#### **CURRICULUM VITAE**

# Shane A. Phillips PT, PhD, FAHA Senior Associate Dean for Clinical Affairs

UIC, College of Applied Health Sciences

Director, KL2 program

UIC Center for Clinical and Translational Sciences

**Professor and Associate Head** 

UIC, Department of Physical Therapy

## **PERSONAL INFORMATION**

**NAME:** Shane A. Phillips

**OFFICE ADDRESS:** Department of Physical Therapy

University of Illinois at Chicago 1919 W. Taylor St. (M/C 898)

Office: 746 Lab: 124 Chicago, IL 60612

Telephone: 312-355-0277

shanep@uic.edu

**LABORATORY**: The Exercise, Research and Technology (EXERT) Vascular Laboratory

https://exert.ahs.uic.edu/

Twitter/Facebook: @EXERTlab

**EDUCATION** 

08/1994 - 05/1998 B.S., Marquette University, Milwaukee, WI 08/1998 - 05/2000 MPT., Marquette University, Milwaukee, WI

07/2000 - 05/2004 Ph.D., Physiology, Medical College of Wisconsin, Milwaukee, WI

# POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

Postdoctoral Fellow, Physiology, Medical College of Wisconsin,
Milwaukee, WI (Mentor: Julian Lombard)
Postdoctoral Fellow, Medicine (Cardiovascular), Medical College of
Wisconsin, Milwaukee, WI (Mentor: David Gutterman)
Clinical Research Scholars (NIH-K30)
Medical College of Wisconsin, Milwaukee, WI
Scholar, Center for Clinical and Translational Science
University of Illinois Medical Center, Chicago, IL

#### **FACULTY AND ADMINISTRATIVE APPOINTMENTS:**

08/2002 - 12/2002	Visiting Instructor, Department of Physical Therapy Marquette University,
	Milwaukee, WI.
01/2003 - 05/2003	Adjunct Instructor, Graduate School of Nursing, Marquette University,
	Milwaukee, WI.

05/2004 - 08/2007	Adjunct Clinical Assistant Professor, University of Illinois at Chicago,
07/2006 - 06/2007	Department of Physical Therapy; Chicago, IL. Instructor, Department of Medicine, Division of Cardiovascular Medicine,
07/2000 - 00/2007	Medical College of Wisconsin. Milwaukee, WI.
07/2006 - 06/2007	Instructor (secondary), Department of Surgery. Division of Trauma and
07/2000 - 00/2007	Critical Care, Medical College of Wisconsin. Milwaukee, WI.
07/2007 - 08/2007	Assistant Professor, Departments of Medicine and Surgery, Medical
07/2007 - 06/2007	College of Wisconsin, Milwaukee, WI
08/2007	Adjunct Assistant Professor, Departments of Medicine and Surgery,
00/2007	Medical College of Wisconsin, Milwaukee, WI
08/2007 - 08/2011	Assistant Professor (tenure track; primary), Department of Physical
06/2007 - 06/2011	Therapy, University of Illinois, Chicago, IL
12/2007 - 08/2011	Clinical Assistant Professor (secondary), Department of Medicine, Section
12/2007 00/2011	of Endocrinology, Diabetes, and Metabolism, University of Illinois
	College of Medicine, Chicago, IL
08/2010 – present	Associate Head, Department of Physical Therapy, University of Illinois at
vo/2010 prosin	Chicago, Chicago, IL
08/2011 - 08/2015	Clinical Associate Professor, Department of Medicine, Section of
	Endocrinology, Diabetes, and Metabolism, University of Illinois College
	of Medicine, Chicago, IL
08/2011 - 08/2015	Associate Professor (tenure), Department of Physical Therapy, University
	of Illinois at Chicago, Chicago, IL
08/2012 - present	Member, Integrative Physiology Laboratory, College of Applied Health
	Sciences, University of Illinois at Chicago, Chicago, IL
08/2012 - 07/2013	Interim co-Director of Professional Education (DPT), Department of
	Physical Therapy, University of Illinois at Chicago
08/2013 – present	Faculty Fellow, Honors College, University of Illinois at Chicago
08/2015 – present	Professor (tenure), Department of Physical Therapy, University of Illinois
	at Chicago, Chicago, IL
08/2015 – present	Professor (clinical), Department of Medicine, Section of Endocrinology,
	Diabetes, and Metabolism, University of Illinois College of Medicine,
02/2015 12/2017	Chicago, IL
03/2015 - 12/2017	Guest Researcher, Department of Physiotherapy, Federal University of
2015	Sao Carlos, SP, Brazil
2015	Guest Professor, Faculty of Medicine, University of Osijek, Osijek,
07/2016 magant	Croatia Director Clinical Rehabilitation and Technology Research Contificate
07/2016 – present	Director, Clinical Rehabilitation and Technology Research Certificate
	Program
Senior Leadershin at the	he University and College Level
08/2017 – present	Senior Associate Dean of Clinical Affairs, College of Applied Health
1	Sciences, University of Illinois at Chicago, Chicago, IL
09/2020 – present	Director, UIC Center for Clinical and Translational Sciences KL2
1	Scholars program, University of Illinois at Chicago
00/2022	Associate Diseases LHC Distance Contact Called a fM dising Hairmanite

Associate Director, UIC Diabetes Center, College of Medicine, University

of Illinois at Chicago

08/2022

## Administrative Leadership and Program Development

- Development of the Departmental strategic plan for Excellence for Physical Therapy Education and Research
  - Lead and implemented the expansion in the enrollment of our professional DPT program by 40%
  - Expansion and reformatting of the PhD and M.S. in Rehabilitation programs to meet market demands for qualified faculty teaching and research scholars for professional education
  - The development of a research focus and faculty recruitment in neurorehabilitation, cardiovascular and pulmonary physical therapy, wound care, orthopedic and sports physical therapy
  - Oversaw the expansion of education space and resources from 12,170 square feet in 2007 to more than 20,000 square feet in 2014.
  - Co-Lead the strategic plan development and implementation for the Department of Physical Therapy (2012, 2015, and 2019).

2014-present Co-Developed and planned the Orthopedic Physical Therapy faculty practice clinic

- Planned, remodeled and designed more than 3500 square feet
- Hired 3 clinical service faculty and residency mentors
- Grew to more than 25,000 clinic visits per year for Orthopedic Physical Therapy
- Oversaw and implemented compliance measures and revenue cycle development for the external billing of physical therapy, occupational therapy, and cardiac rehabilitation services.
- 2015 Co-Developed the Department of Physical Therapy Post-Professional Orthopedic Residency Certificate Program and Clinical Practice
  - Developed PT 594: Educator Practicum
  - Developed PT 594: Physical Therapy Residency Mentorship
  - Course Description: During Physical Therapy Residency Mentorship, while being
    mentored and supervised by physical therapists with expertise in a particular
    practice setting, physical therapy residents apply and develop advanced skills in a
    specialized clinical environment that fosters learning, inquiry, and critical/creative
    thinking.
  - Residency accreditation achieved in 2015, 3 residents per cohort.
  - Educational model with combined DPT to PhD to residency published in: Integrated approaches to physical therapy education: a new comprehensive model from the University of Illinois at Chicago. *Physiother Theory Pract.* 33: 353-360. 2017.
- 2013 Co-Developed the Department of Physical Therapy Proposal (MOU) for Professional Pipeline to Promote Diversity in Physical Therapy with UIC and Chicago Public Schools
- 2014 Co-Developed the Department of Physical Therapy new Anatomy course proposal
  - PT604 Anatomy of the Central Nervous System, Head and Neck for Physical Therapy

- PT603 Human Gross Anatomy for Physical Therapy
- Developed the Department of Physical Therapy Certificate in Clinical Rehabilitation and Technology Research
  - Mission: The mission of the University of Illinois at Chicago Certificate in *Human Subject Research Training for Health Professionals* is to provide physical therapists, physical therapy students and other health professionals, who have completed their degree or are still students, advanced knowledge and skills needed to actively participate on a human subject research team. This certificate training will produce clinicians who have an advanced understanding of how to contribute to the development of and participate in human subject research projects.
- External research contracts developed with Revolution Physical Therapy and Weight Loss for research development and clinical outcomes analysis. (\$36,000/year).
  - Results and model: *Physiother Theory Pract* 34: 13-21. 2018.
- External research and faculty contracts develop with React Physical Therapy for clinical outcomes analysis (\$50,000/year).
- 2015 Co-Developed and Implemented the Department of Physical Therapy Program for the UIC Applied Health Sciences cardiac rehabilitation program with the College of Medicine and the University of Illinois Health Sciences System
  - Combined Cardiac Rehabilitation program with on-site heart failure physician practice.
  - Developed a billable exercise testing laboratory service for heart and cardiovascular patients
  - Hired 2 FTE faculty exercise physiologist to administer the program and attained accreditation 2018.
  - Model described in: Ozemek C, **Phillips SA**, et al. Enhancing Participation in Cardiac Rehabilitation: A Question of Proximity and Integration of Outpatient Services. *Curr Probl Cardiol 43*: 424-435. 2018.
- Leadership team for the DPT program CAPTE re-accreditation self-study and evaluation process.
  - 10 year accreditation granted by CAPTE
- Developed a billable and embedded physical therapy practice in bariatric surgery practice
  - Oversee the credentialing process for physical therapist enrollment in insurance plans
  - Developed the pro-forma and business planning for the practice proposal
  - Developed the referral stream and performance outcomes
  - Strategic planning for practice growth

#### 2017 to present

Senior leadership in the development of College of Applied Health Sciences clinical

#### services infrastructure and planning

- Leadership in college clinical affairs strategic planning development
- Leadership in pro forma and business plan development of clinical services with college and Departmental administration
- Coordinated billing and revenue cycle management for clinical faculty (more than 50 clinical and support personnel) in Physical Therapy, Occupational Therapy, Psychology, Speech Language Pathology, exercise physiology, assistive technologies.
- Oversee a >\$3.8 million annual insurance billable physical therapy and cardiac rehabilitation office based clinical practice
- Oversee the safety and security policy and procedures for COVID-19 and infection mitigation during pandemic emergency
- Leadership responsibilities in the development of UI Health 55<sup>th</sup> and Pulaski multispecialty clinic with UI physician group and multiple community partners including space design and remodel of rehabilitation floor in collaboration with Chicago area community partners, hiring of personnel, start-up of electronic medical record, business plan development, billing oversight

#### **LICENSURE**

Physical Therapist Previous: State of Wisconsin Issue Date: 2000

Current: State of Illinois Issue Date: 2008

## PREVIOUS CLINICAL POSITIONS

1999-2000	Physical Therapist Internship, Columbia Hospital, Milwaukee, WI
2000	Physical Therapist Internship, Columbus Hospital, Chicago, IL
2000-2005	Physical Therapist, St. Michael's Hospital, Milwaukee, WI

## AWARDS AND HONORS

2008

2009

Clinical/Research	
1997	Howard Hughes Medical Institute Undergraduate Summer Research Award:
	Marquette University
2001-2004	National Institutes of Health – Institutional Predoctoral Award National Research
	Service Award. Medical College of Wisconsin
2004-2005	National Institutes of Health - Institutional Postdoctoral Award National
	Research Service Award. Medical College of Wisconsin
2004	Microcirculatory Society Benjamin Zweifach Student Award
2005	Iowa Physiological Society (IPS): Trainee Award Finalist
	<ul> <li>Abstract competition at annual IPS Meeting (4 finalists)</li> </ul>
2005	American Heart Association Postdoctoral Fellowship Award
2006	Young Investigator Award- Clinical Science Cardiovascular Section of the
	American Physiological Society (APS)
	• 1 award selected annually by the cardiovascular section of APS for the
	outstanding clinical research abstract presented at Experimental Biology
2007	Center for Clinical Translational Science Scholars Award

American College of Sports Medicine Research Endowment Award

Top paper award for clinical science contribution to Hypertension

University of Illinois Medical Center at Chicago

	• 1 award selected for the most significant original paper published in the journal
	Hypertension in 2008
2010	Presidential Early Career Award for Scientists and Engineers (PECASE) Nominee
2011	Educator of the Year Award, Physical Therapy, College of Applied Health
	Sciences, UIC
2013	Researcher of the Year, College of Applied Health Sciences, UIC
2013	Fellow, American Heart Association, Council on Arteriosclerosis, Thrombosis and
	Vascular Biology
2015	UIC Chancellor's Proof of Concept Award Winner
2017	Professor of the Year, College of Applied Health Sciences, University of Illinois at
	Chicago, Chicago, IL
2020	UIC Team Research Award with Dr. Irena Levitan, Office of the Vice Chancellor
	for Research, UIC
2020	American Physical Therapy Association, Dorothy Briggs Scientific Inquiry
	Award

# Academic /Scholastic

1998 Phi Beta Kappa, Marquette University	
1998 Alpha Sigma Nu, Marquette University	
1999 Wisconsin Physical Therapy Association Academic	Award
2004 MCW/Excellence in Physiology Award – Summa Cu	ım Laude

 Awarded annually for excellence in research and academics by the Medical College of Wisconsin, Department of Physiology Graduate Program

# **MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:**

04/1999 – present	American Physical Therapy Association
	Sections of Cardiovascular and Pulmonary Physical Therapy and Acute
	Care Physical Therapy
04/1999 - 08/2007	Wisconsin Physical Therapy Association
06/2004 - present	American Physiological Society
12/2003 – present	Microcirculatory Society, Inc.
06/2005 – present	American Heart Association
10/2008 – present	Illinois Physical Therapy Association
03/2012 – present	APTA Section on Research; APTA Cardiovascular and Pulmonary

## EDITORIAL BOARDS/INVITED REVIEWER:

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Editorial Board Member:	
01/2007 – present	American Journal of Physiology: Heart and Circulatory Physiology
01/2010 – present	Microcirculation
2014 - 2016	Advances in Vascular Medicine
2015	Guest Editor, Progresses in Cardiovascular Diseases
2016 - present	Associate Editor, Brazilian Journal of Physical Therapy
2016 - present	Review Editor, Frontiers in Physiology, Exercise Physiology
2019 - 2022	Guest Editor, Nutrients Journal

# **Invited Journal Reviewer:**

2004 – present	American Journal of Physiology: Heart and Circulatory Physiology;
<b>1</b>	

Journal of Applied Physiology, Journal of Vascular Research; European Journal of Clinical Investigation; Journal of the American College of Cardiology; Diabetes; American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology; Obesity; Hypertension; Journal of Nutrition, Metabolism, and Cardiovascular Disease; Metabolism; Journal of Internal Medicine; Applied Physiology, Nutrition, and Metabolism, Frontiers in Physiology; Journal of Physiology; Medicine, Science, and Sports in Exercise; Progress in Cardiovascular Disease: Circulation, Circulation Research, Journal of the American Heart

Association

## **GRANT REVIEW COMMITTEES AND SERVICE**

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2009 – 2011	Reviewer, American Heart Association, Vascular Biology and Blood
	Pressure Study Group Review Committee (Regular member).
2011 – present	Reviewer, American Heart Association, Vascular Biology and Blood
	Pressure Clinical and Translational Review Group (Regular Member)
2011, 2012	Reviewer, NIH/NHLBI Clinical and Integrative Cardiovascular Sciences
	Study Section (Temporary Member)
2012- present	UIC Campus Research Board; Co-Chair 2018
2013	Board of the Austrian Science Fund, Invited Scientific Reviewer
2013	Vidi Program; Innovation Research Initiative, Netherlands
2015,2019	Ad Hoc study section, NIH/NHLBI Atherosclerosis and Inflammation of
	the Cardiovascular System Study Section
2016 - 2018	Chair, Scientific Review Committee, AHA Vascular Biology and Blood
	Pressure Clinical Translational
2017	Member, NASA Human Exploration Research Opportunities, Radiation
	Cardio Panel
2018	Member, NASA Space Biology, Integrative Physiology Panel
2018, 2019	Reviewer, NIH/NHLBI Clinical and Integrative Cardiovascular Sciences
	Study Section (Ad Hoc)
2017-present	Member, NASA Space Radiation Cardio Study Section Panel
2020	Standing member, NIH Clinical and Integrative Cardiovascular Sciences
	Study Section
2021- 2024	Standing member, NIH Clinical and Integrative Cardiovascular and
	Hematological Sciences Study Section

# APPOINTED/ELECTED LEADERSHIP AND COMMITTEE POSITIONS

08/2005 – present	Member, Doctor of Physical Therapy Program Admissions Committee,
	Department of Physical Therapy, University of Illinois at Chicago
09/2007 - 2010	Faculty Advisory Committee (elected), Department of Physical Therapy,
	University of Illinois at Chicago
2008	Graduate Education Task Force (appointed), Department of Physical
	Therapy, University of Illinois at Chicago
2009	Faculty Search Committee (appointed), Department of Physical Therapy,
	University of Illinois at Chicago, Assistant Professor

2009 – 2017	Graduate Admissions Committee (appointed), M.S. in Rehabilitation Sciences, Department of Physical Therapy, University of Illinois at
2010	Chicago Faculty Search Committee, Department of Physical Therapy, University of Illinois at Chicago, Clinical Assistant Professor, Assistant Professor
08/2010 – present	Associate Head, Department of Physical Therapy, University of Illinois at Chicago
08/2010 – present	Faculty Advisory Committee (appointed), Department of Physical Therapy Committee
2011	Member, Faculty Search Committee, Department of Kinesiology and Nutrition, University of Illinois at Chicago, Assistant Professor
2011 – present	Member, Editorial Board of the Department of Physical Therapy Newsletter ("Moment"), University of Illinois at Chicago
2011 – 2016	Member, PhD (Rehabilitation Track) program academic performance committee, College of Applied Health Sciences, University of Illinois at Chicago
2011 – 2017	Member, Promotion and Tenure Committee, College of Applied Health Sciences, University of Illinois at Chicago
2012- 2013	Member, Committee on the formation of a new PhD in Rehabilitation, UIC College of Applied Health Sciences. *Co-developed University application for the formation a new PhD in Rehabilitation
2012	Chair (appointed), Faculty Search Committee for Assistant Director of Clinical Education, Department of Physical Therapy, University of Illinois at Chicago
2012	Chair (appointed), Faculty Search Committee for Clinical Assistant/Associate Professor, Department of Physical Therapy, University of Illinois at Chicago
2012-2013	Interim Co-Director of Professional Education (appointed), Department of Physical Therapy, University of Illinois at Chicago
2012 – present	Member, Promotion and Tenure Committee (elected), Department of Physical Therapy, University of Illinois at Chicago
2012	Member, Search Committee for Associate Dean for Research, College of Applied Health Sciences, UIC
2014	Chair, Search Committee for Clinical Instructor, Department of Physical Therapy, UIC
2015 – 2016	Chair, Ad hoc Policy and Procedures Review Committee, Department of Physical Therapy, UIC
2015	Chair, Search Committee for Clinical Assistant Professor, Director of Cardiac Rehabilitation, Department of Physical Therapy, UIC
2015, 2019	Chair, Search Committee for Tenure Track Assistant Professor, Department of Physical Therapy, UIC
2016 – present	Chair, Department of Physical Therapy Promotion and Tenure Committee, UIC
2016 – present 2019	Member, committee on PhD in Rehabilitation Sciences Curriculum Center for Clinical and Translation Sciences, Education and Professional Development Advisory Committee, UIC

2019 – presen	t Chair, Department of Physical Therapy Tenure Track Faculty Search Committee, UIC
2020-2022	Chair, Department of Physical Therapy, MS in Rehabilitation program 10-year program review and self study.
2021- present	Member, Executive Advisory Board, UI Health 55 <sup>th</sup> and Pulaski multispecialty clinic initiative (start-up funded by the state of Illinois)
SERVICE	
University	
2010 – 2013	Member, Research Advisory Council Member, Office of the Vice Chancellor for Research, University of Illinois at Chicago
2011- 2013	Co-Director and organizer of the Department of Physical Therapy hosted career fair, University of Illinois at Chicago
2012 - 2016	Member/Reviewer Campus Research Board, Office of the Vice Chancellor for Research, University of Illinois at Chicago
2016 - 2019	UIC faculty Senate
2016 – present	UIC Vice Chancellor for Research Conflicts of Interest Committee Member
Campus Wide Work	shops and Training
2015	Office of the Vice Chancellor for Research (Research and Development
	Services); <u>Presenter</u> of "Writing for the Reviewer: Strengthening your NIH
	Mentored K Proposal"
2009-2011	Office of the Vice Chancellor for Research (Research and Development
	Services); Moderator of "Writing for the Reviewer: Strengthening your NIH
	Mentored K Proposal"
2009-2012	Center for Clinical and Translational Sciences; Invited panel member of session
	entitled "Overcoming Research Pitfalls as a New Investigator" for the summer
	program in CCTS Clinical and Translational Research Methods.
2015	UIC Postdoctoral Association, Invited workshop on, "Basics of Writing and
	Winning a Winning Early Career Development Grant."
2016	UIC Future of Science Seminar Series, Invited seminar on, "Introduction to
	Writing Effective Specific Aims."
<b>Public Service</b>	
2009 - 2011	Volunteer Instructor on the value of Science for Careers in Rehabilitation
	Sciences and Research, UIC College Prep Health Science Day (program designed
	to facilitate urban high school students' interested in the health sciences).
2011	Volunteer and faculty mentor for the Susan G. Komen 3-day walk for the cure
2012	Volunteer Research Mentor, Proviso Math and Science Academy, Maywood, IL.
	Provided hands on research and scientific mentorship for 2 senior high schools students.
2015 2016	
2015-2016	Advisory Board Member to the Chicago Grant Park Conservancy for the outdoor
2016 2017	Health Space  A mariagn Heart Association Work Site Wellness Task force committee (Chicago
2016-2017	American Heart Association Work Site Wellness Task force committee (Chicago Midwest office).

# **Professional Committees and Symposium Chaired**

2008	Chair, Featured Topic Symposium on "Exercise, Oxidative Stress, and Endothelial Function" sponsored by the Cardiovascular Section of the American
	Physiological Society at Experimental Biology 2008.
2010	Chair, Symposium on Integration and Mechanisms in Hypertension III at the 2 <sup>nd</sup> International Symposium on Hypertension: Translational Medicine in
	Hypertension Meeting, Osijek, Croatia (11/18/2010 – 11/21/2010).
2012	Member, APTA Academic Council for Physical Therapy Education
2012	Nominated, member of the Exercise Physiology Task Force of the Academic
	Council for Physical Therapy Education
2012	Member, Consortium of the Research-Intensive Physical Therapy Programs (RIPPs) Consortium.
	• Established to promote academic excellence by strengthening the community
	of research-intensive physical therapy programs.
2012	Member, Education Programming Committee, APTA Combined Sections
	Meeting, Section on Cardiovascular and Pulmonary Physical Therapy Education
2013	Co-Chair, Symposium on Environmental and Exercise Physiology at the Croatian
	Physiological Society (09/11/2013-09/15/2013).
2013	Co-Chair/Moderator, session on Translational Insights in the Regulation of
	Vascular Resistance in Health and Disease, American Heart Association
	Scientific Sessions (11/19/2013).
2013	Poster Professor, session on Microcirculation and Cerebral, Coronary, and
	Peripheral Circulation, American Heart Association Scientific Sessions (11/18/2013).
2015	Research Society on Alcohol Symposium co-Chair on Binge Drinking in Young
	Adults: Is it time for an eye opener?
2016	Co-Chair and Moderator, Symposium Mitochondrial Redox Signaling and
	Vascular Function in Health and Disease, American Heart Association Scientific Sessions (11/14/2016).
2016	Co-Chair and Moderator, Symposium on Mobile Health Technologies and
2010	Chronic Disease Management: Applications in Rehabilitation, American
	Congress on Rehabilitation Medicine, Chicago, IL (10/31/2017).
2017	Co-Chair and presenter, APTA Combined Sections Meeting session on It takes a
2017	team! An interdisciplinary approach to fitness, wellness and prevention for
	children, San Antonio, TX (02/16/2017)
2018	Co-Chair, APTA Combined Sections Meeting session on Hospitalizations Hinder
	Patient's return to their Prior Level of Function, APTA section on Acute Care
	Physical Therapy (02/22/2018)
2018	Co-Chair, Symposium on From Mice to Men and Back: What have we really
	learned about the regulation of Coronary Vascular Function in Health and
	Disease?, Experimental Biology, San Diego, CA (04/21/2018)
2019	Platform member, Symposium on Of Molecules, Mice, and Men: PT Faculty-led
	Basic and Translational Research. Physical Therapy Combined Sections Meeting,
	Washington, DC (01/06/2019). Presentation on "Growing and Fostering
	Translational Research that Complements the Academic Missions"
2020	Workshop presenter and moderator, Center for Clinical and Translational
	Sciences Awards (CTSA) Program, Plenary Session on Diversity, Equity and

Inclusion in CTSA, Presentation on "Prioritizing Representation" and "Building Partnerships", Virtual Meeting (.

## RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS

Active-Peer Review National/Institutional

Source: NIH/NHLBI R01 HL130513A1

Title: Improving Blood Pressure and Vascular Risk with Resistance Exercise in African

Americans

PI: Shane A. Phillips PT, PhD

Role: PI

Dates: 7/01/16 - 4/30/23 (NCE)

Direct Funds: \$2,330,347

Source: NIH/NIDDK R01 DK109948

Title: Strategies and functional outcomes of enhancing in vivo production of soluble

**RAGE** isoforms

PI: Jacob Haus, PhD Role: consultant/co-I Dates: 7/01/16 - 6/31/21

Direct Funds: \$2,204,831

Source: NIH/NHLBI K99/R00 HL14004

Title: DNA Methylation and Vascular Function in Obesity: Role of Exercise and

Weight Loss

PI: Abeer M. Mohamed, MD, PhD

Role: Mentor and co-I Dates: 01/01/18 – 12/31/22

Direct Funds: \$212,640 K phase; \$962,730 R phase

Source: NIH/NHLBI T32 HL134634

Title: Precision Lifestyle Medicine and Translation Research (PREMIER)

Role: Mentorship core faculty

PI: Ben Gerber MD/Jun Ma PhD(Co-PIs)

Dates: 04/01/18-03/31/23 Direct Funds \$251,106; Year 1

Source: NIH/NHLBI T32HL139439

Title: Training Program in Personalized Cardiovascular Medicine (TPIPCVM)

Role: Mentor

PI: Dawood Darbar MD Dates: 07/01/2018 – 06/30/2023

Direct Funds: \$213,300 Year 1

Source: NIH/NHLBI R01HL141120

Title: Microvascular Endothelial Kir Channels in Flow Induced Dilation and

Hypertension

Multi PI: Irena Levitan PhD and Shane A. Phillips PT, PhD

Role: co-PI

Dates: 04/01/19 - 3/30/24

Direct Funds: \$1,607,572

Source: **K01 HL148503** 

Title: The impact of a resistance training intervention on blood pressure control in older

adults with Sarcopenia

PI: Deepika Laddu, PhD

Role: Mentor

Dates: 06/01/19 – 05/31/24 Direct: \$806,733 (Impact: 10)

Source: NIH R01AG048262

Title: Fatigability of Limb Muscle in Older Adults: Protective Effects of Exercise

PI: Hunter, Fitts, Sundberg (MPI)

Role: co-I

Dates: 09/01/2020 - 04/30/2021

Direct: \$1,571,669

Source: NIH 2KL2TR002002

Title: Institutional Career Development

PI: Shane A. Phillips, PT, PhD

Role: PI

Dates 09/01/2020 - 04/30/2025

Direct: \$1,444,705

Source: American Heart Association Cardio-oncology SFRN

Title: Defining Differences in Endothelial Function and Response to CTx among a

Diverse Population of Women with breast cancer.

PI: Melinda Stolley, PhD (Medical College of Wisconsin)

Role co-PI population project (Site PI)

Dates: 07/1/2021 - 06/30/2025

Direct: \$575,857 (UIC)

Source: **NIH R01 HL161386** 

Title: Role of Adiposomes in Diabetes-Associated Endothelial Dysfunction and

Restorative Effects of Exercise and Metabolic Surgery

PI: Abeer Mahmoud, MD, PhD

Role: co-I

Dates: 1/1/2022 - 12/31/2026

Direct: \$2,420,224.00

Source: NIH R01HL158634

Title: Signaling to and from the Vascular/Endothelial Compartment and Progression of

**HCM Linked to Sarcomere Mutations** 

PI: Beata Wolska, PhD, Paul Goldspink, PhD, R. John Solaro, PhD (Multi-PI)

Role: co-I

Dates: 4/1/2022 - 3/31/2027

Fund: \$2,424,906

#### **International**

#### **Previous International Grants**

Source: Ministry of Science, Education, and Sports (Republic of Croatia)

PI: Shane A. Phillips PT, PhD (Host Laboratory International Research Training

Exchange with Faculty of Medicine in Osijek Croatia)

Title: Project 1: Mechanisms of microvascular reactivity in resistance arteries.

Project 2: Influence of diet and exercise on vascular reactivity and vascular

stiffness.

Dates: 06-15-2011 to 12-15-2011

Role: PI Funds: \$26,000

Source: **Brazilian Scientific Mobility Program- 303524/2014-6**PI: Audrey Bohrgi-Silva (Federal University of Sao Carlos)

Title: The Peripheral Muscle Oxygenation and Ventilation During Dynamic Exercise

High Intensity Players in Football: A randomized trial of the effects of the Respiratory Muscle Training Improves Exercise Tolerance clinical trial.

Dates: 7/1/2014 - 06/30/17 extended to 12/30/18

Role: Visiting Research Professor to Federal University of Sao Carlos, Sao Paulo,

Brazıl

Total Funds: 518,186.66 BRL ~ \$232,000 USD

## **Completed Peer Review**

Title/Source: NIH (T32) Institutional National Research Service Award (post doctoral)

**Mechanisms of Human Arteriolar Dilation** 

PI: Allen Cowley Ph.D.

Dates: 8/1/2004-7/1/2005 Role: Postdoctoral Fellow

Source: American Heart Association: Greater Midwest Affiliate. Post doctoral

**Fellowship** 

Title: Role of Endothelial Cytoskeleton in Flow Mediated Dilation of Human Coronary

Arterioles.

Dates: 7/1/2005-6/30/2007

Status: Completed Funds: \$91,272

Title: Role of Epoxyeicosatrienoic Acids as EDHF in Human Coronary Arterioles

Source: VA Merit Review
PI: David Gutterman MD
Role: Co-Investigator (25%)
Dates: 10/01/03-9/30/08

Direct Funds: \$717,000

Title: Mechanisms of Human Coronary Arteriolar Dilation

Source: NIH/NHLBI (R01)
PI: David Gutterman MD
Role: Co-Investigator (25%)
Dates: 12/1/05 - 11/30/10

Direct Funds: \$1,250,000

Title: Role of oxidative stress and apoptosis in endothelial dysfunction in AL

amyloidosis and protection using antioxidant (MitoQ) and antiapoptotic (Bax

inhibitor peptide) therapy

Source: Amyloidosis Research Foundation

PI: Raymond Migrino, MD

Role: Co-Investigator

Date: 03/1/2007 - 02/30/2009

Direct Funds: \$30,000

Title: The Protective Effect of Soy on Vascular Endothelial Health

Source: Soy Health Research Program Incentive Grant Program

PI: Shane Phillips PT, PhD Role: Principal Investigator Date: 03/15/2006 – 03/15/2008

Direct Funds: \$10,000

Source: American College of Sports Medicine-Research Endowment Award

Title: Exertional Hypertension and Vascular Dysfunction

PI: Shane Phillips PT, PhD Dates: 7/1/2008 – 1/30/2010

Direct Funds: \$10,000

Source: University of Illinois at Chicago Center for Clinical and Translational

Science

Title: Center for Clinical and Translational Science Scholar Award

PI: Shane Phillips PT, PhD Role: Principal Investigator Dates: 09/1/2007 – 8/31/2009

Direct Funds: \$50,000

Source: NIH/NHLBI (RO1 HL095701A2S1)

Title: Supplement to Promote Diversity in Health Related Research to the Effects of low

carbohydrate and low fat diets on endothelium function in human obesity

PI: Shane A. Phillips PT, PhD

Role: PI (mentor to Graduate Assistant Nina Franklin)
Dates: 05/09/11 – 07/30/13 (returned early due to graduation)

Direct Funds: \$77,481

Source: Massage Therapy Foundation

PI: Nina Franklin, M.S.

Title: Efficacy of massage therapy in attenuating vascular dysfunction after exertion-

induced muscle injury

Dates: 09/01/10 - 4/30/12Role: Sponsor and co-PI

Funds: \$30,000

Source: UIC Chancellors Discovery Fund Award

Title: Role of adipose tissue in mediating cardio-protective effects of alternate day

fasting

PI: Shane A. Phillips PT, PhD Role: Co-Principal Investigator Dates: 01/04/2010-12/30/2012

Direct Funds: \$58,000

Source: NIH/NHLBI (K23 HL085614) Mentored-Patient Oriented Research Career

**Development Award** 

Title: Mechanisms of exertional hypertension and vascular dysfunction

PI: Shane A. Phillips PT, PhD

Role: PI

Dates: 08/25/2007 - 6/30/2013 (no cost extension)

Direct Funds: \$596,897

Source: American Heart Association-Scientific Development Grant

Title Alternate day fasting for weight loss and cardio-protection

PI: Krista Varady PhD Role: Co-Investigator

Dates: 01/01/10 - 12/31/2014

Direct Funds: \$325,000

Source: UIC College of Nursing Internal Research Support Program

PI: Mariann Piano RN, PhD

Title: The Effects of Binge Drinking on Endothelin-1 and Vascular Function

Dates: 04/01/2012 to 03/31/2014

Role: Co-PI Funds: \$10,000

Source: NIH/NHLBI (RO1 HL095701-03S1)

Title: Supplement to Promote Diversity in Health Related Research to the Effects of low

carbohydrate and low fat diets on endothelium function in human obesity

PI: Shane A. Phillips PT, PhD

Role: PI (mentor to Graduate Assistant Austin Robinson)

Dates: 09/01/12 - 07/30/15

Direct Funds: \$105,537

Source: International Society of Sports Nutrition

PI: Austin Robinson (PhD in Rehabilitation Sciences Student)

Title: The Effects of Inorganic Nitrate Supplementation on Macro and Microvasculature

Function Following Acute Exercise

Dates: 6-1-2014 – 12-30-2015

Direct Funds: \$10,000

Source: UIC- Office of Vice Chancellor for Research

Title: Developing methods and measures to investigate the impact of binge drinking on

cardiovascular and cerebrovascular structure and function in young adults

PI: Piano (PI) Role: Co-I

Dates: 05/01/13 - 12/01/2014

Funds: \$20,000

Source: UIC Campus Research Board

PI: Michael Brown PhD

Title: Optimizing Vascular Health in African Americans

Dates: 1/1/2014 - 12/30/2014

Role: Co-I Direct Funds: \$20,000

Source: UIC College of Nursing Internal Research Support Program

PI: Pamela Martyn-Nemeth RN, PhD

Title: Measurement of Insulin Resistance in Adolescents and Young Adults with Type 1

Diabetes

Dates: 05/01/10 to 12/30/15 (extended)

Role: Co-Investigator

Funds: \$10,000

Source: UIC College of Nursing Internal Research Support Program

PI: Laurie Quinn RN, PhD

Title: Factors Associated with Exercise Intolerance in Heart Failure

Dates: 04/01/2010 to 03/31/2014 (extended)

Role: Co-Investigator

Funds: \$10,000

Source: **NIH/NIDDK (R01 DK084016)** 

Title: Intradialytic protein supplementation and exercise training in dialysis patients

Dates: 09/01/10 – 08/31/15 PI: Ken Wilund PhD Role: Co-Investigator

Direct Funds: \$1,672,392 (UIC Direct: \$409,105)

Source: NIH/NIDDK T32 DK080674

PI: Terry Unterman MD

Title: Diabetes, Nutrition, and Obesity Training Program

Dates: 07/01/10 - 06/30/15

Role: Co-Investigator (Primary Trainer)

Direct Funds: FY 11: \$128,659

Source: NIH/NHLBI R01 HL095701

Title: Effects of low carbohydrate and low fat diets on endothelium function in human

obesity

PI: Shane A. Phillips PT, PhD

Role: PI

Dates: 08/13/10 - 06/30/16 (no-cost extension)

Direct Funds: \$1,250,000

Source: UIC Chancellor's Proof of Concept

PI: Shane A. Phillips PT, PhD

Title: Wearable Continuous Cardiovascular Sensor and Algorithm for Healthcare and

Rehabilitation

Role: PI

Dates: 8/01/2015 - 03/31/2017

Direct Funds: \$60,000

Source: NIH/NHLBI R01 HL070187

PI: Tohru Fukai MD, PhD

Title: Modulation of Vascular Superoxide Dismutase

Dates: 09/13/13 - 08/31/18

Role: Co-I Direct Funds: \$1,645,229

Source: NIH K23 DK094829-01A1

Title: Gender Disparities and Vascular Function in Chronic Kidney Disease Outcomes

PI: Ricardo (PI)

Role: Co-I

Dates: 01/15/13 - 12/30/18

Source: NIH/NIAAA R21 AA024535

Title: Binge Drinking and Cardiovascular Risk in Young Adults PI: Shane A. Phillips PT, PhD, Mariann Piano, RN, PhD,

Role: PI (Multiple PI)

Dates: 3/01/17–2/28/20 (NCE)

Direct Funds: \$350,000

Source: NIH/NHLBI R01 HL073965

Multi PI: Irena Levitan, PhD, Shane Phillips PT, PhD, David Eddington PhD

Title: Cholesterol Regulation of Endothelial K<sup>+</sup> Channels

Dates: 04/01/13 - 03/31/20 (NCE)

Role: PI (Multiple PI) Direct Funds: \$1,028,840.00

## **INTELLECTUAL PROPERTY AND DISCOVERY**

10/2011 Title: A wearable cardiovascular and physical activity monitor that includes a field

adaptive neural network processor, modular extensible functional interface, and open communications framework for healthcare delivery and research platforms (Disclosure to

UIC Office of Technology Management; DF050; Provisional Patent)

Title: A non-invasive ePhysiologic monitor with an adaptive regression algorithm for

continuous blood pressure measurement from multispectral photo pulse-plethysmography

(Disclosure to UIC Office of Technology Management: DH150).

09/2019 PCT Patent Application No. PCT/US2018/052144

(based on U.S. Application No. 62/561,802)

**Title:** Sensor and Methods for Continuous Non-Invasive Blood Pressure Measurement and Cardiovascular Hemodynamics Monitoring in Healthcare,

Rehabilitation and Wearable Wellness Monitors

Filing Date: September 21, 2018

# **INVITED LECTURES/WORKSHOPS/PRESENTATIONS:**

## **International**

- 1. **Phillips S.A.** "Exercise, Oxidative Stress and Human Endothelial Function." at the 5<sup>th</sup> Croatian Congress of Pharmacology and the 2<sup>nd</sup> Congress of Croatian Physiological Society Meeting, Osijek, Croatia, (9/19/2007 9/23/2007).
- 2. Gutterman D.D., B.T. Larsen, **S.A. Phillips**, Y.P. Liu. "Endothelial Function and Cardiovascular Risk" Presented at 5<sup>th</sup> ICCP conference, Beijing, China, (10/9/2009 10/12/2009).
- 3. **Phillips S.A.** Invited symposium speaker on "Microcirculation, Blood Pressure, and Physical Exercise." at the 2<sup>nd</sup> International Symposium on Hypertension: Translational Medicine in Hypertension Meeting, Osijek, Croatia (11/18/2010 11/21/2010).
- 4. Clark J.D., C.A. Courtney, M.K. Barrack, **S.A. Phillips**. Presentation on "The relationship between altered nociception and cardiovascular dysfunction following ACL rupture" at the International Federation of Orthopedic Manipulative Physical Therapists. World Congress of Manual/Musculoskeletal Physiotherapy. Quebec City, Canada (9/30/2012 10/5/2012).
- 5. **Phillips S.A.** Invited international speaker on "Vascular Dysfunction and Exercise." At Congress of Croatian Physiological Society and Regional Physiological Society. Rijeka, Croatia (09/13/2013 09/15/2013). \*Member International Organizing Board.
- 6. **Phillips S.A.** Invited speaker on "Acute and Chronic Effects of Physical Exercise on Peripheral Vascular Function." at XVII International Symposium of Cardiopulmonary Physiotherapy and Intensive Care Physiotherapy. Salvador, Brazil (09/04/2014).

- 7. **Phillips S.A.** Invited speaker on "Clinical Implications of Diet and Exercise on Microvascular Function." at XVII International Symposium of Cardiopulmonary Physiotherapy and Intensive Care Physiotherapy. Salvador, Brazil (09/05/2014).
- 8. **Phillips S.**A. Invited speaker on "Exercise, Diet, and Vasodilator Function in the Microcirculation" at the Total Cardiology Symposium. Calgary, Canada (09/24/2014).
- 9. **Phillips S.A.** Invited speaker on "Lifestyle Implications and Microvascular Function in Obesity" at Cardiology Grand Rounds, University of Calgary, Canada (9/30/2014).
- 10. **Phillips S.A.** Invited speaker on "Lifestyle Interventions and Hydrogen Peroxide: Implications for Cardiometabolic Disease" at the Department of Pharmacology, Faculty of Medicine, University of Sao Paulo, Ribeirão Preto, SP, Brazil (03/19/2015).
- 11. **Phillips S.A.** Invited workshop on "Cardiovascular Biomarkers and Risk Measurement Tools for Research and Rehabilitation" at the Department of Physiotherapy, Federal University of Sao Carlos, Sao Carlos, SP, Brazil (3/23/2015-3/25/2015).
- 12. **Phillips S.**A. Invited lecture on "Cardiovascular Biomarkers and Risk Measurement Tools for Research and Rehabilitation" at the Society of Cardiology in Sao Paulo, Sao Paulo Brazil (07/13/2015).
- 13. **Phillips S.**A. Invited lecture on "Evaluating Endothelial Function: Applications for Clinical Practice" at the Congress of the Society of Cardiology of Sao Paulo, Sao Paulo, Brazil. (05/27/2016).
- 14. **Phillips S.**A. Invited lecture on "Cardiac Rehabilitation and Exercise Prescription for Primary and Secondary Prevention" at the Congress of the Society of Cardiology of Sao Paulo, Sao Paulo, Brazil. (05/27/2016).
- 15. **Phillips S.A.** Invited workshop on "Cardiovascular Biomarkers and Risk Measurement Tools for Research and Rehabilitation" at the Department of Physiotherapy, Federal University of Sao Carlos, Sao Carlos, SP, Brazil (6/1/2016).
- 16. **Phillips S.**A. Invited speaker on "Exercise Interventions and Peripheral Arterial Function: Implications for Cardiometabolic Disease" XVIII International Symposium of Cardiopulmonary Physiotherapy and Intensive Care Physiotherapy; Congress of Brazilian Cardiovascular Physical Therapy. Belo Horizonte, MG, Brazil. (06/08/2016).
- 17. **Phillips S.**A. Invited speaker on "Peripheral Vascular Biomarkers in Cardiac Rehabilitation and Practice" XVIII International Symposium of Cardiopulmonary Physiotherapy and Intensive Care Physiotherapy; Congress of Brazilian Cardiovascular Physical Therapy. Belo Horizonte, MG, Brazil. (06/10/2016).
- 18. **Phillips S.**A. Invited speaker on "Interprofessional Education and Cardiac Rehabilitation Programs." International symposium on Innovative Experiences in Cardiac Rehabilitation Programs. XVIII International Symposium of Cardiopulmonary Physiotherapy and Intensive Care Physiotherapy; Congress of Brazilian Cardiovascular Physical Therapy. Belo Horizonte, MG, Brazil. (06/10/2016).
- 19. **Phillips S.**A. Invited lecture on "Endothelial Dysfunction in Health and Disease: Implications for Exercise." At the Department of Physiology, Federal University of Sao Carlos, Sau Paulo, Brazil. (12/05/2016).
- 20. **Phillips S.A.** Invited lecture on "Endothelial Dysfunction in Health and Disease: Implications for Exercise." At the Department of Cardiology, University of Sao Paulo, Ribeiro Preto, Brazil. (12/06/2016).
- 21. **Phillips S.**A. Invited lecture on "Exercise and Weight Loss Uncovers Novel Vasodilator Mechanisms in Human Microcirculation." At the Department of Pharmacology, School of Medicine, University of Sao Paulo, Ribeiro Preto, Brazil. (12/09/2016).

- 22. **Phillips S.**A. Invited workshop on "Cardiovascular Risk Biomarkers in Rehabilitation." At the Department of Rehabilitation Sciences at the Universidade de Nove de Julho, Sao Paulo, Brazil (04/11/2017).
- 23. **Phillips S.**A. Invited lecture on "Cardiovascular Risk Markers in Rehabilitation." At the School of Physical Education and Physical Therapy, Federal University of the Amazonas, Manaus, Brazil (06/12/2017).
- 24. **Phillips S.**A. Invited lecture on "Microvascular Function and Cardiac Rehabilitation: A Canary in the Coal Mine." At the Department of Physiotherapy, Federal University of Sao Carlos, Sp Brazil (09/21/2020; Zoom lecture).

# **National**

- 1. **Phillips S.A.** "Exercise, Oxidative Stress and Endothelial Function in Humans." at the American College of Sports Medicine: Integrative Physiology of Exercise Meeting, Indianapolis, IN, (9/28/2006-9/31/2006).
- 2. **Phillips S.A.** "The Effects of Acute Exertion on Human Endothelial Function." at Experimental Biology, San Diego, CA, (4/9/2008).
- 3. **Phillips S.A.**, "Obtaining a Mentored Award: An Awardees Perspective." at the American College of Sports Medicine, Seattle, WA, 2009.
- 4. **Phillips S.**A. "Submitting an R01 Proposal." at the NIH National Heart, Lung, and Blood Institute Clinical (K23) Awardees Meeting: Planning for Independence, Washington, DC, 2011.
- 5. Martino S and S.A. Phillips, Invited pre-conference course on "Assessment and treatment of the obese patient across the lifespan: The role of physical therapy" at the Combined Sections meeting of the APTA, San Diego, CA. January 21, 2013.
- **6.** Martino S. and **S.A. Phillips**, Course on "Evidence Based Practice for the Prevention and Treatment of Cardiovascular Disease across the Lifespan" at the American Congress of Rehabilitation Medicine, Dallas, TX, 2015.
- 7. Martino S. and S.A. Phillips, Lecture on "Evidence Based Practice for the Prevention and Treatment of Cardiovascular Disease across the Lifespan" at the Combined Sections meeting of the APTA, Anaheim, CA, 2016.
- **8.** Phillips S.A. Symposium speaker on "Overview of Health Technologies and Management of Noncommunicable, Chronic Disease" at the American Congress on Rehabilitation Medicine, Chicago, IL, 2016.

#### **Invited Seminars and Lectures (Local and National)**

- 1. **Phillips S.A.**, "Effect of Temperature and pH on Skeletal Muscle Fatigue in Rat Soleus Muscle" *Howard Hughs Undergraduate Summer Research Training Seminar*, Marquette University-Biology Department, Milwaukee, WI: 1997.
- 2. **Phillips S.A.**, "Role of Angiotensin Receptors in Peripheral Vascular Function" in the Department of Physiology, Medical College of Wisconsin, Milwaukee, WI; 2001.

- 3. **Phillips S.A.**, "The Role of the Angiotensin AT<sub>1</sub> receptor in Altered Reactivity of Skeletal Muscle and Cerebral Resistance Arteries" in the Department of Physiology, Medical College of Wisconsin, Milwaukee, WI; 2002.
- 4. **Phillips S.A.**, "Angiotensin AT<sub>1</sub> Receptor Activation Maintains the Normal Mechanisms of Vascular Relaxation" in the Department of Physiology, Medical College of Wisconsin, Milwaukee, WI; 2003.
- 5. **Phillips S.A.**, Invited lecture on "The Renin Angiotensin System Maintains the Normal Mechanisms of Vascular Relaxation" in the School of Veterinary Medicine, University of Wisconsin, Madison, WI; 2003.
- 6. **Phillips S.A.**, Invited lecture on "Vascular Function in Health and Disease" in the Department of Physical Therapy, University of Illinois at Chicago, Chicago, IL; 2003
- 7. **Phillips S.A.**, Invited lecture on "The Role of the Renin Angiotensin System in Vascular Disease" in the Department of Physical Therapy, University of Illinois at Chicago, Chicago, IL; 2004.
- 8. **Phillips S.A.**, Invited lecture on "Vascular Consequences of Obesity and Exercise" in the Department of Human Nutrition, University of Illinois at Chicago, Chicago, IL; 2005.
- 9. **Phillips S.A.**, Invited lecture on "Vascular Consequences of Diet and Exercise: Oxidative Stress and Human Endothelial Function" University of Wisconsin-Milwaukee in the Department of Human Movement Sciences, Milwaukee, WI; 2007.
- 10. **Phillips S.A.**, "The Effects of Low Carbohydrate and Low Fat Diets on Vascular Endothelial Function" in the Division of Pulmonary Medicine, Medical College of Wisconsin, Milwaukee, WI; 2007.
- 11. **Phillips S.A.**, "Oxidative Stress and Human Endothelial Function: Implications of Diet and Exercise" in the Division of Geriatrics, Medical College of Wisconsin, VA Medical Center-Milwaukee, WI; 2007.
- 12. **Phillips S.A.**, "Oxidative Stress and Human Endothelial Function: Implications of Diet and Exercise" in the Division of Cardiovascular Medicine, Medical College of Wisconsin, Milwaukee, WI: 2007.
- 13. **Phillips, S.A.**, "Exercise and Vascular Health: Is there Ever too much of a Good Thing?" in the College of Medicine, Clinical and Translational Scholars Program, University of Illinois at Chicago, Chicago, IL; 2007.
- 14. **Phillips S.**A., Invited panel discussion on "Overcoming Research Pitfalls" in the UIC School of Public Health, Center for Clinical and Translational Sciences Intensive Summer Program in Clinical and Translational Research, Chicago, IL; 2008.
- 15. **Phillips, S.**A., "Oxidative Stress and Human Endothelial Function: Implications for Diet and Exercise" in the Department of Community and Physical Medicine (Division of Physical Therapy), Duke University, Durham, NC, 2008.
- 16. **Phillips, S.A.,** "Exercise, Diet, and Endothelial Function: Is there Ever too Much of a Good Thing?" in the Department of Physical Therapy, University of Illinois at Chicago, Chicago, IL 2008.
- 17. **Phillips, S.A.**, "Writing for the Reviewer: Strengthening your NIH Mentored K Proposal" in Office of the Vice Chancellor for Research, University of Illinois at Chicago, Chicago, IL, 2008.
- 18. **Phillips, S.A.**, "Effects of Exercise and Diet on Macro- and Micro- Vascular Function: Mechanisms and Implications." In the Department of Kinesiology, Cardiovascular Seminar Series, University of Illinois at Urbana-Champaign, Urbana, IL, September 18, 2009.
- 19. **Phillips, S.**A., "The Effects of Exercise on Macro- and Micro- Vascular Endothelium" in the College of Medicine, Grand Rounds, Division of Metabolism and Endocrinology, University of Illinois at Chicago, Chicago, IL, 2009.

- 20. **Phillips, S.A.**, Moderator of the Career Development Session entitled, "Writing for the Reviewer: Strengthening your NIH Mentored K Proposal" in the Office of the Vice Chancellor for Research, University of Illinois at Chicago, Chicago, IL, 2009.
- 21. **Phillips S.A.**, Wound Healing Seminar Series Lecture entitled, "Exercise and Vascular Endothelium: Role of Reactive Oxygen Species." In the Center for Wound Healing and Tissue Regeneration, College of Dentistry, University of Illinois at Chicago, Chicago, IL October 15, 2009.
- 22. **Phillips S.A.**, "Exercise and Diet for Macro- and Micro- Vascular Function: Mechanisms and Implications." In the Department of Kinesiology and Nutrition Seminar Series, University of Illinois at Chicago, Chicago, IL, October 16, 2009.
- 23. **Phillips S.A.**, Exercise, "Diet, and Human Endothelial Function: Mechanisms and Implication." Invited presentation in the Department of Cellular and Integrative Physiology, Indiana University School of Medicine, Indianapolis, IN, March 9, 2010.
- 24. **Phillips S.A.,** "Exercise, Diet, and Human Endothelial Function: Mechanisms and Implications" in the Department of Pathology Seminar, University of Illinois at Chicago, College of Medicine, Chicago, IL September 18, 2011.
- 25. **Phillips S.A.** and Corcos D., "Optimizing the Grant Submission and Resubmission Process" in the Department of Physical Therapy, University of Illinois at Chicago, Chicago, IL September 23, 2011.
- 26. **Phillips S.A.**, Invited lecture on "Impact of Exercise and Diet on Vascular Function: Mechanisms and Implications" in the Department of Physical Therapy. University of Alabama-Birmingham, Birmingham, AL. 2012
- 27. **Phillips S.A.**, Invited lecture on "Impact of Exercise and Diet on Vascular Function: Mechanisms and Implications" in the Division of Physical Therapy, Department of Physical Medicine and Rehabilitation, Medical School, University of Minnesota, Minneapolis, MN. 2012.
- 28. **Phillips S.A.**, Invited lecture on "Hydrogen Peroxide and Vasodilator Plasticity in the Microcirculation" AHS College Researcher of the Year Award lecture, University of Illinois at Chicago, Chicago, IL 2013.
- 29. **Phillips S.A.**, Invited speaker on "The Importance of Physical Activity for Vascular Health" American Heart Association-Global Congress on Exercise, Scientific Sessions, Dallas, TX 2013.
- 30. **Phillips S.A.**, Invited speaker on "Midlife Adulthood: Interventions to Promote Physical Activity in Overweight and Obese Adults" American Heart Association-Global Congress on Exercise, Scientific Sessions, Dallas, TX 2013.
- 31. **Phillips S.A.**, Invited speaker on "Exercise and Vascular Endothelial Function" at the American Heart Association Scientific Session, Chicago, IL. 2014.
- 32. **Phillips S.A.**, Invited speaker on "Exercise, Diet, and Vasodilator Plasticity in the Microcirculation" at Texas A&M University, College Station, TX. 2014.
- 33. **Phillips S.A.**, Invited speaker on "Basics of Preparing and Writing a Winning Early Career Grant Application" at the University of Illinois at Chicago Post-doctoral Association Seminar, Chicago, 2015.
- 34. **Phillips, S.A.** Invited workshop speaker on "Basics of Preparing and Writing a Career Development Award: Perspectives, Strategies, and Basic Components." NIH K12 Neurosurgery Scholars Session, Chicago, IL 2015.
- 35. **Phillips S.A.**, Invited lecture on "Introduction to Writing Effective Specific Aims." at the University of Illinois at Chicago Future in Science Seminar, Chicago, 2016.
- 36. **Phillips S.A.** Invited Health and Rehabilitation Science Graduate Student Seminar Speaker on "Exercise, Diet and the Mechanisms of Vasodilator Function: Translational Mechanisms" for Cardiovascular Disease, Stony Brook University and Medical Center, Stony Brook, NY. 2016.

- 37. **Phillips S.A.** Invited seminar on "Exercise, Diet, and the Mechanisms of Human Arterial Function" for the Cardiovascular Center, Medical College of Wisconsin, Milwaukee, WI. 2016.
- 38. **Phillips S.A.** Invited seminar on "Exercise Interventions and Arterial Function Testing in Cardiac Rehabilitation Research and Practice" for the Department of Physical Therapy, Marquette University, Milwaukee, WI. 2016.
- 39. **Phillips S.A.** Invited seminar on "Exercise and Weight Loss Uncovers Novel Vasodilator Mechanisms in the Microcirculation" for the Department of Bioengineering, University of Texas at Arlington, Arlington, TX. 2016.
- 40. **Phillips S.A.** Invited speaker on "Effect of Exercise and Shear Stress on Vascular Mitochondria" at Symposium on Mitochondrial Redox Signaling and Vascular Function in Health and Disease, American Heart Association Scientific Session, Chicago, IL. 2016.
- 41. **Phillips, S.**A. Invited speaker on "Role of H<sub>2</sub>O<sub>2</sub> in Exercise Induced Vasodilation in the Human Microcirculation" at the Center for Cardiovascular Research, University of Illinois at Chicago, Chicago, IL 2017.
- 42. **Phillips, S.**A. Invited speaker on "Exercise and Weight Loss uncovers Novel Mechanisms of Vasodilation in the Human Microcirculation" Department of Medicine, Division of Asthma, Pulmonary and Critical Care, University of Illinois at Chicago, Chicago, IL 2017.
- 43. **Phillips, S.**A. Invited seminar speaker on "Mechanisms of Vasodilator Plasticity Following Exercise and Elevated Pressure in the Human Microcirculation" Department of Medical Physiology, Texas A and M University, College Station, TX. 2019.
- 44. **Phillips, S.**A. Invited seminar speaker on "Microvascular Function and Cardiac Rehabilitation: A Canary in the Coal Mine" Division of Physical Therapy, Duke University, Raleigh, NC, 2020
- 45. **Phillips, S.**A. Invited seminar on "Microvascular Function and Rehabilitation Implications." UIC Division of Cardiology, T32 program speaker. 2020.
- 46. **Phillips, S.**A. Invited seminar speaker on "Microvascular Function and Cardiovascular Rehabilitation" College of Health Sciences, University of Texas-El Paso, El Paso, TX. 2022.
- 47. **Phillips, S.**A. Invited seminar speaker on "Growing and Fostering Physical Therapy Research through Training Programs" DPT program, University of Texas-El Paso, El Paso, TX. 2022.

#### PEER REVIEWED WORKSHOPS/PRESENTATIONS:

#### **National**

- 1. **Phillips, S.A.** and J.C. Frisbee. "Superoxide Scavengers Restore Impaired Vasodilator Reactivity in Obese Zucker Rats" at Experimental Biology 2004, Washington, D.C., 2004.
- 2. **Phillips, S.A.** Kulinski J.P., Syed A.Q., Syed A., Pleuss J., Jurva J.W., D.D. Gutterman. "Do Low Fat and Low Carbohydrate Diets Show Similar Improvement in Endothelial Function?" at Experimental Biology 2006, San Francisco, CA, 2006.
- 3. **Phillips, S.A.** "Chronic Exercise Protects against Macro- and Micro- vascular Endothelial Dysfunction Induced by Acute Hypertension during Exertion" at American Heart Association Scientific Sessions 2007, Orlando, FA, 2007.
- 4. **Phillips, S.A.** "The Effects of Acute Exertion on Human Endothelial Function" at Experimental Biology 2008, San Diego, CA, 2008.

- 5. **Phillips, S.A.** "Reduced leptin and resistin and increased adiponectin are associated with improved endothelial function during weight loss with low fat compared to low carbohydrate diets" at Experimental Biology 2010, Anaheim, CA, 2010.
- 6. **Phillips S.A.** and Vuckovic K. Invited presentation on "Research on Exercise Interventions on Peripheral Vascular Health in Patients with Heart Failure: Methods and Clinical Implications," at the American Physical Therapy Association meeting, Bar Harbor, MD, 2011.
- 7. Franklin N.C., M. Ali, M. Goslawski, S. A. Phillips. Reduced Brachial Artery Smooth Muscle Function after Acute Exhaustive Resistance Exercise in Obesity. *APTA Combined Sections Meeting* (platform presentation). Chicago, IL. 2012.
- 8. Szczurek M., J.T. Bian, C. Ranieri, I. Grizelj, A. Cavka, A. Robinson, S.A. Phillips. Hypocaloric, but not Isocaloric, Low Fat Diets Improve in Microvascular Nitric Oxide Dependent Vasodilator Responses, American Heart Association Scientific Sessions, Dallas, TX, 2013.

#### Regional

- 1. **Phillips S.A.** and J.H. Lombard, Presentation on "Impairment of Hypoxia Induced Dilation of Skeletal Muscle Resistance Arteries in Losartan Treated Rats" at Midwest Physiological Society 2001, University of Wisconsin, Madison, WI.
- 2. **Phillips, S.A.**, Syed AQ, Syed A, Pleuss J, Jurva JW, DD Gutterman. Oral presentation on "The Acute Effect of Weight Lifting on Vascular Endothelial Function." at the Iowa Physiological Society Annual Meeting, West Branch, IA. 2005.

#### TEACHING ACTIVITIES AND PROGRAMMATIC DEVELOPMENT:

#### **Medical School Education**

01/2002 – 05/2004 Laboratory Instructor, M1 . Medical Physiology Course Department of

Physiology, Sessions: skeletal muscle physiology, exercise physiology,

circulatory control.

05/2005 – present MCW/Medical Student Summer Research Program (Research Mentor)

Medical Student Honors Thesis Advisor

#### Resident and Fellow Education-Medical College of Wisconsin and UIC

2006 – 2009 Supervisor, Resident and Fellows Clinical Research

During Research Rotation Months in Cardiology, Pediatric

Endocrinology, and Surgery

• 1-2 students/month + 3-4 fellows/month

• On-going guidance re: research design, IRB, procurement of resources/funding, subject recruitment, data analysis and reporting

2006 - 2007 Lecturer, "Translational Research Opportunities in Cardiovascular

Medicine"

Cardiology Fellowship Program: Core Cardiology Curriculum,

Department of Medicine

01/2008 – present Lecturer, Division of Metabolism and Endocrinology

**Endocrinology Fellowship Program** 

Department of Medicine

University of Illinois at Chicago

08/2010 – present Faculty Research Mentor, Division of Metabolism and Endocrinology

Fellowship Program
Department of Medicine

University of Illinois at Chicago

**Graduate Student Education** 

2006 – 2007 Invited Lecturer, "Regulation of Vascular Health during Exercise and

Weight Loss"

MCW; Population Health and Epidemiology Seminar Series. Division of

Epidemiology.

2009 Invited Panel Member, "Career Development Training and Mentoring

Plans"

K30 program, HPA 590: Grant Writing Institute for Health and Research Policy

University of Illinois at Chicago

2009- present Preliminary/Dissertation Examination Committee

PhD program in Kinesiology, Nutrition, and Rehabilitation

Graduate College, University of Illinois at Chicago

2009 present Preliminary/Dissertation Defense Examination Committee

PhD program in Nursing, Department of Biobehavioral Sciences, College

of Nursing, University of Illinois at Chicago

#### OTHER TEACHING EXPERIENCE

Marquette University

07/2001 - 07/2004

07/2001 – 06/2006 Laboratory instructor, Department of Physical Therapy

Course Title Physiology of Activity

Laboratory Teaching: o Exercise Testing and Assessment

o Cardiac Output and Hemodynamic testing

 Nutrition Analysis and Anthropometric testing Invited Lecturer, Department of Physical Therapy

Course Title: Physical Agents and Wound Healing.

Lectures: o Growth Factors: Implications for Wound Healing

o Hyperbaric Oxygen and Vacuum Assisted Closure in

Wound Healing

o Inflammation and the Healing Response

Nutrition and Wound Healing

05/2001 to 05/2003 Lecturer, Department of Physical Therapy

Course Title: Human Physiology, Health Career Opportunity Program

Lectures Taught: Basic concepts for neurological, muscle, lung, kidney, and

cardiovascular physiology

08/2002 - 08/2002 Lecturer, Course Director

Course Title: Pathophysiology in Acute Care and Medicine

Lectures: o Basic Pharmacology and Implications for Rehabilitation

Physiological Basis of Trauma and Shock Medicine

o Cardiovascular Disease Pathology

Disease Pathogenesis affecting Multiple SystemsPathology of Arthritis and Rheumatoid Conditions

 Oncology and Immunology: Concepts for Rehabilitation

Diabetes and Diabetic Complications

01/2003 – 05/2003 Lecturer and Course Director; Graduate School of Nursing

Course Title: Physiological Concepts for Advanced Nursing Practice

Lectures: Advanced topics in each of the following major units:

Cellular Physiology, Cardiovascular Physiology, Respiratory Physiology, Renal Physiology, Endocrine Physiology, Gastrointestinal Physiology, Reproductive Physiology, Hematology, Immunology, Inflammation and

Wound Healing

08/2003 – 12/2003 Lecturer and Co-course director, Department of Physical

Therapy

Course Title: Medicine and Surgery: Rehabilitation

Lectures: o Exercise and Disease Management

Obesity and Kidney Disease

o Cardiovascular and Pulmonary Disease

Peripheral Vascular Disease and Diabetes

Invited Lecture, Department of Physical Therapy

Course Title: **Pathophysiology** 

Lecture: o Physiology of pregnancy and implications for exercise

University of Illinois, Chicago

04/2006

05/2004 – 2015 Instructor and Course Director, Department of Physical

Therapy

Course Title: Cardiopulmonary Dysfunction

Lectures: Cardiac and Pulmonary Physiology and Pathology

Metabolism and Physiological Responses to Trauma

Physiological Responses to Exercise

o Pathophysiology of Inactivity

Cardiac Measures and Basic ECG

Cardiac Assessment: Heart Sounds and Exercise

Testing

Obesity: Physical Therapy Implications

Cardiac and Pulmonary Rehabilitation

Pulmonary Physical Therapy Assessment

Cardiovascular and Pulmonary Pharmacology Invited Lecturer, Department of Physical Therapy

09/2006 – present **Applied Pathophysiology** Course Title:

> Lectures: **Exercise Implications and Diabetes**

> > Exercise implications during renal, hepatic, and GI

disease

01/2008 – present Instructor and Director, Department of Physical Therapy

> Course Title: **Independent Study in Physical Therapy**

Laboratory Methods in Vascular Biology, Exercise, and *Lectures and Instruction:* 

Nutrition

02/2008 Guest Instructor, College of Nursing

Course Title: Laboratory Methods in Nursing

Vascular Biology Methods Lectures:

Course Director and Instructor 08/2008 – present

> **Special Topics in Physical Therapy: Current Concepts** Course Title:

> > in Vascular Biology

Vascular Biology Research Topics:

09/2008 Invited Lecturer, College of Nursing

> Course Title: **Stress and Health Outcomes** Lectures:

Exercise Hypertension and Vascular Function Invited Lecturer, Department of Kinesiology and Nutrition 03/2009, 03/2011

> Course Title: **Nutrition, Physiological Aspects** Lectures:

Nutrition and Vascular Biology Invited Lecturer, Department of Kinesiology and Nutrition 04/2009, 3/2012

**Exercise Biology in Health and Disease** Course Title:

Lectures: Vascular Injury and Repair

09/2009 – present Invited Lecturer, Department of Physical Therapy

> **Introduction to Physical Therapy** Course Title:

Lectures: Vital Signs

Course Director and Instructor 2010, 2012, 2014, 2016

Course Title Advances in Rehabilitation Sciences II

Lectures • Overview of Inflammation: Impact on Injury and

Cardiovascular

Cardiovascular and Pulmonary Physiology of

Rehabilitation

01/2015 - 05/2015HPA 590; Course director and instructor, Center for Clinical

and Translational Sciences, School of Public Health,

College of Medicine, UIC

Course Title: Grant Writing for New Investigators

Designed and Directed a practical Grant Writing course for Clinical Research Scholars, Fellows and

Junior Faculty

# STUDENTS, FACULTY, RESIDENTS AND CLINICAL/RESEARCH FELLOWS MENTORED:

Undergraduate	
08/2007 - 09/2009	Elise Kasper, UIC College of Applied Health Sciences,
	Department of Kinesiology and Nutrition (Class of 2009)
Mentorship Role:	<ul> <li>Advanced research and independent study</li> </ul>
01/2009 - 05/2010	Tselmeg Ulziibay, UIC College of Applied Health Sciences,
	Department of Kinesiology and Nutrition (Class of 2009)
Mentorship Role:	<ul> <li>Advanced research and independent study</li> </ul>
01/2010 - 12/2012	Mary Szcurzek, UIC College of Liberal Arts and Sciences,
	Department of Biological Sciences
Mentorship Role:	Advanced research and independent study
	Honors college capstone supervisor
	• Project Title: The Effects of Saturated Fat and Alcohol
	Consumption on Flow-Mediated Dilation of the
01/2011 05/2011	Brachial Artery in Young Adults
01/2011 - 05/2011	Andrew Skoirchet, UIC College of Applied Health
	Sciences, Department of Kinesiology and Nutrition (Class
Mentorship Role:	of 2012)  • Advanced undergraduate research and independent
memorship Role.	<ul> <li>Advanced undergraduate research and independent study (PT 596: Independent Study) on exercise in</li> </ul>
	chronic kidney disease
01/2011 - 05/2011	Ronny Harag, UIC College of Applied Health Sciences,
01/2011 05/2011	Department of Kinesiology and Nutrition (Class of 2012)
Mentorship Role:	Advanced undergraduate research and independent
1	study (KN 396: Independent Study in Kinesiology) on
	protein supplementation and exercise in dialysis
	patients
01/2011 - 05/2012	Edita Norkeviciute, UIC College of Applied Health
	Sciences, Department of Kinesiology and Nutrition
Mentorship Role:	Advanced undergraduate research and independent
	study (KN 396: Independent Study in Kinesiology) on
01/2011 12/2011	resistance exercise training and vascular function.
01/2011 - 12/2011	Zahra Walji, UIC College of Liberal Arts and Sciences,
Mantaughin Dala	Department of Biological Sciences
Mentorship Role:	Advanced undergraduate research mentor and independent study (Pies 200). Independent Study in
	independent study (Bios 399: Independent Study in Research)
	<ul> <li>Project title: Combating Atherosclerosis by Inhibiting</li> </ul>
	the Functionality of Heparan Sulfate Proteoglycans
02/2011 - 2013	Daria Shor, UIC College of Applied Health Sciences,
02,2011 2015	Department of Kinesiology and Nutrition
Mentorship Role:	Advanced undergraduate research mentor and
1	independent study; Capstone project mentor
	Project title: Evaluating the amount of change in
	macronutrient intake as a predictor of subject
	compliance within a dietary study

compliance within a dietary study

	• Results presented at the 2012 Kinesiology and Nutrition
10/2011 – present	Symposium (Spring) Gordon Marsh, UIC College of Liberal Arts and Sciences, Department of Biological Sciences
Mentorship Role:	Advanced undergraduate research mentor
10/2012 – present	Kevin Li, UIC College of Applied Health Sciences,
•	Department of Kinesiology and Nutrition
Mentorship Role:	<ul> <li>Advanced undergraduate research mentor and independent study</li> </ul>
	<ul> <li>Chancellors undergraduate research fellowship</li> </ul>
0.0/2.0.1	UIC student research presentation award
08/2017 to 01/2021	Assem Allythy, Project on microvascular function
Master of Science	
08/2010 – 08/2012	Melissa Goslawski, UIC College of Applied Health
00/2010 00/2012	Sciences, Department of Physical Therapy (M.S. in
	Rehabilitation Sciences).
Mentorship Role:	Thesis Chair and Mentor
	• Thesis title: Binge Drinking Impairs Endothelial
	Function in Young Health Subjects
08/2010 - 05/2013	Jeff Clark PT, MBA, UIC College of Applied Health
	Sciences, Department of Physical Therapy (M.S. in
Mantaurhin Dala	Rehabilitation Sciences)
Mentorship Role:	• Thesis Chair and Mentor
	• Thesis title (tentative): Osteoarthritis, Inflammation, and the Susceptibility to Impaired Vascular Function
01/2011 - 05/2013	Sarah Schwab, UIC College of Applied Health Sciences,
01/2011 03/2013	Department of Kinesiology and Nutrition
Mentorship Role:	Research Project co-mentor with Dr. Tim Koh
1	Project title (tentative): Macrophage and lymphocyte
	infiltration in human perivascular fat
01/2011 - 05/2011	Erica Weinandy, UIC College of Applied Health Sciences,
	Department of Kinesiology and Nutrition (M.S. Nutrition;
	Class 2012)
Mentorship Role:	• Advanced research and independent study (PT 596:
	Independent Study) on protein supplementation in
01/2011 - 05/2011	chronic kidney disease Christina Pariori, LUC Callaga of Amiliad Health Saigness
01/2011 – 03/2011	Christine Ranieri, UIC College of Applied Health Sciences, Department of Kinesiology and Nutrition
Mentorship Role:	<ul> <li>Graduate assistant and independent study on food and</li> </ul>
1.12	diet design for weight loss and vascular health
08/2011 – present	Connie Casale, UIC College of Applied Health Sciences,
•	Department of Physical Therapy, M.S. Rehabilitation
	Sciences program
Mentorship Role:	• M.S. Research project supervisor on resistance exercise
	training in COPD

07/2011 - 04/2012	Austin Robinson, UIC College of Applied Health Sciences, Department of Kinesiology and Nutrition
Mentorship Role:	<ul> <li>Research project supervisor (KN 496: Special Projects in Kinesiology)</li> </ul>
	<ul> <li>Project title: Efficacy of Massage Therapy on Inflammation after Exhaustive Exercise</li> </ul>
01/2013 - 08/2014	Mary Szczureck, UIC College of Applied Health Sciences, Department of Physical Therapy, M.S. Rehabilitation Sciences program
Mentorship Role:	Thesis Chair, Mentor, Academic Advisor
•	Thesis Title: The Effects of Vitamin D on Microvascular Endothelial Function in Obese Adults
08/2013 - 05/2015	Shruti Shinde, UIC College of Applied Health Sciences,
	Department of Physical Therapy, M.S. Rehabilitation
Mentorship Role:	<ul><li>Sciences program</li><li>Project Supervisor, Mentor, Academic Advisor</li></ul>
Wentorship Rote.	<ul> <li>Project Supervisor, Mentor, Academic Advisor</li> <li>Project Title: Exercise and Microvascular Function in</li> </ul>
	Bariatric Patients
08/2013 - 05/2015	Po-an Tsai, UIC College of Applied Health Sciences,
	Department of Physical Therapy, M.S. Rehabilitation
	Sciences program
Mentorship Role:	Project Supervisor, Mentor and Academic Advisor
08/2014 - 08/2016	• Shear stress, endothelial cells, and ecSOD expression Saleh Y. Alshammari, PT, UIC College of Applied Health Sciences, Department of Physical Therapy, M.S.
	Rehabilitation Sciences program
	Mentor, Academic Advisor, and Thesis Supervisor
	• Thesis Title: The Effect of Kinetic Dance Training in
	Brachial Artery Flow-mediated Dilatation after Chronic Stroke
08/2014 - 07/2017	Vanessa Isles, UIC College of Applied Health Sciences,
	Department of Physical Therapy, M.S. Rehabilitation
	Sciences program
	Mentor and Academic and Research Project Advisor      Design A Title Australia Condition at the Use and I
	<ul> <li>Project Title: Anthropometric, Cardiometabolic, and Exercise Capacity Measurements among US Adults of</li> </ul>
	Overweight and Obesity – A Focus on the Lower
08/2015 - 08/2019	Extremity Function Scale (LEFS)  Crivital Adams, LUC College of Applied Health Sciences
08/2013 — 08/2019	Crystal Adamos, UIC College of Applied Health Sciences, Department of Physical Therapy, M.S. Rehabilitation
	Sciences program
	Mentor, Academic Advisor, and Thesis Supervisor     Thesis Titles Dysplinidensis and Endethelium
08/2016 - 05/2018	<ul> <li>Thesis Title: Dyslipidemia and Endothelium</li> <li>Awani Gokhale, UIC College of Applied Health Sciences,</li> </ul>
00/2010 - 03/2010	Department of Physical Therapy, M.S. Rehabilitation
	Sciences program

Mentorship Role Mentor, Academic Advisor

Project Title: Bariatrics Weight Loss Surgery and

Hypertension Medication Status

08/2016 – 05/2018 Pedram Ahmadnezhad, UIC College of Applied Health

Sciences, Department of Physical Therapy, M.S.

Rehabilitation Sciences program

Mentorship Role: Mentor and Research Project Advisor

Project Title: Effect of Weight Loss Surgery on Blood

Pressure in Men and Women

08/2017 – 08/2020 Oluwayomi Omosebi, UIC College of Applied Health

Sciences, Department of Physical Therapy, M.S.

Rehabilitation Sciences program

Mentorship Role: Mentor and Research Project Advisor

Project Title: Exercise training and Ambulatory Blood Pressure in African American and Caucasian Adults

08/2020 – 08/2022 Firas Hudaib, PT, UIC College of Applied Health Sciences,

Department of Physical Therapy, M.S. Rehabilitation

Sciences program

Mentorship Role: Mentor and Research Project Advisor

Project Title: The impact of using intermittent pneumatic

compression to prevent popliteal artery endothelial

dysfunction during prolonged sitting

Physical Therapy Doctoral Students

01/2009 – 05/2011 Jessie Pipal, UIC Doctor of Physical Therapy (Class of

2011)

Mentorship Role: • Advanced research project

• Research study design and data analysis

09/2009 – 05/2012 Patrick McGinty, UIC Doctor of Physical Therapy (Class of

2012)

Mentorship Role: • Advanced research project and data analysis

• Poster presentation at UIC student forum

08/2011 – 05/2013 Mayumi Barack, UIC Doctor of Physical Therapy (Class of

2013)

Mentorship Role: • Advanced research project and data analysis

• Independent study (PT 596) on the effects of ACL

injury on peripheral vascular function

06/2011 – 05/2015 Edita Norkeviciute, UIC Doctor of Physical Therapy (Class

of 2015)

Mentorship Role: • Advanced research and data analysis

• Project on the effects of massage on blood flow and

vascular function after muscle exertion.

• Co-author on 2 abstracts presented at national conferences

• Co-author on 2 manuscripts

09/2013 – 05/2015 Lauren Neuvoral, UIC Doctor of Physical Therapy (Class of

2015)

Mentorship Role: • Nutrition, research design and vascular analysis

• Co- author of 1 manuscript

05/2016 –12/2017 Michael Durrant, UIC Doctor of Physical Therapy (Class of

2018), Certificate in Clinical Rehabilitation Research and

Technology

Mentorship Role • Vascular Analysis, Regulatory and Clinical Study

Design

05/2016 - 2017 Taylor Trapp, UIC Doctor of Physical Therapy (Class of

2018), Certificate in Clinical Rehabilitation Research and

Technology

Mentorship Role • Project on Differential Blood Pressure Responses to

Maximum Exercise

**Medical Students** 

05/2005 – present Jacquelyn Kulinski (Class of 2008)

Project Title: The effects of low carbohydrate and low fat diets on

endothelial function

Mentorship Roles Summer student research mentor

Honors thesis research candidate

Outcome: • Abstract/Poster Presentation at local Medical Student

Research Program

• Oral presentation at national medical student scientists

meeting (Omaha, Nebraska)

05/2006 – present Jesse Stringer (Class of 2009)

Project Title: The protective effect of endurance exercise on vascular

endothelial health

Mentorship Roles: • Summer student research mentor

Outcome: • Abstract/Poster presentation at Medical Student

Research Program

05/2006 – 09/2006 Sarah Lauck (Class of 2009)

Project Title: Sustained effects of exercise-induced hypertension on the

endothelium

Mentorship Role: • Summer student research mentor

Outcome: • Abstract/Poster presentation at Medical Student

Research Program

05/2007 – 09/2007 Krupa Patel (Class of 2010)

Project Title: Protective Effect of Exercise against Vascular Endothelial

Dysfunction Induced by Oral Glucose and High Fat Load

*Mentorship Role:* • Summer student research mentor

Outcomes • Abstract/Poster Presentation at Medical Student

Research Program

• Funding: National Heart Lung Blood Institute Training

Grant (5 T35 HL72483-25)

05/2007 – 09/2007 Lindsey Rasmussen (Class of 2010)

Project Title: The Use of Antioxidants to Reduce Tissue Damage from

Ischemia-reperfusion Injury in a Swine Model

32

*Mentorship Role:* • Summer student research mentor Outcomes Abstract/Poster Presentation at Medical Student Research Program Funding: National Heart Lung Blood Institute Training Grant (5 T35 HL72483-25) 12/2011 - 08/2012Rasheed A. Sanyaolu (UIC class of 2015) The effects of Binge Drinking on Vascular Reactivity and *Project Title:* **Function** *Mentorship Role:* Summer medical student research project co-mentor with Dr. Mariann Piano (Nursing) Outcome • Summer Craig Fellowship award funded by the UIC College of Medicine Carrie Pusec, PhD (UIC Class of 2024) 01/2021 - present*Project title:* Binge Drinking and Exercise Blood Pressure Responses Mentorship Role James Scholar Program Fellowship **Clinical Fellows** 11/2005-6/2007 Stacey Gardiner, MD, Cardiology Fellow *Project Title:* Vascular effects of oral glucose and high fat loading in athletes Mentorship Role: Focused Guidance re: reporting and design for translational research and medicine 03/2006 - 5/2007Ghufran Babar, MD, Pediatric Endocrinology Fellow Prevalence of endothelial dysfunction, increased carotid *Project Title:* artery intima-media thickness and biomarkers of vascular inflammation in preadolescents with type 1 diabetes mellitus *Mentorship Role:* Focused guidance in study design and training in translational vascular research technologies Outcomes: IRB submission 09/2006 – present Jennifer Strande MD, Ph.D., Cardiology Research Fellow Expression and function of protease-activated receptors in *Project Title:* human adipose microcirculation *Mentorship Role:* Focused guidance in experimental design of human/translational molecular studies 08/2006 - 08/2007

Stephen Lanzarotti, MD, Trauma and Critical Care Fellow *Project Title:* 

The use of antioxidants to reduce tissue damage in

ischemia-reperfusion injury

*Mentorship Role:* Focused guidance in study design and molecular/physiological/biochemical testing

Procurement of funding and resources

11/2009 - 05/2010Siddique Abbasi, MD, Cardiology Fellow UIC

Acute Exercise, Heart Failure. and Endothelium *Project Title:* 

Avni Vora, MD, Endocrinology, Diabetes, and Metabolism

Fellow UIC

Weight loss, lipid metabolism, and endothelial function *Project Title:* 

Residents

8/2010 - 07/2012

08/2006 - 05/2007Aaron Perme, MD, Surgery Resident, Medical College of Wisconsin

Project Title: The effects of ethyl pyruvate upon splanchnic microvascular

reactivity and the inflammatory response in a hemorrhagic

shock swine model

Mentorship Role: • Guidance and training in molecular and physiological

studies on shock and trauma

Biochemical analysis and study design

05/2012 – 08/2014 Paulina Cruz, MD, Internal Medicine Resident, Advocate

Christ Medical Center

Mentorship Role: • Guidance and training in vascular biology during

obesity

• Faculty supervisor and mentor for research rotation

requirements in internal medicine

#### **Post doctoral Research Fellows Mentored**

2011- 2012	Ivana Grizelj, MD
2011 - 2012	Ana Cavka, MD
2013 - 2014	Nina Franklin, PhD
2014 - 2020	Ibra "Drew" Fancher, PhD
2015 - 2020	Abeer Mahmoud MD, PhD
2018-2019	Andréa Gonçalves da Silva, PT, PhD
2019 - 2022	Chueh-Lung Hwang, PT, PhD
2020 - Present	Georgios Grigoriadis, PhD
2021- Present	Natalia Do Couto, PhD
2021 - Present	Sang Joon Ahn, PhD

#### **PhD Students Mentored**

01/2007 – 05/2010 James Schmidt, PhD, Department of Physiology, Medical

College of Wisconsin

Mentorship Role: • Dissertation Committee Member (external evaluator) 01/2008 – 05/2013 Karen Vuckovic, RN, APN, UIC College of Nursing

Mentorship Role: • Applied Health Science Independent Study in Vascular

Biology Techniques (PT 595)

• PhD preliminary exam and dissertation committee (Chair: Mariann Piano)

Project: Dyspnea in Heart Failure with a Preserved Ejection Fraction

(HF-PEF)

Outcomes: • Manuscript in preparation

08/2008 – 08/2012 Nina Franklin, MS, UIC College of Applied Health

Sciences

Mentorship Role: • PhD Advisor and Committee Chair

Project Title: The Effects of Resistance Exercise Training on Vascular

Endothelial Dysfunction in Overweight and Obese,

Sedentary Adults

Outcomes: • 4 manuscripts published

• 7 abstract presentations as co-author

2009 Dana DiPasquale, MS, Department of Kinesiology and Nutrition, University of Illinois at Chicago *Mentorship Role:* PhD dissertation Committee Member (Chair: Dr. Tim 2010 - 2013Surabhi Bhutani, Department of Kinesiology and Nutrition, University of Illinois at Chicago PhD dissertation Committee Member (Chair: Dr. Krista *Mentorship Role:* Varady) Project: Effects of Weight Loss induced by Alternative Day Fasting and Exercise on Cardiac Risk Factors Monica Klempel, Department of Kinesiology and Nutrition, 2009-2013 University of Illinois at Chicago *Mentorship Role:* PhD preliminary exam and dissertation committee member (Chair: Dr. Krista Varady) Effects of alternate day fasting, with a low fat versus high *Project:* fat background diet, on weight loss and coronary heart disease risk reduction in obese adults Mohammed Ali, MD, Department of Physical Therapy, 08/2010 - 05/2016University of Illinois at Chicago, Rehabilitation Track *Mentorship Role:* PhD Advisor and Committee Chair Vascular Glycobiology and Oxidative Stress and *Project:* Endothelial Dysfunction, a Potential Therapeutic Target 05/2011 - 10/2013Joshua Butcher Mentorship Role: PhD committee external evaluator (West Virginia University; Chair: Dr. Jefferson Frisbee) Regulation of Vascular Tone in Metabolic Syndrome *Project:* 06/2011 - 12/2012Sambit Mohapatra, Department of Physical Therapy, University of Illinois at Chicago Mentorship Role: PhD preliminary exam and dissertation committee Role of Altered Vision and Proprioception in Control of Project: 06/2012 - 08/2013Abbi Lane M.S., Department of Kinesiology and Nutrition, University of Illinois at Chicago PhD preliminary exam and dissertation committee Mentorship Role: (Chair: Dr. Bo Fernhall) Acute Inflammation and Arterial Load Project: 08/2012 - 05/2016Austin Robinson, PhD, Department of Physical Therapy, UIC, Rehabilitation Track *Mentorship Role:* PhD Advisor and Committee Chair Project: • Exercise Training and Microvascular Function in Obesity 06/2013 - 05/2015Rebecca Kappus, Department of Kinesiology and Nutrition, University of Illinois at Chicago, PhD preliminary exam and dissertation committee *Mentorship Role:* (Chair: Dr. Bo Fernhall) Project: Racial and Aging Effects of Acute Anti-oxidant

	Supplementation	
09/2013 - 05/2016	Kristin Hoddy, Department of Kinesiology and Nutrition,	
Mentorship Role:	University of Illinois at Chicago	
	<ul> <li>PhD preliminary exam and dissertation committee</li> </ul>	
Project:	(Chair: Dr. Krista Vardy)	
0.5/2.04.2	Alternate Day Fasting and Cardiometabolic Function	
06/2013 - 08/2014	Jan Kretzchmar, Department of Kinesiology and Nutrition,	
Mantanalin Dala	University of Illinois at Chicago	
Mentorship Role Project:	PhD preliminary exam and dissertation committee  (Chair Michael Brown)	
1 гојесі.	(Chair: Michael Brown)	
	<ul> <li>Race Dependent Effects of Black Cohosh Fractions in Human Umbilical Endothelial Cells</li> </ul>	
05/2014 - 05/2015	Chenyi Ling, Department of Kinesiology and Nutrition,	
03/2014 03/2013	University of Illinois at Chicago	
Mentorship Role	PhD preliminary exam (Chair: Michael Brown)	
05/2011 - 09/2015	Ivana Grizelj, Department of Physiology and Immunology,	
	Osijek Medical School, Croatia	
Mentorship Role:	• PhD dissertation committee (external evaluator)	
Project:	• Mechanisms of Microvascular Dysfunction in Bariatric	
	Patients	
08/2013- 05/2018	Sang Joon Ahn, Department of Bioengineering, University	
M . 1: D 1	of Illinois at Chicago	
Mentorship Role:	• PhD preliminary exam and committee member (Chair:	
	<ul><li>Irena Levitan)</li><li>Kir channels and flow induced dilation</li></ul>	
08/2014 - 12/2019	Ahmad Sabbahi PT, MS. Department of Physical Therapy,	
00/2014 - 12/2017	UIC, Rehabilitation Track	
Mentorship Role:	<ul> <li>PhD Advisor and supervisor</li> </ul>	
Project	Vascular dysfunction following maximum exercise testing	
3	in African Americans and Caucasian adults	
08/2015 - 05/2022	Richard Severin DPT, Department of Physical Therapy,	
	UIC, PhD in Rehabilitation	
Mentorship Role:		
Project:	Inspiratory Muscle Training and Exercise Capacity in	
00/2015 07/2017	Bariatric Patients	
09/2015 - 07/2017	Adriana Mazzuco Bonaca PT, Department of	
	Physiotherapy, Federal University of Sao Carlos, Sao Paulo, Brazil	
Mentorship Role:	Research Supervisor at UIC; Funded Research	
1.1011.0121.1.p 110101	Scholarship for 1 year US collaboration	
Project:	Project on vascular analysis and exercise training in COPD	
·	and obesity	
03/2014 - 12/2016	Flavia Caruso PT, PhD, Department of Physiotherapy,	
	Federal University of Sao Carlos, Sao Paulo, Brazil	
	• Research supervisor for 1 month scholarship at UIC	
Project:	Research mentor on vascular ultrasound for cardiac	

rehabilitation research project

05/2017 – 2019 Guilherme Areas, MS, PT, Department of Physiotherapy,

Federal University of Sao Carlos, Sao Paulo; Professor of Human Physiology at the Federal University of Amazonas,

Manaus, Brazil

Mentorship Role: • Research Supervisor at UIC; Brazilian Funded

Research Scholarship for 1 year collaboration the US

Project: High pressure induced microvascular dysfunction in a

transgenic model of HFpEF

08/2018 – present Saleh Alshammari, PT, MS, Department of Physical

Therapy, PhD Program in Rehabilitation Sciences

Mentorship Role: PhD Supervisor and Advisor

Project: Cardiovascular Risk Change in Cardiac Rehabilitation

03/2018 – 03/2019 Larissa Delgado Andre, PT, Department of Physiotherapy,

Federal University of Sao Carlos

Mentorship Role: • Research Supervisor at UIC; Brazilian Funded

Research Scholarship for 1 year project in the US

Project: Microvascular dysfunction in heart failure

08/2021 – present Dakota Greenwalt, SPT, Department of Physical Therapy,

PhD program in Rehabilitation Sciences

Mentorship Role: PhD supervisor and Advisor

Project: TBD

### **BIBLIOGRAPHY**

### A. Theses:

1. **Phillips S.A.** Chronic AT<sub>1</sub> receptor blockade impairs mechanisms of vascular reactivity in skeletal muscle. Ph.D. Dissertation. Medical College of Wisconsin, 2004.

# B. Peer-Reviewed Manuscripts:

- 1. Lombard J.H., F.A. Sylvester, **S.A. Phillips**, J.C. Frisbee. High-salt diet impairs vascular relaxation mechanisms in rat middle cerebral arteries. *Am J Physiol Heart Circ Physiol*. 284: H1124-33. 2002.
- 2. **Phillips S.A.**, E.B. Olson, B.J. Morgan, and J.H. Lombard. Chronic intermittent hypoxia impairs endothelium-dependent dilation in rat cerebral and skeletal muscle resistance arteries. *Am J Physiol Heart Circ Physiol* 286: H388-93. 2004.
- 3. **Phillips SA**, Drenjancevic-Peric I, Frisbee JC, Lombard JH. Chronic AT1 receptor blockade alters the mechanisms mediating responses to hypoxia in rat skeletal muscle resistance arteries. *Am J Physiol Heart Circ Physiol* 287: H545-52. 2004
- 4. **Phillips S.A.**, F. A. Sylvester, J.C. Frisbee. Oxidant Stress and Constrictor Reactivity impair cerebral artery dilation in obese zucker rats. *Am J Physiol Regul Integr Comp Physiol* 288: R522-R539. 2005.

- 5. Drenjancevic-Peric I, **S.A. Phillips**, and J.H. Lombard. Restoration of Normal Vascular Relaxation Mechanisms in Cerebral Arteries by Chromosomal Substitution in Consomic SS.13<sup>BN</sup> rats. *Am J Physiol Hear Circ Physiol* 289: H188-H195. 2005.
- 6. Hatoum O.A., D.G. Binion, **S.A. Phillips**, C. O'Loughlin, R.A. Komorowski, D. D. Gutterman, M.F. Otterson. Case report: Radiation induced small bowel diaphragmatic "web" formation is associated with acquired microvascular dysfunction. *Gut* 54. 1797-1800. 2005.
- 7. Basile D.P., D.L. Donohoe, **S.A. Phillips**, J.C. Frisbee. Enhanced skeletal muscle arteriolar reactivity to angiotensin II following recovery from ischemic acute renal failure. *Am J Physiol Regul Integr Comp Physiol* 289. R1770-R1776. 2005.
- 8. **Phillips S.A.** and J.H. Lombard. AT1 receptor blockade impairs mechanisms mediating hypoxic dilation in middle cerebral arteries. *J Cardiovasc Pharm.* 46. 2005.
- 9. **Phillips S.A.**, E.B. Olson, B.J. Morgan, and J.H. Lombard. Chronic Intermittent Hypoxia alters vasoconstrictor reactivity and mechanics in skeletal muscle arteries. *J Appl Phys* 100. 1117-1123. 2006.
- 10. Jurva J.W., S. A. Phillips, A.Q. Syed, A.Y. Syed. S. Pitt, A. Weaver, D.D. Gutterman. The Effect of Exertional Hypertension Evoked by Weightlifting on Vascular Endothelial Function. *JACC*. 48. 588-9. 2006.
- 11. **Phillips S.A.,** O.A. Hatoum, D.D. Gutterman. The Mechanism of Flow-Induced Dilation in Human Adipose Arterioles Involves Hydrogen Peroxide During CAD. *Am J Physiol Heart and Circ Physiol* 292. H93-H100. 2007.
- 12. **Phillips S.A.** Effects of Low Carbohydrate Diet on Vascular Health: More than just Weight Loss. *Am J Physiol Heart and Circ Physiol* 292: H2037-H2039, 2007.
- 13. **Phillips, SA**, J.W. Jurva, A.Q. Syed, A Syed, J.P. Kulinski, J. Pleuss, R. Hoffmann, DD Gutterman. Benefit of Low Fat Diet over Low Carbohydrate Diet on Endothelial Health in Obesity. *Hypertension* 51: 376-382. 2008.
- 14. **Phillips SA.** Obesity, Weight Loss, and Cardiovascular Health: Is Oxidative Capacity the Missing Link? *Am J Hypertens* 21: 1277. 2008.
- 15. Strande JL and **S.A. Phillips.** Thrombin increases inflammatory cytokine and angiogenic growth factor secretion in human adipose cells *in vitro*. *Journal of Inflammation* 6: 4. 2009.
- 16. Migrino R.Q., P. Hari, D.D. Gutterman, M. Bright, S. Truran, B. Schlundt, **S.A. Phillips.** Systemic and microvascular oxidative stress induced by light chain amyloidosis. *Int J Cardiol* 145: 67-8. 2010.

- 17. Varady K.S., S. Bhutani S., E.C. Church, and **S.A. Phillips**. Adipokine responses to acute resistance exercise in trained and untrained men. *Medicine and Science in Sports and Exercise* 42: 456-462. 2010.
- 18. **Phillips S.A.**, K.R. Pechman, E.C. Leonard, J.L. Friedrich, and D.P. Basile. Increased angiotensin II sensitivity following recovery from acute kidney injury: Role of Oxidant Stress in Peripheral Arteriolar Activity. *Am J Physiol Regul Integr Comp Physiol* 298: R1682-1691. 2010.
- 19. **Phillips S.A.** Arterial stiffness and type 2 diabetes: dietary modulation after a single meal? *Hypertension Res* 33: 666-7. 2010.
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### **Editorial**

Pod Cast @ http://ajpheart.podbean.com

Content Expert on American Journal of Physiology article, "Habitual exercise decreases systolic blood pressure during low-intensity resistance exercise in healthy middle-aged and older individuals"