CURRICULUM VITAE

Jerome W. Breslin, Ph.D.

Updated 08/07/2024

Professor and Associate Chair of Education and Faculty Development
Department of Molecular Pharmacology and Physiology
Morsani College of Medicine, University of South Florida

Personal Data:

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Education:

B.A., 1993	Rutgers University, New Brunswick, NJ; Biological Sciences
M.S., 1998	Seton Hall University, South Orange, NJ; Biology
Ph.D., 2002	Rutgers University (formerly University of Medicine and Dentistry of New Jersey), Newark, NJ; Pharmacology and Physiology
Postdoc, 2002-2004	Dept. of Surgery, Texas A&M University College of Medicine; Scott and White Memorial Hospital, Temple, TX
Postdoc, 2004-2007	Dept. of Surgery, University of California, Davis, School of Medicine, Sacramento, CA

ORCID ID:
orcid.org/0000-0003-4867-3151

Doctoral Dissertation: "Signaling Mechanisms Involved in Enhanced Endothelial Permeability"
October 30, 2002
Mentor: Walter N. Durán, Ph.D.
Co-Mentor: Peter J. Pappas, M.D.

Academic, Professional, and Research Appointments:

8/1997 – 5/1998	Study Monitor, Huntingdon Life Sciences, East Millstone, NJ
6/1996 – 5/1998	Teaching Assistant, Department of Biology, Seton Hall University, South Orange, NJ
9/2000 – 5/2002	Teaching Assistant, Biostatistics, UMDNJ School of Public Health, Newark, NJ
11/2002 – 9/2004	Postdoctoral Research Associate/Postdoctoral Fellow, Department of Surgery, The Texas A&M University Health Science Center/Scott and White Memorial Hospital, Temple, TX Mentor: Sarah Y. Yuan, M.D., Ph.D.
10/2004 – 9/2007	Postdoctoral Scholar – Fellow, U.C. Davis School of Medicine, Sacramento, CA Mentor: Sarah Y. Yuan, M.D., Ph.D.
10/2007 – 9/2012	Assistant Professor (Tenure-Track) of Physiology, School of Medicine, Louisiana State University Health Sciences Center, New Orleans, LA
10/2012 – 8/2017	Associate Professor (Tenure granted 7/2013) of Molecular Pharmacology and Physiology, Morsani College of Medicine, University of South Florida, Tampa, FL
10/2016 – 7/2021	Director of Graduate Programs, Department of Molecular Pharmacology and Physiology, Morsani College of Medicine, University of South Florida, Tampa, FL
8/2017 – present	Professor (with Tenure) of Molecular Pharmacology and Physiology, Morsani College of Medicine, University of South Florida, Tampa, FL
10/2019 – present	Professor of Medical Engineering (Joint Appointment), College of Engineering, University of South Florida, Tampa, FL
8/2021 – present	Associate Chair of Education and Faculty Development, Department of Molecular Pharmacology and Physiology, Morsani College of Medicine, University of South Florida, Tampa, FL

Other Employment History:

5/1993 – 12/1993	Data Entry Operator, Roche Biomedical Laboratories, Raritan, NJ
12/1993 – 8/1995	Assistant Manager, Woolworth Stores, New York, NY

Summer 1996, 1997	Park Ranger, Somerset Count Park Commission, Bridgewater, NJ
2011 – 2012	Election Precinct Commissioner, St. Tammany Parish Clerk of Court, Covington, LA

Membership in Professional Organizations:

2000-present	The Microcirculatory Society, Inc.
2001-present	American Physiological Society (APS)
2003-2005	New York Academy of Sciences
2003-present	American Society for Cell Biology (ASCB)
2005-present	American Association for the Advancement of Science (AAAS)
2007	National Postdoctoral Association
2008-present	American Heart Association (AHA)
2008-2012	Gulf Coast Physiological Society (local APS chapter)
2014-2015	Research Society on Alcoholism (RSA)
2020-present	Shock Society

Awards and Honors:

1989	Eagle Scout
1989-1993	Garden State Scholarship (New Jersey Department of Education)
1996-1997	Seton Hall University Graduate Assistantship
1998-2000	UMDNJ Graduate Fellowship
2001	Caroline tum Suden/Frances A. Hellebrandt Professional Opportunity Award for Meritorious Research (American Physiological Society Student Travel Award)
2003	Outstanding Student of the Year (New Jersey Medical School Faculty Organization)
2005	August Krogh Young Investigator Award (The Microcirculatory Society, Inc.)
2006	Lymphatic Research Foundation/Susan G. Komen Breast Cancer Foundation Young Investigator Scholarship
2011	Louisiana Board of Regents Travel Grant for Emerging Faculty
2012	The Microcirculatory Society Travel Award for Outstanding Young Investigators
2015	Fellow, APS Cardiovascular Section
2018	NIH Loan Repayment Program Ambassador
2021	USF Outstanding Graduate Mentor Award – Honorable Mention
2023	USF Outstanding Research Achievement Award

Teaching Accomplishments:

Instructor/Lecturer:

Institution/Course	Year	Type	# Students	Contact Hours
Seton Hall University				
Teaching Assistant:				
BIOL 3241 Introduction to Immunology	1997-1998	Undergraduate Laboratory	40	104
BIOL 3321 Vertebrate Physiology	1997	Undergraduate Laboratory	24	40
Rutgers University (UMDNJ)				
Teaching Assistant, School of Public Health				
Introduction to Biostatistics Recitation	2001-2002	Graduate	5	26
Clinical Trials and Linear Models	2002	Graduate	15	39
Instructor, School of Health Related Professions				
Biostatistics Module, Applied Clinical Research	2002	Graduate	9	40
Tutor, NJ Med. School Center for Hispanic Excellence				
Medical Physiology	2000-2002	Tutoring	4	25
LSUHSC-NO				
INTER131/PHTH7121 Biological Systems A,	2008	Graduate, D.P.T.	11, 40	10

Gastrointestinal System Section	2009	Graduate, D.P.T.	9, 39	10
	2010	Graduate, D.P.T.	6, 34	10
	2011	Graduate, D.P.T.	9, 36	10
INTER132/PHTH7122 Biological Systems B,	2008	Graduate, D.P.T.	4, 36	4
Cardiovascular System Section	2009	Graduate, D.P.T.	8, 40	4
	2010	Graduate, D.P.T.	9, 39	4
PHYSIO280 Special Topics in Physiology, "Physiology of Extremes"	2008	Graduate	5	2
PHYSIO280-1 Physiology Journal Club	Fall 2011	Graduate	5	12
	Spring2012	Graduate	5	12
PHYSIO212 Cardiovascular Physiology	2008	Graduate	7	4
	2011	Graduate	6	8
PHYSIO221 Technology for Biomedical Research	2011	Graduate	2	2
Medical Physiology 100	2008	Medical	191	2
Dental Physiology 1115	2008	Dental	60	6
	2009	Dental	61	10
	2010	Dental	65	10
	2011	Dental	65	6
	2012	Dental	66	9
DHY3202 Dental Hygiene Physiology	2008	Undergraduate	42	2
	2009	Undergraduate	40	2
	2010	Undergraduate	40	2

Tulane University

BMEN 6430: Vascular Bioengineering	2012	Graduate, Undergraduate	8, 10	1

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BMS 6633.7xx Medical Sciences 3, Cardiovascular and Pulmonary Systems (Spring)	2016	Medical, D.P.T., M.S.	178, 43, 7	1
	2018	Medical	182	4
	2019	Medical	182	4
	2020	Medical	185	4
BMS 6633 Medical Sciences 2: Cardiovascular and Pulmonary Systems (Fall)	2020	Medical	199	4
	2021	Medical	193	4
	2022	Medical	186	4
	2023	Medical	187	8
BMS 6639.7xx Medical Sciences 4, GI, Renal, Endocrine (Spring)	2015	Medical, D.P.T., M.S.	179, 47, 0	5
	2016	Medical, D.P.T., M.S.	178, 43, 7	12
	2017	Medical, D.P.T., M.S.	180, 46, 8	15
	2018	Medical	181	8
	2019	Medical	182	8

	2020	Medical	185	8
BMS 6639 Medical Sciences 3, GI, Renal, Endocrine (Spring)	2021	Medical	195	8
	2022	Medical	192	9
	2023	Medical	186	7
	2024	Medical	187	6
GMS 6001 Foundation in Biomedical Science	2013	Graduate	20	2
	2014	Graduate	19	2
	2015	Graduate	17	2
	2016	Graduate	17	2
	2017	Graduate	16	4
	2018	Graduate	10	4
	2019	Graduate	13	4
	2020	Graduate	15	4
	2021	Graduate	12	4
	2022	Graduate	12	4
	2023	Graduate	22	4
GMS 6440 Basic Medical Physiology	2013	Graduate	260	6
	2014	Graduate	230	4
	2015	Graduate	258	8
	2016	Graduate	263	7
GMS 6410 Cardiovascular Regulation	2013	Graduate	4	16
	2014	Graduate	3	16
	2015	Graduate	4	16
	2017	Graduate	4	4
	2019	Graduate	5	4
GMS 6461 Systems Physiology and Pharmacology	2014	Graduate	5	4
GMS 7930.006 Non-Coding RNA in Health and Disease	2015	Graduate	5	3
GMS 7930.002 Advanced Medical Pharmacology and Physiology	2015	Graduate	6	2
	2016	Graduate	4	2
	2018	Graduate	5	2
	2020	Graduate	4	2
	2021	Graduate	5	2
GMS 6004.001 Introduction to Medical Sciences	2016	Graduate	7	1
	2017	Graduate	11	1
	2018	Graduate	4	1
GMS 7930.006 Selected topics: Lymphatic function in Organ Homeostasis, Metabolism, and Immunology	2022	Graduate	3	4
	2023	Graduate	2	4
GMS 7930.002 Selected topics: Signal Transduction in Health and Disease	2022	Graduate	3	8
	2023	Graduate	4	8

Course Coordinator:

Institution/Course	Year	Role	# Students
LSUHSC-NO			
PHYSIO280-1 Physiology Journal Club	2011-12	Course Director	5

INTER131/PHTH7121 Biological Systems A, Gastrointestinal System Section	2008	Section Director	51
	2009	Section Director	48
	2010	Section Director	40
	2011	Section Director	45
Dental Physiology 1115	2009	Assistant Course Director	61
	2010	Assistant Course Director	65
	2011	Assistant Course Director	65
	2012	Assistant Course Director	66

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BMS6639.7xx Medical Sciences 4, GI, Renal, Endocrine (Spring)	2016	Course Director	229
	2017	Course Director	234
	2018	Associate Course Director	181
GMS 6410 Cardiovascular Regulation (4 cr., Fall)	2013	Course Director	4
	2014	Course Director	3
	2015	Course Director	4
GMS 6908 Med Sci Independent Study	2020	Course Director	3
GMS 7930.006 Selected topics: Lymphatic function in Organ Homeostasis, Metabolism, and Immunology	2022	Course Director	3
GMS 7930.002 Selected topics: Signal Transduction in Health and Disease	2022	Course Director	3
	2023	Course Director	4
Graduate Student Directed/Dissertation Research Courses GMS7910.006 Directed Research GMS7980.006 Dissertation Research	2014-present	Course Director	Enrollment varies (5 for 2023-2024)

Program Director:

2014-present Cardiovascular Biology Concentration, PhD in Medical Sciences, USF MCOM
2016-2021 Graduate Programs, Department of Molecular Pharmacology and Physiology, USF MCOM

Postdoctoral Trainees:

Mar 2009 – Oct 2012 Flavia M. Souza-Smith, PhD, Postdoctoral Scholar
Current Position: Assistant Professor of Physiology, LSUHSC-NO
May 2013 – Mar 2017 Shaquria Adderley, PhD, Postdoctoral Scholar
Current Position: Assistant Professor, Touro University Nevada
Jan 2015 – Dec 2015 Lt. Cdr. Travis Doggett, USN, PhD, Postdoctoral Scholar
Current Position: Research Physiologist, Navy Experimental Diving Unit
Aug 2023 – present Mengmeng Chang, MD, PhD, Postdoctoral Scholar

Graduate Student Trainees:

Jan 2008 – Dec 2012 Kristine Kurtz, PhD, LSUHSC-NO Department of Physiology
Current Position: Director, Novo Nordisk
Jan 2009 – Dec 2014 Lt. Cdr. Travis Doggett, USN, PhD, LSUHSC-NO Department of Physiology
Current Position: Research Physiologist, Navy Experimental Diving Unit
Oct 2012 – May 2017 Xun Zhang, MD, PhD, USF Molecular Pharmacology and Physiology
Current Position: Attending Physician, Cardiac Surgery, Nanjing Medical University 2nd Affiliated Hospital
Jan 2014 – Dec 2018 Natascha G. Alves, PhD, USF Molecular Pharmacology and Physiology (co-mentored with Dr. Sarah Y. Yuan)
Current Position: Senior Medical Writer, OPEN Health Scientific Communications
Mar 2017 – May 2020 Zeinab Y. Motawe, MD, PhD, USF Molecular Pharmacology and Physiology
Current Position: Instructor, Hillsborough Community College

Graduate Student Rotations:

Spring 2009	Josette Williams, LSUHSC Physiology PhD Program
Fall 2013	Shpetim Karandrea, USF Medical Sciences PhD Program
Fall 2015	Afroza Akhtar, USF Medical Sciences PhD Program
	Nicole Stavitski, USF Medical Sciences PhD Program
	Shimin Zhang, USF Medical Sciences PhD Program
Fall 2016	Jianxiang Xue, USF Medical Sciences PhD Program
	Mariana Burgos Angulo, USF Medical Sciences PhD Program
Fall 2017	Ashley Lui, USF Medical Sciences PhD Program
Spring 2021	Salma Abdelmaboud, USF Medical Sciences PhD Program
Fall 2022	Krystal Villalobos-Ayala, USF Medical Sciences PhD Program
Fall 2023	Juan Hernandez Villamil, USF Medical Sciences PhD Program
	Chiara Micchelli, USF Medical Sciences PhD Program

Medical Student Research Trainees:

Summer 2009	Dominique Maietta, Medical Student, UT San Antonio, Summer Independent Research Program
Summer 2009, 2010	Mohammad Madani, LSUHSC-NO Medical Student *(recipient of an American Heart Association Student Scholarship in Cardiovascular Disease and Stroke, summer 2010)*
Summer 2018	Montana Cole, Medical Student Summer Research, USF MCOM RISE program
Summer 2021	Charissa Bloom, USF Medical Student Summer Research Elective
Summer 2022	Jenna McQueen, Medical Student Summer Research, USF MCOM RISE program

Visiting Faculty:

Summer 2012	Joseph Olubadewo, PhD, Associate Professor, SUNO, Louisiana Biomedical Research Network (LBRN) Faculty Summer Research Program
Mar 2017 – Mar 2018	Michiko Jo, PhD, Assistant Professor, Institute of Natural Medicine, University of Toyama
Sep 2019 – Feb 2020	Mario Angelo Claudino, PhD, Associate Professor, Universidade São Francisco, São Paulo, Brazil

Undergraduate Trainees:

Spring 2010	Dominique Townsend, Southern University at New Orleans (SUNO) Undergraduate Student
Summer 2011	Tyrone Bottley, SUNO Undergraduate Student, E3MaS/SURE program
	Darius Robinson, SUNO Undergraduate Student, E3MaS/SURE program
Summer 2012	Ellen Isbell, University of New Orleans Undergraduate Student, LBRN summer undergraduate research program
	Curtis Lawrence, SUNO Undergraduate Student, E3MaS/SURE program
	Eyong Madonia, SUNO Undergraduate Student, E3MaS/SURE program
2013-2016	Sara Spampinato, USF Undergraduate Student; NIH Diversity Supplement Fellow
2015-2016	Andrea Burgess, USF Undergraduate Student, American Physiological Society STRIDE Fellow; American Physiological Society IOSP Fellow
Summer 2018	Forouzandeh Farsaei, USF Undergraduate Student, AHA SURF program
Sum. 2018-Spr. 2019	Rebeca Gonzalez Jauregui, AHA SURF Program; USF Undergraduate Honors Program
Summer 2019	Tabitha Norton, Howard University Undergraduate Student, AHA SURF program
	Taylor Collingon, University of Tampa Undergraduate Student, AHA SURF program
Fall 2020-Sum. 2022	Vishnu V. Iyer, USF Undergraduate, IDS 4914 Adv. Undergraduate Research, AHA SURF Program (2022)
Spring 2021	Mohammed-Youssif Shahwan, USF Undergraduate, IDH4910 Honors Undergraduate Research
Summer 2021	Lara De Vries, USF Undergraduate, Biomedical Engineering (BME) Summer Fellowship
	Marla Attalla, USF Undergraduate, BME Summer Fellowship
Sum. 2022-Spr.2023	Isabela Zimmermann Rollin, USF Biomedical Engineering Undergraduate, AHA SURF program
Summer 2023	Celene Totry, St. Louis University Undergraduate, AHA SURF program
	Patricia Zamora Diaz, USF Undergraduate, BME Summer Fellowship
	Laura Hurtado Osorio, USF Undergraduate, BME Summer Fellowship
Summer 2024	Miguel Garcia, USF Undergraduate, BME Summer Fellowship
	Tram Le, USF Undergraduate, BME Summer Fellowship
	Briana Baboolall, AHA SURF program
	Alyssa Fernandez, UCF ACCESO Program Fellowship

High School Teacher Summer Research:

Summer 2015	Caitlin Schecker, Bishop McLaughlin High School, American Physiological Society Frontiers in Physiology Fellow
Summer 2018	Jane Schuster, Bishop McLaughlin High School, American Physiological Society Frontiers in Physiology Fellow

Comprehensive Qualifying Exam Committees:

2013	Shannon Kesl, USF Molecular Pharmacology and Physiology PhD Student, Committee Chair
2013	Adam Behensky, USF Molecular Pharmacology and Physiology PhD Student
2016	Jamie Meegan, USF Molecular Pharmacology and Physiology PhD Student
2016	Jie Zhang, USF Molecular Pharmacology and Physiology PhD Student
2016	Shpetim Karandrea, USF Molecular Pharmacology and Physiology PhD Student
2016	Katherine Sanford, USF Molecular Pharmacology and Physiology PhD Student, Committee Chair
2017	Ezinne Mong, USF Molecular Pharmacology and Physiology PhD Student
2017	Andrew Koutnik, USF Molecular Pharmacology and Physiology PhD Student
2018	John Lockhart, USF Molecular Pharmacology and Physiology PhD Student
2018	Teryn Roberts, USF Molecular Pharmacology and Physiology PhD Student
2018	Nicole Stavitzki, USF Molecular Pharmacology and Physiology PhD Student, Committee Chair
2019	Ashley Lui, USF Molecular Medicine PhD Student
2020	Taylor Martinez, USF Molecular Medicine PhD Student
2020	Jianxiang Xue, USF Molecular Pharmacology and Physiology PhD Student, Committee Chair
2020	Jiajia Yang, USF Molecular Pharmacology and Physiology PhD Student, Committee Chair
2020	Scott Kemp, USF Molecular Pharmacology and Physiology PhD Student
2020	Zheying Sun, USF Molecular Pharmacology and Physiology PhD Student
2021	Garrett Enten, USF Molecular Pharmacology and Physiology PhD Student
2021	Drishya Iyer, USF Molecular Pharmacology and Physiology PhD Student
2021	Yanan Zhu, USF Molecular Pharmacology and Physiology PhD Student
2022	W. Andrew Cromwell, USF Molecular Medicine PhD Student
2022	Minkyung Kang, USF Molecular Pharmacology and Physiology PhD Student
2022	Richa Banerjee, USF Molecular Pharmacology and Physiology PhD Student
2023	Ksenia Yrigoin Kaluguina, USF Molecular Pharmacology and Physiology PhD Student
2023	Diandra Diandra Mastrogiacomo, USF Molecular Pharmacology and Physiology PhD Student
2024	Jingsong Ruan, USF Molecular Pharmacology and Physiology PhD Student

Thesis Committees (TC) and Dissertation Committees (DC):

2008	Miguel Molina, MS, LSUHSC-NO Physiology, TC
2010	Jennifer Robichaux, MS, Tulane University Biomedical Engineering, TC
2010-2011	Jesse Sulzer, MD, PhD, LSUHSC-NO Physiology, DC
2010-2013	Swapnil Kher, PhD LSUHSC-NO Pharmacology, DC
2012-2013	Peter Stapor, PhD, Tulane University Biomedical Engineering, DC
2013-2015	Adam Behensky, PhD, USF Molecular Pharmacology and Physiology, DC
2015-2017	Jie Zhang, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2015-2018	Jamie Meegan, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2016-2017	Shpetim Karandrea, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2016-2019	Ezinne Mong, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2016-2019	John Lockhart, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2017-2019	Andrew Koutnik, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2017-2019	Teryn Roberts, PhD, USF Molecular Pharmacology and Physiology PhD Student, DC
2018	Prerna Nepali, PhD Rutgers University Molecular Pharmacology, Physiology, and Neuroscience PhD Student, DC
2018-2022	Ashley Lui, USF Molecular Medicine PhD Student, DC
2018-2022	Mengmeng Chang, USF Molecular Pharmacology and Physiology PhD Student, DC
2019-2022	Scott Kemp, USF Molecular Pharmacology and Physiology PhD Student, DC
2020-2022	Zheying Sun, USF Molecular Pharmacology and Physiology PhD Student, DC
2021-2022	Yanan Zhu, USF Molecular Pharmacology and Physiology PhD Student, DC
2019-2023	Drishya Iyer, USF Molecular Pharmacology and Physiology PhD Student, DC
2019-2023	Garrett Enten, USF Molecular Pharmacology and Physiology PhD Student, DC
2021-2023	Minkyung Kang, USF Molecular Pharmacology and Physiology PhD Student, DC
2019-2024	Taylor Martinez, USF Molecular Medicine PhD Student, DC
2022-2024	Richa Banerjee, USF Molecular Pharmacology and Physiology PhD Student, DC

2021-present	W. Andrew Cromwell, USF Molecular Medicine PhD Student, DC
2022-present	Ksenia Yrigoin Kaluguina, USF Molecular Pharmacology and Physiology PhD Student, DC
2022-present	Jingsong Ruan, USF Molecular Pharmacology and Physiology PhD Student, DC
2022-present	Diandra Mastrogiacomo, USF Molecular Pharmacology and Physiology PhD Student, DC
2023-present	Linda Ines Zoungrana, USF Molecular Pharmacology and Physiology PhD Student, DC

Grants and Contracts:

Ongoing Research Grants:

7/1/22 – 6/30/27
Microvascular Leakage in Hemorrhagic Shock and Trauma
NIH/NIGMS R35GM145379
Role: PI
$1,250,000 Direct Costs
$87,185 Direct Costs – Equipment Supplement to purchase QuantStudio 6 instrument

1/1/22 – 12/31/24
University of South Florida Summer Undergraduate Program in Cardiovascular Biology
American Heart Association 901052
Role: Program Director
$165,000 Direct Costs

3/10/22 – 2/28/25 (NCE)
Human Resistance Artery Functional Changes with Alcohol Use
NIH/NIAAA R21AA029213
Role: PI
$262,500 Direct Costs

9/22/22 – 8/31/24 (NCE)
Obesity, Metabolic Syndrome, and Lymphatic Dysfunction
NIH/NHLBI R56HL153542
Role: PI
$405,340 Direct Costs

1/1/21 – 12/31/25
Cell-Selective Therapies for Coronary Artery Disease
NIH/NHLBI R01HL128411
PI: Hana Totary-Jain
Role: Co-Investigator
$1,684,590 Direct Costs

1/1/23 – 12/31/26
Peptibodies as Novel Therapies in Atrial Fibrillation
NIH/NHLBI R01HL163943
PIs: Sami F. Noujaim, Jose S. Jalife, Michael N. Teng
Role: Co-Investigator
$2,275,393 Direct Costs

Pending Applications:

4/1/23 – 3/31/28
Metabolic Syndrome and Lymphatic Dysfunction
NIH/NHLBI R01HL168018
Role: PI
$2,075,285 Direct Costs Requested
Status: Pending Council Review

Completed Research Grants:

7/15/16 – 4/30/22
S1P-Fluid Therapy to Reduce Hemorrhagic Shock & Intoxication-Induced Injury
NIH/NIGMS R01GM120774
Role: PI
$770,000 Direct Costs

4/1/18 – 3/31/21
University of South Florida Heart Institute Summer Undergraduate Research Program

American Heart Association 18UFEL33960365
Role: Program Director
$60,000 Direct Costs

7/1/2019-6/30/2020 Brain Microvascular Endothelial Health as a Target to Improve Stroke Outcomes
USF MCOM BOOST Grant BO389-8
Role: Contact MPI (Co-PI Javier Cuevas)
$41,428.00

7/1/15 – 6/30/17 Signaling Mechanisms Controlling Sphingosine-1 Phosphate-Induced Microvascular Barrier Enhancement
American Heart Association 15PRE25710193; PI: Xun Zhang
Role: Sponsor
$52,000 Direct Costs

8/1/11 – 6/30/17 Regulatory Mechanisms for Resolution of Inflammatory Microvascular Leakage
NIH/NHLBI R01HL098215
Role: PI
$1,218,315 Direct Costs
$23,809 Direct Costs – Undergraduate Diversity Supplement to support Ms. Sara Spampinato.

7/1/15 – 6/30/16 Juvenile Obesity-Induced Inflammatory-Mediated Lymphatic Dysfunction
NIH/NIHLBI L40 HL097863 (Pediatric Loan Repayment Program)
Role: PI
$5,974 Student Loan Repayment to Educational Lenders by NIH.

10/1/14 – 6/30/15 Therapeutic Utility of S1P Receptor Activation in a Two-Hit Model of Alcohol and Hemorrhagic Shock-Induced Cardiovascular Toxicity
USF Heath Interdisciplinary Seed Grant
Role: Co-PI (MPIs: Jerome W. Breslin and Srinivas Tipparaju)
$50,000 Direct Costs

7/1/12 – 6/30/14 Molecular Control of Pump Function in Juvenile Lymphatics
NIH/NHLBI L40 HL097863 (Pediatric Loan Repayment Program)
Role: PI
$17,081 Student Loan Repayment to Educational Lenders by NIH.

3/15/12 – 9/30/12 Impact of Alcohol Intoxication on Lymphatic Contractile Mechanisms
NIH/NIAAA F32AA021049
PI: Flavia M. Souza
Role: Sponsor
$129,982 Direct Costs
Dr. Patricia Molina took over the role as Sponsor when I moved to USF.

8/5/11 – 7/31/13 Impact of Alcohol Intoxication on Hemorrhagic Shock-Induced Microvascular Dysfunction.
NIH/NIAAA R21AA020049
Role: PI
$256,398 Direct Costs

6/1/11 – 7/31/11 Molecular Control of Pump Function in Contractile Lymphatic Vessels
Louisiana Board of Regents Research Competitiveness Subprogram
LEQSF(2011-14)-RD-A14; RD-00004465-2010
Role: PI
$153,640 Direct Costs (Terminated on 7/31/11 due to the funding of the NIH R01 and R21)

1/1/11 – 7/31/11 Impact of Alcohol Intoxication on Hemorrhagic Shock-Induced Microvascular Dysfunction.
ABMRF/The Foundation for Alcohol Research
Role: PI
$86,956 Direct Costs (Returned due to overlap with NIH R21)

7/1/09 – 6/30/11 VEGFR-3 in Lymph Formation and Lymph Flow
NIH/NHLBI L40 HL097863 (Pediatric Loan Repayment Program)
Role: PI
$14,681 Student Loan Repayment to Educational Lenders by NIH.

7/1/08 – 6/30/11 Cellular Signaling Mechanisms in Microvascular Permeability
American Heart Association National Affiliate Scientist Development Grant
0835388N
Role: PI
$280,000 Direct Costs

7/1/08 – 6/30/10 Involvement of Rnd3 in Microvascular Permeability Regulation
American Heart Association, Greater Southeast Affiliate Beginning Grant-in-Aid
0865042E
Role: PI
$120,000 Direct Costs (Declined due to overlap with AHA SDG)

7/1/08 – 5/31/13 Mentoring in Cardiovascular Biology
NIH P20 RR018766
PI: Daniel Kapusta
Role: PI on Subproject 5925, "Regulation of Endothelial Cell Permeability by Rho/ROCK Signaling"
$420,000 Direct Costs for subproject ($7,811,292 Total Direct Costs).

1/1/05 – 12/31/06 Regulation of Endothelial Permeability via RhoA/ROCK
NIH F32 HL76079
Role: PI
$98,724 Direct Costs.

4/1/04 – 9/30/04 Microvascular Dysfunction in Diabetic Foot Disease
Scott and White Research and Education Foundation
Role: PI
$39,965 Direct Costs.

Presentations and Bibliography:

Seminars, Symposia, and Invited Presentations:

Seminar Presentations:

6/18/02 "A Role for the MAP Kinases ERK-1/2 as Regulators of Microvascular Permeability" Cardiovascular Research Institute, Texas A&M College of Medicine, Temple, TX

1/26/06 "Signaling in the Vascular and Lymphatic Microcirculation" UC Davis Cardiovascular Forum, Davis, CA

3/6/07 "Endothelial Barrier Function in Health and Disease" Department of Physiology, Louisiana State University Health Sciences Center School of Medicine, New Orleans, LA

3/22/07 "Signaling Pathways in Vascular and Lymphatic Endothelial Barriers" Department of Cell and Developmental Biology and Anatomy, University of South Carolina School of Medicine, Columbia, SC

3/17/08 "Rho GTPase Signaling in the Modulation of Microvascular Permeability" Department of Physiology, Tulane University Health Sciences Center School of Medicine, New Orleans, LA

10/30/08 "New Insights Into the Lymphatic Endothelium as a Regulator of Lymph Formation and Flow" Department of Biomedical Engineering, Tulane University, New Orleans, LA

12/9/08 "Remodeling of endothelial cells and their barrier function in response to shear stress" Department of Physiology, Louisiana State University Health Sciences Center School of Medicine, New Orleans, LA

9/4/09 "Signal transduction and Structural Mechanisms Involved in Enhanced Microvascular Permeability" Department of Pharmacology, Tulane University Health Sciences Center School of Medicine, New Orleans, LA

9/18/09 "Endothelial Barriers and Fluid Homeostasis" Department of Biochemistry and Molecular Biology, Louisiana State University Health Sciences Center School of Medicine, New Orleans, LA

9/3/10 "The Importance of Signaling Mechanisms Underlying Lymphatic Pump Function in Health and Disease" Department of Pharmacology, Tulane University Health Sciences Center School of Medicine, New Orleans, LA

10/20/10 "Modulation of mesenteric lymphatic pumping during different stresses on the gut" Department of Systems Biology and Translational Medicine, Texas A&M University Health Science Center, Temple, TX

1/31/11 "Rac1-mediated cortical actin dynamics and microvascular barrier integrity" Department of Physiology, Tulane University School Health Sciences Center School of Medicine, New Orleans, LA

3/15/12 "Signaling pathways and molecular structures that determine changes in microvascular permeability" Department of Molecular Pharmacology and Physiology, Morsani College of Medicine, University of South Florida, Tampa, FL

7/10/12 "The actin cytoskeleton and microvascular permeability: New insights from imaging studies of live endothelial cells" School of Physiology and Pharmacology, University of Bristol, United Kingdom

7/17/12 "New insights into the control of microvascular permeability from imaging studies of live endothelial cells" William Harvey Research Institute, Barts and the London School of Medicine and Dentistry, Queen Mary University of London, United Kingdom

7/24/12 "Mechanisms controlling the lymphatic contractile cycle" Institute of Bioengineering, L'École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

8/6/12 "New insights into the mechanisms controlling microvascular permeability" Institute of Anatomy, Ludwig-Maximilians University, Munich, Germany

8/24/12 "Deciphering mechanisms controlling the lymphatic contractile cycle" Department of Pharmacology, Tulane University School of Medicine, New Orleans, LA

9/6/12 "New tools, new data, and new interpretations of the mechanisms controlling endothelial permeability" Department of Physiology, LSUHSC-NO School of Medicine, New Orleans, LA

9/10/12 "New insights of cytoskeletal control of endothelial permeability from live cell imaging studies" Department of Pharmacology and Physiology, University of Medicine and Dentistry of New Jersey, Newark, NJ

5/5/14 "Control of lymphatic smooth muscle contraction" Department of Microbiology and Immunology, Uniformed Services University of the Health Sciences, Bethesda, MD

12/20/17 "Mechanisms of edema formation and resolution" Department of Cardiology, University of South Florida, Tampa, FL

10/1/18 "Preserving Microvascular Barrier Function in the Context of Injury and Inflammation" Department of Molecular Pharmacology, Physiology, and Neuroscience, Rutgers University-New Jersey Medical School, Newark, NJ

5/22/19 "Lessons learned while trying to rescue a leaky endothelium" Department of Pharmacology COBRE External Advisory Committee Meeting, LSUHSC-NO School of Medicine, New Orleans, LA

1/27/20 "Microvascular and Lymphatic Mechanisms Controlling Tissue Fluid Balance" Department of Medical Engineering, College of Engineering, University of South Florida, Tampa, FL

2/12/20 "Exploring Therapeutics to Target the Endothelium During Inflammation" Graduate Programs Seminars, Taneja College of Pharmacy, University of South Florida, Tampa, FL

5/13/21 "Microvascular Leakage in the Trauma-Hemorrhage Setting" Center for Translational Research on Inflammatory Diseases, Michael E. DeBakey VA Medical Center/Baylor College of Medicine, Houston, TX (virtual)

9/7/22 "Microvascular Permeability, Lymphatic Clearance, and Edema Resolution" Department of Medical Physiology, School of Medicine, Texas A&M University, College Station, TX

04/16/24 "Microcirculatory and Lymphatic Mechanisms Controlling Tissue Fluid Homeostasis" Department of Medical Pharmacology and Physiology, School of Medicine, University of Missouri, Columbia, MO (virtual)

Symposium Presentations:

4/21/02 "The ERK-1/2 MAP Kinase Pathway Regulates VEGF-Induced Hyperpermeability" Young Investigators Symposium, The Microcirculatory Society Annual Meeting at Experimental Biology, New Orleans, LA

10/15/02 "VEGF Increases Endothelial Permeability by Separate Signaling Pathways Involving ERK-1/2 and Nitric Oxide" 9th Annual UMDNJ Graduate Student Association Research Conference, Newark, NJ

5/6/06 "Finding a Postdoc Position and Getting the Most Out of It" UC Davis Pathways Career Symposium, Davis, CA

8/10/06 "VEGFR-3 Activation Causes Transient Changes in Microlymphatic Endothelial Barrier Function" Endothelial Phenotypes in Health and Disease Gordon Research Conference, University of New England, Biddeford, ME

4/17/09 "Rho-family GTPases and the Microvascular Barrier" 5th Annual meeting of the Gulf Coast Physiological Society, New Orleans, LA

10/26/11 "The Impact of Combined Alcohol Intoxication and Shock on the Gut Microcirculation" 8th Asian Congress for Microcirculation, Bangkok, Thailand

4/22/12 "Novel role of Local Lamellipodia in Endothelial Barrier Function" Experimental Biology 2012 Meeting, San Diego, CA

4/20/13 "The Microcirculatory Society Travel Award for Young Investigators 2012 Report" Experimental Biology 2013 Meeting, Boston, MA

9/6/13 "Thrombin and Sphingosine-1-Phosphate Alter Local Lamellipodia Dynamics to Modulate Endothelial Barrier Function." International Conference for Microcirculation and the 13th Annual Conference of the Professional Committee for Microcirculation, Chinese Association of Integrative Medicine Meeting, Beijing, China

6/2/14 "Molecular Pharmacology and Physiology of Lymphatic Pumping" USF Department of Molecular Pharmacology and Physiology Research Forum, St. Petersburg, FL

8/3/14 "Microvascular Permeability in Inflammatory Injury" 1st Pan American Congress of Physiological Sciences: Physiology Without Borders, Iguassu Falls, Brazil.

9/27/15 "New Strategies to Reduce Microvascular Hyperpermeability, Edema, and Hypotension in the Intoxicated or Injured Host" 40th Annual Meeting of the Japanese Society for Microcirculation at the 10th World Congress for Microcirculation, Kyoto, Japan.

3/24/16 "Remodeling of Mesenteric Collecting Vessels in Juvenile, Obese Zucker Rats" Lymphatics Gordon Research Conference, Ventura, CA.

10/28/16 "New Advances to Stop Microvascular Leakage During Inflammation" The 1st Chinese Microcirculation Week, Oct 28-30, 2016, Beijing, China.

9/13/18 "Preserving Microvascular Barrier Integrity Following Traumatic Injury" 11th World Congress for Microcirculation, Vancouver, Canada.

4/29/21 "Microvascular Leakage in the Trauma-Hemorrhage Setting" Experimental Biology 2021 Virtual Meeting

9/21/23 "Endothelial glycocalyx degradation and microvascular hyperpermeability" 12th World Congress for Microcirculation, Beijing, China (Virtual Presentation)

11/28/23 "Limiting Microvascular Hyperpermeability in the Injured Host" PANAM Physiological Sciences 2023, Puerto Varas, Chile

3/4/24 "Obesity, Metabolic Syndrome, and Lymphatic Dysfunction" Lymphatics Gordon Research Conference, Ventura, CA

5/21/24 "Human Lymphatic Function and Transcriptomics" ARPA-H LIGHT Proposers' Day, Philadelphia, PA

Panel Member:

3/9/17 "The Mid-Career Basic Science Faculty Experience" presentation given within "Plenary Session: Faculty of Tomorrow's Academic Health Center" Association of American Medical Colleges (AAMC) Council of Faculty and Academic Societies and Organization of Resident Representatives 2017 Spring Meeting, Mar 9-11, 2017, Orlando, FL.

Session Chair:

4/2006 American Physiological Society (APS) Symposium Co-Chair (with Dr. Sarah Yuan): "Endothelial Permeability: Paracellular Pathway vs. Transcellular Pathway" – Sponsored by APS Cell and Molecular Physiology Section, EB 2006, San Francisco, CA

4/2009 APS Featured Topic Chair (Co-chair Dr. Walter L. Murfee): "Lymphatic Endothelial Cells: Passive or Active Participants in Lymphatic Function?" – Sponsored by the APS Cell and Molecular Physiology Section. EB 2009, New Orleans, LA

4/2011 APS Featured Topic: "Adaptation of the Microcirculation to Inflammatory Insult" – Sponsored by the APS Cardiovascular Section, EB 2011 *(was unable to attend meeting due to illness)*

10/2011 8th Asian Congress for Microcirculation Symposium Chair: "Shock and the Microcirculation" – Bangkok, Thailand

5/2012 Research Society on Alcoholism 35th Annual Meeting, Co-chair with Dr. Patricia Molina: "Core Mechanisms of Alcohol Induced Multi-Organ and Tissue Injury" – San Francisco, CA

9/2013 "Permeability" – International Conference for Microcirculation and the 13th Annual Conference of the Professional Committee for Microcirculation, Chinese Association of Integrative Medicine Meeting, Beijing, China

8/2014 1st Pan American Congress of Physiological Sciences: Physiology Without Borders, Symposium Chair: "Physiology of the Microvascular Responses to Injury and Inflammation" Aug 2-6, 2014, Iguassu Falls, Brazil

10/2014 North American Vascular Biology Organization Annual Meeting, Symposium Co-Chair with Dr. Mariappan Muthuchamy: "New Perspectives on the Roles of Lymphatics in Inflammation" Oct 20, 2014, Asilomar, CA

9/2015 40th Annual Meeting of the Japanese Society for Microcirculation, Symposium Co-Chair with Dr. Qiaobing Huang: "Qi Retaining Body Fluid and Blood" Sep 27, 2015, Kyoto, Japan

4/2016 MCS Annual Meeting at EB2016, Symposium Chair, "Advances in Microvascular Permeability/ Glycocalyx" April 2-6, San Diego, CA

9/2018 11th World Congress for Microcirculation, Symposium Chair, "Microvessels and Lymphatics in Inflamed Tissues: New Insights from Models of Inflammation" September 9-13, Vancouver, Canada

4/2019 MCS Annual Meeting at EB2019, Symposium Chair, "Emerging Topics: Adaptation of Microvessels and Lymphatics", April 6-9, Orlando, FL

6/2020 MCS Microvascular Exchange Webinar Chair, "Recent Advances in Lymphatic Physiology and Development", June 23, 2020

4/2022 The Microcirculatory Society President's Symposium – "Spotlight on the Microcirculation for Improving Health" April 2, Philadelphia, PA

10/2022 International Vascular Biology Meeting, "Immune-Vascular Crosstalk in Non-Neoplastic Diseases" Symposium Co-Chair with Dr. Miguel Lopez-Ramirez, October 16, 2022, Oakland, CA

4/2023 The Microcirculatory Society President's Symposium – "Micro-lymphatics as Mediators of Tissue Homeostasis" April 20, 2023, Long Beach, CA

10/2023 The Microcirculatory Annual Meeting at Vascular Biology 2023, "Emerging Topics in Microcirculation" Symposium Co-Chair with Dr. Miranda Good, October 17, 2023, Newport, RI

Book Chapters:
1. Durán WN, Sanchez FA, **Breslin JW** Microcirculatory exchange function. In: *Handbook of Physiology: Microcirculation* (Tuma, RF, Duran WN, Ley KF, Eds), Chapter 4; pp 81-124, Academic Press – Elsevier, San Diego, CA, 2008.

2. Doggett TM, Tur JJ, Alves NG, Yuan SY, Tipparaju SM, **Breslin JW**. Assessment of Cardiovascular Function and Microvascular Permeability in a Conscious Rat Model of Alcohol Intoxication Combined with Hemorrhagic Shock and Resuscitation. *Methods Mol Biol.* 1717: 61-81, 2018 PMID: 29468584 PMCID: PMC5874498

3. Alves NG, Motawe ZY, Yuan SY, **Breslin JW**. Endothelial Protrusions in Junctional Integrity and Barrier Function. In: *Membranes in Pulmonary Vascular Disease.* Ed. Belvitch P, Dudek S. *Curr. Top Membr.* 82: 93-140, 2018. PMID: 30360784 PMCID: PMC6442684

4. Lampejo AO, Hu N-W, Suarez-Martinez A, Katakam PVG, **Breslin** JW, Peirce SM, Murfee WL. Chapter 12 - Linking arterial stiffness to microvascular remodeling. In: *Textbook of Arterial Stiffness and Pulsatile Hemodynamics in Health and Disease* (Chirinos JA, Ed.) Chapter 12, pp. 195-209, Academic Press – Elsevier, San Diego, CA, 2022.

5. **Breslin JW**, Yuan SY. Determination of solute permeability of microvascular endothelial cell monolayers in vitro. *Methods Mol. Biol.* 2711: 1-12, 2024. PMID: 37776444

6. **Breslin JW**, Motawe ZY. Imaging and analysis of the dynamics of filamentous actin structures in live endothelial cells. *Methods Mol. Biol.* 2711: 129-146, 2024. PMID: 37776454

7. Alves NG, **Breslin JW.** Microvascular Endothelial Glycocalyx Surface Layer Visualization and Quantification. *Methods Mol. Biol.* 2711: 163-175, 2024. PMID: 37776456

8. Motawe ZY, Abdelmaboud SS, **Breslin JW**. Evaluation of glycolysis and mitochondrial function in endothelial cells using the seahorse analyzer. *Methods Mol. Biol.* 2711: 241-256, 2024. PMID: 37776463

Peer-Reviewed Journal Publications:
Original Research:
1. Varma S, **Breslin JW**, Lal BK, Hobson RW, Pappas PJ, Durán WN. p42/44 MAP kinase regulates baseline permeability and cGMP-induced hyperpermeability in endothelial cells. *Microvasc. Res.* 63: 172-178, 2002. PMID: 11866540

2. **Breslin JW**, Pappas PJ, Cerveira JJ, Hobson RW, Durán, WN. VEGF increases endothelial permeability by separate signaling pathways involving ERK-1/2 and nitric oxide. *Am. J. Physiol. Heart Circ. Physiol.* 284: H92-H100, 2003. PMID: 12388327

3. **Breslin JW**, Yuan SY. Involvement of RhoA and Rho Kinase in Neutrophil-Stimulated Endothelial Hyperpermeability. *Am. J. Physiol. Heart Circ. Physiol.* 286: H1057-H1062, 2004. PMID: 14630629

4. Aramoto H, **Breslin JW**, Pappas PJ, Hobson RW, Durán WN. Vascular endothelial growth factor stimulates differential

signaling pathways in the *in vivo* microcirculation. *Am. J. Physiol. Heart Circ. Physiol.* 287: H1590-H1598, 2004. PMID: 15155260

5. Tinsley JH, **Breslin JW**, Teasdale NR, Yuan SY. PKC-dependent, burn-induced adherens junction reorganization and barrier dysfunction in pulmonary microvascular endothelial cells. *Am. J. Physiol. Lung Cell Mol. Physiol.* 289: L217-L223, 2005. PMID: 15821015

6. Varma, S, Lal BK, Zheng R, **Breslin JW**, Saito S, Pappas, PJ, Hobson, RW, Durán, WN. Hyperglycemia alters PI3K and Akt signaling and leads to endothelial proliferative dysfunction. *Am. J. Physiol. Heart Circ. Physiol.* 289: H1744-H1751, 2005. PMID: 15964918 PMCID: PMC1618822

7. **Breslin JW**, Sun H, Xu W, Rodarte C, Moy AB, Wu MH, Yuan SY. Involvement of ROCK-mediated endothelial tension development in neutrophil-stimulated microvascular leakage. *Am. J. Physiol. Heart Circ. Physiol.* 290: H741-H750, 2006. PMID: 16172166 PMCID: PMC2802275

8. Sun, H, **Breslin JW**, Zhu J, Yuan SY, Wu MH. Rho and ROCK Signaling in VEGF-induced coronary venular hyperpermeability. *Microcirculation* 13: 237-247, 2006. PMID: 16627366

9. Reynoso R, Perrin RM, **Breslin JW**, Daines DA, Watson KD, Watterson D.M., Wu MH, Yuan S. A role for long chain myosin light chain kinase (MLCK-210) in microvascular hyperpermeability during severe burns. *Shock.* 28: 589-595, 2007. PMID: 17577141

10. **Breslin JW**, Gaudreault N., Watson KD, Reynoso R, Yuan SY, Wu MH. Vascular endothelial growth factor-C stimulates the lymphatic pump by a VEGF receptor-3-dependent mechanism. *Am. J. Physiol. Heart Circ. Physiol.* 293: H709-H718, 2007. PMID: 17400713

11. Kargozaran H, Yuan SY, **Breslin JW**, Watson KD, Gaudreault N, Breen A, Wu MH. A role for endothelial-derived matrix metalloproteinase-2 in breast cancer cell transmigration across the endothelial-basement membrane barrier. *Clin. Exp. Metastasis.* 24: 495-502, 2007. PMID: 17653824

12. **Breslin JW**, Yuan SY, Wu MH. VEGF-C alters barrier function of cultured lymphatic endothelial cells through a VEGFR-3-dependent mechanism. *Lymphat. Res. Biol.* 5: 105-114, 2007. PMID: 17935478 PMCID: PMC3001341

13. **Breslin JW**, Wu MH, Guo M, Reynoso R, Yuan SY. Toll-like receptor 4 contributes to microvascular inflammation and barrier dysfunction in thermal injury. *Shock*. 29: 349-355, 2008. PMID: 17704733

14. Guo M, **Breslin JW**, Wu MH, Gottardi CJ, Yuan SY. VE-cadherin and β-catenin binding dynamics during histamine-induced endothelial hyperpermeability. *Am. J. Physiol. Cell Physiol.* 294: C977-C984, 2008. PMID: 18287330

15. **Breslin JW**, Kurtz KM. Lymphatic endothelial cells adapt their barrier function in response to changes in shear stress. *Lymphat. Res. Biol.* 7: 229-237, 2009. PMID: 20143922 PMCID: PMC2883493

16. Souza-Smith FM, Kurtz KM, Molina PE, **Breslin JW.** Adaptation of intrinsic mesenteric lymphatic function following acute alcohol intoxication. *Microcirculation.* 17: 514-524, 2010. PMID: 21040117 PMCID: PMC3057893

17. **Breslin JW.** ROCK and cAMP promote lymphatic endothelial cell barrier integrity and modulate histamine and thrombin-induced barrier dysfunction. *Lymphat. Res. Biol*. 9:3-11, 2011. PMID: 21417762 PMCID: PMC3060730

18. Doggett TM, **Breslin JW.** Study of actin dynamics in endothelial cells expressing GFP-actin. *J. Vis. Exp.* 57: e3187, DOI: 10.3791/3187, 2011. PMID: 22126853 PMCID: PMC3308586

19. Souza-Smith FM, Kurtz, KM, **Breslin JW**. Measurement of cytosolic Ca^{2+} in isolated contractile lymphatics. *J. Vis. Exp.* 58: e3438, DOI: 10.3791/3438, 2011. PMID: 22214883 PMCID: PMC3335171

20. Desai SD, Reed RE, Burks J, Wood LM, Pullikuth AK, Haas AL, Liu LF, **Breslin JW**, Meiners S, Sankar S. ISG15 disrupts cytoskeletal architecture and promotes motility in human breast cancer cells. *Exp. Biol. Med.* 237: 38-49, 2012 PMID: 22185919

21. Souza-Smith FM, Molina PE, **Breslin JW**. Reduced RhoA activity mediates the acute alcohol-intoxication-induced reduction of lymphatic myogenic constriction independently of cytosolic [Ca^{2+}]. *Microcirculation.* 20: 377-384, 2013. PMID: 23237297 PMCID: PMC3610832

22. Kurtz KH, Souza-Smith FM, Moor AN, **Breslin JW**. Rho kinase enhances contractions of rat mesenteric collecting lymphatics. *PLOS One.* 79: e94082, 2014. PMID 24710574 PMCID: PMC3978029

23. Kurtz KH, Moor AN, Souza-Smith FM, **Breslin JW**. Involvement of H1 and H2 receptors and soluble guanylate cyclase in histamine-induced relaxation of rat mesenteric collecting lymphatics. *Microcirculation.* 21: 593-605, 2014. PMID: 24702851 PMCID: PMC4185265

24. Doggett TM, **Breslin JW**. Acute alcohol intoxication-induced microvascular leakage. *Alcohol Clin. Exp. Res.* 38: 2414-2426, 2014. PMID: 25257290 PMCID: PMC4179905

25. **Breslin JW**, Zhang XE, Worthylake RA, Souza-Smith FS. Involvement of local lamellipodia in endothelial barrier function. *PLOS One*. 10: e0117970, 2015. PMID: 25658915 PMCID: PMC4320108

26. Adderley SP, Zhang XE, **Breslin JW**. Involvement of the H1 histamine receptor, p38 MAP kinase, MLCK, and Rho/ROCK in histamine-induced endothelial barrier dysfunction. *Microcirculation*. 22: 237-248, 2015. PMID: 25582918 PMICD: PMC4412777

27. Souza-Smith FM, Kerut K, **Breslin JW**, Molina PE. Mechanisms of acute alcohol intoxication disruption of cyclic mobilization of [Ca^{2+}] in rat lymphatic contraction pattern. *Lymphat. Res. Biol.* 13: 93-99, 2015. PMID: 26056854 PMCID: PMC4492616

28. Adderley SP, Lawrence C, Madonia E, Olubadewo JO, **Breslin JW**. Histamine activates p38 MAP kinase and alters local lamellipodia dynamics, reducing endothelial barrier integrity and eliciting central movement of actin fibers. *Am. J. Physiol. Cell Physiol.* 309: C51-C59, 2015. PMID: 25948734 PMCID: PMC4490326

29. Hooper JS, Hadley SH, Morris KF, **Breslin JW**, Dean JB, Taylor-Clark TE. Characterization of cardiovascular reflexes evoked by airway stimulation with allylisothiocyanate, capsaicin and ATP in Sprague Dawley rats. *J Appl. Physiol.* 120: 580-591, 2016. PMID: 26718787 PMCID: PMC4868373

30. **Breslin JW**, Daines DA, Doggett TM, Kurtz KM, Souza-Smith FM, Wu MH, Yuan SY. Rnd3 as a novel target to ameliorate microvascular leakage. *J. Am. Heart. Assoc.* 5: e003336, 2016. PMID: 27048969 PMCID: PMC4859298

31. Sloas DC, Stewart SA, Sweat RS, Doggett TM, Alves NG, **Breslin** JW, Gaver DP, Murfee WL. Estimation of the pressure drop required for lymph flow through initial lymphatic networks. *Lymphat. Res. Biol.* 14: 62-69 2016. PMID: 27267167 PMCID: PMC4926202

32. Zhang XE, Adderley SP, **Breslin JW**. Activation of RhoA, but not Rac1, mediates early stages of S1P-induced endothelial barrier enhancement. *PLOS One* 11: e0155490, 2016. PMID: 27187066 PMCID: PMC4871357

33. Motherwell JM, Azimi MS, Spicer K, Alves NG, Hodges NA, **Breslin JW**, Katakam PVG, Murfee WL. Evaluation of arteriolar smooth muscle function in and ex vivo microvascular network model. *Sci. Rep.* 7: 2195, 2017. PMID: 28526859 PMCID: PMC5438412.

34. Doggett TM, Alves NG, Yuan SY, **Breslin JW**. Sphingosine-1-phosphate treatment can ameliorate microvascular leakage caused by combined alcohol intoxication and hemorrhagic shock. *Sci. Rep.* 7: 4078, 2017. PMID: 28642485 PMCID: PMC5481382.

35. Trujillo AN, Adderley SP, Katnik C, Cuevas J, Cha BJ, Taylor-Clark TE, **Breslin JW**. Modulation of mesenteric collecting lymphatic contractions by sigma-1 receptor activation and nitric oxide production. *Am. J. Physiol. Heart Circ. Physiol.* 313: H839-H853, 2017. PMID: 28778917 PMCID: PMC5668603

36. Alves NG, Yuan SY, **Breslin JW**. Sphingosine-1-phosphate protects against brain microvascular endothelial junctional protein disorganization and barrier dysfunction caused by alcohol. *Microcirculation*. 2018:e12506, PMID: 30281888 PMCID: PMC6335152

37. Alves NG, Trujillo AN, **Breslin JW**, Yuan SY. Sphingosine-1-phosphate reduces hemorrhagic Shock and resuscitation-induced microvascular leakage by protecting endothelial mitochondrial integrity. *Shock.* 52: 423-433, 2019. PMID: 30339634 PMCID: PMC6472986

38. Hooper JS, Stanford KR, Alencar PA, Alves NG, **Breslin JW**, Dean JB, Morris KF, Taylor-Clark TE. Nociceptive pulmonary-cardiac reflexes are altered in the spontaneously hypertensive rat. *J. Physiol.* 597: 3255-3279, 2019 PMID: 31077371 PMCID: PMC6602842

39. Jo M, Trujillo AN, Yang Y, **Breslin JW**. Evidence of functional ryanodine receptors in rat mesenteric collecting lymphatic vessels. *Am. J. Physiol. Heart Circ. Physiol.* 317: H561-H574, 2019. PMID: 31274355 PMCID: PMC6766729

40. Mohan Kumar K, Namachivayam K, Sivakumar N, Alves NG, Sidhaye V, Das J, Chung Y, **Breslin JW**, Maheshwari A. Severe Neonatal Anemia Increases Intestinal Permeability by Disrupting Epithelial Adherens Junctions. *Am J Physiol Gastrointest Liver Physiol.* 318: G705-G716, 2020. PMID: 32090604 PMCID: PMC7191465

41. Motawe ZY, Farsaei F, Abdelmaboud, SS, Cuevas J, **Breslin JW**. Sigma-1 Receptor Activation-Induced Glycolytic ATP Production and Endothelial Barrier Enhancement. *Microcirculation* 27: e12620, 2020. PMID: 32279379 PMCID: PMC7484451

42. Motawe ZY, Abdelmaboud SS, **Breslin JW**. Involvement of sigma receptor-1 in lymphatic endothelial barrier integrity and bioenergetic regulation. *Lymphat. Res. Biol.* 19: 231-239, 2021. PMID: 33226886 PMCID: PMC8220569

43. Yang X, Zheng E, Ma Y, Chatterjee V, Villalba N, **Breslin JW**, Liu R, Yuan SY. DHHC21 deficiency attenuates renal dysfunction during septic injury. *Sci Rep.* 11: 11146, 2021. PMID: 34045489 PMCID: PMC8159935

44. Jo M, Trujillo AN, Shibahara N, **Breslin JW**. Impact of Goreisan components on rat mesenteric collecting lymphatic vessel pumping. *Microcirculation* 30:e12788, 2023. PMID: 36169611 PMCID: PMC10043042

45. Nepali PR, Burboa PC, Lillo MA, Mujica PE, Iwahashi T, Zhang J, Durán RG, Boric M, Golenhofen N, Kim DD, Alves NG, Thomas AP, **Breslin JW**, Sánchez FA, Durán WN. Endothelial mechanisms for inactivation of inflammation-induced hyperpermeability. *Am J. Physiol. Heart Circ. Physiol.* 324: H610-H623, 2023. PMID: 36867447. PMCID: PMC10069978

46. Patel NA, Lui A, Trujillo AN, Motawe ZY, Bader D, Schuster J, Burgess A, Alves NG, Jo M, **Breslin JW**. Female and male obese Zucker rats display differential inflammatory mediator and long non-coding RNA profiles. *Life Sci.* 335:122285, 2023. PMID: 37995934 PMCID: PMC10760426

Peer-Reviewed Articles – Reviews and Commentaries:

1. Yuan SY, **Breslin JW**, Perrin R, Gaudreault N, Guo M, Kargozaran H, Wu MH. Microvascular permeability in diabetes and insulin resistance. *Microcirculation*. 14: 363-373, 2007. PMID: 17613808

2. Durán WN, **Breslin JW**, Sánchez FA. The NO cascade, eNOS location, and microvascular permeability. *Cardiovasc. Res.* 87: 254-261, 2010. PMID: 20462865 PMCID: PMC2895543

3. **Breslin JW**. Mechanical forces and lymphatic transport. *Microvasc. Res.* 96: 46-54, 2014. PMID: 25107458 PMCID: PMC4267889

4. Trujillo AN, **Breslin JW.** Lymphaticosclerosis: A new way of thinking about lymphatic vessel obstruction. *Br. J. Dermatol.* 172: 1184-1185, 2015. PMID: 25963208 PMCID: PMC4430326

5. **Breslin JW**. Cellular crosstalk, inflammatory signals, and enhanced microvascular permeability. *Microcirculation*: 24: doi: 10.1111/micc.12368, 2017. PMID: 28295872.

6. **Breslin JW**, Yang Y, Scallan JP, Sweat RS, Adderley, SP, Murfee WL. Lymphatic vessel network structure and physiology. *Comprehensive Physiology*. 9: 207-299, 2019. PMID: 30549020 PMCID: PMC6459625

7. **Breslin JW,** Murfee WL. Linking lymphatic function to disease. *J. Physiol. (London)* 598:3065-3066, 2020. PMID: 32445485 PMCID: PMC7677181

8. Motawe ZY, Abdelmaboud SS, Cuevas J, **Breslin JW**. PRE-084 as a tool to uncover potential therapeutic applications for selective sigma-1 receptor activation. *Int. J. Biochem. Cell Biol.* 126: 105803, 2020. PMID: 32668330 PMCID: PMC7484451

9. Lampejo A, Jo M, Murfee WL, **Breslin JW**. The microvascular-lymphatic interface and tissue homeostasis: critical questions that challenge our understanding. *J Vasc. Res*. 59: 327-342, 2022. PMID: 36315992 PMCID: PMC9780194

10. **Breslin JW.** Lymphatic clearance and pump function. *Cold Spring Harb. Perspect. Med.* 13:a041187, 2023. PMID: 35667711. PMCID: PMC9899645

11. Chakraborty S, Dixon BJ, Rutkowski JN, Castorena-Gonzalez JA, **Breslin JW**. Lymphatic pathophysiology. *Microcirculation* 30: e12806, 2023. PMID: 37078170

12. **Breslin JW**. Edema and Lymphatic Clearance: Molecular Mechanisms and Ongoing Challenges. *Clin. Sci. (Lond.)* 137:1451-1476, 2023. PMID: 37732545. NIHMSID: 1978299

Policy Guidelines:
1. AAMC, January 2017: Compact Between Postdoctoral Appointees and Their Mentors: A framework for aligning the postdoctoral appointee mentor-mentee relationship. **Breslin J**, Cameron P, Coolen L, Freedman V, Mathur A, Schwartz N, Yellin J, contributors.

2. AAMC, January 2017: Compact Between Biomedical Graduate Students and Their Research Advisors: A framework for aligning the graduate student mentor-mentee relationship. **Breslin J**, Cameron P, Coolen L, Freedman V, Mathur A, Schwartz N, Yellin J, contributors.

Abstracts:

1. **Breslin J**, Ahmad G. The effects of ingested cadmium chloride on the humoral immune response to lipopolysaccharide in young CF-1 mice. Mid-Atlantic Chapter, Society of Toxicology, Spring Meeting, 1998.

2. **Breslin J**, Varma S, Lal BK, Pappas PJ, Durán WN. Permeability to macromolecules in endothelial cells exposed to normal and high glucose-containing media. 7th Annual UMDNJ Graduate Student Association Research Conference, October 2, 2000.

3. **Breslin JW**, Varma S, Lal BK, Hobson RW, Pappas PJ, Durán WN. Mitogen activated protein (MAP) kinases mediate vascular endothelial growth factor (VEGF)- and cyclic GMP (cGMP)-induced endothelial hyperpermeability in vitro. *FASEB J.* 15: A43, 2001.

4. **Breslin JW**, Pappas PJ, Durán WN. VEGF-induced activation of ERK-1/2 is regulated by MEK, but not eNOS or PI3K. 8th Annual UMDNJ Graduate Student Association Research Conference, October 9, 2001.

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51. Kurtz KM, Souza-Smith FS, **Breslin JW**. Involvement of Rho kinase in tone and phasic contractions in lymphatics. Southeast Regional IDEA Meeting, Sept. 22-24, 2011, New Orleans, LA.

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57. **Breslin JW**. Novel role of local lamellipodia in endothelial barrier function. *FASEB J.* 26: 862.6, 2012.

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77. Zhang X, Adderley S, **Breslin J**. Sphingosine-1-Phosphate (S1P) induces localized RhoA activation in association with endothelial barrier enhancement. Vascular Biology 2014 meeting, October 19-23, 2014, Asilomar Conference Grounds, CA.

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100. Alves NG, Yuan SY, **Breslin JW**. Effects of Sphingosine-1-Phosphate on Endothelial Barrier Function Following Hypoxic Injury and Hemorrhagic Shock. *FASEB J.* 32: 710.8, 2018.

101. Alves NG, **Breslin JW**, Yuan SY. Sphingosine-1-phosphate protects endothelial barrier function following hemorrhagic shock and hypoxic injury. *Microcirculation* 26:e12524, abstract B.8.2., 2019.

102. Motawe ZY, Katnik CP, Trujillo AN, Cuevas J, Breslin JW. Sigma-1 receptor agonists elicit arteriolar dilation via Akt/eNOS activation, and also have endothelial barrier protective properties. *FASEB J.* 33: 683.2, 2019.

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105. **Breslin JW**, Trujillo AN, Alves NG, Jo M, Motawe ZY. Sex-Specific Protein Expression Differences in Peri-Lymphatic Adipose of Obese and Lean Zucker Rats. *FASEB J.* 34: doi.10.1096/fasebj.2020.34.s1.04520, 2020.

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107. Collignon TE, Norton TE, Motawe ZY, **Breslin JW**. Apolipoprotein-M bound sphingosine-1 phosphate enhances heparan sulfate expression and endothelial nitric oxide synthase phosphorylation in cultured endothelial cells. *FASEB J.* 34: doi:10.1096/fasebj.2020.34.s1.05577, 2020.

108. Motawe ZY, Farsaei F, Abdelmaboud SS, Cuevas J, **Breslin** JW. The sigma-1 agonist PRE-084 protects against energy depletion induced barrier disruption and also enhances glycolysis in HUVECs. *FASEB J.* 34: doi:10.1096/fasebj.2020.34.s1.05258, 2020.

109. Claudino MA, Mora A, Janussi S, Piera JS, Vanalli T, Silveira TR, Motawe ZY, **Breslin JW**. Effect of Entresto (valsartan+sacubitril) in the cardiac function and contractile response of detrusor and corpus cavernosum smooth muscles of heart failure rats. *FASEB J.* 34: doi:10.1096/fasebj.2020.34.s1.07018, 2020.

110. Abdelmaboud S, Yuan SY, **Breslin JW**. Proteomic analysis of control and disrupted endothelial monolayers. *FASEB J.* 36: DOI:10.1096/fasebj.2022.36.s1.r4625, 2022.

111. McQueen J, Bloom CA, Zimmermann Rollin I, Iyer V, **Breslin JW**. Altered human artery responsiveness to the sigma receptor agonist PRE-084 with alcohol use. International Vascular Biology Meeting, Oakland, CA, Oct. 13-17, 2022.

112. Zimmermann Rollin I, McQueen J, Iyer V, Noujaim SF, **Breslin JW**. Study of the impact of the inward rectifier potassium channel blocker Tertiapin-Q and a novel Peptibody on vascular and intestinal smooth muscle function. International Vascular Biology Meeting, Oakland, CA, Oct. 13-17, 2022.

113. Iyer VV, Zimmermann Rollin I, McQueen JF, **Breslin JW**. Differential impact of S1P on hCMEC/D3 and HUVEC monolayer barrier function. International Vascular Biology Meeting, Oakland, CA, Oct. 13-17, 2022.

114. Bloom C, Zimmermann Rollin I, McQueen JF, Iyer VV, **Breslin JW.** Isolated human mesenteric arteries from organ donors as a model to determine arterial reactivity. American Physiology Summit, Long Beach, CA, April 20-23, 2023.

115. Totry C, Santagio L, **Breslin JW.** Impact of Goreisan on human dermal lymphatic endothelial protein/mRNA expression. Vascular Biology meeting, Newport, RI, October 15-29, 2023.

116. Zamora Diaz P, Hurtado Osorio L, McQueen JF, Bloom C, Zimmermann Rollin I, Iyer VV, **Breslin JW**. Altered impact of sigma receptor agonists on adrenergic-induced contraction of human mesenteric arteries form donors with a history of heavy alcohol use. Vascular Biology meeting, Newport, RI, October 15-29, 2023.

117. Hurtado Osorio L, Zamora Diaz P, Bloom C, McQueen JF, Zimmermann Rollin I, Iyer VV, Katnik C, **Breslin JW**. Isolated human mesenteric arteries from organ donors as a model to determine arterial reactivity. Vascular Biology meeting, Newport, RI, October 15-29, 2023.

Inventions and Patents:
1. **Breslin JW**, Doggett TM. US 10,111,841 B2 Oct. 30, 2018 “Stabilization of Alcohol Intoxication-Induced Cardiovascular Instability”

2. **Breslin JW**, Motawe ZY. US 11,723,910 B1 Aug. 15, 2023 “Compositions and methods for modulating the endothelial barrier.”

Service Accomplishments:

Research Review Committees

2009	Sheffield Hospitals Charitable Trust Medical Research Committee (U.K.)
2013-2015	NIH Special Emphasis Panel ZRG1 DKUS-A (57), DKUS-D (57) and DKUS-E (57) PAR Panel: Lymphatics in Health and Disease in the Digestive, Urinary, Cardiovascular and Pulmonary Systems
2013-2014	Anna D. Valentine USF-Moffitt Cancer Research Award Review Committee
2013	Shota Rustaveli National Science Foundation (Republic of Georgia) Grant Reviewer

2014	NIH/NHLBI Special Emphasis Panel ZHL1 CSR-O (S1) "Blood and Vascular Systems Response to Sepsis (R01)"
2016	Natural Sciences and Engineering Research Council of Canada Discovery Grants, External Reviewer
2016	NIH Special Emphasis Panel ZRG1 DKUS-C (58) R PAR15-306: Lymphatics in Health and Disease in the Digestive System, Kidney, and Urinary Tract
2016	NIH Special Emphasis Panel 2016/05 ZGM1 TWD-Y (PR): INGMS Intramural Postdoctoral Research Associate (PRAT) Program, Mail Reviewer
2016	AAMC Innovators in Research Education Award Grant Review Panel
2016	Department of Defense (DoD) – Defense Medical Research and Development Programs (DMRDP) Combat Casualty Care Research Program (CCCRP) Prolonged Field Care Research Award (PFCRA)
2016	NIH 2017/01 ZHL 1 CSR-X(F1) Heart, Lung, Blood, and Sleep Conference Support Applications
2017	NIH Hypertension and Microcirculation Study Section, Ad Hoc Reviewer
2017	US Army Congressionally Directed Medical Research Programs (CDMRP) Preapplication Reviewer
2017	NIH 2017/10 ZRG1 DKUS-H (58) R PAR-15-306: Lymphatics in Health and Disease in the Digestive System, Kidney, and Urinary Tract (R01)
2018	NIH ZGM1 TWD-X (PR) Review of PRAT Applications
2018	DoD – Defense Medical Research and Development Program
2018	NIH ZRG1 BCMB-C (40) PAR17-340, Collaborative Program Grant for Multidisciplinary Teams (RM1), Mail Reviewer
2018	NIH 2019/01 ZRG1 F05-D (21) Fellowships: Cell Biology, Developmental Biology, and Bioengineering
2019	NIH CSR Anonymization Project
2020	Panel Chair, DoD – CDMRP Combat Readiness Medical Research Program – Rapid Development and Translational Research Award
2020	DoD – CDMRP Preapplication Reviewer
2020	DoD – Peer-Reviewed Medical Research Program (PRMRP) FY20 Clinical Trial Awards Reviewer
2021	Panel Chair, DoD – CDMRP Combat Readiness Medical Research Program – Battlefield and Telemedicine Solution
2021	DoD –PRMRP FY21 Clinical Trial Awards Reviewer
2021	NIH AA-1 Biomedical Research Review Subcommittee Ad-Hoc Reviewer
2022	NIH NHLBI Loan Repayment Program Reviewer
2022	DoD – CDMRP FY22 Combat Readiness Medical Research Program (CRRP)
2023-2024	NIH NHLBI Loan Repayment Program Reviewer
2023	NIH ZRG1 BN-V 91 S, Cellular and Molecular Aspects of the Blood-Brain Barrier and Neurovascular System
2023	Panel Chair, DoD – CDMRP PRMRP Discovery Award Applications
2023	Panel Chair, DoD – CDMRP PRMRP Clinical Trial Applications
2023	NIH ZRG1 MBBC-GPAR23-077, Collaborative Program Grant for Multidisciplinary Teams (RM1), Mail Reviewer
2024	Natural Sciences and Engineering Research Council of Canada Discovery Grants, External Reviewer
2024	NIH Integrative Vascular Physiology and Pathology (IVPP) Ad-Hoc Reviewer

Editorial Posts and Activities:

Associate Editor:

Microcirculation (June 1, 2013 – present)

Editorial Board:

Microcirculation (January 1, 2010 – present)
PLOS One (September 1, 2014 – August 31, 2022)
Frontiers in Physiology (December 1, 2016 – present)
Journal of Vascular Research (September 1, 2018 – present)
American Journal of Physiology: Heart and Circulatory Physiology (March 2, 2022 – present)

Peer Reviewer:

Circulation Research; Journal of Clinical Investigation; Journal of Physiology (London); Cardiovascular Research; American Journal of Physiology: Cell Physiology; American Journal of Physiology: Heart and Circulatory Physiology; American Journal of Physiology: Lung Cellular and Molecular Physiology; American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology; American Journal of Physiology: Endocrinology and Metabolism; American Journal of Physiology: Gastrointestinal and Liver Physiology; Hypertension; Scientific Reports; Journal of the American Heart Association; Alcoholism: Clinical and Experimental Research; PLOS One; Journal of Applied Physiology;

Pharmacology; British Journal of Pharmacology; Microcirculation; Microvascular Research; Journal of Vascular Research; Life Sciences; Lymphatic Research and Biology; BMC Physiology; Journal of Biomechanics; Cell Biology International; Cell and Molecular Biology Letters; WIREs Systems Biology and Medicine; Journal of Cardiovascular Translational Research; Journal of Visualized Experiments; British Journal of Dermatology; Journal of Surgical Research; Texas Heart Institute Journal; Frontiers in Physiology; Frontiers in Neuroscience Aging; Haematologica; International Journal of Obesity; Function

Service on Committees:

On Campus

1998-2002	UMDNJ-Newark Graduate Student Association (GSA; President, 2001)
2000-2001	GSA Research Conference Committee (Chair, 2001)
2000-2001	Student Representative, Executive Council, UMDNJ Graduate School of Biomedical Sciences, Newark Division
2000-2002	UMDNJ Student Assistance Campus Committee
2001-2002	Search Committee for UMDNJ-NJMS Senior Associate Dean for Research
2002	UMDNJ Spring Arts Festival Planning Committee
2005-2006	Selection Committee for UC Davis Award for Excellence in Postdoctoral Research (Chair, 2006)
2005-2007	UC Davis Postdoctoral Scholars Association (PSA; Co-Chair 7/2005-11/2005; Chair 12/2005-8/2007)
2005-2007	Postdoctoral Scholar Representative, UC Davis Graduate Council
2005-2006	UC Davis Postdoctoral Scholars Teaching Initiative Committee
2005-2007	University of California Systemwide Council of Postdoctoral Scholars (CPS; Chair-Nov 2005-Feb 2006 and Jan 2007-April 2007),
2005-2007	CPS Website Committee
2008	Poster/Oral Presentation Judge, LSUHSC Graduate Research Day, April 18, 2008
2008	LSUHSC-NO SOM Director of Research Development Search Committee
2008-2012	LSUHSC-NO SOM Committee on International Travel
2008-2012	LSUHSC-NO “Go Team” (Disaster First Responder)
2008-2010	LSUHSC-NO Physiology Graduate Student Program Committee
2008-2012	LSUHSC-NO Physiology Faculty Search Committee 8/2011-5/2012, Chair
2011-2012	LSUHSC-NO School of Medicine Faculty Assembly (Basic Science Delegate)
2011-2012	LSUHSC-NO Faculty Senate (School of Medicine Representative) 10/2011-12/2011: Tenure Clock Ad-hoc Subcommittee
2011-2012	LSUHSC-NO Faculty Senate Research Subcommittee
2011-2012	LSUHSC-NO Aziz and Villere Endowed Chair Search Committee
2012-present	USF Department of Molecular Pharmacology and Physiology (MPP) Faculty Search Committee
2012-2020	USF MPP Research Committee
2013-2014	USF MPP Website Committee
2013-present	USF Institutional Animal Care and Use Committee
2013-present	USF MCOM Graduate Medical Sciences Education and Graduate Student Affairs Committee
2013-2017	Chair, USF Morsani College of Medicine (MCOM) Research Committee
2015-2019	USF Faculty Senate Research Council 2017-2018 Chair-Elect; 2018-2019 Chair
2015-2017	USF MCOM Academic Performance Review Committee
2015-2017	USF MCOM School of Physical Therapy and Rehabilitation Sciences Academic Performance Review Sub-Committee
2017-2021	USF MPP Appointment, Promotion, and Tenure Committee
2017-2020	USF MCOM Appointment, Promotion, and Tenure Committee
2018-2020	USF Department of Medical Engineering Faculty Search Committee
2019-2021	Vice-President, USF MCOM Faculty Council
2019-2021	Chair, USF MCOM Nominating Committee
2021	USF MCOM Promotion and Tenure Guidelines Revisions Committee
2021-present	USF Department of Medical Engineering Faculty Search Committee
2021-present	Chair, USF MPP Appointment, Promotion, and Tenure Committee
2021-present	Chair, USF MPP Education Committee
2021	USF Health Graduate Medical Education Self-Study Committee
2021-2023	USF MCOM Financial Oversight Committee
2021-2023	President, USF MCOM Faculty Council

2021-2024 USF MCOM Continuous Quality Improvement (CQI) Steering Committee (LCME Accreditation)
2022 USF Outstanding Graduate Mentor Award Selection Committee
2022-present USF Faculty Senate
2023-2025 Past-President, USF MCOM Faculty Council
2024-present USF Honors and Awards Council
2024-present Advisory Board, USF Genomics Program Core

Beyond Campus

2008-2011 American Physiological Society (APS) Chapter Advisory Committee
2009-2012 APS Cardiovascular Section NIH/NHLBI Liaison Committee
2009-2010 Microcirculatory Society Membership Committee
2010, 2012 Microcirculatory Society Awards Committee
2011-2012 Treasurer/Secretary, Gulf Coast Physiological Society
2011 Physiology Understanding Week Coordinator for Woodlake Elementary School, Mandeville, LA
2013-2023 AAMC Council of Faculty and Academic Societies, USF MCOM Representative
2013-2015 APS Cardiovascular Section Development Committee
2013-2014 Physiology Understanding Week Coordinator for Lawton Chiles Elementary School, Tampa, FL
2014-2017 Councilor, The Microcirculatory Society
2015-2020 Microcirculatory Society Communications Committee
2015-present Microcirculatory Society Webmaster
2015-2016 AAMC project team: Review of AAMC Compact Between Postdoctoral Appointees and their Mentors
2016-2020 APS Cardiovascular Section Communications Committee (Chair, 2017-2020)
2017-2018 Physiology Understanding Week Coordinator for Liberty Middle School, Tampa FL, and Bishop McLauglin High School, Spring Hill, FL
2017-2018 Scientific Advisory Committee for the 11th World Congress for Microcirculation (Vancouver, 2018)
2017-2020 APS Cardiovascular Section Steering Committee
2019-2021 Chair, Microcirculatory Society Programs and Meetings Committee
2020-2023 Scientific Advisory Committee for the 12th World Congress for Microcirculation (Beijing, 2023)
2020-2021 President-Elect, The Microcirculatory Society
2021-2023 President, The Microcirculatory Society
2023-2025 Past-President, The Microcirculatory Society
2023-2033 Long Range Planning Committee, The Microcirculatory Society
2023-present APS CV Section Nominating Committee
2024-2025 Vascular Biology 2025 Planning Committee
2024-present International Liaison Committee for Microcirculation