

Curriculum Vitae

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

07/16/2010 - 06/30/2014	Adjunct Assistant Professor
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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 - 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
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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	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)
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Grant Review Committee/Study Section

2019 - Present	Ad hoc reviewer-British Heart Foundation
2021	Temporary Chair, Aging Systems Geriatrics
2019 - 2023	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
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UNIVERSITY COMMUNITY ACTIVITIES

University Level

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

2020 - Present	Advisory Chair, Internal Medicine, Tenure Advisory Committee. Evaluate and make RTP recommendations to the Department of Medicine
2016 - 2019	Member, Internal Medicine, Tenure Advisory Committee

Division Level

2015 - Present	Co-Director, Geriatrics, Translational Vascular Physiology Lab
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SERVICE AT AFFILIATED INSTITUTIONS

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

R01 (AG077751) “Integrative Mechanisms of Vascular Aging”

09/01/22 - 08/30/27

Role Co-PI

The proposed studies will evaluate the molecular mechanisms of HAS2 and the glycocalyx in vascular aging.

R21/R33 (AG074498) “Improving healthspan through discovery of potent NAMPT activators from a DNA-encoded library”

Role PI

The aims of this study are to utilize DNA encoded libraries to find novel NAMPT activators and translate them to in vivo use.

Past Grants

11/15/18 - 02/15/20

TVP Service Contract II

Principal Investigator(s): Anthony J. Donato

Direct Costs: \$338,155 Total Costs: \$426,074.39

Recursion Pharmaceuticals Llc

Role: PI

09/30/18 - 05/31/19

Identification Of Senolytics

Principal Investigator(s): Anthony J. Donato

	Direct Costs: \$129,550 Total Costs: \$163,233 Recursion Pharmaceuticals Llc Role: <u>PI</u>
08/15/18 - 07/31/19	K99/R00 Machin, Role of Hyaluronan in Age-Related Vascular and Skeletal Muscle Dysfunction Direct Costs: \$107,770 Total Costs: \$116,392 NIH Role: <u>Mentor</u>
07/01/16 - 06/30/21	K23 Frech Systemic Sclerosis (SSc) Vasculopathy: Improved Clinical Monitoring and Treatment National Institute of Arthritis and Musculoskeletal and Skin Diseases Role: <u>Mentor</u>
10/01/15 - 09/30/19	VA Merit Systemic sclerosis (SSc) vasculopathy: Improved clinical monitoring and treatment U.S. Veterans Administration Role: <u>Co-Investigator</u>
09/01/15 - 08/31/19	Pathophysiology of a Genetic Vascular Disease U.S. Veterans Administration Role: <u>Co-Investigator</u>
07/01/15 - 08/31/19	Nitric Oxide Coupling And Bh4 Principal Investigator(s): Anthony J. Donato; Anthony Donato Direct Costs: \$544,215 Total Costs: \$590,474 Flight Attendant Medical Research Inst Role: <u>PI</u>
09/01/14 - 08/31/16	VA Office of Rural Health Improving Health Care in Veterans with Rheumatic and Vascular Disease U.S. Department of Veterans Affairs Role: <u>Co-Investigator</u>
04/01/14 - 03/31/19	K02 - Amelioration of aged endothelial dysfunction by NAMPT and caloric restriction Principal Investigator(s): Anthony J. Donato Direct Costs: \$516,910 Total Costs: \$558,265 NIA Role: <u>PI</u>
12/01/13 - 11/30/19	K01 Walker Novel mechanisms for cerebral artery dysfunction with aging Direct Costs: \$431,748 Total Costs: \$471,028 National Institutes of Health Role: <u>Mentor</u>
09/01/13 - 05/31/16	R21 Reversing Arterial Aging via mTOR Inhibition: AMPK Activation as a Rapalog Principal Investigator(s): Anthony J. Donato Direct Costs: \$275,000 Total Costs: \$409,750 NIA Role: <u>Co-PI</u>
11/01/12 - 10/31/15	Sirtuin 1: a new target for obesity-induced cerebral endothelial dysfunction Principal Investigator(s): Elke Sokoya National Health and Medical Research Council of Australia

Role: Co-Investigator

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

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

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

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

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

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: PI

03/01/19 - 02/29/20 Novel Therapeutics for CCM
Principal Investigator(s): Anthony J. Donato
Recursion Pharmaceuticals, Inc.
Role: PI

11/16/17 - 11/15/18 TVP Service Contract Testing CCM Compounds
Principal Investigator(s): Anthony J. Donato
Recursion Pharmaceuticals, Inc.
Role: PI

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
2018 - Present	Large Artery Stiffness microRNAs
2018 - Present	Advisor/Mentor, Nadia Sutton, University of Michigan Mentor/Advisor for NIA Beeson Award Aging arterial Function
	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
<u>Fellow</u>	
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 <i>Trainee's Current Career Activities:</i> Research Scientist Genentech
2017-2019	Advisor/Mentor, Yu Liu, University of Utah <i>Trainee's Current Career Activities:</i> Assistant Professor Physician Tonji Hospital Wuhan China
2015 - 2019	Advisor/Mentor, Dan Machin, University of Utah <i>Trainee's Current Career Activities:</i> Assistant Professor Florida State University
2015 - 2018	Advisor/Mentor, Dan Trott, University of Utah <i>Trainee's Current Career Activities:</i> Assistant Professor University of Texas Arlington
2015 - 2017	Advisor/Mentor, Matt Holmes, University of Utah
2014 - 2015	Supervisor, Sarah Breevort, University of Utah <i>Trainee's Current Career Activities:</i> Fellow Neurology University of Utah
2013 - 2016	Advisor/Mentor, Sugata Harza, University of Utah <i>Trainee's Current Career Activities:</i> Post Doctoral Fellow
2011 - 2017	Advisor/Mentor, Ashley Walker, University of Utah, Mentor <i>Trainee's Current Career Activities:</i> Assistant Professor University of Oregon
2011 - 2012	Advisor/Mentor, Lindsey Corum, University of Utah, <i>Trainee's Current Career Activities:</i> Biocompatibility Engineer at Bard Access Systems
<u>PhD/Doctorate</u>	
2017 - Present	Advisor/Mentor, Samuel Bloom, University of Utah
2010 - 2014	Advisor/Mentor, R. Garrett Morgan, University of Utah, PhD Mentor <i>Trainee's Current Career Activities:</i> Scientist US Navy: Assistant Professor in the Military and Emergency Medicine Department at the Uniformed Services University
<u>Masters</u>	
2007 - 2010	Intermediary Mentor, Katherine Magerko, University of Colorado at Boulder, Undergraduate / MS combined degree <i>Trainee's Current Career Activities:</i> 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

	<i>Trainee's Current Career Activities:</i> Physician and Assistant Professor University of Colorado Denver
2005 - 2006	Intermediary Mentor, Nathaniel Motte, University of Colorado at Boulder, Honors Thesis
	<i>Trainee's Current Career Activities:</i> Professional Musician
2005 - 2006	Intermediary Mentor, Adam Levy, University of Colorado at Boulder
	<i>Trainee's Current Career Activities:</i> 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.
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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.
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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

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| 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 Zeland 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 Dilation 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.