

Curriculum Vitae

Last Updated: 03/23/2022

PERSONAL DATA

Name: Anthony J. Donato, Ph.D., M.S.

Citizenship: United States

EDUCATION

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
2005 - 2009	Postdoctoral Fellow	University of Colorado, Department of Integrative Physiology (Integrative Physiology of Aging Laboratory, Dr. Doug Seals) Boulder, CO
2004 - 2005	Postdoctoral Fellow	University of California at San Diego, Department of Medicine, Dr. Russell Richardson San Diego, CA
2001 - 2004	Ph.D.	Texas A&M University (Kinesiology) College Station, TX
1999 - 2001	M.S.	University of Colorado, Boulder (Kinesiology and Applied Physiology) Boulder, BO
1994 - 1998	B.A.	University of Colorado, Boulder (Kinesiology) Boulder, CO

UNIVERSITY OF UTAH ACADEMIC HISTORY

Internal Medicine (Geriatrics), 09/01/2010 - Present

07/01/2021 Professor
07/01/2015 - 06/30/2020 Associate Professor
09/01/2010 - 06/30/2015 Assistant Professor

Nutrition and Integrative Physiology, 11/04/2016 - Present

07/01/2021 Adjunct Professor
11/04/2016 - 06/30/2020 Adjunct Associate Professor

Health, Kinesiology, and Recreation, 07/01/2016 - 06/30/2017

07/01/2016 - 06/30/2017 Adjunct Assistant Professor

Biochemistry, 01/01/2015 - Present

07/01/2021 Adjunct Professor
07/01/2015 - 06/30/2020 Adjunct Associate Professor
01/01/2015 - 06/30/2015 Adjunct Assistant Professor

Exercise and Sport Science, 07/01/2013 - 06/30/2016

07/01/2013 - 06/30/2016 Adjunct Assistant Professor

Physiology, 07/16/2010 - 06/30/2014

07/16/2010 - 06/30/2014 Adjunct Assistant Professor

PROFESSIONAL EXPERIENCE

Full-Time Positions

- 2021 - Present Professor, University of Utah, Salt Lake City, UT
- 2015 - 2021 Associate Professor, University of Utah, Salt Lake City, UT
- 2010 - Present GRECC Research Investigator, VA Medical Center, Salt Lake City, UT
- 2010 - 2015 Assistant Professor, University of Utah, Salt Lake City, Utah
- 2009 - 2010 Assistant Research Professor, University of Colorado at Boulder, Boulder, CO
- 2001 - 2004 Graduate Research Assistant, Department of Health and Kinesiology, Texas A&M University, College Station, TX
- 1998 - 2001 Graduate Research Assistant, Human Cardiovascular Research Laboratory, University of Colorado, Department of Kinesiology and Applied Physiology, Boulder, CO
- 1997 - 1998 Undergraduate Research Assistant, Comparative Animal Physiology Laboratory, University of Colorado, Department of Environmental, Population, and Organismic Biology, Boulder, CO

Part-Time Positions

- 2017 - Present Scientific Advisor, Recursion Pharmaceuticals, Salt Lake City, UT

Editorial Experience

- 2021 - Present Cardiovascular Aging
- 2011 - Present Review Editor for Frontiers in Exercise Physiology
- 2011 - Present Editorial Board for Journal of Geriatric Cardiology

Reviewer Experience

- Ad Hoc Reviewer for AGE
- Ad Hoc Reviewer for Aging Cell
- Ad Hoc Reviewer for American Journal of Physiology (Heart and Circulation)
- Ad Hoc Reviewer for American Journal of Physiology (Reg., Integrative and Comparative Physiology)
- Ad Hoc Reviewer for Antioxidants & Redox Signaling
- Ad Hoc Reviewer for Archives of Dermatological Research
- Ad Hoc Reviewer for Atherosclerosis, Thrombosis, and Vascular Biology
- Ad Hoc Reviewer for Autonomic and Autacoid Pharmacology
- Ad Hoc Reviewer for Cardiovascular Therapeutics

Ad Hoc Reviewer for Cell and Molecular Biology Letters
Ad Hoc Reviewer for Endocrinology and Metabolism
Ad Hoc Reviewer for European Journal of Clinical Nutrition
Ad Hoc Reviewer for Exercise Science, Sport and Research
Ad Hoc Reviewer for Experimental Physiology
Ad Hoc Reviewer for Free Radical Research
Ad Hoc Reviewer for Frontiers in Vascular Physiology
Ad Hoc Reviewer for Hypertension
Ad Hoc Reviewer for Journal of Applied Physiology
Ad Hoc Reviewer for Journal of Gerontology
Ad Hoc Reviewer for Journal of Molecular and Cellular Cardiology
Ad Hoc Reviewer for Journal of Physiology (London)
Ad Hoc Reviewer for Medicine and Science in Sports and Exercise
Ad Hoc Reviewer for Microcirculation
Ad Hoc Reviewer for Obesity
Ad Hoc Reviewer for Rejuvenation Research
Ad Hoc Reviewer for Trends in Cardiovascular Medicine
Ad Hoc Reviewer for Vascular Health and Risk Management
Reviewer for Circulation Research
Reviewer for Circulation

SCHOLASTIC HONORS

2021 - Present Editors Choice Award Manuscript 2021, "T cells mediate cell non-autonomous arterial ageing in mice." Journal of Physiology, **Senior authors
2019 AJP-Heart and Circulatory Physiology Best Original Research Article Award 2018
**Senior Author
2006 - 2007 Health Science Center Aging T32 Post-Doctoral Training Grant Recipient, University of Colorado
2005 - 2007 Loan Repayment Grant Recipient (LRP), National Institutes of Health
2004 Texas ACSM Manuscript Award 1st place
2002 - 2004 Texas A&M Travel Award
1998 Undergraduate Research Opportunity Grant Recipient, Howard Hughes Medical Institute, \$2,700.

ADMINISTRATIVE EXPERIENCE

Administrative Duties

2019- Present Chair, Tenure Advisory Committee, Department of Medicine, University of Utah
2016 - 2019 Tenure Advisory Committee, Department of Medicine, University of Utah
2014 - 2016 Medical School Admission Service, University of Utah, Salt Lake City, UT USA

Professional Organization & Scientific Activities

2013 - Present Member, American Federation for Aging Research, National Scientific Advisory Council (NSAC)

Grant Review Committee/Study Section

2019 - Present Ad hoc reviewer-British Heart Foundation

2021 Temporary Chair, Aging Systems Geriatrics

2019 - Present Member Aging Systems Geriatrics

2017 - 2018 Ad Hoc Reviewer: CSR (Aging Systems and Geriatrics)

2017 Ad Hoc Reviewer: CSR (MDCN Special Emphasis Panel Molecular mechanisms of APOE in Alzheimer's pathogenesis)

2017 Ad Hoc Reviewer: NIAID (Special Emphasis Panel: RFA, Elucidation of Mechanisms of Radiation-Induced Endovascular Injury and Development of Treatments/Mitigators for Radiation-Induced Endothelial Cell and Vascular Dysfunction (U01))

2017 Ad Hoc Reviewer: European Research Council

2016 - Present American Heart Association: Clinical Vascular Wall Review Panel

2016 Ad Hoc Reviewer: Dutch Heart Foundation

2015 Ad Hoc Reviewer: Swiss National Science Foundation

2015 Ad Hoc Reviewer: National Institute on Aging (BDCN Member Conflict review panel: Exercise in Aging)

2015 Ad Hoc Reviewer: National Institute on Aging (P01 review group)

2015 Ad Hoc Reviewer: British Medical Research Council

2015 - 2018 Member: National Institute on Aging (GEMSTAR review committee: Clinician Research Initiative Grants)

2013 Ad Hoc Reviewer: National Institute on Aging (GEMSTAR: Clinician Research Initiative Grants)

2013 - 2014 Ad Hoc Reviewer: American Federation for Aging Research

2012 - 2016 Ad Hoc Reviewer: National Institute of Aging (Special Emphasis Panel/Juvenile Protective Factors in Aging)

2010 - 2015 American Heart Association, Vascular Endothelial Biology Study Section

Symposium/Meeting Chair/Coordinator

2019 Co-Chaired UCARS Selected Abstract Symposium

2017 Chaired Session: Cellular Senescence and Genomic Instability: Implications for Cardiovascular Disease
At American Physiological Society meeting: Cardiovascular Aging: New Frontiers and Old Friends

2016 - 2017 Co-Chair, American Physiological Society Meeting, Cardiovascular Aging: New Frontiers and Old Friends; programmed, fund raised, budgeted and oversaw all aspect of the meeting

PROFESSIONAL COMMUNITY ACTIVITIES

2012 Science Fair Judge, McGillis Elementary School, Science Fair Judge

UNIVERSITY COMMUNITY ACTIVITIES

University Level

2021 - Steering Committee Member, Center on Aging, Advise on the Center on Aging Strategy.
Present

Department Level

2020 - Advisory Chair, Internal Medicine, Tenure Advisory Committee. Evaluate and make RTP
Present recommendations to the Department of Medicine

2016 - 2019 Member, Internal Medicine, Tenure Advisory Committee

Division Level

2015 - Co-Director, Geriatrics, Translational Vascular Physiology Lab
Present

SERVICE AT AFFILIATED INSTITUTIONS

2010 - Investigator, Veterans Affairs Salt Lake City Health Care System, Geriatric Research
Present Education and Clinical Center (GRECC)

CURRENT MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American Heart Association

American Physiological Society

FUNDING

ACTIVE GRANTS

R44 (AG053131 Phase II) “Novel Methodology for Identification of Senolytics that Reduce Age-related Disease and Dysfunction”

8/1/2018-7/31/2022 - No Cost Extension

Role: Co-PI

The goal of this project is to develop via high throughput drug screens and test senolytics in aged mice and mice with atherosclerosis.

R01 (AG050238) “Telomere uncapping and arterial dysfunction: Novel mechanism and implications for aging”

8/1/2016-7/31/2021 - No Cost Extension

Role: PI

This grant explores the role of arterial telomere uncapping and its role in senescence, inflammation and vascular dysfunction with advancing age.

R01 (AG060395) “Impact of T cells on age-related vascular dysfunction: A translational approach”

4/1/2019-3/31/2024

Role: PI

The proposed studies will indicate whether T cells from the immune system directly mediate age-related vascular dysfunction and has the potential to identify specific targets that may be used for early detection and/or drug treatment to reduce CVD burden in the elderly.

R01 (AG060395) Supplement “Impact of T cells on age-related vascular dysfunction: A translational approach”

9/1/2020-1/31/2024

Role: PI

This supplement is to provide age-related training to postdocs within the TVP laboratory

TVP Service Contract “Testing Novel Senolytics on Aged Mice”

11/1/2021-2/05/2023

Role: PI

This contract is to evaluate the efficacy of novel senolytics from Recursion Pharmaceuticals in an aging preclinical mouse model.

VA Merit (CX002111) “Systemic sclerosis (SSc) vasculopathy: Improved clinical monitoring and treatment”

5/01/2021-4/30/2025

Role: Co-I (Frech PI)

The proposed studies will test a non-invasive imaging technique to determine the role of glycocalyx and microvascular function on GI outcomes and develop SSc patient models of iPSC derived EC for elucidation of barrier function in response to compounds that may improve glycocalyx function.

R21 (AG070740) “Targeting Cardiovascular Disease with SIRT6 activators”

09/01/2021-08/31/2023

Role Co-I (Franzini PI)

The goal of this project is to utilize DNA encoded library drug screens to test numerous novel SIRT-6 activators and translate the top ADME candidates to cell models then aged mice.

Pending

10/01/22 - Cardiovascular Remodeling following Arteriovenous Fistula Creation
09/30/26 I01 BX006078-01

National Institutes of Health

Role: Co-Investigator

09/01/22 - Integrative Mechanisms of Vascular Aging
08/30/27 R01 AG077751

Role: Co-PI

National Institutes of Health
Role: Co-Principal Investigator

07/01/22 - Improving healthspan through discovery of potent NAMPT activators from a DNA-
06/30/27 encoded library

R21/R33 AG074498 **12th percentile**

National Institutes of Health
Role: Principal Investigator

Past Grants

11/15/18 - TVP Service Contract II
02/15/20

Principal Investigator(s): Anthony J. Donato
Direct Costs: \$338,155 Total Costs: \$426,074.39
Recursion Pharmaceuticals Llc
Role: Principal Investigator

09/30/18 - Identification Of Senolytics
05/31/19

Principal Investigator(s): Anthony J. Donato
Direct Costs: \$129,550 Total Costs: \$163,233
Recursion Pharmaceuticals Llc
Role: Principal Investigator

08/15/18 - K99/R00 Machin, Role of Hyaluronan in Age-Related Vascular and Skeletal Muscle
07/31/19 Dysfunction

Direct Costs: \$107,770 Total Costs: \$116,392
NIH
Role: Mentor

07/01/16 - K23 Frech Systemic Sclerosis (SSc) Vasculopathy: Improved Clinical Monitoring and
06/30/21 Treatment

National Institute of Arthritis and Musculoskeletal and Skin Diseases
Role: Mentor

10/01/15 - VA Merit Systemic sclerosis (SSc) vasculopathy: Improved clinical monitoring and
09/30/19 treatment

U.S. Veterans Administration
Role: Co-Investigator

09/01/15 - Pathophysiology of a Genetic Vascular Disease
08/31/19

U.S. Veterans Administration
Role: Co-Investigator

07/01/15 - Nitric Oxide Coupling And Bh4
08/31/19

Principal Investigator(s): Anthony J. Donato; Anthony Donato
Direct Costs: \$544,215 Total Costs: \$590,474
Flight Attendant Medical Research Inst
Role: Principal Investigator

09/01/14 - VA Office of Rural Health Improving Health Care in Veterans with Rheumatic and
08/31/16 Vascular Disease

U.S. Department of Veterans Affairs
Role: Co-Investigator

04/01/14 - K02 - Amelioration of aged endothelial dysfunction by NAMPT and caloric restriction
03/31/19
Principal Investigator(s): Anthony J. Donato
Direct Costs: \$516,910 Total Costs: \$558,265
NIA
Role: Principal Investigator

12/01/13 - K01 Walker Novel mechanisms for cerebral artery dysfunction with aging
11/30/19
Direct Costs: \$431,748 Total Costs: \$471,028
National Institutes of Health
Role: Mentor

09/01/13 - R21 Reversing Arterial Aging via mTOR Inhibition: AMPK Activation as a Rapalog
05/31/16
Principal Investigator(s): Anthony J. Donato
Direct Costs: \$275,000 Total Costs: \$409,750
NIA
Role: Co-Principal Investigator

11/01/12 - Sirtuin 1: a new target for obesity-induced cerebral endothelial dysfunction
10/31/15
Principal Investigator(s): Elke Sokoya
National Health and Medical Research Council of Australia
Role: Co-Investigator

09/01/12 - Mechanisms of Caloric Restriction and Mimetic Vasoprotection in Old Arteries
08/31/13 (Supplement)
Principal Investigator(s): Anthony J. Donato
National Institute on Aging
Role: Principal Investigator

09/01/12 - Pediatric Cerebral Blood Vessel Injury
08/31/13
Principal Investigator(s): Anthony J. Donato; Ken Monson
Primary Children's Medical Center Foundation
Role: Co-Principal Investigator

09/01/11 - R01 Mechanisms of Caloric Restriction and Mimetic Vasoprotection in Old Arteries
05/31/16
Principal Investigator(s): Anthony J. Donato
Direct Costs: \$1,032,921 Total Costs: \$1,543,245
National Institute on Aging
Role: Principal Investigator

07/01/11 - Aging and Telomere Structure and Function in the Human Vasculature” 7/2011-6/2012
06/01/12 (Direct cost \$17,000)
Principal Investigator(s): Anthony J. Donato
University of Utah Center on Aging
Role: Principal Investigator

09/15/07 - K01 Donato Mechanisms of Improved Endothelial Function with Regular Exercise in
06/30/12 Older Adults.
Principal Investigator(s): Anthony J. Donato
Direct Costs: \$267,336 Total Costs: \$288,723
National Institute on Aging

Role: Principal Investigator

**Past
Contracts**

- 04/01/18 - 09/30/19 ATM novel therapeutics
Principal Investigator(s): Anthony J. Donato
Direct Costs: \$161,766 Total Costs: \$245,075
Recursion Pharmaceuticals, Inc.
Role: Principal Investigator
- 03/01/19 - 02/29/20 Novel Therapeutics for CCM
Principal Investigator(s): Anthony J. Donato
Recursion Pharmaceuticals, Inc.
Role: Principal Investigator
- 11/16/17 - 11/15/18 TVP Service Contract Testing CCM Compounds
Principal Investigator(s): Anthony J. Donato
Recursion Pharmaceuticals, Inc.
Role: Principal Investigator

TEACHING RESPONSIBILITIES/ASSIGNMENTS

Course Lectures

- 2022 PI, NUIP 7970: Dissertation-Doctoral, 0 students, University of Utah, College of Health
- 2022 PI, NUIP 7970: Dissertation-Doctoral, 0 students, University of Utah, College of Health
- 2022 PI, NUIP 7970: Dissertation-Doctoral, 3 students, University of Utah, College of Health
- 2022 PI, NUIP 7960: Special Topics-Doctoral, 0 students, University of Utah, College of Health
- 2022 PI, NUIP 7305: Adv Cardio Physiology, 0 students, University of Utah, College of Health
- 2021 PI, NUIP 7970: Dissertation-Doctoral, 3 students, University of Utah, College of Health
- 2021 PI, NUIP 7970: Dissertation-Doctoral, 3 students, University of Utah, College of Health
- 2021 PI, NUIP 7970: Dissertation-Doctoral, 1 student, University of Utah, College of Health
- 2021 PI, NUIP 7960: Special Topics-Doctoral, 0 students, University of Utah, College of Health
- 2021 PI, NUIP 7305: Adv Cardio Physiology, 15 students, University of Utah, College of Health
- 2020 PI, NUIP 7970: Dissertation-Doctoral, 1 student, University of Utah, College of Health

2020 PI, NUIP 7970: Dissertation-Doctoral, 2 students, University of Utah, College of Health

2020 PI, NUIP 7970: Dissertation-Doctoral, 1 student, University of Utah, College of Health

2020 PI, NUIP 7960: Special Topics-Doctoral, 1 student, University of Utah, College of Health

2020 PI, NUIP 7305: Adv Cardio Physiology, 0 students, University of Utah, College of Health

2019 PI, NUIP 7970: Dissertation-Doctoral, 1 student, University of Utah, College of Health

2019 PI, NUIP 7970: Dissertation-Doctoral, 0 students, University of Utah, College of Health

2019 PI, NUIP 7970: Dissertation-Doctoral, 1 student, University of Utah, College of Health

2019 PI, NUIP 7305: Adv Cardio Physiology, 7 students, University of Utah, College of Health

2019 Instructor, NUIP 7305: Advanced Cardiovascular Physiology, University of Utah

2018 PI, NUIP 7970: Dissertation-Doctoral, 1 student, University of Utah, College of Health

2018 PI, NUIP 7970: Dissertation-Doctoral, 0 students, University of Utah, College of Health

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #7, University of Utah, Internal Medicine, Case Based Learning #7

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #6, University of Utah, Internal Medicine, Case Based Learning #6

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #6, University of Utah, Internal Medicine, Case Based Learning #6

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #5, University of Utah, Internal Medicine, Case Based Learning #5

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #5, University of Utah, Internal Medicine, Case Based Learning #5

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #4, University of Utah, Internal Medicine, Case Based Learning #4

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #4, University of Utah, Internal Medicine, Case Based Learning #4

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #3, University of Utah, Internal Medicine, Case Based Learning #3

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #2, University of Utah, Internal Medicine, Case Based Learning #2

2016 - 2017 Facilitator, INTMD: Circulation, Respiration, and Regulation - Case Based Learning #1, University of Utah, Internal Medicine, Case Based Learning #1

2010 Invited Lecturer, ESS 6384: Cardiovascular Physiology, University of Utah, Exercise and Sport Science, Title "Role of Caloric Restriction and Mimetics in Longevity and Healthy Aging". (2hr lecture)

- 2006 - 2008 Co-instructor, IPHY 6830: Professional Skills for the Research Scientist, University of Colorado, Integrative Physiology, (1 semester)
- 2006 - 2008 Co-instructor, 4100: Role of Science in Medicine, University of Colorado, Integrative Physiology, Lecture: Vascular measurements and consequences of vascular aging. (2 semesters)
- 2006 - 2008 Co-instructor, 6010: Physiology of Aging, University of Colorado, Integrative Physiology, (2 semesters)
- 2002 Graduate Intern Teaching, Exercise Physiology, Texas A&M University, Health and Kinesiology
- 2000 - 2001 Graduate Teaching Assistant, Human Physiology Laboratory, University of Colorado, Environmental, Population, and Organismic Biology
- 1999 Graduate Teaching Assistant, Sensorimotor Neurophysiology, University of Colorado, Kinesiology and Applied Physiology

Mentoring/Advising

Faculty

- 2018 - Present Advisor/Mentor, Eric Tuday, University of Utah Mentor/Advisor for K08 Aging Large Artery Stiffness microRNAs
- 2018 - Present Advisor/Mentor, Nadia Sutton, University of Michigan Mentor/Advisor for NIA Beeson Award Aging arterial Function
- 2018 - Present Advisor/Mentor, Adam Spivak, University of Utah, Mentor/Advisor for GEMSTAR AGING HIV CVD
- 2015 - 2017 Supervisor, Phil Gates, University of Utah
- 2014 - Present Advisor/Mentor, Tracy Frech, University of Utah, K23 Vasculopathy and SSc

Fellow

- 2018 - Present Advisor/Mentor, Adelola Adeyemo, University of Utah
- 2019 - Present Advisor/Mentor, John Kim, University of Utah
- 2019 - Present Advisor/Mentor, Jisok Lim, University of Utah
- 2017 - 2020 Advisor/Mentor, Tam Phuong, University of Utah
Trainee's Current Career Activities: Research Scientist Genentech
- 2017-2019 Advisor/Mentor, Yu Liu, University of Utah
Trainee's Current Career Activities: Assistant Professor Physician Tonji Hospital Wuhan China
- 2015 - 2019 Advisor/Mentor, Dan Machin, University of Utah
Trainee's Current Career Activities: Assistant Professor Florida State University
- 2015 - 2018 Advisor/Mentor, Dan Trott, University of Utah
Trainee's Current Career Activities: Assistant Professor University of Texas Arlington
- 2015 - 2017 Advisor/Mentor, Matt Holmes, University of Utah
- 2014 - 2015 Supervisor, Sarah Breevort, University of Utah
Trainee's Current Career Activities: Fellow Neurology University of Utah

- 2013 - 2016 Advisor/Mentor, Sugata Harza, University of Utah
Trainee's Current Career Activities: Post Doctoral Fellow
- 2011 - 2017 Advisor/Mentor, Ashley Walker, University of Utah, Mentor
Trainee's Current Career Activities: Assistant Professor University of Oregon
- 2011 - 2012 Advisor/Mentor, Lindsey Corum, University of Utah,
Trainee's Current Career Activities: Biocompatibility Engineer at Bard Access Systems

PhD/Doctorate

- 2017 - Present Advisor/Mentor, Samuel Bloom, University of Utah
- 2010 - 2014 Advisor/Mentor, R. Garrett Morgan, University of Utah, PhD Mentor
Trainee's Current Career Activities: Scientist US Navy: Assistant Professor in the Military and Emergency Medicine Department at the Uniformed Services University

Masters

- 2007 - 2010 Intermediary Mentor, Katherine Magerko, University of Colorado at Boulder,
 Undergraduate / MS combined degree
Trainee's Current Career Activities: MD/PHD Candidate, University of Illinois
- 2005 - 2007 Intermediary Mentor, Lindsey Gano, University of Colorado at Boulder
Trainee's Current Career Activities: Research Associate University of Colorado Health Science Center
- 2005 - 2007 Intermediary Mentor, Kristen Jablonski, University of Colorado at Boulder,
Trainee's Current Career Activities: Assistant Professor, University of Colorado Health Sciences Center

Medical Student

- 2019 Advisor/Mentor, Eric Sorenson, University of Utah
- 2017 Advisor/Mentor, Aidaliz Llorens Bonilla, University of Utah, Medical Student from University of Puerto Rico doing Medical research project at University of Utah
Trainee's Current Career Activities: Medical Student
- 2016 Advisor/Mentor, Sofia Soder, University of Utah, Swedish Medical Student Thesis Mentor, Lund Medical School, Lund Sweden
 Research done at University of Utah
Trainee's Current Career Activities: Medical Student
- 2016 Advisor/Mentor, Hannah Källmark, University of Utah, Swedish Medical Student Thesis Mentor, Lund Medical School, Lund Sweden
 Research done at University of Utah
Trainee's Current Career Activities: Medical Student
- 2016 Advisor/Mentor, Maryana Boulos, University of Utah, University of Utah Medical Student research project
Trainee's Current Career Activities: Medical Student

2012 Advisor/Mentor, Gary Bosshardt, University of Utah, Mentor
Trainee's Current Career Activities: Resident Pediatrics Penn State University Hershey Penn.

Undergraduate

2018 - 2019 Supervisor, Adam Dickson, University of Utah

2016 - 2017 Advisor/Mentor, Janice Lui, University of Utah

2013 - 2016 Advisor/Mentor, Parker Dobson, University of Utah

Trainee's Current Career Activities: Medical Student, Oakland University Rochester Michigan

2013 - 2015 Advisor/Mentor, Matt Meredith, University of Utah

2012 - 2014 Advisor/Mentor, Elizabeth Nielson, University of Utah, Undergraduate Research Mentor

Trainee's Current Career Activities: Law Student (University of Utah)

2011 - 2013 Advisor/Mentor, Cole Gross, University of Utah, Undergraduate Research Mentor

Trainee's Current Career Activities: Medical Student University of Nevada Reno

2005 - 2007 Intermediary Mentor, Casandra Roeca, University of Colorado at Boulder, Honors Thesis

Trainee's Current Career Activities: Physician and Assistant Professor University of Colorado Denver

2005 - 2006 Intermediary Mentor, Nathaniel Motte, University of Colorado at Boulder, Honors Thesis

Trainee's Current Career Activities: Professional Musician

2005 - 2006 Intermediary Mentor, Adam Levy, University of Colorado at Boulder

Trainee's Current Career Activities: Surgeon

Graduate Student Committees

2019- Present Chair, Hossein , University of Utah

2019 - Present Chair, Shelby Hall, University of Utah

2018 - Present Member, Tracy Habermehl, Utah State University

2017 - Present Chair, Samuel Bloom, University of Utah

2017 - Present Member, Torikul Islam, University of Utah

2013 Chair, Richard Morgan, University of Utah

2011 - 2017 Member, Grant Henson, University of Utah

2011 - 2016 Member, Edward David Bell, University of Utah

2010 - 2012 Member, Lindsey Gano, University of Colorado at Boulder

2010 - 2014 Chair, Richard Garrett Morgan, University of Utah

Internal Teaching Experience

- 2017 Department of Internal Medicine Retreat: Navigating and preparing for academic challenges to ensure success
- 2017 In Search of the Secrets of Vascular Aging. Utah Vascular Research Lab Seminar
- 2014 The Emerging Molecular and Cellular Mechanisms of Vascular Dysfunction with Aging, Department of Biochemistry, Research in Progress
- 2014 The Emerging Molecular and Cellular Mechanisms of Vascular Dysfunction with Aging. University of Utah, VAMC GRECC/ Geriatrics, Research in Progress
- 2012 Aging and Arterial Senescence: Putative Role of Telomere Function. University of Utah Center on Aging, Vascular Aging Research Retreat
- 2009 Prevention of Vascular Aging by Caloric Restriction is SIRT-1 responsible? Department of Medicine, Division of Geriatrics, University of Utah, Seminar

PEER-REVIEWED JOURNAL ARTICLES

1. Machin DR, Clifton HL, Wray DW, Frech TM, **Donato AJ** (2022). Tetrahydrobiopterin Administration Augments Exercise-Induced Hyperemia and Endothelial Function in Patients With Systemic Sclerosis. *Front Med (Lausanne)*, 8, 791689.
2. Pierce GL, Coutinho TA, DuBose LE, **Donato AJ** (2021). Is It Good to Have a Stiff Aorta with Aging? Causes and Consequences.(Epub ahead of print). *Physiology (Bethesda)*.
3. Trott DW, Machin DR, Phuong TT, Adeyemo AO, Bloom SI, Bramwell RC, Sorensen ES, Lesniewski LA, **Donato AJ** (2021). T cells mediate cell non-autonomous arterial aging in mice. *J Physiol*, 599, 3973-3991.
4. Trott DW, Islam MT, Buckley DJ, **Donato AJ**, Dutson T, Sorensen ES, Cai J, Gogulamudi VR, Phuong TTT, Lesniewski LA (2021). T lymphocyte depletion ameliorates age-related metabolic impairments in mice. *Geroscience*, 43(3), 1331-1347.
5. Islam MT, Henson GD, Machin DR, Bramwell RC, **Donato AJ**, Lesniewski LA (2020). Aging differentially impacts vasodilation and angiogenesis in arteries from the white and brown adipose tissues. *Exp Gerontol*, 142, 111126.
6. Machin DR, Auduong Y, Gogulamudi VR, Liu Y, Islam MT, Lesniewski LA, **Donato AJ** (2020). Lifelong SIRT-1 overexpression attenuates large artery stiffening with advancing age. *Aging (Albany NY)*, 12(12), 11314-11324.
7. Phuong TTT, Walker AE, Henson GD, Machin DR, Li DY, **Donato AJ**, Lesniewski LA (2019). Deletion of Robo4 prevents high-fat diet-induced adipose artery and systemic metabolic dysfunction. *Microcirculation*, 26(5), e12540.
8. Ait-Aissa K, Blaszk SC, Beutner G, Tsaih SW, Morgan G, Santos JH, Flister MJ, Joyce DL, Camara AKS, Gutterman DD, **Donato AJ**, Porter GA Jr, Beyer AM (2019). Mitochondrial Oxidative Phosphorylation defect in the Heart of Subjects with Coronary Artery Disease. *Sci Rep*, 9 (1), 7623.
9. Yuen LH, Dana S, Liu Y, Bloom SI, Thorsell AG, Neri D, **Donato AJ**, Kireev D, Schüler H, Franzini RM (2019). A Focused DNA-Encoded Chemical Library for the Discovery of Inhibitors of NAD⁺-Dependent Enzymes. *J Am Chem Soc*, 141(13), 5169-5181.
10. Machin DR, Phuong TT, **Donato AJ** (2019). The role of the endothelial glycocalyx in advanced age and cardiovascular disease. *Curr Opin Pharmacol*, 45, 66-71.

11. Walker AE, Kronquist EK, Chinen KT, Reihl KD, Li DY, Lesniewski LA, **Donato AJ** (2019). Cerebral and skeletal muscle feed artery vasoconstrictor responses in a mouse model with greater large elastic artery stiffness. *Exp Physiol*, 104(3), 434-442.
12. Hazra S, Henson GD, Bramwell RC, **Donato AJ**, Lesniewski LA (2019). Impact of high-fat diet on vasoconstrictor reactivity of white and brown adipose tissue resistance arteries. *Am J Physiol Heart Circ Physiol*, 316(3), H485-H494.
13. Walker AE, Breevoort SR, Durrant JR, Liu Y, Machin DR, Dobson PS, Nielson EI, Meza AJ, Islam MT, **Donato AJ**, Lesniewski LA (2019). The pro-atherogenic response to disturbed blood flow is increased by a western diet, but not by old age. *Sci Rep*, 9(1), 2925.
14. Morgan RG, Walker AE, Trott DW, Machin DR, Henson GD, Reihl KD, Cawthon RM, Denchi EL, Liu Y, Bloom SI, Phuong TT, Richardson RS, Lesniewski LA, **Donato AJ** (2019). Induced Trf2 deletion leads to aging vascular phenotype in mice associated with arterial telomere uncapping, senescence signaling, and oxidative stress. *J Mol Cell Cardiol*, 127, 74-82.
15. Liu Y, Bloom SI, **Donato AJ** (2018). The role of senescence, telomere dysfunction and shelterin in vascular aging. *Microcirculation*, 26(2), e12487.
16. Clifton HL, Machin DR, Groot HJ, Frech TM, **Donato AJ**, Richardson RS, Wray DW (2018). Attenuated nitric oxide bioavailability in systemic sclerosis: Evidence from the novel assessment of passive leg movement. *Exp Physiol*, 103(10), 1412-1424.
17. **Donato AJ**, Machin DR, Lesniewski LA (2018). Mechanisms of Dysfunction in the Aging Vasculature and Role in Age-Related Disease. *Circ Res*, 123(7), 825-848.
18. Ungvari Z, Tarantini S, **Donato AJ**, Galvan V, Csiszar A (2018). Mechanisms of Vascular Aging. *Circ Res*, 123(7), 849-867.
19. Machin DR, Bloom SI, Campbell RA, Phuong TTT, Gates PE, Lesniewski LA, Rondina MT, **Donato AJ** (2018). Advanced age results in a diminished endothelial glycocalyx. *Am J Physiol Heart Circ Physiol*, 315(3), H531-H539.
20. Trott DW, Henson GD, Ho MHT, Allison SA, Lesniewski LA, **Donato AJ** (2018). Age-related arterial immune cell infiltration in mice is attenuated by caloric restriction or voluntary exercise. *Exp Gerontol*, 109, 99-107.
21. Morgan RG, **Donato AJ**, Walker AE (2018). Telomere uncapping and vascular aging. *Am J Physiol Heart Circ Physiol*, 315(1), H1-H5.
22. Frech TM, Machin DR, Murtaugh MA, Stoddard GJ, Bloom SI, Phibbs JV, **Donato AJ** (2018). Implications of endothelial shear stress on systemic sclerosis vasculopathy and treatment. *Clin Exp Rheumatol*, 36 Suppl 113(4), 175-182.
23. Machin DR, Gates PE, Vink H, Frech TM, **Donato AJ** (2017). Automated Measurement of Microvascular Function Reveals Dysfunction in Systemic Sclerosis: A Cross-sectional Study. *J Rheumatol*, 44(11), 1603-1611.
24. Rossman MJ, Kaplon RE, Hill SD, McNamara MN, Santos-Parker JR, Pierce GL, Seals DR, **Donato AJ** (2017). Endothelial cell senescence with aging in healthy humans: prevention by habitual exercise and relation to vascular endothelial function. *Am J Physiol Heart Circ Physiol*, 313(5), H890-H895.
25. Simcox J, Geoghegan G, Maschek JA, Bensard CL, Pasquali M, Miao R, Lee S, Jiang L, Huck I, Kershaw EE, **Donato AJ**, Apte U, Longo N, Rutter J, Schreiber R, Zechner R, Cox J, Villanueva CJ (2017). Global Analysis of Plasma Lipids Identifies Liver-Derived Acylcarnitines as a Fuel Source for Brown Fat Thermogenesis. *Cell Metab*, 26(3), 509-522.e6.

26. Machin DR, Clifton HL, Richardson RS, Wray DW, **Donato AJ**, Frech TM (2017). Acute oral tetrahydrobiopterin administration ameliorates endothelial dysfunction in systemic sclerosis. *Clin Exp Rheumatol*, 35 Suppl 106(4), 167-172.
27. Trott DW, Lesniewski LA, **Donato AJ** (2017). Selected life-extending interventions reduce arterial CXCL10 and macrophage colony-stimulating factor in aged mouse arteries. *Cytokine*, 96, 102-106.
28. Lesniewski LA, Seals DR, Walker AE, Henson GD, Blimline MW, Trott DW, Bosshardt GC, LaRocca TJ, Lawson BR, Zigler MC, **Donato AJ** (2017). Dietary rapamycin supplementation reverses age-related vascular dysfunction and oxidative stress, while modulating nutrient-sensing, cell cycle, and senescence pathways. *Aging Cell*, 16(1), 17-26.
29. Morgan RG, Venturelli M, Gross C, Tarperi C, Schena F, Reggiani C, Naro F, Pedrinolla A, Monaco L, Richardson RS, **Donato AJ** (2017). Age-Associated ALU Element Instability in White Blood Cells Is Linked to Lower Survival in Elderly Adults: A Preliminary Cohort Study. *PLoS One*, 12(1), e0169628.
30. Bell ED, **Donato AJ**, Monson KL (2017). Cerebrovascular dysfunction following subfailure axial stretch. *J Mech Behav Biomed Mater*, 65, 627-633.
31. Machin DR, Clifton HL, Garten RS, Gifford JR, Richardson RS, Wray DW, Frech TM, **Donato AJ** (2016). Exercise-induced brachial artery blood flow and vascular function is impaired in systemic sclerosis. *Am J Physiol Heart Circ Physiol*, 311(6), H1375-H1381.
32. Machin DR, Leary ME, He Y, Shiu YT, Tanaka H, **Donato AJ** (2016). Ultrasound Assessment of Flow-Mediated Dilation of the Brachial and Superficial Femoral Arteries in Rats. LID - 10.3791/54762 [doi]. *J Vis Exp*, (117).
33. Hazra S, Henson GD, Morgan RG, Breevoort SR, Ives SJ, Richardson RS, **Donato AJ**, Lesniewski LA (2016). Experimental reduction of miR-92a mimics arterial aging. *Exp Gerontol*, 83, 165-70.
34. Beyer AM, Freed JK, Durand MJ, Riedel M, Ait-Aissa K, Green P, Hockenberry JC, Morgan RG, **Donato AJ**, Peleg R, Gasparri M, Rokkas CK, Santos JH, Priel E, Gutterman DD (2016). Critical Role for Telomerase in the Mechanism of Flow-Mediated Dilation in the Human Microcirculation. *Circ Res*, 118(5), 856-66.
35. Trinity JD, Barrett-O'Keefe Z, Ives SJ, Morgan G, Rossman MJ, **Donato AJ**, Runnels S, Morgan DE, Gmelch BS, Bledsoe AD, Richardson RS, Wray DW (2016). Endogenous endothelin-1 and femoral artery shear rate: impact of age and implications for atherosclerosis. *J Hypertens*, 34(2), 266-73.
36. Walker AE, Morgan RG, Ives SJ, Cawthon RM, Andtbacka RH, Noyes D, Lesniewski LA, Richardson RS, **Donato AJ** (2016). Age-related arterial telomere uncapping and senescence is greater in women compared with men. *Exp Gerontol*, 73, 65-71.
37. Jablonski KL, **Donato AJ**, Fleenor BS, Nowlan MJ, Walker AE, Kaplon RE, Ballak DB, Seals DR (2015). Reduced large elastic artery stiffness with regular aerobic exercise in middle-aged and older adults: potential role of suppressed nuclear factor kappa B signalling. *J Hypertens*, 33(12), 2477-82.
38. Gibson CC, Davis CT, Zhu W, Bowman-Kirigin JA, Walker AE, Tai Z, Thomas KR, **Donato AJ**, Lesniewski LA, Li DY (2015). Dietary Vitamin D and Its Metabolites Non-Genomically Stabilize the Endothelium. *PLoS One*, 10(10), e0140370.
39. Frech T, Walker AE, Barrett-O'Keefe Z, Hopkins PN, Richardson RS, Wray DW, **Donato AJ** (2015). Systemic sclerosis induces pronounced peripheral vascular dysfunction characterized by blunted peripheral vasoreactivity and endothelial dysfunction. *Clin Rheumatol*, 34(5), 905-13.

40. Barrett-O'Keefe Z, Ives SJ, Trinity JD, Morgan G, Rossman MJ, **Donato AJ**, Runnels S, Morgan DE, Gmelch BS, Bledsoe AD, Richardson RS, Wray DW (2015). Endothelin-A-mediated vasoconstriction during exercise with advancing age. *J Gerontol A Biol Sci Med Sci*, 70(5), 554-65.
41. Walker AE, Henson GD, Reihl KD, Morgan RG, Dobson PS, Nielson EI, Ling J, Mecham RP, Li DY, Lesniewski LA, **Donato AJ** (2015). Greater impairments in cerebral artery compared with skeletal muscle feed artery endothelial function in a mouse model of increased large artery stiffness. *J Physiol*, 593(8), 1931-43.
42. Ghosh P, Mora Solis FR, Dominguez JM 2nd, Spier SA, **Donato AJ**, Delp MD, Muller-Delp JM (2015). Exercise training reverses aging-induced impairment of myogenic constriction in skeletal muscle arterioles. *J Appl Physiol (1985)*, 118(7), 904-11.
43. Gibson CC, Zhu W, Davis CT, Bowman-Kirigin JA, Chan AC, Ling J, Walker AE, Goitre L, Delle Monache S, Retta SF, Shiu YT, Grossmann AH, Thomas KR, **Donato AJ**, Lesniewski LA, Whitehead KJ, Li DY (2015). Strategy for identifying repurposed drugs for the treatment of cerebral cavernous malformation. *Circulation*, 131(3), 289-99.
44. Tajbakhsh S, Aliakbari K, Hussey DJ, Lower KM, **Donato AJ**, Sokoya EM (2015). Differential Telomere Shortening in Blood versus Arteries in an Animal Model of Type 2 Diabetes. *J Diabetes Res*, 2015, 153829.
45. Gano LB, **Donato AJ**, Pasha HM, Hearon CM Jr, Sindler AL, Seals DR (2014). The SIRT1 activator SRT1720 reverses vascular endothelial dysfunction, excessive superoxide production, and inflammation with aging in mice. *Am J Physiol Heart Circ Physiol*, 307(12), H1754-63.
46. **Donato AJ**, Lesniewski LA, Stuart D, Walker AE, Henson G, Sorensen L, Li D, Kohan DE (2014). Smooth muscle specific disruption of the endothelin-A receptor in mice reduces arterial pressure, and vascular reactivity and affects vascular development. *Life Sci*, 118(2), 238-43.
47. **Donato AJ**, Henson GD, Hart CR, Layec G, Trinity JD, Bramwell RC, Enz RA, Morgan RG, Reihl KD, Hazra S, Walker AE, Richardson RS, Lesniewski LA (2014). The impact of ageing on adipose structure, function and vasculature in the B6D2F1 mouse: evidence of significant multisystem dysfunction. *J Physiol*, 592(18), 4083-96.
48. Venturelli M, Morgan GR, **Donato AJ**, Reese V, Bottura R, Tarperi C, Milanese C, Schena F, Reggiani C, Naro F, Cawthon RM, Richardson RS (2014). Cellular aging of skeletal muscle: telomeric and free radical evidence that physical inactivity is responsible and not age. *Clin Sci (Lond)*, 127(6), 415-21.
49. Morgan RG, Ives SJ, Walker AE, Cawthon RM, Andtbacka RH, Noyes D, Lesniewski LA, Richardson RS, **Donato AJ** (2014). Role of arterial telomere dysfunction in hypertension: relative contributions of telomere shortening and telomere uncapping. *J Hypertens*, 32(6), 1293-9.
50. Walker AE, Henson GD, Reihl KD, Nielson EI, Morgan RG, Lesniewski LA, **Donato AJ** (2014). Beneficial effects of lifelong caloric restriction on endothelial function are greater in conduit arteries compared to cerebral resistance arteries. *Age (Dordr)*, 36(2), 559-69.
51. Henson GD, Walker AE, Reihl KD, **Donato AJ**, Lesniewski LA (2014). Dichotomous mechanisms of aortic stiffening in high-fat diet fed young and old B6D2F1 mice. *Physiol Rep*, 2(3), e00268.
52. Lesniewski LA, Zigler ML, Durrant JR, Nowlan MJ, Folian BJ, **Donato AJ**, Seals DR (2013). Aging compounds western diet-associated large artery endothelial dysfunction in mice: prevention by voluntary aerobic exercise. *Exp Gerontol*, 48(11), 1218-25.

53. **Donato AJ**, Walker AE, Magerko KA, Bramwell RC, Black AD, Henson GD, Lawson BR, Lesniewski LA, Seals DR (2013). Life-long caloric restriction reduces oxidative stress and preserves nitric oxide bioavailability and function in arteries of old mice. *Aging Cell*, 12(5), 772-83.
54. Morgan RG, Ives SJ, Lesniewski LA, Cawthon RM, Andtbacka RH, Noyes RD, Richardson RS, **Donato AJ** (2013). Age-related telomere uncapping is associated with cellular senescence and inflammation independent of telomere shortening in human arteries. *Am J Physiol Heart Circ Physiol*, 305(2), H251-8.
55. Barrett-O'Keefe Z, Ives SJ, Trinity JD, Morgan G, Rossman MJ, **Donato AJ**, Runnels S, Morgan DE, Gmelch BS, Bledsoe AD, Richardson RS, Wray DW (2013). Taming the "sleeping giant": the role of endothelin-1 in the regulation of skeletal muscle blood flow and arterial blood pressure during exercise. *Am J Physiol Heart Circ Physiol*, 304(1), H162-9.
56. Park Y, Prisby RD, Behnke BJ, Dominguez JM 2nd, Lesniewski LA, **Donato AJ**, Muller-Delp J, Delp MD (2012). Effects of aging, TNF-alpha, and exercise training on angiotensin II-induced vasoconstriction of rat skeletal muscle arterioles. *J Appl Physiol (1985)*, 113(7), 1091-100.
57. Ives SJ, Andtbacka RH, Park SY, **Donato AJ**, Gifford JR, Noyes RD, Lesniewski LA, Richardson RS (2012). Human skeletal muscle feed arteries: evidence of regulatory potential. *Acta Physiol (Oxf)*, 206(2), 135-41.
58. **Donato AJ**, Henson GD, Morgan RG, Enz RA, Walker AE, Lesniewski LA (2012). TNF- α impairs endothelial function in adipose tissue resistance arteries of mice with diet-induced obesity. *Am J Physiol Heart Circ Physiol*, 303(6), H672-9.
59. Lesniewski LA, Zigler MC, Durrant JR, **Donato AJ**, Seals DR (2012). Sustained activation of AMPK ameliorates age-associated vascular endothelial dysfunction via a nitric oxide-independent mechanism. *Mech Ageing Dev*, 133(5), 368-71.
60. Rippe C, Blimline M, Magerko KA, Lawson BR, LaRocca TJ, **Donato AJ**, Seals DR (2012). MicroRNA changes in human arterial endothelial cells with senescence: relation to apoptosis, eNOS and inflammation. *Exp Gerontol*, 47(1), 45-51.
61. Pierce GL, **Donato AJ**, LaRocca TJ, Eskurza I, Silver AE, Seals DR (2011). Habitually exercising older men do not demonstrate age-associated vascular endothelial oxidative stress. *Aging Cell*, 10 (6), 1032-7.
62. **Donato AJ**, Magerko KA, Lawson BR, Durrant JR, Lesniewski LA, Seals DR (2011). SIRT-1 and vascular endothelial dysfunction with ageing in mice and humans. *J Physiol*, 589(Pt 18), 4545-54.
63. Lesniewski LA, Durrant JR, Connell ML, Henson GD, Black AD, **Donato AJ**, Seals DR (2011). Aerobic exercise reverses arterial inflammation with aging in mice. *Am J Physiol Heart Circ Physiol*, 301(3), H1025-32.
64. Gano LB, **Donato AJ**, Pierce GL, Pasha HM, Magerko KA, Roeca C, Seals DR (2011). Increased proinflammatory and oxidant gene expression in circulating mononuclear cells in older adults: amelioration by habitual exercise. *Physiol Genomics*, 43(14), 895-902.
65. Wray DW, Nishiyama SK, **Donato AJ**, Carrier P, Bailey DM, Uberoi A, Richardson RS (2011). The paradox of oxidative stress and exercise with advancing age. *Exerc Sport Sci Rev*, 39(2), 68-76.
66. Lesniewski LA, Durrant JR, Connell ML, Folian BJ, **Donato AJ**, Seals DR (2011). Salicylate treatment improves age-associated vascular endothelial dysfunction: potential role of nuclear factor kappaB and forkhead Box O phosphorylation. *J Gerontol A Biol Sci Med Sci*, 66(4), 409-18.

67. Edwards AG, **Donato AJ**, Lesniewski LA, Gioscia RA, Seals DR, Moore RL (2010). Life-long caloric restriction elicits pronounced protection of the aged myocardium: a role for AMPK. *Mech Ageing Dev*, 131(11-12), 739-42.
68. Wray DW, Nishiyama SK, **Donato AJ**, Richardson RS (2010). Human vascular aging: limb-specific lessons. *Exerc Sport Sci Rev*, 38(4), 177-85.
69. Rippe C, Lesniewski L, Connell M, LaRocca T, **Donato A**, Seals D (2010). Short-term calorie restriction reverses vascular endothelial dysfunction in old mice by increasing nitric oxide and reducing oxidative stress. *Aging Cell*, 9(3), 304-12.
70. Walker AE, Seibert SM, **Donato AJ**, Pierce GL, Seals DR (2010). Vascular endothelial function is related to white blood cell count and myeloperoxidase among healthy middle-aged and older adults. *Hypertension*, 55(2), 363-9.
71. **Donato AJ**, Uberoi A, Bailey DM, Wray DW, Richardson RS (2010). Exercise-induced brachial artery vasodilation: effects of antioxidants and exercise training in elderly men. *Am J Physiol Heart Circ Physiol*, 298(2), H671-8.
72. Silver AE, Christou DD, **Donato AJ**, Beske SD, Moreau KL, Magerko KA, Seals DR (2010). Protein expression in vascular endothelial cells obtained from human peripheral arteries and veins. *J Vasc Res*, 47(1), 1-8.
73. **Donato AJ**, Pierce GL, Lesniewski LA, Seals DR (2009). Role of NFkappaB in age-related vascular endothelial dysfunction in humans. *Aging (Albany NY)*, 1(8), 678-80.
74. Durrant JR, Seals DR, Connell ML, Russell MJ, Lawson BR, Folian BJ, **Donato AJ**, Lesniewski LA (2009). Voluntary wheel running restores endothelial function in conduit arteries of old mice: direct evidence for reduced oxidative stress, increased superoxide dismutase activity and down-regulation of NADPH oxidase. *J Physiol*, 587(Pt 13), 3271-85.
75. **Donato AJ**, Gano LB, Eskurza I, Silver AE, Gates PE, Jablonski K, Seals DR (2009). Vascular endothelial dysfunction with aging: endothelin-1 and endothelial nitric oxide synthase. *Am J Physiol Heart Circ Physiol*, 297(1), H425-32.
76. Lesniewski LA, Connell ML, Durrant JR, Folian BJ, Anderson MC, **Donato AJ**, Seals DR (2009). B6D2F1 Mice are a suitable model of oxidative stress-mediated impaired endothelium-dependent dilation with aging. *J Gerontol A Biol Sci Med Sci*, 64(1), 9-20.
77. **Donato AJ**, Black AD, Jablonski KL, Gano LB, Seals DR (2008). Aging is associated with greater nuclear NF kappa B, reduced I kappa B alpha, and increased expression of proinflammatory cytokines in vascular endothelial cells of healthy humans. *Aging Cell*, 7(6), 805-12.
78. **Donato AJ**, Eskurza I, Jablonski KL, Gano LB, Pierce GL, Seals DR (2008). Cytochrome P-450 2C9 signaling does not contribute to age-associated vascular endothelial dysfunction in humans. *J Appl Physiol (1985)*, 105(4), 1359-63.
79. Pierce GL, Beske SD, Lawson BR, Southall KL, Benay FJ, **Donato AJ**, Seals DR (2008). Weight loss alone improves conduit and resistance artery endothelial function in young and older overweight/obese adults. *Hypertension*, 52(1), 72-9.
80. Colleran PN, Behnke BJ, Wilkerson MK, **Donato AJ**, Delp MD (2008). Simulated microgravity alters rat mesenteric artery vasoconstrictor dynamics through an intracellular Ca(2+) release mechanism. *Am J Physiol Regul Integr Comp Physiol*, 294(5), R1577-85.
81. Lesniewski LA, **Donato AJ**, Behnke BJ, Woodman CR, Laughlin MH, Ray CA, Delp MD (2008). Decreased NO signaling leads to enhanced vasoconstrictor responsiveness in skeletal muscle arterioles of the ZDF rat prior to overt diabetes and hypertension. *Am J Physiol Heart Circ Physiol*, 294(4), H1840-50.

82. Jablonski KL, Seals DR, Eskurza I, Monahan KD, **Donato AJ** (2007). High-dose ascorbic acid infusion abolishes chronic vasoconstriction and restores resting leg blood flow in healthy older men. *J Appl Physiol* (1985), 103(5), 1715-21.
83. Wray DW, Nishiyama SK, **Donato AJ**, Sander M, Wagner PD, Richardson RS (2007). Endothelin-1-mediated vasoconstriction at rest and during dynamic exercise in healthy humans. *Am J Physiol Heart Circ Physiol*, 293(4), H2550-6.
84. Prisby RD, Ramsey MW, Behnke BJ, Dominguez JM 2nd, **Donato AJ**, Allen MR, Delp MD (2007). Aging reduces skeletal blood flow, endothelium-dependent vasodilation, and NO bioavailability in rats. *J Bone Miner Res*, 22(8), 1280-8.
85. **Donato AJ** (2007). Ageing and vascular adrenoceptor desensitization: too little, too late? *J Physiol*, 582(Pt 1), 9-10.
86. **Donato AJ**, Eskurza I, Silver AE, Levy AS, Pierce GL, Gates PE, Seals DR (2007). Direct evidence of endothelial oxidative stress with aging in humans: relation to impaired endothelium-dependent dilation and upregulation of nuclear factor-kappaB. *Circ Res*, 100(11), 1659-66.
87. Richardson RS, **Donato AJ**, Uberoi A, Wray DW, Lawrenson L, Nishiyama S, Bailey DM (2007). Exercise-induced brachial artery vasodilation: role of free radicals. *Am J Physiol Heart Circ Physiol*, 292(3), H1516-22.
88. **Donato AJ**, Lesniewski LA, Delp MD (2007). Ageing and exercise training alter adrenergic vasomotor responses of rat skeletal muscle arterioles. *J Physiol*, 579(Pt 1), 115-25.
89. Silver AE, Beske SD, Christou DD, **Donato AJ**, Moreau KL, Eskurza I, Gates PE, Seals DR (2007). Overweight and obese humans demonstrate increased vascular endothelial NAD(P)H oxidase-p47(phox) expression and evidence of endothelial oxidative stress. *Circulation*, 115(5), 627-37.
90. Wray DW, **Donato AJ**, Nishiyama SK, Richardson RS (2007). Acute sympathetic vasoconstriction at rest and during dynamic exercise in cyclists and sedentary humans. *J Appl Physiol* (1985), 102 (2), 704-12.
91. Behnke BJ, Prisby RD, Lesniewski LA, **Donato AJ**, Olin HM, Delp MD (2006). Influence of ageing and physical activity on vascular morphology in rat skeletal muscle. *J Physiol*, 575(Pt 2), 617-26.
92. **Donato AJ**, Uberoi A, Wray DW, Nishiyama S, Lawrenson L, Richardson RS (2006). Differential effects of aging on limb blood flow in humans. *Am J Physiol Heart Circ Physiol*, 290(1), H272-8.
93. Wray DW, **Donato AJ**, Uberoi A, Merlone JP, Richardson RS (2005). Onset exercise hyperaemia in humans: partitioning the contributors. *J Physiol*, 565(Pt 3), 1053-60.
94. **Donato AJ**, Lesniewski LA, Delp MD (2005). The effects of aging and exercise training on endothelin-1 vasoconstrictor responses in rat skeletal muscle arterioles. *Cardiovasc Res*, 66(2), 393-401.
95. Spier SA, Delp MD, Meininger CJ, **Donato AJ**, Ramsey MW, Muller-Delp JM (2004). Effects of ageing and exercise training on endothelium-dependent vasodilatation and structure of rat skeletal muscle arterioles. *J Physiol*, 556(Pt 3), 947-58.
96. Moreau KL, **Donato AJ**, Seals DR, DeSouza CA, Tanaka H (2003). Regular exercise, hormone replacement therapy and the age-related decline in carotid arterial compliance in healthy women. *Cardiovasc Res*, 57(3), 861-8.

97. Moreau KL, **Donato AJ**, Tanaka H, Jones PP, Gates PE, Seals DR (2003). Basal leg blood flow in healthy women is related to age and hormone replacement therapy status. *J Physiol*, 547(Pt 1), 309-16.
98. **Donato AJ**, Tench K, Glueck DH, Seals DR, Eskurza I, Tanaka H (2003). Declines in physiological functional capacity with age: a longitudinal study in peak swimming performance. *J Appl Physiol (1985)*, 94(2), 764-9.
99. Miyachi M, **Donato AJ**, Yamamoto K, Takahashi K, Gates PE, Moreau KL, Tanaka H (2003). Greater age-related reductions in central arterial compliance in resistance-trained men. *Hypertension*, 41(1), 130-5.
100. Bell C, Monahan KD, **Donato AJ**, Hunt BE, Seals DR, Beck KC (2003). Use of acetylene breathing to determine cardiac output in young and older adults. *Med Sci Sports Exerc*, 35(1), 58-64.
101. Moreau KL, **Donato AJ**, Seals DR, Dinunno FA, Blackett SD, Hoetzer GL, Desouza CA, Tanaka H (2002). Arterial intima-media thickness: site-specific associations with HRT and habitual exercise. *Am J Physiol Heart Circ Physiol*, 283(4), H1409-17.
102. Eskurza I, **Donato AJ**, Moreau KL, Seals DR, Tanaka H (2002). Changes in maximal aerobic capacity with age in endurance-trained women: 7-yr follow-up. *J Appl Physiol (1985)*, 92(6), 2303-8.

REVIEW ARTICLES

1. **Donato AJ**, Morgan RG, Walker AE, Lesniewski LA (2015). Cellular and molecular biology of aging endothelial cells. [Review]. *J Mol Cell Cardiol*, 89, (Pt B), 122-35.
2. Seals DR, Jablonski KL, **Donato AJ** (2011). Aging and vascular endothelial function in humans. [Review]. *Clin Sci (Lond)*, 120, (9), 357-75.
3. Seals DR, Desouza CA, **Donato AJ**, Tanaka H (2008). Habitual exercise and arterial aging. [Review]. *J Appl Physiol (1985)*, 105, (4), 1323-32.

CONFERENCE PROCEEDINGS

1. Gibson CC, Mleynek TM, McCullaugh JP, Shui YY, Lesniewski LA, **Donato AJ**, Whitehead KJ, Li DY (2011). CCM2 Regulates Superoxide and Nitric Oxide in the Endothelium. *Proceedings 7th Annual Angioma Alliance Pathophysiology Workshop..*
2. Gano LB, **Donato AJ**, Pasha HM, Hearon Jr. CM, Seals, DR (2012). SRT1720 Ameliorates Age-Related Endothelial Dysfunction: Relation to Regulators of Mitochondrial Function and Antioxidant Enzymes. *KeystoneSymposia Conference: Sirtuins in Metabolism, Aging and Disease..*

ADDITIONAL PUBLICATIONS

Editorials

1. Pierce GL, **Donato AJ** (2009). Will standardization of brachial artery shear stimulus make fmd ready for clinical "prime-time"? *J Appl Physiol (1985)*, 107(4), 1365; author reply 1366.

Letters

1. **Donato AJ**, Edwards AG (2011). What for nature, and who to nurture? [Letter to the editor]. *J Appl Physiol (1985)*, 110(1), 283; discussion 294.

2. Seals DR, **Donato AJ**, Pierce GL, Walker AE (2007). Commentary on Viewpoint "Human experimentation: no accurate, quantitative data?". [Letter to the editor]. *J Appl Physiol* (1985), 102 (3), 1294.

ORAL PRESENTATIONS

Meeting Presentations

International

- 2021 Novel Strategies to Prevent Vascular Aging Symposia, American Heart Association, "Exercise to Prevent Vascular Aging"
- 2017 Age-related Arterial Senescence and Telomere Dysfunction: Relation to Endothelial Dysfunction. Australia New Zealand Microcirculation Society and Australia Vascular Biology Society Meeting. Session: Endothelial Cell Biology
- 2014 "Implications of sustained DNA damage signaling due to telomere uncapping in old hypertensive arteries" National American Heart Association Meeting, Session: Novel insights into vasodilation in health and disease: What can human vasculature teach us. Chicago, Illinois
- 2013 Vascular Aging: Mechanisms of Prevention by Caloric Restriction, SIRT-1 and AMPK Activation or mTOR inhibition. Australia Vascular Biology Society Meeting, Session: Oxidative Stress, cardiovascular disease and ageing Barossa Valley South Australia, Australia
- 2011 "Smaller cerebral arteries have greater age-related endothelial dysfunction and a blunted improvement due to caloric restriction" Australia New Zealand Microcirculation Meeting, Session: Pathology of the Cerebral Microvasculature
- 2010 "Chronic Treatment with SIRT1 Activator SRT1720 Ameliorates Age-Associated Vascular Endothelial Dysfunction in B6D2F1 Mice" National American Heart Association Meeting, Session: Endothelium, Vascular Tone and Nitric Oxide, Chicago Illinois
- 2007 Age-Associated Reductions in Endothelium-Dependent Dilatation in Humans are Related to Increases in Vascular Endothelial Protein Expression of Endothelin-1, Vascular Supply During Aging Symposia, Experimental Biology

National

- 2021 Section: Novel Mechanisms and Therapeutic Targets for Vascular Aging; Meeting Experimental Biology 2021 Title "Arterial Senescence and Telomere Dysfunction: Implications for Arterial Aging"
- 2019 Arterial Senescence and Telomere Uncapping: Implications for Arterial Aging. North American Artery meeting CHRONOLOGICAL VS. VASCULAR AGING: BIOLOGICAL, CLINICAL AND POPULATION IMPLICATIONS section. May 2019
- 2017 Healthy aging in the human vasculature contributions of external stressors on endothelial function. Symposium: Vasodilation in human microvessels: from bed to bench and back, Translational Physiology Interest Group, American Physiological Society, Chicago, IL

2015 The Emerging Molecular and Cellular Mechanisms of Vascular Dysfunction with Aging. 29th Annual Update in Physical Medicine and Rehabilitation Conference, Park City, Utah

Local/Regional

2019 Department of Internal Medicine Grand Rounds University of Utah "Can established anti-aging interventions prevent large artery stiffening?"

2017 Implications of vascular aging on cardiovascular disease risk. Rocky Mountain Geriatrics Conference, Snowbird, Utah

2010 Mechanism of Vascular Aging: How Small Changes Lead to Big Problems. Rocky Mountain Geriatrics Conference, Vascular Aging Symposium, Park City, Utah

Invited/Visiting Professor Presentations

International

2015 "Telomere uncapping causes cellular senescence and inflammation in arteries: implications for arterial aging and hypertension" First International Medical Science Summit of the Tongji Hospital Wuhan, China

2013 Telomere uncapping causes cellular senescence and inflammation in arteries: implications for arterial aging. Flinders University, Center of Neuroscience, Seminar Adelaide South Australia, Australia

2011 "Caloric restriction and habitual exercise reverse age-related cerebrovascular endothelial dysfunction with advancing age" Molecular Targets and Mechanisms of Aging, Target Meeting, Online Conference.

2009 Cellular Mechanisms of Vascular Aging: Role of NFkB" Vascular Aging and Disease: from Cells to Human, International Symposium , Daegu, South Korea.

2009 "Role of Oxidative Stress in Age-Related Endothelial Dysfunction: Is Eating Less the Answer?" University of Exeter, United Kingdom, , Seminar

National

2019 In search of the secrets of vascular aging: Insights and perspectives from a career in translational research. University of Michigan Research Education Core (REC) Retreat

2019 Telomere uncapping induces cellular senescence and inflammation in arteries: implications for arterial aging and hypertension. University of Michigan, Michigan Biology of Cardiovascular Aging (M-BoCA)

2019 Arterial Senescence, DNA damage and Telomere Uncapping: Implications for Arterial Aging. North American Artery meeting CHRONOLOGICAL VS. VASCULAR AGING: BIOLOGICAL, CLINICAL AND POPULATION IMPLICATIONS section. May 2019

2017 Arterial Senescence and Telomere Uncapping: Implications for Arterial Aging. University of Illinois at Chicago, Department of Kinesiology and Nutrition.

2016 Telomere uncapping induces cellular senescence and inflammation in arteries: implications for arterial aging and hypertension. Tulane University, Department of Pharmacology

- 2013 Vascular Aging: Mechanisms of Prevention by Caloric Restriction, and efficacy of Caloric Restriction Mimetics. University of Missouri, Department of Pharmacology and Physiology, Seminar
- 2013 Telomere uncapping causes cellular senescence and inflammation in arteries: implications for arterial aging. Colorado State University, Department of Exercise Science, Seminar
- 2012 "Mechanisms of Caloric Restriction and Mimetic Vasoprotection in Old Arteries" National Institute on Aging, Sixth Annual Division of Aging Biology New Investigators Forum, Bethesda, MD
- 2010 "Prevention of Vascular Aging by Caloric Restriction is SIRT-1 responsible?" Department of Human Physiology, University of Oregon, Seminar
- 2009 "Can Caloric Restriction Prevent Vascular Endothelial Aging?" Department of Medicine, University of Wisconsin at Madison, Seminar
- 2008 Role of Oxidative Stress in Age-Related Endothelial Dysfunction, Mayo Clinic Arizona, Department of Medicine, Seminar
- 2008 Cellular Mechanisms of Vascular Aging: The Small Things Add Up! Colorado State University, Department of Exercise Science, Seminar
- 2007 Vascular Aging: A Roadblock to the Fountain of Youth, University of Arizona, Department of Medicine, Division of Physiology, Seminar
- 2006 Endothelial Adrenoreceptor Function: The Effects of Aging and Exercise Training. University of Florida, Division of Physiology, Symposium on Vascular Biology

Local/Regional

- 2022 University of Utah CVRTI February 2022 "Arterial Senescence and Telomere Dysfunction: Implications for Arterial Aging"
- 2012 "Increased TRF2 binding likely limits telomere uncapping in older human arteries despite age-related telomere attrition." VA Medical Center GRECC Research Conference
- 2011 "Vascular Aging: Mechanisms of Prevention by Caloric Restriction, SIRT-1 and mTOR" Division of Hypertension and Nephrology, University of Utah, Seminar
- 2009 "Can Caloric Restriction Prevent Vascular Endothelial Aging?" University of Colorado at Boulder, Department of Integrative Physiology, Seminar
- 2007 "Impact of Vascular Aging", Optimist International meeting Boulder, Colorado.
- 2004 "Aging and Arteriolar Vascular Reactivity: Effects of Exercise Training." University of California at San Diego School of Medicine, Division of Physiology, Seminar

INTELLECTUAL PROPERTY

Patents

- 04/01/2016 Anthony Donato, Tracy Frech (2016). Methods of Treating Peripheral Vascular Diseases, Including Systemic Sclerosis Vasculopathy. United States
- 06/16/2015 Anthony Donato, Christopher Gibson, Dean Li (2013). Methods of Treating and Preventing Vascular Instability Diseases.

