G.R. Adams, K.M. Baldwin, S. Green, and V.J. Caiozzo. The effects of mechanical loading on extracellular matrix gene expression in skeletal muscle. (in preparation for ***J. Appl. Physiol.***)

PUBLICATIONS (ABSTRACTS):

1. Caiozzo, V.J. and L. Yocum. Patterns of limb impairment. ***Proceedings: Panamerican Congress of Sports Medicine and Exer***., p. 102, 1978.

2. Caiozzo, V.J., J.J. Perrine, and V.R. Edgerton. Alterations in the in vivo force-velocity relationship. ***Med. Sci. Sports Exer.***, 12:134, 1980.

3. Caiozzo, V.J. and C.R. Kyle. Effect of external loading upon power output in stair climbing. ***Biol. Abstr.***, 71(6)4101, 1981.

4. Caiozzo, V.J. and C.R. Kyle. The effect of external loading upon power output in stair climbing. ***Exer. Med.***, 52:160, 1981.

5. Caiozzo, V.J., W.S. Barnes, C.A. Prietto, and W.C. McMaster. The effect of isometric precontractions on the slow velocity-high force region of the in vivo force-velocity relationship. ***Med. Sci. Sports Exer.***, 13:128, 1981.

6. Prietto, C.A., V.J. Caiozzo, J.F. Ellis, and W.C. McMaster. Anaerobic thresholds in elite middle and long distance runners. ***Orthop. Trans.***, 5(1):154, 1981.

7. Caiozzo, V.J., J.L. Azus, J.A. Davis, J.F. Ellis, D.I. Yasukawa, C.A. Prietto, and W.C. McMaster. Determination of the anaerobic threshold using a semi-automated ventilatory and gas exchange system. ***Proceedings: Panamerican Congress of Sports Medicine and Exercise Science***, p.10, 1981.

8. Caiozzo, V.J., J.L. Azus, J.A. Davis, J.F. Ellis, D.I. Yasukawa, C.A. Prietto, and W.C. McMaster. Determination of the anaerobic threshold using a semi-automated ventilatory and gas exchange system. ***Int. J. Sports Med.***, 2(4):277-278, 1981.

9. Caiozzo, V.J., C.A. Prietto, P.P. Prietto, R.B. Vandagriff, and W.C. McMaster. The time-course of change in the in vivo force-velocity relationship after transarthroscopic (partial) menisectomy. ***Orthop. Trans.***, 6(2):200, 1982.

10. Caiozzo, V.J., C.A. Wills, J.F. Ellis, A. Hawksworth, J.A. Davis, C.A. Prietto, and W.C. McMaster. Arterialization of venous blood. ***Int. J. Sports Med.***, 3(1):63, 1982.

11. Wills, C.A., C.A. Prietto, V.J. Caiozzo, P.P. Prietto, and W.C. McMaster. The effects of menisectomy on isokinetic torque production: A comparison of arthrotomy and transarthroscopic approach. ***Int. J. Sports Med.***, 3(1):63, 1982.

12. Davis, J.A., V.J. Caiozzo, J.F. Ellis, J.L. Azus, R.B. Vandagriff, C.A. Prietto, and W.C. McMaster. Does the gas exchange anaerobic threshold occur at 2 or 4 mM? ***Med. Sci. Sports Exer.***, 14:114, 1982.

13. Caiozzo, V.J., T. Laird, K. Chow, C.A. Prietto, and W.C. McMaster. The use of precontractions to enhance the in vivo force-velocity relationship. ***Med. Sci. Sports Exer.***, 14:162, 1982.

14. Prietto, C.A., V.J. Caiozzo, M. Sutro, and W.C. McMaster. Transarthroscopic partial menisectomy vs. arthrotomy and partial menisectomy: A prospective study of postoperative isokinetic function. ***Orthop. Trans.***, 7(1):168, 1982.

15. Caiozzo, V.J., C.A. Wills, A.W. Hawksworth, R.B. Vandagriff, C.A. Prietto, and W.C. McMaster. Does exercise induced reduction of muscle glycogen alter the anaerobic threshold? ***Physiol.***, 25(4):252, 1982.

16. Wills, C.A., V.J. Caiozzo, C.A. Prietto, and W.C. McMaster. Changes in the in vivo force-velocity relationship after arthrotomy. ***Int. J. Sports Med.***, 4(2):140, 1983.

17. Davis, J.A., V.J. Caiozzo, J.L. Moore, A.W. Hawksworth, C.A. Prietto, and W.C. McMaster. Accuracy of the subjective determination of the anaerobic threshold discerned from gas exchange measurements. ***Int. J. Sports Med.***, 4(2):137, 1983.

18. Bielan, R.J., V.J. Caiozzo, C.A. Prietto, and W.C. McMaster. The effect of a special pre-season basketball training program. ***Int. J. Sports Med.***, 4(2):144, 1983.

19. Caiozzo, V.J., K.S. Black, C.A. Prietto, W.C. McMaster, and R.A. Baird. A comparison of two isokinetic methods used for determining the in vivo force-velocity relationship of human skeletal muscle. ***Int. J. Sports Med.***, 4(2):141, 1983.

20. Nickel, F.R., W.M. Nottage, R.B. Salisbury, and V.J. Caiozzo. A comparison of arthrographic and arthroscopic techniques used to identify meniscal lesions. ***Med. Sci. Sports Exer.***, 15:114, 1983.

21. Caiozzo, V.J., C.A. Prietto, S.H. Anzel, and W.C. McMaster. The influence of osteoarthritis on slow and fast skeletal muscle fibers. ***Clin. Res.***, 32(1):1A, 1984.

22. Gerard, E.S., V.J. Caiozzo, B.D. Rubin, C.A. Prietto, and D.M. Davidson. Cardiovascular and skeletal muscle profiles of elite swimmers and divers. ***Clin. Res.***, 32(1):6A, 1984.

23. Gerard, E.S., B.D. Rubin, C.A. Prietto, V.J. Caiozzo, and D.M. Davidson. Complications and recovery from vastus lateralis muscle biopsy in swimmers and divers. ***Int. J. Sports Med.***, 5(3):163, 1984.

24. Bielen, R.J. and V.J. Caiozzo. Aerobic capacity of elite waterpolo players. ***Int. J. Sports Med.***, 5(3):162, 1984.

25. Prietto, C.A., V.J. Caiozzo, S.H. Anzel, and W.C. McMaster. Muscle fiber composition of elderly arthritic patients. ***Int. J. Sports Med.***, 5(3):160-161, 1984.

26. Caiozzo, V.J., C.A. Prietto, S.H. Anzel, and W.C. McMaster. The in vivo torque-velocity relationship of elderly arthritic patients. ***Int. J. Sports Med.***, 5(3)161, 1984.

27. Caiozzo, V.J., J.A. Davis, J.L. Moore, A.W. Hawksworth, C.A. Prietto, and W.C. McMaster. Is the accuracy of detecting the anaerobic threshold dependent upon experience? ***Aviation, Space and Environ. Med.***, 16(2):179, 1984.

28. Berriman, D.J., V.J. Caiozzo, J.A. Davis, R.B. Vandagriff, C.A. Prietto, and W.C. McMaster. The effect of prior high intensity exercise of minute ventilation and carbon dioxide output during steady-state exercise. ***Med. Sci. Sports Exer.***, 16(2):179, 1984.

29. Glina, J.C., V.J. Caiozzo, R.J. Bielen, C.A. Prietto, and W.C. McMaster. Anaerobic threshold for leg cycling and arm cranking. ***Med. Sci. Sports Exer.***, 16(2):109, 1984.

30. Gardner, V.O., V.J. Caiozzo, S.C. Long, R.A. Baird, and C.A. Prietto. The effect of tourniquet ischemia on the contractile properties of slow and fast muscle. ***Med. Sci. Sports Exer.***, 16(2):105, 1984.

31. McMaster, W.C., V.J. Caiozzo, J.A. Davis, D.M. Davidson, S.H. Anzel, and C.A. Prietto. Aerobic capacity of elderly arthritic patients. ***Med. Sci. Sports Exer.***, 16(2):133, 1984.

32. Black, K.S., V.J. Caiozzo, C.W. Hewitt, A. Ingerman, B.J. Mah, B.M. Achauer, and D.W. Furnas. Indefinite survival of neurovascular muscle allograft modules in rats using cyclosporine. ***Med. Sci. Sports Exer.***, 16(2):143, 1984.

33. Prietto, C.A., V.J. Caiozzo, S.H. Anzel, and W.C. McMaster. Muscle fiber composition and torque-velocity relationship of the knee extensors in elderly arthritic patients. ***Med. Sci. Sports Exer.*** 16(2):105, 1984

34. Caiozzo, V.J., V.O. Gardner, S.C. Long, J.C. Glina, W.C. McMaster, and C.A. Prietto. Direct and indirect stimulation of ischemic muscle. ***Orthop. Trans.***, 10:334, 1985.

35. Gardner, V.O., V.J. Caiozzo, S.C. Long, J.C. Glina, W.C. McMaster, and C.A. Prietto. The effect of arterial occlusion upon the tension output of slow and fast motor units. ***Orthop. Trans.***, 10:4, 1985.

36. Gerard, E.S., V.J. Caiozzo, B.D. Rubin, C.A. Prietto, and D.M. Davidson. Maximal oxygen uptake and fiber composition among long, middle, and short distance swimmers. ***Int. J. Sports Med.***, 6:238, 1985.

37. Gerard, E.S., B. Culbertson, V.J. Caiozzo, B.D. Rubin, C.A. Prietto, and D.M. Davidson. Comparison of fiber composition to leg strength and power measures in elite swimmers and divers. ***Int. J. Sports Med.***, 6:239, 1985.

38. Davis, J.A., V.J. Caiozzo, T.W. Storer, R.B. Vandagriff, and D.J. Berriman. Effect of aging on the anaerobic threshold. ***Fed. Proc.***, 44(5):1370, 1985.

39. Caiozzo, V.J., S.C. Long, J.C. Glina, V.O. Gardner, and C.A. Prietto. Twitch tension of fast motor units following a one or two hour ischemic episode. ***Fed. Proc.***, 44(5):1375, 1985.

40. Glina, J.C., V.J. Caiozzo, S.C. Long, V.O. Gardner, and C.A. Prietto. Alterations in the mechanical behavior of fast muscle due to an ischemic episode. ***Fed. Proc.***, 44(5):1375, 1985.

41. Long, S.C., V.J. Caiozzo, J.C. Glina, V.O. Gardner, and C.A. Prietto. Direct and indirect stimulation of fast muscle following an ischemic episode. ***Fed. Proc.***, 44(5):1375, 1985.

42. Caiozzo, V.J., V.O. Gardner, S.C. Long, J.C. Glina, W.C. McMaster, and C.A. Prietto. Direct and indirect stimulation of ischemic muscle. ***Orthop. Trans.***, 9(2):360, 1985.

43. Maloney, C.A., R.B. Vandagriff, V.J. Caiozzo, and D.M. Davidson. Energy costs of calisthenics in recovering cardiac patients. ***Int. J. Sports Med.***, 6:240, 1985.

44. Gardner, V.O., V.J. Caiozzo, S.C. Long, J.C. Glina, W.C. McMaster, and C.A. Prietto. The effect of arterial occlusion upon tension output of slow and fast motor units. ***Orthop. Trans.***, 9(2):219, 1985.

45. Storer, T.W., J.A. Davis, V.J. Caiozzo, M.J. Berenda, M. Fowler, and M. Pollock. Effect of aging on lean body mass and aerobic power. ***Med. Sci. Sports Exer.***, in press.

46. Caiozzo, V.J., K.S. Black, C.W. Hewitt, G.R. Grisham, C.A. Prietto, and B.M. Achauer. Cyclosporine and muscle allografts in rats: Preliminary studies of the functional and histochemical properties. ***Proceedings of the American Burn Association***, 18:140, 1986.

47. Prietto, C.A., E.R. Horton, and V.J. Caiozzo. Age associated alterations of the in vivo force-velocity relationship. ***Orthop. Trans.***, 12:278, 1987.

48. Storer, T.W., J.A. Davis, and V.J. Caiozzo. Accurate prediction of VO2 max in cycle ergometry. ***Med. Sci. Sports Exer.***, 19(2):531, 1987.

49. Davis, J.A., T.W. Storer, V.J. Caiozzo, and R.B. Vandagriff. The lower limit of normal for the breathing reserve at maximal exercise in men 30 to 70 years of age. ***Med. Sci. Sports Exer.***, 19(2):531, 1987.

50. Lovie, M.T., J.A. Davis, V.J. Caiozzo, and T.W. Storer. The breathing reserve at maximal exercise in women 20 to 70 years of age. ***Med. Sci. Sports Exer.***, 19(2)531, 1987.

51. Caiozzo, V.J., K.S. Black, C.W. Hewitt, G.R. Grisham, and C.A. Prietto. Cross-sectional area of fast glycolytic (FG) muscle fibers in muscle allografts enhanced via cyclosporine. ***Physiol.***, 30(4):198, 1987.

52. Pompan, D.C., V.J. Caiozzo, C.N. Christian, and C.A. Prietto. The effect of a four hour ischemic episode on the subcellular localization of calpain I in slow and fast skeletal muscle. ***Physiol.***, 30(4):198, 1987.

53. Davis, J.A., T.W. Storer, and V.J. Caiozzo. The VE max/MVV ratio as an index of ventilatory limitation during graded exercise testing. ***Int. J. Sports Med.***, 8:242, 1987.

54. Kahn, E., J. Charnov, and V.J. Caiozzo. The effect of a calcium channel blocker on bone mineralization. ***Orthop. Trans.***

55. Storer, T.W., J.A. Davis, V.J. Caiozzo, and M.K. Swain. The lower 95% confidence limits for the respiratory exchange ratio at the termination of graded exercise.

56. Davis, J.A., T.W. Storer, and V.J. Caiozzo. The respiratory exchange ratio at the termination of the graded exercise test.

57. Caiozzo, V.J., K.S. Black, C.W. Hewitt, G.P. Grisham, B.M. Achauer, and C.A. Prietto. Cross-sectional area of fast glycolytic (FG) muscle fibers in allografts enhanced via cyclosporine. ***Proceedings of the Second International Congress on Cyclosporine.***

58. Black, K.S., C.W. Hewitt, V.J. Caiozzo, M. Aniel, G.P. Grisham, B.M. Achauer, and C.A. Prietto. Neuromuscular capabilities in long term composite tissue allografts. ***Proceedings of the Second International Congress on Cyclosporine.***

59. Caiozzo, V.J., S.C. Long, K.L. Starr, C.N. Christian, V.O. Gardner, and C.A. Prietto. Fast muscle fibers are more susceptible to ischemic insult: Involvement of a calcium-activated neutral protease (calpain I). ***FASEB J.***, 2(4):A819, 1988. (Sect. Ischemic Injury)

60. Gardner, V.O., V.J. Caiozzo, S. Munden, C.W. Hewitt, and R.J. Bridges. Protein degradation in the spinal cord: The effects of glutamate and calcium. ***FASEB J.***, 2(5):A1585, 1988. (Sect. Molecular Mechanisms of Cell Injury)

61. Charnov, J.H., E.K. Kahn, and V.J. Caiozzo. The effect of a calcium channel blocker on bone mineralization. ***Clin. Res.***, 36(1):150A, 1988.

62. Gardner, V.O., V.J. Caiozzo, S. Munden, and R.J. Bridges. Excitotoxic mediated spinal cord damage: Possible role of the NMDA receptor. ***Soc. Neurosci. Abstr.***, 14(1)774, 1988.

63. Gardner, V.O., V.J. Caiozzo, S.K. Munden, and R.J. Bridges. The NMDA receptor can promote protein degradation in the spinal cord. ***Trans. of the 36th Ortho. Res. Soc.*** 15(1):272, 1990

64. Gardner, V.O., V.J. Caiozzo, S.K. Munden, S.C. Long, and C. Glabe. Calpeptin, a new calpain inhibitor: Its role in spinal cord neurofilament degradation. ***Trans. of the 36th Ortho. Res. Soc.*** 15(1):271, 1990

65. Horton, E.R., V.J. Caiozzo, and C.A. Prietto. Age associated alterations in the in vivo torque-velocity relationship of the knee extensors. ***Trans. of the 36th Ortho. Res. Soc.*** 15(1):4, 1990

66. Horton, E.R., V.J. Caiozzo, V. Mooney, and C.A. Prietto. Is it appropriate to express muscle strength relative to body mass? An allometric analysis. ***Trans. of the 36th Ortho. Res. Soc.*** 15(2):545, 1990

67. Caiozzo, V.J., S.C. Long, V.O. Gardner, K. Starr, H. Najarian, and C.A. Prietto. Fast muscle fibers are more susceptible to ischemia. ***Trans. of the 36th Ortho. Res. Soc.*** 15(1):145, 1990

68. Caiozzo, V.J., A. LaRusso, and K.M. Baldwin. Differences between Vo and Vmax: The importance of myosin isoform distribution. ***Med. Sci. Sports Med.***, 22(2):119, 1990.

69. Diffee, G., V.J. Caiozzo, and K.M. Baldwin. Contractile and biochemical properties of rat muscle types following hindlimb suspension. ***Med. Sci. Sports Exer.,*** 22(2):119, 1990.

70. Caiozzo, V.J. and K.M. Baldwin. The influence of hyperthyroidism on maximal shortening velocity of slow and fast skeletal muscle. ***FASEB J.***, 4(3):A815, 1990.

71. Takeda, H., V.J. Caiozzo, S.K. Munden, and V.O. Gardner. Excitatory amino acid neurotoxicity in isolated spinal cord-hindlimb preparation of neonatal rats. ***FASEB J.***, 4(3):A764, 1990.

72. Liu, J.K., V.J. Caiozzo, S.K. Munden, V.O. Gardner, and C.G. Glabe. A new calpain inhibitor and tool to investigate the cellular basis of spinal cord injury. ***Fed. Proc. FASEB J.***, 4(3):A899, 1990.

73. Liu, J.K., V.J. Caiozzo, C.G. Glabe, and V.O. Gardner. Synthesis of a new calpain inhibitor. ***FASEB J.***, 4(3):A900, 1990.

74. Walsh, S.D., J.A. Davis, and V.J. Caiozzo. Non-invasive lactate threshold detection using the modified V-slope method with non-breath-by-breath data. ***Med. Sci. Sports Exer.***, 22(2)56, 1990.

75. Munden, S.K., V.J. Caiozzo, D. Sawyer, J. Liu, H. Takeda, and V.O. Gardner. Electrophoretic and immunoblot identification of the neurofilament triplet in neonatal rat spinal cord and its susceptibility to an excitotoxic event. ***Trans. of the 37th Ortho. Res. Soc.*** 16(2):679, 1991

76. Caiozzo, V.J. and K.M. Baldwin. The influence of hyperthyroidism on the myosin isoform distribution and mechanical properties of slow skeletal muscle. ***Trans. of the 37th Ortho. Res. Soc.*** 16(1):39, 1991

77. Caiozzo, V.J., D. Sawyer, and K.M. Baldwin. Influence of hyperthyroidism on the diversity of contractile proteins in a slow skeletal muscle. ***Trans. of the 37th Ortho. Res. Soc.*** 16(2):664, 1991

78. Caiozzo, V.J. and K.M. Baldwin. The statistical nature of the force-velocity relationship: The 82 fiber solution. ***Trans. of the 37th Ortho. Res. Soc.*** 16(2):662, 1991

79. Gardner, V.O., V.J. Caiozzo, H. Takeda, and S.K. Munden. A novel in vitro spinal cord injury model for the study of excitotoxicity. ***Trans. of the 37th Ortho. Res. Soc.*** 16(2):680, 1991

80. Caiozzo, V.J., S. Swoap, M. Tao, R. Vandagriff, D. Menzel, and K.M. Baldwin. Quantitative single fiber analysis of Type IIA myosin heavy chain distribution in hyperthyroid soleus. ***Med. Sci. Sports Exer.*** 23(4):S17, 1991

81. Caiozzo, V.J., E. Ma, R.E. Herrick, and K.M. Baldwin. A new animal model for exploring the modualtion of myosin isoform expression by altered mechanical activity. ***Trans. 38th Ortho. Res. Soc.***

82. Caiozzo, V.J., C. Fox, and K.M. Baldwin. Modulation of myosin heavy chain isoform expression by altered mechanical activity. ***Med. Sci. Sports Exer.*** 24:S126, 1992

83. Diffee, G.M., V.J. Caiozzo, R.E. Herrick, and K.M. Baldwin. Effect of two chronic contractile activity paradigms on the distribution of myosin isoforms in suspended muscle. ***Med. Sci. Sports Exer.*** 24:S4, 1992

84. Caiozzo, V.J., M.J. Baker, R. Swartzentruber, and K.M. Baldwin. Determinants of mechanical work produced by skeletal muscle: the role of myosin and other factors. ***Trans. 39th Ortho. Res. Soc.*** 18(2): 380, 1993

85. Lange, J.C., J.M. Ballard, V.J. Caiozzo, and K.M. Baldwin. The effect of unloading on the ability of skeletal muscle to produce work during cyclic contractions. ***Trans. 39th Ortho. Res. Soc. 1***8(2): 381, 1993

86. Caiozzo, V.J., and K.M. Baldwin. Is myosin the dominant factor dictating the production of mechanical work by slow skeletal muscle? ***Med. Sci. Sports Exer.*** 25:S19, 1993

87. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. The influence of muscle strain on stimulus duration of slow muscles performing simulated locomotory activity. ***Physiologist*** 36(4):A21, 1993

88. Swoap, S.J., V.J. Caiozzo, and K.M. Baldwin. In situ power production from rat soleus and plantaris. ***Physiologist*** 36(4):A21, 1993

89. Caiozzo, V.J., M.J. Baker, R.E. Herrick, and K.M. Baldwin. Contractile properties of slow skeletal muscle following a 6 day spaceflight mission.

90. Caiozzo, V.J., F. Haddad, M.J. Baker, R.E. Herrick, and K.M. Baldwin. Altered protein and mRNA expression of myosin heavy chain isoforms following spaceflight.

91. Caiozzo, V.J., M.J. Baker, R.E. Herrick, and K.M. Baldwin. The influence of mechanical loading on the myosin heavy chain content of a fast skeletal muscle: a time-course study. ***Trans. 40th Ortho. Res. Soc.*** 19(2): 285, 1994

92. Caiozzo, V.J., M.J. Baker, R.E. Herrick, and K.M. Baldwin. The effects of a 14 day spaceflight mission on the mechanical properties of an antigravity muscle. ***FASEB J.*** 8(4), A10, 1994

93. Caiozzo, V.J., F. Haddad, M.J. Baker, and K.M. Baldwin. The influence of mechanical loading upon myosin heavy chain protein and mRNA isoform expression: a time-course study. ***Med. Sci. Sports Exer.*** 26(5): S91, 1994

94. Caiozzo, V.J., M.J. Baker, E. Horton, J. Clifford, and K.M. Baldwin. A rodent animal model to examine the influence of distraction on skeletal muscle. ***Trans. 41st Ortho. Res. Soc.*** 20(2): 293, 1995

95. Baker, M.J., V.J. Caiozzo, and K.M. Baldwin. The influence of mechanical loading on single fiber myosin heavy chain isoform distribution. ***Trans. 41st Ortho. Res. Soc.*** 20(1): 62, 1995

96. Caiozzo, V.J., M.J. Baker, C. Carmody, and K.M. Baldwin. The competitive interaction of high resistance training and thyroid hormone on myosin heavy chain isoform expression. ***Med. Sci. Sports Exer.*** 27(5): S124, 1995

97. Anderson, D.G., F. Haddad, M. Baker, K.M. Baldwin, V.J. Caiozzo. Skeletal muscle recovery following hindlimb suspension: the effects of high resistance training upon myosin heavy chain gene expression. ***Trans. 42nd Ortho. Res. Soc.*** 21:382, 1996

98. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. A novel method for studying the modulation of myosin heavy chain protein isoform expression by mechanical loading: the concentric-eccentric force-frequency paradigm. ***Trans. 42 Ortho. Res. Soc.*** 21:381, 1996

99. Sassoon, C.S., I. Yearn, S.E. Gruer, R.B. Wuerker, V.J. Caiozzo, and G.C. Sieck. Effect on controlled mechanical ventilation on diaphragm contractile properties. ***

100. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. The effect of thryoid hormone and suspension upon maximal shortening velocity: is there an additive effect? ***Med. Sci. Sports Exer***. 28(5):S130, 1996

101. Caiozzo, V.J., and K.M. Baldwin. Myosin heavy chain isoform plasticity: an interaction between thyroid hormone and mechanical unloading? ***Trans. 43 Ortho. Res. Soc.*** 21:381, 1997

102. Caiozzo, V.J., F. Haddad, and K.M. Baldwin. Effects of hypothyroidism and overload on MHC protein isoform composition in fast skeletal muscle. ***Med. Sci. Sports Exer***. 29(5):S226, 1997

103. Caiozzo, V.J., F. Haddad, M.J. Baker, and K.M. Baldwin. Modulation of myosin heavy chain isoforms: do mechanical loading and thyroid hormone share a common pathway? ***Annals Biomed. Eng.*** 25(Suppl. 1): S85, 1997

104. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. The effects of mechanical unloading upon single fiber myosin heavy chain isoform composition. ***Trans. 44th Ortho. Res. Soc***. 23(1): 163, 1998

105. McAllister, D.R., M.J. Baker, and V.J. Caiozzo. Skeletal muscle function recovery following botulinum toxin injection. ***Trans. 44th Ortho. Res. Soc***. 23(2): 1073, 1998

106. Rodriguez, B.D., M.J. Baker, and V.J. Caiozzo. Can botulinum toxin be utilized to prevent equinus contracture during tibial lengthening? ***Trans. 44th Ortho. Res. Soc***. 23(2): 668, 1998

107. Caiozzo, V.J., and K.M. Baldwin. *** ***Med. Sci. Sports Exer***.

108. Caiozzo, V.J., M.J. Baker, F. Haddad, and A. Qin. Potential mechanisms modulating muscle length during limb lengthening. ***Med. Sci. Sports Exer***. 31(5):S172, 1999

109. Baker, M.J., and V.J. Caiozzo. Sarcomeric remodeling in the EDL due to muscle lengthening. ***Med. Sci. Sports Exer***. 31(5):S75, 1999

110. Baker, M.J., and V.J. Caiozzo. Sarcomere remodeling during distraction: Effect on myosin heavy chain isoform composition. ***Trans. 45th Ortho. Res. Soc***. 24(2):***, 1999

111. Caiozzo, V.J. Mechanisms regulating the longitudinal growth of adult skeletal muscle: influence of stretch on cyclin D1 and cardiotrophin-1 messenger RNA levels. ***Trans. 45th Ortho. Res. Soc***. 24(1):***, 1999

112. Di Maso, N., V.J. Caiozzo, and K.M. Baldwin. Coexpression of MHC isoforms in neonatal muscle single fibers: Effects of hypothyroidism on developmental transitions. ***Med. Sci. Sports Exer***. 31(5):S307, 1999

113. Talmadge, R, R.R. Roy, V.J. Caiozzo, and V.R. Edgerton. Long-term effects of spinal cord transection on rat soleus contractile properties. ***Proc. Exp. Biol.***

114. Utkan, A, M.J. Baker, A. Khalafi, S. Green, and V.J. Caiozzo. Sarcomere remodeling induced by distraction: architectural analyses. ***Trans. 46th Ortho. Res. Soc***. 25(1):837, 2000.

115. Caiozzo, V.J., K. Huang, H. Chou, M.J. Baker, and K.M. Baldwin. Single fiber myosin heavy chain polymorphism. ***Med. Sci. Sports Exer***. 32(6):S42, 2000

116. Baker, M.J., A. Utkan, A. Khalafi, S. Green, and V.J. Caiozzo. Sarcomere remodeling following muscle lengthening: architectural analyses. ***Med. Sci. Sports Exer***. 32(6):S210, 2000

117. Caiozzo, V.J., A. Utkan, R. Chou, M.J. Baker, and S. Green. Sarcomerogenesis during passive stretch: the length-sensor hypothesis. ***Trans. 47th Ortho. Res. Soc***. 26:88, 2001.

118. Adams, G.R., V.J. Caiozzo, F. Haddad, and K.M. Baldwin. Molecular markers of adaptation in overloaded irradiated skeletal muscles. ***FASEB J.*** 15(4): A419, 2001.

119. Sassoon, C.S.H., S.E. Gruer, A. Manka, Y.H. Fang, V.J. Caiozzo, and G.C. Sieck. Altered diaphragm muscle contractility with controlled mechanical ventilation. ***Am J Respir Crit Care Med***. 163: A512, 2001.

120. Adams, G.R., V.J. Caiozzo, F. Haddad, and K.M. Baldwin. Irradiation prevents hypertrophy with long term overloading. ***Med. Sci. Sports Exer***. 33(5):S140, 2001.

121. Caiozzo, V.J., M.J. Baker, A. Utkan, S. Green. Sarcomere remodeling induced by distraction: length-sensor hypothesis. ***Med. Sci. Sports Exer***. 33(5):S140, 2001.

122. Caiozzo, V.J., D. Valeroso. Mechanical behavior of skeletal muscle during stretch: influence of muscle atrophy. ***Trans. 48th Ortho. Res. Soc***. 27:18, 2002.

123. Rourke, B., and V.J. Caiozzo. The effects of mechanical unloading on the expression of calcineurin and NFAT in slow skeletal muscle. ***Trans. 48th Ortho. Res. Soc***. 27:18, 2002.

124. Caiozzo, V.J., G.R. Adams, and K.M. Baldwin. Mechanisms associated with skeletal muscle growth. ***FASEB J.*** 16(5):A760, 2002.

125. Rourke, V., D. Valeroso, and V.J. Caiozzo. Thyroid hormone level and the Cn-NFAT pathway in skeletal muscle. ***FASEB J.*** 16(5):A772, 2002.

126. Baker, M.J., and V.J. Caiozzo. Is satellite cell activation required for serial sarcomerogenesis? ***FASEB J.*** 16(5):A772, 2002.

127. Caiozzo, V.J., G.R. Adams, and K.M. Baldwin. Global gene expression during muscle growth: gene chip and RT-PCR analyses. ***Med. Sci. Sports Exer.*** 34:S121, 2002.

128. Caiozzo, V.J., M.J. Baker, and S. Green. Gene expression during the longitudinal growth of skeletal muscle: focus on cell cycle. ***Trans. 49th Ortho. Res. Soc***. 28:14, 2003.

129. Baker, M.J., B.C. Rourke, H. Chandra, and V.J. Caiozzo. Response of cell cycle mediators to muscle stretch. ***Trans. 49th Ortho. Res. Soc***. 28:83, 2003

130. Caiozzo, V.J., J. Lin, and M.J. Baker. The response of GADD45 mRNA levels to stretch in skeletal muscle. ***FASEB J.*** 17(4):A444, 2003.

131. Rourke, B., M.J. Baker, N. Mehr, A. Gangi, and V.J. Caiozzo. Cyclosporin does not prevent overload-induced hypertrophy in skeletal muscle. ***FASEB J.*** 17(4):A441, 2003.

132. Baker, M.J., S. Green, and V.J. Caiozzo. Effect of muscle stretch on cell cycle mediators. ***FASEB J.*** 17(4):A440, 2003.

133. Wu, Y.Z., M.J. Baker, R. Crumley, and V.J. Caiozzo. Does MyoD control type IIB MHC expression in denervated laryngeal muscle. ***FASEB J.*** 17(4):A444, 2003.

134. Lin, J.C., M.J. Baker, and V.J. Caiozzo. The effect of chronic stretch on MuRF1 and MAFbx. ***FASEB J.*** 17(4):A435, 2003.

135. Lin, J.C., M.J. Baker, and V.J. Caiozzo. The effects of torpor on skeletal muscle myosin heavy-chain isoform expression. ***FASEB J.*** 17(4):A435, 2003.

136. Caiozzo, V.J., G.R. Adams, and K.M. Baldwin. Cell cycle gene expression during skeletal muscle growth. ***Med. Sci. Sports Exer.*** 35:S98, 2003.

137. Chou, H., M.J. Baker, G.R. Adams, S. Green, K.M. Baldwin, and V.J. Caiozzo. The effects of mechanical loading on extracellular matrix gene expression in skeletal muscle. ***Med. Sci. Sports Exer.*** 35:S98, 2003.

138. Caiozzo, V.J., and C. Pandorf. Are statellite cells required for the longitudinal growth of skeletal muscle? ***Trans. 50th Ortho. Res. Soc***. 29: 145, 2004

139. Chou, H., and V.J. Caiozzo. Collagen regulation as a function of muscle lengthening. ***Trans. 50th Ortho. Res. Soc***. 29:902, 2004

140. Richmond, H., and V.J. Caiozzo. The effects of mechanical unloading on the short-range stiffness and elastic modulus of skeletal muscle. ***Trans. 50th Ortho. Res. Soc***. 29: 903, 2004

141. Caiozzo, V.C., G.R. Adams, M. Baker, and K.M. Baldwin. Effects of muscle recovery on the expression of molecular markers of growth. ***FASEB J.*** 18(4):A363, 2004.

142. Rourke, B.C., K.M. Baldwin, and V.J. Caiozzo. Sequencing of myosin heavy chain isoforms, and expression of MHC mRNA in active and hibernating golden-mantled ground squirrels (*Spermophilus lateralis*). ***FASEB J.*** 18(4):A355, 2004.

143. Baker, M.J., and V.J. Caiozzo. Satellite cell proliferation may not be necessary for longitudinal growth of skeletal muscle. ***FASEB J.*** 18(4):A745, 2004.

144. Nelson RS, Zhu E, Caiozzo VJ, Sassoon CSH. Reduced diaphragmatic force with acute high dosage corticosteroid: up-regulation of MAFbox gene expression. ***Am. J. Respir. Crit. Care Med***. 169:A118, 2004

145. Sassoon CSH, Zhu E, Caiozzo VJ. Preserved diaphragmatic force-generating capacity with assist-control mechanical ventilation. ***Am. J. Respir. Crit. Care Med***. 169:A209, 2004

146. Zhu E, Caiozzo VJ, Zhu L, Sassoon CSH. The effects of controlled mechanical ventilation on the mRNA levels of Muscle Atrophy F-Box and myosin heavy chains. ***Am. J. Respir. Crit. Care Med***. 169:A241, 2004

147. Connolly, P., D. Nemet, S. Hung, J.D. Heck, G.W. Hatfield, F. Zaldivar, V. Caiozzo, D.M. Cooper. Does exercise alter circulating peripheral blood mononuclear cell gene expression in young males? ***Med. Sci. Sports Exer.*** 29, 2004.

148. Caiozzo, V.J., H. Richmond, S. Kaska, G.R. Adams, K.M. Baldwin. Mechanical Behavior of Skeletal Muscle during Stretch: Effects of Muscle Unloading and MHC Isoform Shifts. ***Med. Sci. Sports Exer.*** 29, 2004.

149. Pandorf, C.E., and V.J. Caiozzo. Satellite cells are not required for longitudinal muscle growth. ***Med. Sci. Sports Exer.*** 29, 2004.

150. C. Gottron, D. Nemet, T. Mozaffar, V.J. Caiozzo, D.M. Cooper. Feasibility of integrated human performance testing in a patient with Lambert-Eaton myasthenia gravis syndrome (LEMS). ***Med. Sci. Sports Exer.*** 29, 2004.

151. Caiozzo, V.J., M.J. Baker, and K.M. Baldwin. The effects of loading and stretch on transcriptional and translational markers. ***Med. Sci. Sports Exer.*** 37:S72, 2005.

152. Ramar, K., E. Zhu, L. Zhu, V.J. Caiozzo, C.H. Sassoon. Interactive effects of mechanical ventilation and corticosteroid on diaphragmatic force. ***Proceed Am Thoracic Soc*** 2: A161, 2005.

153. Zhu, E., T.H. Pham, R.S. Nelson, V.J. Caiozzo, C.S.H. Sassoon. Time course of diaphragm muscle myosin heavy-chain isoform transformation with acute high dosage corticosteroid. ***Proceed Am Thoracic Soc*** 2: A883, 2005.

154. Baker, M.J., Y.Z. Wu, S. Green, and V.J. Caiozzo. Is longitudinal growth of skeletal muscle dependent upon satellite cell activation? ***Trans. 52nd Ortho. Res. Soc***. : 31: 34, 2006.

155. Caiozzo, V.J., M. Baker, Y.Z. Wu, and S. Green. Effect of stretch on cell cycle regulation in skeletal muscle. ***Trans. 52nd Ortho. Res. Soc***. : 31: 130, 2006.

156. M.J. Baker, Y.Z. Wu, and V.J. Caiozzo. Effect of immobilization and stretch on skeletal muscle cell cycle control genes. ***FASEB Journal***. 20, 236.20, 2006.

157. Caiozzo, V.J., Y. Yang, M. Pierre, A. Kaplan, G. Adams, A. Kreitenberg, C. Takahashi, and P. Cavanagh. Hypergravity Resistance Training as a Countermeasure to Microgravity: Evolution of the Space Cycle. ***Med. Sci. Sports Exer.*** 37:S72, 2006.

158. Eliakim, A, D. Nemet, F. Zaldivar, R.G. McMurray, F. Culler, P. Galassetti, D.M. Cooper, and V.J. Caiozzo. Reduced exercise-associated response of the GH-IGF-I axis and catecholamines in obese children and adolescents. ***Med Sci Sports Exerc***. 38:S97, 2006

159. Pierre, M, Y. Yang, A. Kaplan, P.R. Cavanagh, G.R. Adams, A. Kreitenberg, C. Takahashi, and V.J. Caiozzo. Dynamic biomechanical model of foot forces during hypergravity resistance training: ***Med Sci Sports Exerc***. 38:S65. 2006

160. Caiozzo, V.J., M.J. Baker, F. Haddad, and K.M. Baldwin. Reloading skeletal muscle and its effects on translational markers. ***Trans. 53rd Ortho. Res. Soc***. : 32: 106, 2007.

161. Caiozzo, V.J. The effects of reloading on extracellular matrix gene expression in skeletal muscle. ***Med. Sci. Sports. Exer.*** 39:s221, 2007.

162. Caiozzo, V.J., E. Giedzinski, M. Baker, C. Limoli. The Effects of Irradiation on Satellite Cells. ***Trans. 54th Ortho. Res. Soc.***: 33: ***, 2008.

163. Caiozzo V.J., E. Giedzinski, M. Baker, and C. Limoli. The radiosensitivity of satellite cells: cell cycle regulation and apoptosis. ***FASEB J***. 22:754.19, 2008.

164. Blank J.M., Y. Yang, A.R. Hargens, B.R. Macias, V.J. Caiozzo, and J.W. Hicks Hypergravity exercise training on a human-powered centrifuge. ***FASEB J***. 22:752.7, 2008.

165. Rourke B., P. Selpides, M. Nowell, M. Rippen, V.J. Caiozzo, and M. Baker. Mechanical overload increases muscle mass but does not change myosin isoform expression in a rodent hibernator, Spermophilus lateralis. ***FASEB J.*** 22:754.23, 2008.

166. Baker, M.J., J.M. Blank, A. Kreitenberg, G. Adams, F. Haddad, A. Qin, K.M. Baldwin, and V. Caiozzo. Hypergravity resistance training on a human powered centrifuge. ***FASEB J.*** ***

167. Caiozzo, V.J., J. Cho, E. Giedzninski, M. Baker, T. Bertrand, and C. Limoli. Satellite cells say NO to irradiation. ***Trans. 57th Ortho. Res. Soc.***: 33: ***, 2011.

PUBLICATIONS (PUBLISHED GENE SEQUENCES):

1. AY551936. Spermophilus lateralis myosin heavy chain fast type IIx mRNA, partial cds (www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=49333358)

2. AY551935. Spermophilus lateralis myosin heavy chain fast type IIb mRNA, partial cds (www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=48928097)

3. AY551937. Spermophilus lateralis myosin heavy chain slow type I mRNA, partial cds (www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=48928099)

4. AY773094. Python molurus cardaic myosin heavy chain ventricular isoform mRNA, partial cds. (www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=56788692)

5. AY773093. Python molurus cardiac myosin heavy chain atrial isoform mRNA, partial cds (www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=56788690)

GRANTS AND RESEARCH SUPPORT:

1. ***Orthopaedic Research and Education Foundation.*** Grant #292. 1980. "In vivo force-velocity relationship of human elbow flexors."

2. ***Committee for Instructional Development.*** 1980-1981. "Detecting the anaerobic threshold from gas exchange analysis."

3. ***Committee on Undergraduate Scholarships, Honors, and Financial Aid.*** 1980-1981. "The affect of training upon the in vivo force-velocity relationship."

4. ***Committee for Instructional Development.*** 1980-1981. "The affects of precontractions on the in vivo force-velocity relationship."

5. ***Committee on Undergraduate Scholarships, Honors, and Financial Aid.*** 1981-1982. "The effect of isometric precontractions on the training response of the knee extensors."

6. ***Committee on Undergraduate Scholarships, Honors, and Financial Aid.*** 1981-1982. "The affect of glycogen depletion on the determination of the anaerobic threshold."

7. ***Surgical Research Committee.*** 1982-1983. "Cardiorespiratory capacity of elderly patients prior to total joint replacement."

8. ***Committee on Undergraduate Scholarships, Honors, and Financial Aid.*** 1982-1983. "Muscle fiber composition of elderly patients with osteoarthritis."

9. ***Orthopaedic Research and Education Foundation.*** 1983-1984. "The affect of pneumatic tourniquets on slow and fast muscle."

10. ***American Lung Association of Los Angeles County.*** 1983-1984. "Ventilation and gas exchange responses as related to age and sex.".

11. ***Medtronics, Inc.*** 1983-1984. "The affect of muscle stimulation on slow and fast muscle fibers in elderly arthritic patients."

12. ***National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.*** 1983-1986. "The use of cyclosporine A and allografts in reconstructive surgery."

13. ***The Foundation for Physical Therapy.*** 1984-1985. "Energy costs of calisthenics in elderly cardiac patients."

14. ***Orthopaedic Research and Education Foundation.*** 1984-1985. "The effects of tourniquet ischemia on the diabetic, the aged, and the limb immobilized rat." $10,000

15. ***Committee on Undergraduate Scholarships, Honors, and Financial Aid.*** 1984-1985. "The use of exercise as a means to minimize the effects of tourniquet ischemia." $400.00

16. ***California Air Resources Board.*** 1984-1985. "The effects of short-term exposure to carbon monoxide in subjects with coronary artery disease."

17. ***Health Effects Institute.*** 1984-1986. "Effects of short term exposure to three levels of carbon monoxide in aged individuals and patients with heart, lung, and blood disease.

18. ***Robert Wood Johnson Foundation.*** 1985-1988. "Improvement of functional capacity after total hip replacement." $150,000

19. ***Orthopaedic Research and Education Foundation.*** 1985-1986. "Time-course of blood reflow in slow and fast skeletal muscle following tourniquet induced ischemia: A mechanism for explaining decreased functional capacity." $10,000

20. ***Orthopaedic Research and Education Foundation.*** 1986-1987. Zimmer Department Progress Grant: "UCI-GAMMA" Project. $9,000

21. ***Orthopaedic Research and Education Foundation.*** 1986-1988. "Composite tissue allograft: Focus on muscle." $75,000

22. ***Department of Surgery.*** 1987-1988. "Spinal cord injury: Focus upon protein degradation." $6,500

23. ***American Paralysis Association.*** 1988-1989. "Can spinal cord injury be reduced by blocking calcium channels? Probing the voltage gated calcium channel and NMDA receptor system." $28,500

24. ***Orthopaedic Research and Education Foundation.*** 1988-1989. "Muscle allografts induction of tolerance." $33,400

25. ***United States Olympic Committee.*** 1988-1989. "Rotator cuff strength evaluation in the elite waterpolo player." $5,000

26. ***Orthopaedic Research and Education Foundation.*** 1989-1992. "Spinal cord injury: A model focusing upon the NMDA receptor system, voltage gated calcium channel, and neurogenesis of locomotion." $146,183

27. ***Scoliosis Research Society.*** 1991-1993. "Spinal cord injury: a model focusing upon the NMDA receptor system and non-NMDA excitatory amino acid receptors." $52,736.

28. ***Orthopaedic Research and Education Foundation.*** 1992-1994. "The effect of altered activity on the expression of myosin in whole muscle and single fibers: exploring the force-velocity relationship." $87,937.

29. ***National Aeronautical Space Administration (NASA).*** 1992-1994. "Spacelab Life Sciences-2: Effect of zero gravity exposure on biochemical and metabolic properties of skeletal muscle in rats (E-127)." $160,000.

30. ***National Institutes of Health (NIH).*** 1994-1999. "Thyroid and activity interaction on isomyosin expression." $1,240,004.

31. ***National Institutes of Health (NIH).*** 1995-2000. "Mechanical induced adaptation in myosin phenotype and muscle mass." $1,309,523.

32. ***National Institutes of Health (NIH)***. 1999-2004. "Mechanisms regulating muscle fiber length during distraction." $1,188,861.

33. ***College of Medicine, University of California, Irvine, CA***. "Modulation of myosin heavy chain isoform expression and muscle mass: mechanical loading or stimulation frequency." $10,361.

34. ***Department of Veterans Affairs (VA).*** 1998-2002. "Effects of mechanical ventilation on diagphragm contractile properties".

35. ***National Institutes of Health (NIH).*** 2000-2005. "U.C. Irvine General Clinical Research Center." $6,287,200.

36. ***National Institutes of Health (NIH).*** 2000-2005. "Rehabilitation of skeletal muscle." $1,417,460.

37. ***National Institutes of Health (NIH).*** 2003-2008. "UCI Multidisciplinary Exercise Sciences Training Grant". $1,191,067.

38. ***National Space Biomedical Research Institute (NASA).*** 2004-2008. "Hypergravity resistance training: Countermeasure to microgravity." $1,200,000.

39. ***National Space Biomedical Research Institute (NASA).*** 2004-2008. "Team Leadership Award." $140,000.

40. ***National Aeronautics Space Administration (NASA).*** 2004-2007. International Multidisciplinary Artificial Gravity Project (IMAG). $750,000.

41. ***National Institutes of Health (NIH).*** 2005-2010. "U.C. Irvine General Clinical Research Center." $12,000,000.

42. ***California Institute for Regenerative Medicine.*** 2007-2009. "Using Human Embryonic Stem Cells to Treat Radiation-Induced Stem Cell Loss: Benefits vs Cancer Risk." $625,617.

43. ***National Institutes of Health (NIH).*** 2006-2007. "Cell Cycle Control in Skeletal Muscle Undergoing Atrophy." $25,000. Funded through the National Skeletal Muscle Research Center at the University of California at San Diego.

44. ***National Space Biomedical Research Institute (NASA).*** 2008-2012. "Integrated Endurance and Resistance Exercise Countermeasures Using a Gravity Independent Training Device." $1,600,000.

45. ***National Institutes of Health (NIH).*** 2008-2013. "UCI Multidisciplinary Exercise Sciences Training Grant". $1,075,694.

46. ***National Institutes of Health (NIH).*** 2010-2015. "The UC Irvine Institute for Clinical and Translational Science." $20,150,200

47. ***National Institutes of Health (NIH).*** 2012-2017. "Mechanisms Regulating the Radiosensitivity of Myogenic Precursor Cells." $2,308,681 (pending review).

48. ***National Institutes of Health (NIH).*** 2012-2017. "Myonuclear plasticity and its implications for rehabilitation." $1,650,000 (pending).

PUBLIC SERVICE ACTIVITIES PROMOTING THE UNIVERSITY:

1. Celebrate UCI. Irvine, California. May 1, 1980.

2. Celebrate UCI. Irvine, California. May 2, 1981.

3. Celebrate UCI. Irvine, California. May 1, 1982.

4. Newport Rotary Club. July 27, 1982.

5. University of California Lecture Series. Irvine, California. October 27, 1982. "The effects of exercise on the human body."

6. University Center Programs Committee. Irvine, California. November 9, 1983. "The use of performance enhancing drugs in athletic competition: How far will we go?"

7. Celebrate UCI. Irvine, California. April 14, 1984.

8. KOCE channel 50. November 12 and 16, 1996. "Animal structure".

9. Space.com. The Space Cycle: New Way to Exercise in Orbit. October 4, 2005 http://www.space.com/scienceastronomy/051004_space_cycle.html

10. British Broadcasting Company. "Leading Edge." http://www.bbc.co.uk/worldservice/programmes/science_in_action.shtml. April 12, 2007.

11. Highlighted podcast from Radiation Research. This podcast was selected as the monthly article published in Radiation Research and focused on our publication entitled "Satellite cells say NO to radiation." http://www.radres.org/podcast/. May 2011.