

CURRICULUM VITAE

I. COMPLETE NAME & ADDRESS

Zhongjie Sun, MD, PhD, FAHA

Professor and Chair
Thomas A. Gerwin Chair of Excellence in Physiology
Department of Physiology
Co-Director, UT Methodist Cardiovascular Institute
University of Tennessee HSC
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Citizenship: US

II. EDUCATION & TRAINING

Postdoctoral Fellow (1994–1998)

Advisors: Drs. Melvin J. Fregly & J. Robert Cade
Departments of Physiology & Functional Genomics and Medicine
University of Florida, Gainesville, FL, USA.

Ph.D. in Physiology (1999)

Advisors: Drs. J. Robert Cade, Melvin J. Fregly & Tai Yao
Department of Physiology
Shanghai Medical University, Shanghai, China
(Dissertation research at University of Florida, USA; Joint Training Program)

M.S. in Physiology (1990)

Advisor: Dr. Zongping Tu
Department of Physiology
Tongji Medical University, Wuhan, China

Residency in Cardiovascular Medicine (1983–1985)

Yicheng Hospital, Zaozhuang, China

M.D. in Clinical Medicine (1983)
Jining Medical College, Jining, China

III. ACADEMIC AND PROFESSIONAL APPOINTMENTS/EXPERIENCES

1. College of Medicine, University of Tennessee Health Sciences Center

Chair, Department of Physiology (2018–)
Thomas A. Gerwin Chair of Excellence in Physiology (2018–)
Co-Director, UT Methodist Cardiovascular Institute (2018–)
Professor of Physiology (tenured, 2018–)
Professor of Medicine (2018–)
Research areas: Cardiovascular & Renal Physiology, Endocrinology and Neuroscience

Current Work

- * Molecular and cellular basis of hypertension and cardiac hypertrophy
- * Molecular mechanism of cardiovascular aging and arterial stiffening
- * Molecular and cellular therapy for cardiovascular and renal diseases
- * Translational study on anti-aging proteins in hypertensive and diabetic patients
- * Genetic and epigenetic factors in heart failure and aortic valve calcification
- * Cardiovascular and renal responses to cold exposure
- * Molecular intervention for diabetes and diabetic nephropathy

2. College of Medicine, University of Oklahoma Health Sciences Center

Vice Chair (2015–2018)
Chair, Research Committee (2012–2018)
Director, Physiology Core (2010–2018)
Director, The Robert & Mary Cade Laboratory (2006–2018)
Professor, Department of Physiology (2011–2018)
Associate Professor (2006–2011, tenured 7/1/2008)
Department of Physiology
Member, Harold Hamm Diabetes Center (HHDC)
Member, The Oklahoma Center for Neuroscience (OCNS)
Research areas: Cardiovascular & Renal Physiology, Endocrinology and Neuroscience

Major Work

- * Molecular and cellular basis of hypertension and cardiac hypertrophy
- * Molecular mechanism of cardiovascular aging and arterial stiffening
- * Molecular and cellular therapy for cardiovascular and renal disease
- * Translational study on anti-aging proteins in hypertensive and diabetic patients
- * Genetic and epigenetic factors in heart failure and aortic valve calcification
- * Cardiovascular and renal responses to cold exposure

- * Molecular intervention for diabetes and diabetic nephropathy
- * Neuroendocrine control of circulation
- * Basic and translational research on exogenous neuropeptides in autism and schizophrenia

3. College of Medicine, University of Florida Health Sciences Center

Assistant Professor (tenure-track), Department of Medicine (1999–2006)

Joint Assistant Professor, Department of Physiology & Functional Genomics (1999–2006)

Research Assistant Professor, Department of Physiology (1998–1999)

Research areas: Cardiovascular Physiology and Neuroscience

Major Work

- * Molecular therapy for cardiovascular disease
- * Neuroendocrine control of circulation
- * Molecular and cellular basis of cardiovascular and renal responses to cold exposure
- * Cold-induced hypertension and cardiac hypertrophy
- * Environmental factors in hypertension
- * Role of endogenous and exogenous neuropeptides in autism and schizophrenia

4. Shanghai Medical University & University of Florida, Department of Physiology

Graduate Assistant (1990–1994)

Research areas: Cardiovascular Physiology

Major work

- * Brain opioid receptor and stress-induced hypertension

5. Tongji Medical University, Department of Physiology

Graduate Assistant (1987–1990)

Research areas: Cardiovascular Physiology and Pharmacology

Major work

- * Anti-shock effect of thyrotropin-releasing hormone (TRH)

6. Yicheng Hospital, Department of Medicine

Clinician (1985–1987)

Cardiovascular Medicine

IV. LICENSURE

Federal DEA license (08/2000, Active).

V. ADMINISTRATION AND SERVICE

1. University of Tennessee HSC Department of Physiology – Chair (2018 –)

Duties: Oversee departmental research & research budget; promote collaboration & research excellence; develop strategic plans for enhancing departmental research; establish departmental mission, goals, policies and procedures; promote teaching & service activities; oversee research resources; evaluate faculty performance; and coordinate with College of Medicine Dean, Vice Chancellor for Research and Associate Dean for Research.

2. University of Tennessee HSC – Member of the UT Vice Chancellor for Research Cabinet (2018 –)

Duties: Assist and advise Vice Chancellor for Research (VPR) regarding the UTHSC research; conduct annual evaluations of shared resources; assist in decisions regarding financial support of core facilities; evaluate the UTHSC research; and aid in developing strategic plans for promoting the OUHSC research and enhancing extramural funding.

3. University of Oklahoma HSC Department of Physiology – Vice Chair (2015– 2018)

Duties: Oversee departmental research & research budget; promote collaboration & research excellence; develop strategic plans for enhancing departmental research; direct the Research Committee.

4. University of Oklahoma HSC – Member of Research Strategic Plan Committee (2016– 2018)

Duties: Evaluate strengths and weaknesses of the OUHSC research; identify potential opportunities and threats; list research priorities and future directions; draft written a strategic plan for promoting the OUHSC research; develop objectives and measures to align with goals and subgoals of the strategic plan; collect and evaluate feedbacks from the OUHSC leadership and faculty; and monitor and review the new strategic plan.

5. University of Oklahoma HSC – Member of the Research Oversight Committee (2017– 2018)

Duties: Assist and advise Vice President for Research (VPR) regarding the OUHSC research; conduct annual evaluations of shared resources; assist in decisions regarding financial support of core facilities; evaluate the OUHSC research; and aid in developing strategic plans for promoting the OUHSC research and enhancing extramural funding.

6. University of Oklahoma HSC – Member of Research Value Unit Working Group (2015)

Duties: Assess the current research and research-related activities; allocate specific time/effort in a unified, value-based reporting structure; and provide and collect inputs for developing an algorithm or schematic for further defining time/effort/value as it relates the OUHSC research mission.

7. University of Oklahoma HSC – Member of the Genomic and Proteomic Core Advisory Committee (2015- 2018)

Duties: Develop business plan for the Genomic and Proteomic Core; oversee and monitor the Core activities; set up metrics (customer satisfaction, cost, reliability, utilization); identify equipment needs; define research direction; make recommendations for investment; and perform quarterly review on the Core's business.

8. University of Oklahoma HSC Department of Physiology – Research Committee (2008–)

Chair, Research Committee (2012– 2018).

Member, Research Committee (2008– 2018).

Duties: Identify and evaluate current strengths and weaknesses of departmental research; develop strategic plans for boosting the department research; chair and organize the in-house grant review committee; promote team work; lead a campus-wide Cardiovascular Interest Group (CIG).

9. University of Oklahoma HSC Department of Physiology – Faculty Search Committee (2010–)

Chair, Faculty Search Committee for senior faculty (2017– 2018)

Chair, Faculty Search Committee for senior faculty (2012–2013)

Chair, Faculty Search Committee for junior faculty (2011–2012)

Member, Faculty Search Committee (2010–2011)

Duties: Justify the department need for new faculty; submit proposals to the Dean's office to create and open faculty positions; organize and lead a search committee; advertise the vacancy; select and interview top candidates; recommend for recruitment.

10. University of Oklahoma HSC Department of Physiology – The Physiology Core (2010–2018)

Director, The Physiology Core

Duties: Set up rules and guidelines of the core; supervise core personnel; ensure the core facility is properly utilized managed; and balance the core budget.

11. University of Oklahoma HSC College of Medicine – Committee on Committees (2016–2017)

Member, Committee on Committees

Duties: Identify and recommend faculty members for service on committees as mandated in the College of Medicine Bylaws.

12. University of Oklahoma HSC Graduate Education Curriculum Committee (GECC) (2008–)

Chair, GECC of the Graduate Program in Biomedical Sciences (GPiBS) (2012–2013)

Member, GECC of the Graduate Program in Biomedical Sciences (GPiBS) (2008– 2018)

Duties: Review and evaluate the graduate program in biomedical sciences; approve new policy; approve new curriculum; evaluate and approve students' grades.

13. University of Oklahoma HSC Harold Hamm Diabetes Center (HHDC) – Research Committee & Awards Committee (2014– 2018)

Member, HHDC Research Committee (2014– 2018).

Member, HHDC Awards Committee (2014– 2018)

Duties: Identify and evaluate current strengths and weaknesses of HHDC research; develop strategic plans for boosting the HHDC research; co-organize peer-review committees for intramural

grant applications and make recommendations for funding; promote team work; organize annual Oklahoma Diabetes Research Conference.

14. University of Oklahoma HSC Department of Physiology – Task Force Committee (2007)

Graduate Program Restructuring Task Force Committee member (2007).

Duties: Review and modify the OUHSC Physiology Graduate Program Guidelines.

15. University of Oklahoma HSC Department of Physiology – Graduate Studies (2008–2018)

Graduate Studies Committee member.

Duties: Coordinate and supervise written and oral examinations; serve as an examiner of qualifying exams.

16. University of Oklahoma HSC College of Medicine (2011- 2018)

Academic Misconduct Board member

17. University of Oklahoma Fund Administrator (2006– 2018)

Duties: Manage a University of Oklahoma Foundation account, Cardiovascular Research Fund; approve expenditures; attract and manage donations.

18. University of Florida Property Survey Board (2000–2003)

Duties: Provided orderly management of surplus property of the University of Florida; reviewed facts concerning loss, destruction, or theft of property; recommended disposal of property that is beyond repair.

19. University of Florida Fund Administrator (1999-2006)

Duties: Administered two University of Florida Foundation Accounts, Mental Health Research Foundation & Graduate Research Foundation; approved expenditures; managed donation.

VI. RESEARCH AND SCHOLARSHIP

GRANT HISTORY (2000–present)

Active

- | | |
|------------------|--|
| Title: | Investigation into cold-induced pulmonary vascular inflammation and dysfunction |
| Funding Agency: | National Institute of Health (1R01 HL116863-01) |
| Award Type: | R01 |
| Role on project: | PI |
| Purpose: | The purpose of this project is to evaluate the role of inflammation and phosphodiesterases in cold-induced pulmonary hypertension. |
| Effective Dates: | 08/16/2013–06/30/2019 |

- Status: Active
Direct Cost: \$1,250,000
Indirect Cost: \$ 570,495
Total Cost: \$1,820,495
2. Title: Anti-aging gene klotho and diabetes
Funding Agency: The Robert & Mary Cade Foundation (#008875).
Award Type: Private
Role on project: PI
Purpose: The purpose of this project is to investigate if anti-aging gene klotho regulates β cell function in diabetes and diabetic complications.
Effective Dates: 02/15/2016–02/14/2020
Status: Active
Direct Cost: \$326,000
3. Title: Anti-aging gene klotho: A novel therapeutic target for calcific aortic valve disease
Funding Agency: National Institute of Health (1R01 HL-118558-01)
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to determine if klotho gene or protein delivery is an effective therapeutic strategy for calcific aortic valve disease (CAVD).
Effective Dates: 03/01/2014–02/28/2019
Status: Active
Direct Cost: \$1,000,000
Indirect Cost: \$ 480,000
Total Cost: \$1,480,000
4. Title: Coupling Factor 6 in cold-induced kidney dysfunction and hypertension
Funding Agency: National Institute of Health (2R01 HL-122166-01)
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to assess the role of coupling factor 6 (CF-6) in cold-induced endothelial dysfunction and salt sensitivity.
Effective Dates: 07/01/2015–06/30/2020
Status: Active
Direct Cost: \$1,000,000
Indirect Cost: \$ 480,000
Total Cost: \$1,480,000
5. Title: Investigation into heart aging
Funding Agency: National Institute of Health (1R01 AG049780-01)
Award Type: R01
Role on project: PI

Purpose: The purpose of this project is to investigate, in animal models, the cellular and molecular mechanisms that underlie klotho deficiency-induced heart damage.
Effective Dates: 02/15/2016 - 02/14/2021
Status: Active
Direct Cost: \$2,056,084
Indirect Cost: \$ 986,920
Total Cost: \$3,043,004

6. Title: Mentoring Diabetes Research in Oklahoma
Funding Agency: National Institute of Health (5P20 GM104934)
Award Type: P20 - Center of Biomedical Research Excellence (COBRE) Program of the NIGMS
Role on project: PI of Pilot Project Core (Program PI: Jay Jian-Xing Ma)
Purpose: The purpose of this project is to train scientists in diabetes research in Oklahoma.
Status: Active
Effective Dates: 07/01/2017–06/30/2022
Direct Cost: \$3,750,000
Indirect Cost: \$1,800,000
Total Cost: \$5,550,000

New grant to be funded

7. Title: Epigenetic Regulation of Kidney Function and Blood Pressure
Funding Agency: National Institute of Health (1R01 AG062375-01).
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to investigate the epigenetic regulation of Na transporters, salt sensitivity, and blood pressure
Effective Dates: 04/1/2019–03/31/2024
Status: percentile=4
Direct Cost: \$1,915,990
Indirect Cost: \$ 608,995
Total Cost: \$2,524,985

New submission pending IRG Review

8. Title: Epigenetic Mechanism of Heart Injury
Funding Agency: National Institute of Health (1R01 HL148942).
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to investigate histone methylation in aging-associated heart injury

Effective Dates: 07/1/2019–06/30/2024
Status: Pending IRG review
Direct Cost: \$1,462,540
Indirect Cost: \$ 606,346
Total Cost: \$2,068,886

9. Title: Investigation into Aging-associated Pancreatic β Cell Damage
Funding Agency: National Institute of Health (1R01 AG64797-01).
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to investigate the roles of Klotho, Notch1 and Pdx1 in pancreatic β cell aging
Effective Dates: 07/1/2019–06/30/2024
Status: Pending IRG review
Direct Cost: \$1,987,560
Indirect Cost: \$ 608,495
Total Cost: \$2,596,055

Pending revision

10. Title: Metabolic Basis of Cold-induced Heart Damage
Funding Agency: National Institute of Health (1R01 HL135980-01).
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to evaluate the role of thyroid hormone and UBF transcription factors in cold-induced cardiac hypertrophy
Effective Dates: 12/01/2018–11/30/2023
Status: Pending revision (previous percentile = 26)
Direct Cost: \$1,250,000
Indirect Cost: \$ 570,495
Total Cost: \$1,820,495

Completed

11. Title: Mentoring Aging Research
Funding Agency: National Institute on Aging (T32 AG026426-01).
Award Type: T32
Role on project: Mentor (PI: William Sonntag)
Purpose: The purpose of this project is to train postdoctoral fellow in aging research.
Effective Dates: 07/1/2017–06/30/2021 (left for UTHSC)
Status: Role ended on 4/1/2018
Direct Cost: \$ 960,000

- 12.** Title: Molecular mechanism of kidney aging
Funding Agency: National Institute of Health (1R01 DK093403-01)
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to assess the role of pre-B-cell enhancing factor in aging-related kidney damage
Effective Dates: 06/26/2012–05/30/2018
Status: Active
Direct Cost: \$1,250,000
Indirect Cost: \$ 570,495
Total Cost: \$1,820,495
- 13.** Title: Mentoring Diabetes Research in Oklahoma
Funding Agency: National Institute of Health (5P20 GM104934-09)
Award Type: Center of Biomedical Research Excellence (COBRE) Program of the NIGMS
Role on project: PI of Pilot Project Core & Mentor (Program PI: Jay Jian-Xing Ma)
Purpose: The purpose of this project is to train scientists in diabetes research in Oklahoma.
Effective Dates: 09/15/2007–06/30/2017
Status: Active
Direct Cost: \$1,547,450
Indirect Cost: \$ 612,673
Total Cost: \$2,160,123
- 14.** Title: Regulation of blood pressure by klotho
Funding Agency: National Institute of Health (1R01 HL102074-01)
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to determine the role of klotho, a recently-discovered anti-aging gene, in the regulation of sodium handling in renal distal convoluted tubules and in the pathogenesis of spontaneous hypertension.
Effective Dates: 02/15/2011–01/31/2016
Status: Completed
Direct Cost: \$1,465,807
Indirect Cost: \$ 703,587
Total Cost: \$2,195,356
- 15.** Title: Molecular mechanism of arterial stiffening
Funding Agency: National Institute of Health (1R01 HL105302-01)
Award Type: R01
Role on project: PI
Purpose: The purpose of this project is to assess the roles of klotho, MMP-9, TGF- β 1 and RUNX2 and their relationship in large conduit artery stiffening.

- Effective Dates: 09/20/2010–12/31/2015
 Status: Completed
 Direct Cost: \$1,000,000
 Indirect Cost: \$ 456,396
 Total Cost: \$1,456,396
- 16.** Title: Mechanism of cold-induced pulmonary hypertension
 Funding Agency: American Heart Association (11PRE7830040)
 Award Type: Predoctoral Fellowship (PhD candidate: Patrick Crosswhite)
 Role on project: Mentor
 Purpose: The purpose of this project is to evaluate the role of TNF α and macrophages in cold-induced pulmonary hypertension
 Effective Dates: 07/01/2011–06/30/2013
 Status: Completed
 Direct Cost: \$26,000
 Total Cost: \$52,000
- 17.** Title: Intermittent cold exposure on the endothelin system
 Funding Agency: National Institute of Health (R01 HL077490)
 Award Type: R01
 Role on project: PI
 Purpose: The purpose of this project is to evaluate the role of the endothelin system in systemic arterial hypertension and renal damage induced by cold exposure.
 Effective Dates: 02/01/2006–01/31/2012
 Status: Completed
 Direct Cost: \$1,250,000
 Indirect Cost: \$ 562,500
 Total Cost: \$1,812,500
- 18.** Title: Cold-induced oxidative stress
 Funding Agency: American Heart Association (#0655257B)
 Award Type: Grant-in-Aid
 Role on project: PI
 Purpose: The purpose of this project is to determine the role of oxidative stress in cold-induced hypertension.
 Effective Dates: 07/01/2006–06/30/2010
 Status: Completed
 Direct Cost: \$264,000
- 19.** Title: Klotho and cardiovascular protection
 Funding Agency: Reynolds Oklahoma Center on Aging (ROCA)
 Award Type: Private
 Role on project: PI
 Purpose: The purpose of this project is to determine the role of klotho in the regulation of blood pressure

- Effective Dates: 02/01/2009–01/31/2010
 Status: Completed
 Direct Cost: \$35,000
- 20.** Title: Improving warfighters' sustainment and performance in extreme environmental conditions
 Funding Agency: Department of Defense (US Army Contract # W911NF-07-C-0053) (subcontracting through Johns Hopkins University)
 Award Type: Research Award
 Role on project: PI on the cold project (10% effort)
 Purpose: The purpose of this project was to determine the role of heat-shock protein (HSP) in mental and cardiovascular responses to cold stress.
 Effective Dates: 08/01/2007–02/31/2008
 Status: Completed
 Direct Cost: \$58,007
- 21.** Title: Molecular Cardiovascular Medicine Symposium,
 Funding Agency: Data Science International (DSI)
 Award Type: Education grant
 Role on Project: PI (organizer)
 Purpose: The purpose of this educational grant was to support an international symposium organized by Dr. Zhongjie Sun (IEEE Nano/Med Conference 08/2007).
 Effective Dates: 04/01/2007–09/31/2007
 Status: Completed
 Direct Cost: \$1000.00
- 22.** Title: Nanoparticle-based drug delivery for the treatment of atrial fibrillation
 Funding Agency: University of Oklahoma Health Sciences Center College of Medicine Alumni Association (COMAA)
 Award Type: Institutional Grant Support
 Role on Project: Co-Investigator (PI, Sunny Po)
 Purpose: The purpose of this project was to assess Nanoparticle-based drug delivery for the treatment of atrial fibrillation.
 Effective Dates: 07/01/2008–06/30/2009
 Status: Completed
 Direct Cost: \$30,000
- 23.** Title: Cardiovascular responses to chronic cold exposure
 Funding Agency: American Heart Association-National (#0130387N).
 Award Type: Scientist Development Grant (SDG)
 Role on Project: PI
 Purpose: The purpose of this project was to evaluate the systemic angiotensin system in cold-induced hypertension.

- Effective Dates: 1/01/2001–12/31/2004
 Status: Completed
 Direct Cost: \$260,000
24. Title: Renal responses to chronic cold exposure
 Funding Agency: The Robert & Mary Cade Foundation (#007841).
 Award Type: Private
 Role on project: PI
 Purpose: The purpose of this project is to evaluate the role of kidney in the development of cold-induced hypertension.
 Effective Dates: 07/01/1998–06/30/2002
 Status: Completed
 Direct Cost: \$270,000
25. Title: Physiological responses to chronic cold exposure
 Funding Agency: National Institute of Health (R01 HL-039154).
 Award Type: R01
 Role on Project: Co-Investigator (30% effort) (PI, Melvin J Fregly & subsequently listed M. Ian Phillips)
 Purpose: The purpose of this project was to determine the sympathetic nervous system in cold-induced hypertension.
 Effective Dates: 07/01/1996–06/30/2000
 Status: Completed
 Direct Cost: \$500,000

VII. PUBLICATIONS

(I) REFEREED PUBLICATIONS AND MANUSCRIPTS

1. Mujib Ullah and Zhongjie Sun. Klotho deficiency accelerates stem aging by impairing telomerase activity. *J Gerontol A Biol Sci Med Sci*. 2018 Nov 18. Doi: 10.1093/gerona/gly261. [Epub ahead of print] (PMC-Journal in Process).
2. Kai Chen and Zhongjie Sun. Activation of DNA demethylases attenuates aging-associated arterial stiffening and hypertension. *Aging Cell*. 2018 Apr 16:e12762. doi.10.1111/acel.12762 [Epub ahead of print]. PMID: 29659128. PMID: 29659128.
3. Jianglei Chen, Jun Fan and Zhongjie Sun. Secreted klotho attenuates aortic valve fibrosis in senescence accelerated mice P1 (SAMP1). *Hypertension*. 71:877-885, 2018. PMID: 29581213. PMID: 29581213.
4. Mujib Ullah and Zhongjie Sun. Stem cells and anti-aging genes: double edged sword – Do the same job of life extension. *Stem Cell Res Ther*. 2018 Jan 10:9(1). Doi.10.1186/s13287. PMID: 29321045. PMID: 29321045.
5. Young S. Oh, Dan E. Berkowitz, Richard A. Cohen, C. Alberto Figueroa, David G. Harrison, Jay D. Humphrey, Douglas F. Larson, Jane A. Leopold, Robert P. Mecham, Nelson Ruiz-

- Opazo, Lakshmi Santhanam, Francesca Seta, John Y.J. Shyy, Zhongjie Sun, Philip S. Tsao, Jessica E. Wagenseil, and Zorina S. Galis. A Special Report on the NHLBI Initiative to Study Cellular and Molecular Mechanisms of Arterial Stiffness and its Association with Hypertension. *Circ Res*. 121:1216-1218, 2017. PMID: 29122942.
6. Yuechi Xu and Zhongjie Sun. Regulation of s-formylglutathione hydrolase by anti-aging gene Klotho. *Oncotarget*. 8:88259-88275, 2017. PMID: 29179433.
 7. Dongju Jung, Yuechi Xu and Zhongjie Sun. Induction of anti-aging gene klotho with a small chemical compound that demethylases CpG islands. *Oncotarget*. 18:8:46745-46755, 2017. PMID: 28657902.
 8. Peter Jin-Fu Chen and Zhongjie Sun. *In vivo* RNAi inhibition of endothelin-1 production attenuates cold-induced hypertension. *Human Gene Ther*. 28(2):190-199, 2017. PMID: 27736201.
 9. Diansa Gao, Zhong Zuo, Jing Tian, Quaisar Ali, Yi Lin, Han Lei, Zhongjie Sun. Activation of SIRT1 Attenuates Klotho Deficiency-induced Arterial Stiffness and Hypertension by Enhancing AMPK α Activity. *Hypertension*. 68:1191-1191, 2016. PMID: 27672025.
 10. Rohan Varshney, Quaisar Ali, Chengxiang Wu and Zhongjie Sun. Monocrotaline-induced Pulmonary Hypertension Involves Downregulation of Anti-aging Protein Klotho and eNOS activity. *Hypertension*. 68:1255-1263, 2016. PMID: 27620389. PMID: 27620389 (Editorial Comments).
 11. Jianglei Chen, Yi Lin, Zhongjie Sun. Ant-aging gene *klotho* deficiency promotes aortic valve fibrosis through AMPK α -mediated activation of RUNX2. *Aging Cell*. 15:853-860, 2016. PMID: 27242197. PMID: 27242197.
 12. Jun Fan and Zhongjie Sun. The anti-aging gene klotho regulates proliferation and differentiation of adipose-derived stem cell. *Stem Cells*. 34:1615-1625, 2016. PMID: 26865060. PMID: 26865060.
 13. Yi Lin, Jianglei Chen and Zhongjie Sun. Anti-aging gene klotho deficiency promotes high fat diet-induced arterial stiffening *via* inactivation of AMP-activated protein kinase. *Hypertension*. 67:564-573, 2016. PMID: 26781278.
 14. Xiaoli Zhou, Kai Chen, Yongjun Wang, Mariano Schuman, Han Lei, and Zhongjie Sun. Anti-aging gene klotho regulates adrenal CYP11B2 expression and aldosterone synthesis. *J Am Soc Nephrol*. 27:1765-1776, 2016. PMID: 26471128.
 15. Kai Chen, Xiaoli Zhou, Zhongjie Sun. Klotho deficiency causes arterial stiffening *via* aldosterone-mediated upregulation of scleraxia and autophagy. *Hypertension*. 66:1006-1003, 2015. PMID: 26324504.
 16. Yi Lin and Zhongjie Sun. Anti-aging gene klotho attenuates pancreatic β cell apoptosis in type I diabetes. *Diabetes*. 64(12):4298-4311, 2015. PMID: 26340932.
 17. Yuechi Xu and Zhongjie Sun. Molecular basis of klotho, from gene to function. *Endocrine Rev*. 36:174-193, 2015. PMID: 25695404. PMID: 25695404.
 18. Yi Lin and Zhongjie Sun. *In vivo* pancreatic β cell-specific expression of anti-aging gene klotho: a novel approach for preserving β cells in type II diabetes. *Diabetes*. 64:1444-1458, 2015. PMID: 25377875. PMID: 25377875.
 19. Xiaoli Zhou, Kai Chen, Han Lei and Zhongjie Sun. Klotho gene deficiency causes salt-sensitive hypertension *via* MCP-1/CCR2 mediated inflammation. *J Am Soc Nephrol*. 26:121-132, 2015. PMID: 24904083.

20. Zhongjie Sun. Aging, arterial stiffening and hypertension. *Hypertension*. 65:252-256, 2015. PMID: 25368028. PMCID: PMC4288978
21. Patrick Crosswhite, Kai Chen and Zhongjie Sun. AAV delivery of TNF α shRNA attenuates cold-induced pulmonary hypertension and pulmonary arterial remodeling. *Hypertension*. 64:1141-1150, 2014. PMID: 25185133. PMCID: PMC4192064.
22. Qisi Sun, Zhong Zhang and Zhongjie Sun. The potential and challenges of using stem cells for cardiovascular repair and regeneration. *Genes & Dis*. 1:113-119, 2014. PMID: 5642448. PMCID: PMC4307803.
23. Zhongjie Sun. Platelet TLR4, a critical link in pulmonary arterial hypertension. *Circ Res*. 114:1551-1553, 2014. PMID: 246852123. PMCID: PMC4071958.
24. Patrick Crosswhite and Zhongjie Sun. Molecular mechanism of pulmonary arterial remodeling. *Mol Med*. 20:191-201, 2014. PMID: 24676136. PMCID: PMC4002851
25. Yuhong Wang and Zhongjie Sun. Anti-aging gene klotho regulates ET-1 levels and ET_B receptors in kidneys in SHR. *J Hypertens*. 32(8):1629-1636, 2014.
26. Patrick Crosswhite and Zhongjie Sun. Inhibition of phosphodiesterase 1 attenuates cold-induced pulmonary hypertension. *Hypertension*. 61:585-592, 2013. PMID: 23319544.
27. Yi Lin and Zhongjie Sun. Genetic deficiency of anti-aging gene klotho exacerbates early nephropathy in STZ-induced diabetes in male mice. *Endocrinology*. 154:3855-3863, 2013. PMID: 23928372.
28. Zhongjie Sun, Han Lei and Zhong Zhang. Pre-B-cell colony enhancing factor (PBEF), a cytokine with multiple physiological functions. *Cytokine and Growth Factor Reviews*. 24:433-442, 2013. PMID: 23787158.
29. Doris M. Benbrook, Suresh Guruswamy, Yuhong Wang, Zhongjie Sun, Altaf Mohammed, Yuting Zhang, Qian Li, Summer Frank, and Chinthalapally V Rao. Chemoprevention of Colon and Small Intestinal Tumorigenesis in APC^{min/+} Mice by SHetA2 (NSC721689) without Toxicity. *Cancer Prev Res*. 6:908-916, 2013. PMID: 23137051.
30. Xiuqing Wang, Lucille Skelley, Bo Wang, Ayesha Mejia, Val Sapozhnikov and Zhongjie Sun. AAV-based RNAi silencing of NADPH oxidase gp91phox attenuates cold-induced cardiovascular dysfunction. *Human Gene Ther*. 23(9):1016-1026, 2012. PMID: 22888847.
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81. Z. Sun and R. Cade. Participation of central angiotensin II receptors in cold-induced hypertension. *Abstract Book. 2nd International Forum on Angiotensin II Receptor Antagonism.* 32:4.4.50, 2001. (Monte Carlo, Monaco, 10/22/2001).
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85. Z. Sun and R. Cade. Renin-angiotensin system and cold-induced hypertension. *JARRS.* 1(1):67, 2000. (London, UK, 02/24/2000)*.
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91. Z. Sun and R. Cade. β -Casomorphin causes behavioral changes in rats. *FASEB J.* A634:3659, 1997. (San Francisco, 04/26/1997).
92. Z. Sun, R. Cade and M. Fregly. Cold-induced hypertension: a model of mineralocorticoid-induced hypertension. *Proceedings of 10th international symposium on pharmacol of*

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93. Z. Sun, M. Fregly and R. Cade. Effect of chronic treatment with propranolol on cardiovascular responses to cold. *FASEB J*. A117:672, 1996. (Washington DC, 04/16/1996).
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95. Z. Sun, M. Fregly, and N. Rowland. Comparison of changes in blood pressure and dipsogenic responses of male and female rats chronically exposed to cold. *FASEB J*. A647:3750, 1995. (Atlanta, GA, 04/18/1994).
96. M. Fregly, Z. Sun and R. Cade. Reduction in blood pressure of cold-exposed rats by chronic treatment with prazosin. *FASEB J*. A329, 1994. (San Diego, CA, 04/28/1994).
97. Z. Sun, M. Fregly and R. Cade. Effect of renal denervation (RD) on elevation of blood pressure (BP) in cold-exposed rats. *FASEB J*. 329, 1994. (San Diego, CA, 04/26/1994).

VIII. PATENTS

1. **US Patent Application #61784640 filed on 03/14/2013.** Inventor: Zhongjie Sun. Title: "Compositions comprising klotho protein or nucleotides encoding same and methods of production and use thereof". The OUHSC disclosure #: 13HSC038.
2. **US Patent Application #14/776,452.** Inventor: Zhongjie Sun. Title: Treatment of arterial stiffening by compound H. The OUHSC disclosure #: 16HSC026.

IX. TEACHING & MENTORING ACTIVITIES

1. Classroom Teaching for Medical Students and Graduate Students

- 2015- **Lecturer**, Pharmacogenomics (PHSC 6002). "Molecular therapy for hypertension". (Fall semester, pharmacy and graduate students, 1 credit hour, OUHSC)
- 2014- **Lecturer**, Scientific Integrity Course. "Peer Review". (Fall semester, graduate students, 1 credit hour, OUHSC)
- 2011- **Lecturer**, Cardiac, Renal and Respiratory Physiology (CRR). Cardiac Physiology (Fall semester, medical students, 4 credit hours, 9 hours, OUHSC)
"Overview of the circulation" (medical students, syllabus provided, self-review)
"Cardiac cellular electrophysiology" (medical students, 1 hour, each fall)
"Pacemaker activity and cardiac conduction" (medical students, 1 hour, each fall)

- “Electrocardiogram” (medical students, 1 hour, each fall)
 “Cardiac mechanical activity” (medical students, 1 hour, each fall)
 “Cardiac cycle” (medical students, 1 hour, each fall)
 “Regulation of cardiac function” (medical students, 1 hour, each fall)
- 2009– **Course Director**, PHYO-6401-002, Cardiovascular Genomics and Diseases (Spring semester, graduate students, 1 credit, 15 hours, OUHSC).
Lecturer, PHYO-6401-002 (graduate students, 5 lectures, 9 hours)
 “Functional genomics in hypertension” (1.5 hours, each spring)
 “Genetic hypertension” (1.5 hours, each spring)
 “Inflammation and hypertension” (1.5 hours, each spring)
 “Recent advances in molecular cardiology” (1.5 hours, each spring)
 “MicroRNAs in cardiovascular disease” (1.5 hours, each spring)
- 2009 **Course Director**, PHYO 6303, Advanced Systemic Physiology (spring semester 2009, graduate students, 3 credits, 45 hours, OUHSC)
- 2008–2009 **Lecturer**, GPiBS Integrative Physiology (BMSC 6682): “NADPH Oxidase, Inflammation, and Oxidative Stress”. (graduate students, 1.5 hours, each spring).
- 2008 **Developed a new graduate course**, Cardiovascular Genomics and Disease (PHYO-6401-002, graduate students, 1 credit, OUHSC).
- 2007– **Lecturer**, Genome to Physiology: PHYO-6401-001: Integrated Cardiovascular, Renal and Respiratory Systems (spring semester, OUHSC) (graduate students, 1 credit, 7.5 hours).
 “The major types of experimentally-induced hypertension” (1.5 hours, each spring).
 “Cold-induced hypertension”. (1.5 hours, each spring).
 “The sympathetic nervous system and hypertension”. (1.5 hours, each spring).
 “Molecular therapy for hypertension”. (1.5 hours, each spring).
- 2007– **Tutor**, GPiBS Journal Club: BMSC-5221-001: Molecular Therapy for Cardiovascular Disease (Fall semester, OUHSC) (graduate students, 1 credit, 4 hours).
 “Gene Therapy for Hypertension”. (graduate students, 1 hour, each fall, OUHSC)
 “Molecular Mechanism of Hypertension”. (graduate students, 1 hour, each fall).
 “Technical Challenges for Molecular Therapy for Cardiovascular Disease”. (graduate students, 1 hour, each fall)
 “eNOS and hypertension”. (graduate students, 1 hour, each fall)
- 2008 **Tutor**, Neuroscience Graduate Student Journal Club. (graduate students, 1 hour)
 “Thyroid hormone and cerebral angiogenesis” (12/08/2009)
- 2005 **Developed a new graduate course**, Current Opinion in Hypertension (GMS-6413, IDP graduate students, University of Florida)

- 2005 **Course Director**, GMS-6413, Current Opinion in Hypertension (Fall semester 2005, graduate students, 1 credit, 15 hours, University of Florida).
- 2005 **Lecturer**, GMS-6413, Current Opinion in Hypertension (fall semester, University of Florida).
 "Major animal models of hypertension" (1 hour, 08/23/05)
 "Cold-induced hypertension: a natural form of experimentally-induced hypertension" (1 hour, 09/15/05).
- 2005 **Tutor**, GMS-6001, Signal Transduction (graduate students, fall semester, University of Florida)
 "Ras activation". (1 hour, 12/01/05).
 "PKB/Akt activation". (1 hour, 11/29/05).
- 2005 **Tutor**, GMS-6931, Responsible Conduct of Biomedical Research (graduate students, summer, University of Florida).
 "Authorship & publication and peer review" (1 hour, 06/23/05).
 "Mentor & trainee responsibilities and collaborative research" (1 hour, 06/16/05).
- 2004 **Lecturer**, GMS-6410, Physiology of Circulation of Blood (graduate students, fall semester, University of Florida).
 "The sympathetic nervous system and hypertension" (2 hours, 11/24/04).
- 1990–1991 **Lecturer**, Cardiovascular Physiology, P-8862, (medical students, 10 hours each fall, Shanghai Medical University).
- 1988–1989 **Lecturer**, Introduction to Laboratory Physiology, LP-466, (medical students, 2 hours each fall, Tongji Medical University).

2. Mentor of graduate students

Chair of graduate supervisory committees (Mentored 4 graduate students, including 3 PhD candidates)

Patrick Crosswhite (PhD candidate), Department of Physiology, OUHSC (09/2007–12/2012)

Lora Bailey-Downs (PhD candidate), Department of Physiology, OUHSC (01/2007–08/2010)

Ryan Stormont (MS student), Department of Physiology, OUHSC (08/2007–06/2009)

Gin-Fu (Peter) Chen (PhD candidate), Department of Physiology, University of Florida, (08/2003–08/2006)

Member of graduate supervisory committees

Anja Bastian, PhD candidate, Department of Physiology, OUHSC (2013–

Lee Bokus, MD/PhD candidate (MD & PhD Program), Department of Biochemistry & Molecular Biology, OUHSC (01/2013–)

Xuemin He, PhD candidate, Department of Physiology, OUHSC (12/2011–)

Mei Du, PhD candidate, Department of Physiology, OUHSC (12/2011–5/2016)

Yang Hu, PhD candidate, Department of Physiology, OUHSC (07/2010–5/2013)
Shaobin Wang, PhD candidate, Department of Physiology, OUHSC (07/2008–)
Paula Warrington, PhD candidate, Neuroscience Program, OUHSC (04/2009–2012)
Aaron Chaloner, PhD candidate, Neuroscience Program, OUHSC (04/2009–)
Karen Porter, PhD candidate, Physiology Program, University of Florida (2005–2006)

3. Supervision of GPiBS students (BMSC 6100, mentored GPiBS students, lab rotation)

Patrick Crosswhite (lab rotation) (08/28–10/19, 2007) (OUHSC)
Lora Bailey-Downs (lab rotation) (01/14–03/19, 2008) (OUHSC)
Amanda Brock (lab rotation) (10/14/2009–12/18/2009) (OUHSC).
Clair Crewe (pre-rotation) (08/16/2009–10/10/2009) (OUHSC).
Alexander Crowe (lab rotation) (10/13/2014–12/12/2013) (OUHSC).

4. Module advisor for medical students (PHYO 8600, Medical Physiology, OUHSC, 2007)

5. Recruitment of graduate students

2002–2006 Evaluated graduate applications, interviewed graduate applicants, and participated in the annual recruitment process of graduate students for the IDP Graduate Program (University of Florida)
2010– Interviewed graduate applicants and participated in the annual recruitment process of graduate students for the GPiBS Graduate Program (OUHSC)

6. Research training for undergraduate and high school students

1999–2006 Trained NIH-supported minority students as a mentor (NIH Minority Research Program, University of Florida)
 Cerinda Morales, BS, Louisiana State University
 Craig Denesha, BS, University of South Carolina
 James Alouidor, BS, Florida Atlantic University (FAU)
 Ayesha Mejia, BS, University of Florida
2000–2006 BMS-4905, Trained four undergraduate students as a mentor, University of Florida
 Lee Seon, University of Florida
 Huong Van, University of Florida
 Artur Pawlowicz, University of Florida
 Benjamin Russell, University of Florida
2002–2006 Trained high school students as a mentor (Summer Research Program, Univ of FL)
 Cara Swintelski, Daytona Beach High School, FL (University of Florida)
 Charmi Vijapura, Hillsborough High School, FL (University of Florida)
 Michael Lane, St. Petersburg Senior High School, FL (University of Florida)
2009– Trained high school students as a mentor (OUHSC)
 Matthew Stewart, Oklahoma School of Sciences and Mathematics (OSSM) (OUHSC)
 Qianyu Wang, Oklahoma School of Sciences and Mathematics (OSSM) (OUHSC)
 Kayla McFarland, Oklahoma School of Sciences and Mathematics (OSSM)

(OUHSC)

John Suh, Oklahoma School of Sciences and Mathematics (OSSM) (OUHSC)

Divya Velury, Oklahoma School of Sciences and Mathematics (OSSM) (OUHSC)

Samantha Okere, Oklahoma School of Sciences and Mathematics (OSSM)

2013- Trained NIH-supported undergraduate students as a mentor (OUHSC)
Lincoln Dutcher, Oklahoma Christian University
Jonas Harley, BS, Oral Roberts University

7. Research training for medical students

2006 Trained medical students as a mentor
Bo Wang, second year medical student, University of Florida

8. Mentoring postdoctoral fellows (Univ of Florida and OUHSC)

06/2000–12/2002 Yanyu Song, MD, Department of Medicine, University of Florida.

09/2001–06/2002 Weiyi Mai, MD, Department of Medicine, University of Florida.

08/2002–09/2005 Xiuqing Wang, PhD, Department of Medicine, University of Florida.

02/2003–01/2004 Hua Li, PhD, Department of Medicine, University of Florida.

06/2003–09/2005 Val Sapozhnikov, PhD, Department of Medicine, University of Florida .

01/2005–09/2006 Mahajoub Bello Roufai, PhD, Department of Medicine, University of Florida

09/2005–06/2006 Xiuqing Wang, PhD, Research Assistant Scientist, Department of Medicine, University of Florida

01/2007–03/2008 Karigowda J. Dammanahalli, PhD, Department of Physiology, (OUHSC)

04/2007–10/2012 Yuhong Wang, PhD, Department of Physiology, OUHSC

12/2006–02/2008 Xianfu Wang, MD, Department of Physiology, OUHSC

01/2008–04/2013 Yi Lin, PhD, Department of Physiology, OUHSC

10/2010–08/2012 Ying Song, PhD, Department of Physiology, OUHSC

03/2011–07/2013 Mariano Schuman, PhD, Department of Physiology, OUHSC

05/2013–01/2014 Dongju Jung, PhD, Department of Physiology, OUHSC

07/2012–8/2016 Yuechi Xu, PhD, Department of Physiology, OUHSC

05/2013– Kai Chen, PhD, Department of Physiology

10/2013–11/2014 Yongjun Wang, PhD, Department of Physiology

11/2013– Jianglei Chen, PhD, Department of Physiology

01/2014–11/2015 Rohan Varshney, PhD, Department of Physiology

05/2014–2/2017 Quaisar Ali, PhD, Department of Physiology

05/2014–6/2015 Chengxiang Wu, PhD, Department of Physiology

07/2014–2/2016 Amy Diansa Gao, MD, Department of Physiology

03/2016–10/2017 Qiongxin Wang, MD, PhD, Department of Physiology

05/01/2016– Mujib Ullah, PhD, Department of Physiology

9. Mentoring international visiting scholars (OUHSC)

02/2009–05/2010 Zhong Zuo, MD. (from Chongqing Medical University, P.R. China)

09/2009–09/2010	Xiaocan Liu, PhD. (from Guangxi Normal University College of Life Sciences, China)
02/2011–07/2013	Xiaoli Zhou, MD. (from Chongqing Medical University, P.R. China)
01/2013–01/2016	Jun Fan, PhD. (from China Medical University, P.R. China)
09/2015–06/2016	John Yu Xing, PhD (from Chongqing Medical University, China)
07/01/2016–	Tina Rui Feng, MD (from Chongqing medical University, China)

10. Mentoring junior faculty (OUHSC)

07/2006–	Shirley Wang, PhD, Assistant Professor, Department of Physiology
07/2013–06/2016	Chi Bun Chan, PhD, Assistant Professor, NIH-sponsored CoBRE Program, Department of Physiology, OUHSC
08/2012–	Krysten Farjo, PhD, Assistant Professor, Department of Physiology, OUHSC
04/2013–	Yi Lin, PhD, Instructor of Research, Department of Physiology, OUHSC

11. Organizing and coordinating invited seminars (32 at OUHSC, 9 at U of Florida, 2001–2014)

12. Organizing and coordinating cardiovascular interest group at OUHSC

Dr. Sun initiated and organized a Cardiovascular Interest Group (CIG) for the purpose of promoting the excellence and advancement of cardiovascular research and education and to facilitate academic exchanges and scientific interactions among cardiovascular researchers at the OUHSC campus. The CIG engages in academic exchanges in the area of cardiovascular function, diseases, and drug discovery among labs, departments, and colleges at OUHSC. The CIG also offers new collaboration opportunities, develops novel research directions, and encourages collaborative funding on projects.

X. INVITED ACADEMIC ACTIVITIES

1. Invited Lectures at Academic Institutions

2018	Ti: McIntyre Award Lecture: Epigenetic regulation of vascular aging. Department of Cellular and Integrative Physiology. University of Nebraska Medical Center (3/16/2018)
2017	Ti: Regulation of pancreatic β cell function by anti-aging gene klotho in diabetes. Department of Pathology & Laboratory Medicine. Cedars-Sinai-University Hospital. (Los Angeles, LA. 06/12/2017)
2017	Ti: Anti-aging gene klotho and cardiovascular disease. Department of Biomedical and Nutritional Sciences. University of Massachusetts - Lowell College of Health Sciences. (Lowell, MA, 4/19/2017).
2017	Ti: Klotho and vascular aging. Vascular Biology Center. Augusta University School of Medicine. (Augusta, GA, 3/29/2017).
2017	Ti: Anti-aging gene klotho and cardiovascular disease. Department of Biomedical Sciences. Creighton University School of Medicine. (Omaha, NE, 2/15/2017).

- 2017 Ti: Klotho and hypertension. Department of Biomedical Sciences. Loma Linda University School of Medicine. (Loma Linda, CA, 2/2/2017).
- 2016 Ti: Investigation into vascular aging. Department of Biomedical Sciences. University of South Dakota School of Medicine. (Vermillion, SD, 12/9/2016).
- 2016 Ti: Anti-aging gene klotho and cardiovascular disease. Department of Cellular Biology and Anatomy. Louisiana State University School of Medicine. (Shreveport, LA, 7/26/2016).
- 2015 Ti: Anti-aging gene klotho, arterial stiffening, and hypertension. Department of Neuroscience, Cell Biology, and Physiology. Wright State University School of Medicine. (Dayton, OH, 10/12/2015).
- 2015 Ti: Anti-aging gene klotho, a novel therapeutic target for cardiovascular disease. Edward Lifesciences Center for Cardiovascular Technology & Department of Biomedical Engineering, University of California-Irvine College of Engineering. (Irvine, CA, 6/1/2015).
- 2015 Ti: Investigation into vascular aging. Cardiovascular Research Center & Department of Physiology, Temple University School of Medicine. (Philadelphia, PA, 5/14/2015).
- 2015 Ti: Translational potential of anti-aging gene klotho. Department of Pathology, University of Maryland School of Medicine. (Baltimore, MD, 3/18/2015).
- 2014 TI: Anti-aging gene klotho, arterial stiffening and hypertension. Department of Integrative Medical Sciences, Northeast Ohio Medical School. (Rootstown, OH. 12/16/2014)
- 2014 TI: Anti-aging gene klotho and hypertension. Department of Physiology & Pathobiology, Tufts University Medical School. (Boston, MA. 05/19/2014)
- 2014 TI: Regulation of pancreatic β cell function by anti-aging gene klotho. Winthrop-University Hospital. (Mineola, NY. 04/17/2014)
- 2014 TI: Regulation of cardiovascular and renal function by klotho. Department of Pharmacology & Toxicology, University of Utah (Salt Lake City, Utah. 01/06/2014)
- 2013 TI: Klotho, arterial stiffening and hypertension. Department of Pharmacology & Toxicology, Virginia Commonwealth University (Richmond, VA. 12/03/2013)
- 2013 TI: Anti-aging gene klotho and hypertension. Department of Physiology & Pharmacology, College of Veterinary Medicine, University of Georgia (Athens, GA. 10/14/2013)
- 2013 TI: Anti-aging gene klotho in the regulation of blood pressure. Center for Metabolic and Degenerative Disease, Institute of Molecular Medicine, University of Texas at Houston (Houston, TX, 05/22/2013)
- 2013 TI: Anti-aging gene klotho and hypertension. Department of Pharmacology, College of Medicine, University of Tennessee (Memphis, TN. 7/16/2013)
- 2012 TI: Klotho and hypertension. Department of Molecular & Cellular Biology, University of Texas HSC School of Medical and Biological Sciences (Tyler, TX, 12/09/2012)
- 2012 TI: New concepts in the pathogenesis of hypertension. Department of Pharmacology, Temple University Medical School (Philadelphia, PA, 10/17/2012).
- 2012 TI: A novel role of klotho in the regulation of vascular endothelial function. Department of Pharmacology, University of Mississippi Medical Center (Jackson, Mississippi, 04/02/2012).

- 2012 TI: Regulation of kidney function by klotho. Department of Anatomy and Physiology, College of Veterinary Medicine, Kansas State University (Manhattan, KS, 02/13/2012).
- 2011 TI: Molecular and cellular mechanism of aging-related hypertension. University of Minnesota Department of Biological Sciences (Duluth, MN, 4/28/11).
- 2011 TI: Klotho and Hypertension. Center for Vascular Biology Research (CVBR), Beth Israel Deaconess Medical Center, Harvard Medical School (Boston, MA, 03/14/11).
- 2010 TI: Anti-aging gene klotho and hypertension. University of North Dakota Department of Biochemistry. (Grand Forks, ND, 5/20/10).
- 2010 TI: Klotho and hypertension. University of Oklahoma HSC Reynold Oklahoma Center on Aging (ROCA) (Oklahoma City, 4/14/2010).
- 2009 TI: Klotho and blood pressure regulation. University of Oklahoma HSC Department of Endocrinology (Oklahoma City, OK). (11/24/2009).
- 2009 TI: Klotho and cardiovascular protection. University of Oklahoma HSC Reynold Oklahoma Center on Aging (ROCA) (Oklahoma City, 4/11/2009).
- 2008 TI: Role of β -casomorphin in schizophrenia and autism. The Oklahoma Center for Neurosciences (OCNS, OUHSC, Oklahoma City, OK) (11/25/2009).
- 2008 TI: Molecular therapy for hypertension. Texas A&M University Department of Medicine (Temple, TX) (11/19/2008).
- 2007 TI: Molecular therapy for hypertension. University of Oklahoma HSC Department of Endocrinology (Oklahoma City, OK). (11/28/2007).
- 2007 TI: Cardiovascular Responses to Cold Exposure. Yale University John B. Pierce Laboratory (New Haven, CT). (10/22/2007).
- 2007 TI: RNAi inhibition of gp91-phox attenuates cold-induced hypertension and vascular damage. Chongqing Medical University (Chongqing, China). (07/19/2007)
- 2006 TI: Molecular therapy for hypertension. Merck Co Research Laboratories (Rahway, NJ). (11/28/2006).
- 2006 TI: Molecular control of hypertension. The Academy of Athens and the University of Athens (Greece), Department of Biology (Athens, Greece). (10/17/2006).
- 2006 TI: Neural and endocrine mechanism of cold-induced hypertension. University of Miami, Department of Molecular and Cellular Pharmacology (Miami, FL). (04/27/2006).
- 2006 TI: Cold-induced hypertension. University of Oklahoma, Department of Physiology (Oklahoma City, OK). (01/25/2006).
- 2005 TI: Cardiovascular responses to cold exposure. University of Kentucky, Department of Physiology (Lexington, KY). (10/08/2005).
- 2004 TI: Cold temperatures and cardiovascular disease. University of Florida Department of Medicine Grand Round (Gainesville, FL). (10/07/2004).
- 2004 TI: Neural and endocrine mechanism of cold-induced hypertension. University of Florida, Department of Physiology (Gainesville, FL). (09/20/2004).
- 2000 TI: Regulation of blood pressure in cold environments. Medical College of London Department of Physiology (London, UK). (03/18/2000).
- 2000 TI: β -Casomorphin, Schizophrenia and Autism. University of Florida, Center for Autism & Related Disorders (Gainesville, FL). (01/26/2000).
- 1999 TI: Mechanism of Cold-induced Hypertension. Shanghai Medical University Department of Physiology (Shanghai, China). (04/19/1999).

- 1998 TI: Cold-induced hypertension. Ohio University Department of Biological Sciences (Athens, OH). (11/08/1998).
- 1997 TI: Role of renin-angiotensin system in the development and maintenance of cold-induced hypertension. University of Florida Department of Physiology (Gainesville, FL) (4/12/1997).

2. Invited Oral Presentations at the International/National Symposia

- 2018 “Inhibition of autophagy attenuates Klotho gene deficiency-induced arterial stiffening and hypertension” (11/11/2018). Abstract Oral Session (AOS.17566). American Heart Association Scientific Sessions. November 10-12, 2018. Chicago, IL*.
- 2018 “Epigenetic regulation of vascular function and blood pressure in aging” (11/11/2018). Cardiovascular Seminar (CVS.4589). American Heart Association Scientific Sessions. November 10-12, 2018. Chicago, IL*.
- 2017 “Kidney-specific knockout of anti-aging gene klotho impairs natriuresis and causes hypertension”. (9/17/2017). AHA High Blood Pressure Research Council conference. September 14-17, 2017. San Francisco, CA.
- 2017 “Epigenetic regulation of vascular aging”. (4/22/2017). American Physiological Society 4th Physiological Genomics Group Conference. Experimental Biology 2017. April 22-26, 2017. Chicago, IL.
- 2016 “Molecular mechanism of vascular aging”. (11/14/2016). American Heart Association Scientific Sessions. November 12-16, 2016. New Orleans, LA.
- 2016 “Sirt1 deacetylase mediates klotho gene deficiency-induced arterial remodeling and stiffness”. (11/15/2016). American Heart Association Scientific Sessions. November 12-16, 2015. New Orleans, LA.
- 2016 “Regulations of aldosterone synthesis by klotho”. (11/14/2016). American Heart Association Scientific Sessions. November 12-16, 2016. New Orleans, LA.
- 2015 “Transplantation of bone marrow cells from miR150 knockout mice attenuates arterial stiffness and hypertension in senescence-accelerated mice P1 (SAMP1)” (Control #16694) in a Hybrid entitled Connect the Dots: Immunity, Salt, and Hypertension. (11/10/2015). American Heart Association Scientific Sessions. November 7-11, 2015. Orlando, FL.
- 2015 “Aging, inflammation and salt-sensitive hypertension”. (11/10/2015). American Heart Association Scientific Sessions. November 7-11, 2015. Orlando, FL.
- 2015 “Autophagy and arterial stiffness”. (11/9/2015). American Heart Association Scientific Sessions. November 7-11, 2015. Orlando, FL.
- 2015 “Effect of klotho gene delivery on hypertension and arterial stiffness in senescence accelerated mice P1 (SAMP1)”. Experimental Biology. March 28–April 1, 2015. Boston, MA.
- 2014 “Activation of AMP-activated protein kinase (AMPK α) by AICAR attenuates klotho deficiency-induced endothelial dysfunction, arterial stiffening and hypertension”. (11/19/2014). American Heart Association Scientific Sessions. November 15-19, 2014. Chicago, IL.
- 2014 “Molecular mechanism of arterial stiffening”. (9/30/2014). NHLBI Annual Grantee Meeting. September 30, 2014. Bethesda, MD.

- 2013 “Klotho, aging, and aortic stiffness”. (11/20/2013). American Heart Association Scientific Sessions. November 16-20, 2013. Dallas, TX.
- 2013 “Genetic deficiency of anti-aging gene impairs vascular endothelial function and causes arterial stiffening”. (AOS.703.01). (11/18/2013). American Heart Association Scientific Sessions. November 16-20, 2013. Dallas, TX.
- 2013 “Anti-aging gene klotho deficiency causes hypertension *via* upregulation of fibroblast growth factor 23”. (AOS.719.01). (11/18/2013). American Heart Association Scientific Sessions. November 16-20, 2013. Dallas, TX.
- 2013 “Anti-aging gene klotho deficiency causes hypertension *via* upregulation of CYP11B2 expression and aldosterone synthesis”. (09/13/2013). The 62nd AHA Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, September 11-14, 2013. New Orleans, LA.
- 2013 “RNA interference in hypertension”. (04/21/2013). Experimental Biology. April 20–24, 2013. Boston, MA.
- 2013 “Regulation of β cell function by klotho in type II diabetes”. (04/24/2013). Experimental Biology. April 20–24, 2013. Boston, MA.
- 2012 “RNA interference, a novel therapeutic approach for hypertension and vascular diseases”. (11/04/2012). American Heart Association Scientific Sessions. November 3-7, 2012. Los Angeles, CA.
- 2012 “Anti-aging gene klotho, a new etiological factor for hypertension”. (11/06/2012). American Heart Association Scientific Sessions. November 3-7, 2012. Los Angeles, CA.
- 2012 “Klotho regulates endothelial function”. (11/05/2012). American Heart Association Scientific Sessions. November 3-7, 2012. Los Angeles, CA.
- 2012 “Klotho: a novel therapeutic target for cardiovascular disease”. (04/22/2012). Experimental Biology. April 21–25, 2012. San Diego, CA.
- 2011 “Klotho gene deficiency causes hypertension and kidney damage”. (04/10/2011). Experimental Biology. April 9–13, 2011. Washington, DC.
- 2010 “Anti-aging gene klotho: a novel therapeutic target for hypertension” (05/21/2010). Frontiers in Biomedical Research. May 21-22, 2010. North Dakota State University, Fargo, ND.
- 2010 “RNA interference: a novel therapeutic approach for hypertension” (04/26/2010). Experimental Biology. April 24–28, 2010. Anaheim, CA.
- 2010 “Klotho gene delivery suppresses endothelin-1 production but upregulates ETB receptors in kidneys in SHR” (4/28/2010). Experimental Biology. April 24–28, 2010. Anaheim, CA.
- 2009 “Klotho gene delivery delays and attenuates spontaneous Hypertension” (11/16/2009). *Circulation*. 118(18):S_285. AHA Scientific Sessions. November 13–18, 2009. Orlando, FL.
- 2009 “Molecular mechanism of cold-induced hypertension” (07/28/2009). The 36th Congress of the International Union of Physiological Sciences (IUPS). July 27–August 01, 2009. Kyoto, Japan.
- 2009 “Current status of hypertension research” (06/04/2009). Chongqin Medical Association Cardiovascular Symposium, June 3–6, 2009, Chongqin, China.

- 2009 “Role of phosphodiesterase 1A in cold-induced hypertension and cardiac hypertrophy” (04/20/2009). *Experimental Biology*. April 18–22, 2009. New Orleans, LA.
- 2008 “Klotho gene delivery prevents progression of spontaneous hypertension” (09/20/2008). The 62nd AHA Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, September 17–20, 2008. Atlanta, GA.
- 2007 "Heart-specific inhibition of PDE1A attenuates cardiac hypertrophy" (10/13/2007). The 12th World Congress on Advances in Oncology and the 10th International Symposium on Molecular Medicine, October 11–13, 2007, Creta Maris, Hersonissos, Crete, Greece.
- 2007 “Role of nitric oxide in cold-induced hypertension” (08/08/2007). International NanoMed Conference. August 6–9, 2007. Macau, China. *Molecular Cardiovascular Medicine*.
- 2007 “AAV delivery of gp91-shRNA attenuates cold-induced hypertension and vascular damage” (07/24/2007). The 9th Chinese Cardiovascular Pharmacology Conference. July 23–26, 2007. Wuhan, Hubei, China.
- 2007 “AAV delivery of gp91-shRNA attenuates cold-induced hypertension and vascular damage” (07/18/2007). The Sino-American Symposium on Metabolic Syndrome and Cardio-Cerebral-Vascular Diseases. July 18–20, 2007. Chongqin, China.
- 2006 “Protooncogene c-myc, a novel therapeutic target for cardiac hypertrophy” (11/13/2006). American Heart Association Scientific Sessions. Genetically Engineered Models of Human Disease II (section AQP231). November 12–15, 2006, Chicago, IL.
- 2006 "Heart-specific inhibition of protooncogene c-myc on cold-induced cardiac hypertrophy" (10/14/2006). The 11th World Congress on Advances in Oncology and the 9th International Symposium on Molecular Medicine, October 12–14, 2006, Creta Maris, Hersonissos, Crete, Greece.
- 2006 “AAV delivery of NADPH oxidase gp-91-shRNA attenuates cold-induced hypertension and vascular hypertrophy” (10/06/2006). The 60th AHA Annual Fall Conference and Scientific Sessions of the Council for High Blood Pressure Research, October 4–7, 2006. San Antonio, TX.
- 2006 "Protooncogene c-myc, a novel target for cardiac hypertrophy " (06/29/2006). The World Congress of Pharmacology Cardiovascular Satellite Meeting, June 27–29, 2006. Suzhou, Jiangsu, China.
- 2006 "RNAi inhibition of p65-mitogenic oxidase attenuates cold-induced hypertension" (03/05/2006). The Second International Symposium on Pharmacology and Physiology of Thermoregulation, March 3–6, 2006. Phoenix, AZ, USA.
- 2004 “Reduction of cold-induced hypertension by viral delivery of renin antisense” (11/06/2004). American Heart Association National Awardee Research Symposium. November 6, 2004. New Orleans, LA.
- 2004 “Long-term control of hypertension by viral delivery of renin antisense” (07/23/2004). The 8th Chinese Cardiovascular Pharmacology Conference. July 23–26, 2004. Urumchi, Xinjiang, China.

- 2001 "Central imidazoline and angiotensin II receptors in cardiovascular responses to chronic cold exposure in rats" (09/03/2001). International Thermal Physiology Symposium. September 2–6, 2001. Wollongong, Australia.
- 2001 "Participation of central angiotensin II receptors in cold-induced hypertension" (01/24/2001). The 2nd International Forum on Angiotensin II Receptor Antagonism. January 24–26, 2001. Monte-Carlo, Monaco.
- 2000 "Renin-angiotensin system and cold-induced hypertension" (02/24/2000). The 3rd International Symposium on Angiotensin II Antagonism. London, UK.
- 1999 "Cold-induced hypertension and diuresis" (05/10/1999). The XI International Symposium on Pharmacology of Thermoregulation. May 9–14, 1999. Seville, Spain.
- 1998 " β -Casomorphin, schizophrenia and autism" (10/13/1998). The Second Pan-Asia Pacific Conference on Mental Health. October 12–15, 1998. Beijing, China.
- 1997 "Role of the renal nerve in the development of cold-induced hypertension" (09/22/1997). The XXXIV Congress of European Renal Association, September 21–24, 1997. Geneva, Switzerland.
- 1996 "Cold-induced hypertension: a model of mineralocorticoid-induced hypertension" (08/18/1996). The Tenth International Symposium on Pharmacology of Thermoregulation, August 16–22, 1996, Memphis, TN, USA.

3. Invited to Organize and Chair International/National Symposia

- 2018 Chair of Abstract Oral Session (AOS.17566). TI: Recent Advances in Hypertension Research. November 11, 2018. American Heart Association (AHA) Scientific Sessions 2018. Chicago, IL. November 10–12, 2018.
- 2018 Chair of Cardiovascular Seminar (CVS.4539). TI: Epigenetic mechanism of Hypertension November 11, 2018. American Heart Association (AHA) Scientific Sessions 2018. Chicago, IL. November 10–12, 2018.
- 2018 American Heart Association (AHA) - Committee on Scientific Sessions Program (CSSP 2018)
- 2016 Chair of the Third APS Physiological Genomics Group Conference. Session IV. Translational genomics: from model organism to humans. April 2, 2016. Experimental Biology 2016. San Diego, CA. April 2-6, 2016.
- 2016 American Heart Association (AHA) - Committee on Scientific Sessions Program (2016)
- 2015 Co-chair of the Oral Session XVIII – Kidney and Hypertension II. September 19, 2015. American Heart Association (AHA) High Blood Pressure Research Council Annual meeting. Washington, D.C. September 16-19, 2015.
- 2015 American Heart Association (AHA) - Committee on Scientific Sessions Program (2015)

- 2015 Oral and Poster Session Builder for American Heart Association (AHA) Scientific Session (2015). Build a new session: **AOS.706.02**. Hypertension-Experimental (2015)
- 2015 Chair of the Second APS Physiological Genomics Group Conference. Session II. Genetic and genomic investigation of complex diseases. March 28, 2015. Experimental Biology 2015. Boston, MA. March 28-April 1, 2015.
- 2014 Oral and Poster Session Builder for American Heart Association (AHA) Scientific Session (2014). Build a new session: **AOS.703.01**. Regulation of Endothelial Function (2014)
- 2014 Chair for the First APS Physiological Genomics Group Conference. Special Session. Welcome Introduction. April 26, 2014. Experimental Biology 2014. San Diego, CA. April 26-30, 2014.
- 2013 Chair for Cardiovascular Seminar (CVS.726). TI: New Concepts in Arterial Stiffening and Hypertension. November 20, 2013. American Heart Association (AHA) Scientific Sessions 2013. Dallas, TX . November 16–20, 2013
- 2013 Oral Session Builder for American Heart Association (AHA) Scientific Session (2013) Build a new session: **AOS.703.01**. New Concepts in the Regulation of Endothelial Function (2013)
- 2013 Symposium Co-Chair (Chair, Dave Mattson), Symposium TI: Physiological Genomic Approaches in Hypertension Research. April 18, 2013. Experimental Biology 2013.
- 2012 Oral Session Builder for American Heart Association (AHA) Scientific Session (2012) Build a new session: **703.01**. New Concepts in the Regulation of Endothelial Function (2012)
Build a new session: **703.02a** Novel Signaling Pathways in the Regulation of Endothelial Function (2012)
- 2012 Plenary Session Organizer & Moderator (Sunday Morning Program 702). TI: MicroRNA-based Therapeutics for Cardiovascular Disease. November 4, 2012. American Heart Association (AHA) Scientific Sessions 2012. Los Angeles, CA. November 3–7, 2012
- 2012 Symposium Chair (organizer), Symposium TI: Cellular and molecular therapy for cardiovascular disease. April 22, 2012. Experimental Biology 2012. San Diego, CA. April 21–25, 2012.
- 2010 Symposium Chair (organizer), Symposium TI: RNA interference in cardiovascular disease. April 24, 2010. Experimental Biology 2010. Anaheim, CA. April 23–28, 2010.
- 2009 Symposium Chair (organizer), Symposium TI: Molecular Basis of Cardiovascular Adaptation to Cold temperatures. July 28, 2009. XXXVI International Congress of Physiological Sciences (sponsored by the IUPS). Kyoto, Japan. July 27–August 1, 2009.

- 2007 Symposium Chair (invited), Symposium TI: Molecular Oncology, Oct. 13, 2007. The 10th International Symposium on Molecular Medicine. Creta Maris, Hersonissos, Crete, Greece. October 11–13, 2007.
- 2007 Symposium Chairman (invited), Symposium TI: Molecular Cardiovascular Medicine, Aug. 8, 2007. International Nano and Molecular Medicine Conference (IEEE). Macau, China. August 6–9, 2007.
- 2006 Chair Person (invited), Molecular Medicine Session (October 14, 2006). The 9th International Symposium on Molecular Medicine. Creta Maris, Hersonissos, Crete, Greece. October 12–14, 2006.
- 2006 Organizer, the 3rd International Conference of Academy of Cardiovascular Research Excellence (ACRE), San Francisco, CA, USA. April 2–3, 2006.
- 1998 Chairperson, Biochemistry of Autism Session (September 22, 1998). 2nd Pan-Asia Pacific Conference on Mental Health. Beijing, China. September 22–26, 1998.

XI. PROFESSIONAL SERVICE

1. Leadership in National Associations

- (1). Chair, Hypertension Scientific & Clinical Education Lifelong Learning Committee (SCILL) of the Council on Hypertension, American Heart Association (AHA) (2018–)
- (2). AHA High Blood Pressure Research Council-Fall Program Committee
- (3). American Heart Association (AHA) Committee on Scientific Sessions Program (2014–)
- (4). AHA CME Peer Review Training Program Task Force Committee Member (2013)
- (5). Immediate Past President, The Academy of Cardiovascular Research Excellence (ACRE) (2013–2015)
- (6). President, The Academy of Cardiovascular Research Excellence (ACRE) (2011–2013)
- (7). President-Elect, The Academy of Cardiovascular Research Excellence (ACRE) (2008–2011)
- (8). Immediate past Chair, Steering Committee, American Physiological Society (APS) Physiological Genomics Group (PG) (2014–2017)
- (9). Chair, Steering Committee, American Physiological Society (APS) Physiological Genomics Group (PG) (2011–2014)
- (10). Steering Committee Member, American Physiological Society (APS) Physiological Genomics Group (PG) (2008–2014)
- (11). Science Policy Committee Member, American Physiological Society (APS) (2010–2013)
- (12). Science Policy Committee NIH Issues Subcommittee Member, Federation of American Societies of Experimental Biology (FASEB) (2009–)
- (13). Public Affairs Committee Member, American Physiological Society (APS) Public Affairs Committee (2010–2013)

- (14). ACRE Board Member (2003–); Chairman of the ACRE Membership Committee (2003–2008)
- (15). International Mentor, American Heart Association International Mentoring Program (2006–) Association International Mentoring Program (2006–)

2. Invited Editorial Service

Editorial Boards

Member, Editorial Board of *Circulation Research* (2014–)
 Member, Editorial Board of *Hypertension* (2008–)
 Guest Editor, *Frontiers in Bioscience* (Special Issue – Molecular basis of metabolic syndrome in cardiovascular disease) (2015–)
 Member, Editor Board of *Genes & Diseases* (2014–)
 Member, Editorial Board of *Physiological Genomics* (2008–2013)
 Editor, *Molecular Cardiology-Methods & Protocols* (Humana Press, 2005)

Abstract Grader for American Heart Association (AHA) Scientific Session

International Society of Hypertension (2014)
 719. Experimental Hypertension (2006–)
 703. Endothelium, Vascular Tone and Nitric Oxide (2011–)
 727. Risk Factors (2013–)
 AHA High Blood Pressure Research Council Annual Fall Conference (2012–)
 AHA Annual Scientific Sessions (2011–)

Manuscript Reviewer for Professional Journals

2017- Nature Communication
 2017- Journal of American College of Cardiology (JACC)
 2017 Kidney International
 2014 American Journal of Hypertension
 2014- Gene
 2013- Applied Physiology, Nutrition and Metabolism
 2012- American Journal of Physiology Heart & Circulatory Physiology
 2012- Circulation Research
 2012- International Journal of Hypertension
 2013- International Journal of Medical Sciences
 2012- Oxidative Medicine and Cellular Longevity
 2012- International Journal of Sports Medicine
 2012- North American Journal of Medical Sciences
 2012- AJP-Regulatory Physiology
 2012- Endocrinology
 2012- Journal of Comparative Neurology
 2011- PLoS One
 2011- Human Pathology
 2010- Journal of Cellular Physiology
 2010- Arteriosclerosis, Thrombosis, and Vascular Biology (ATVB)
 2010- Cardiovascular Diabetology

2010- Pediatric Research
 2009- Circulation
 2009- Journal of Gene Medicine
 2009- American Journal of Physiology Lung Cellular and Molecular Physiology
 2008- Clinical and Experimental Pharmacology & Physiology
 2008- Journal of Applied Physiology
 2008- Journal of Cellular & Molecular Medicine
 2008- Physiological Genomics
 2008- Cardiovascular Toxicology
 2008- Experimental Physiology
 2007 Journal of Alzheimer's Disease
 2007- American Journal of Nephrology
 2006 Neuroscience Letters
 2001- Hypertension
 2004- American Journal of Physiology Heart & Circulatory Physiology
 2005 Journal of Applied Physiology
 1999–2002 Peptides
 1998–2001 Brain Research
 2000 The International Journal of Biochemistry & Cell Biology
 2001 Journal of Molecular Endocrinology
 1999- Acta Pharmacologica Sinica
 2004–2006 International Journal of Cardiology

3. Invited National and Local Grant Review Panels

2018 NIH *ad hoc* review, vascular cell & molecular biology (VCMB) Study Section (2/15/2019)
 2018- NIH CSR Anonymization Grant Review Panel (6/18//2018)
 2017- Chair, NIH Hypertension & Microcirculation (HM) Study Section (July 01, 2017 – June 30, 2019).
 2017 Austria Science Fund - Scientific Review Committee (6/8/2017).
 2016 Special Emphasis Panel/Scientific Review Group 2016/02 ZRG1 HM-A (02) S (June 6, 2016).
 2016 OUHSC Vice President for Research (VPR) PHF Grant Review Panel 2016. (April 27, 2016).
 2016 University of Oklahoma College of Medicine Alumni Association (COMMA) Review Committee (May 27, 2016)
 2015 Special Emphasis Panel/Scientific Review Group 2016/01 ZRG1 HM-A (02) S (September 15, 2015).
 2015 AXA Grant Review, European Science Foundation. April 2, 2015.
 2014- Harold Hamm Diabetes Center – OUHSC. Grant Review Panel (twice a year)
 2014 Special Emphasis Panel/Scientific Review Group 2015/01 ZRG1 HM-A (02) S (October 15, 2014).
 2014 Special Emphasis Panel/Scientific Review Group 2014/10 ZRG1 HM-J (02) M (June 5, 2014).
 2013- NIH Hypertension & Microcirculation (HM) Study Section, Standing Member (July 01, 2013 – June 30, 2019).

2013 NIH NIDDK – Diabetic Complications Consortium (06/13/2013-)
2013 Special Emphasis Panel/Scientific Review Group 2013/05 ZRG1 VH-C (02) S (March 28, 2013).
2013 NIH Hypertension & Microcirculation (HM) Study section (February 14–15, 2013).
2013 Special Emphasis Panel/Scientific Review Group 2013/05 ZRG1 HM-C (02) S (February 14, 2013).
2012 OUHSC Vice President for Research (VPR) Grant Review Panel 2012. (February 15, 2012).
2011 NIH Special Emphasis Panel 2012/01 ZRG1 VH-C (03) M Vascular Hematology (December 07, 2011).
2011 NIH Special Emphasis Panel 2012/01 ZRG1 VH-B (02) Vascular Hematology (August 25, 2011).
2011 NIH Hypertension & Microcirculation (HM) Study section (February 10–11, 2011).
2011 AHA Cardiorenal Study Section (March 31, 2011).
2010 Wellcome Trust External Reviewer (Program Project Grant, July 16, 2010).
2010 AHA Cardiorenal Study Section (April 5–6, 2010).
2009 NIH Integrative Physiology of Obesity and Diabetes (IPOD) Study Section (September 24–25, 2009).
2009 NIH Special Emphasis Panel ZRG1 EMNR-H(02)M Metabolic Regulation of Diabetes and Obesity (July 29–30, 2009).
2009 AHA Region II Basic Cell 4 Study Group (04/24/2009)
2008 NIH Cardiovascular and Sleep Epidemiology (CASE) Study Section (Ad hoc, Oct. 16–17, 2008)
2008 University of Texas San Antonio (UTSA) SCORE Program Review Committee (Dec. 22, 2008)
2008 DoD Hypoxia Review Panel (PRMRP 2008) (Sept. 21–23, 2008)
2007- AHA-National Vascular Biology & Blood Pressure Regulation Peer Review Committee 2 (twice a year)
2007 University of Oklahoma College of Medicine Alumni Association (COMMA) Review Committee (Annually)
2007–2010 University of Oklahoma Health Sciences Center Presbyterian Health Foundation (PHF) Review Committee (Annually)
2006- US Army PRMRP Autism Review Panel (Annually)
2005 National Science Foundation (NSF), RUI Review Panel (July 18, 2005)
2003–2010 American Institute of Biological Sciences (AIBS), mail reviewer (2–4 applications annually)
2004 Department of Defense (DoD), Congressionally-Directed Medical Research Programs (CDMRP), Autism Panel (Sept. 18–20, 2004)
2003 Chair, Canada Foundation for Innovation Review Committee (June 22, 2008)
2002 US Army Combat Casualty Panel (Sept. 22–24, 2002)
2001–2006 University of Florida Research & Graduate Program (Annually)
2001 US Navy Cardiovascular Science (Aug. 26–28, 2001)

4. Invited Consultation

Consultant, Gerson Lehrman Group, Inc. (2007–)

5. Judge

- (a) Judge for the Trainee Highlight Session, Experimental Biology. San Diego, CA. April 22, 2012
- (b). Judge for Graduate Student Oral Presentation Competition, the GREAT Symposium. OUHSC. April 4, 2012.
- (c). Judge for the Young Investigator Award Competition, APS PG Symposium. April 10, 2011.
- (d). Judge for the GPiBS Graduate Student Award, OUHSC. July 22, 2008.
- (e). Judge for Medical Guild Graduate Research Competition, University of Florida. Gainesville, FL. April 10, 2006.
- (f). Evaluate graduate applications and interview graduate applicants, University of Florida Graduate School, Interdisciplinary Program, 2001–2006.
- (g). Judge for the 43rd Annual Florida Junior Science, Engineering, and Humanities Symposium. February 6–8, 2006.
- (h). Judge for Graduate Fellowships for Outstanding Research, University of Florida, July 18, 2005.
- (i). Judge for 42nd Annual Florida Junior Science, Engineering, and Humanities Symposium. February 6–8, 2005.
- (j). Judge for 49th Annual State Science and Engineering Fair of Florida. Jacksonville, FL. April 14–16, 2004.
- (k). Judge for 39th Annual Florida Junior Science, Engineering, and Humanities Symposium. Gainesville, FL. February 3–5, 2002.

XII. HONORS, AWARDS, SPECIAL RECOGNITION AND MEMBERSHIPS

1. Special Awards and Honors

- 2018 A. Ross McIntyre Award, Department of Physiology, University of Nebraska Medical Center (03/15/2017).
- 2015 Distinguished Service Award, American Physiological Society (APS) Physiological Genomics Group (PG) (03/30/2015).
- 2012 Provost Research Award for Senior Faculty, University of Oklahoma Health Sciences Center (OUHSC) (04/23/2012)
- 2012 Distinguished Service Award, Academy of Cardiovascular Research Excellence (ACRE) (11/10/2012)
- 2009 International Union of Physiological Societies (IUPS) Travel Award (APS, 03/31/2009)
- 2008 Research Scholar, Reynolds Oklahoma Center on Aging (ROCA)
- 2007- Honorary Professor, Chongqing Medical University, China (07/18/2007–)
- 2006- Fellow of American Heart Association (FAHA) (09/18/2006-)
- 2005 Editor, *Molecular Cardiology: Methods and Protocols* (Humana Press)
- 2001 National Scientist Development Award, AHA-National (01/01/2001)
- 2001 Losartan Travel Award (Merck Co., 09/26/2001)
- 2000 FASEB Travel Award (07/21/2000)
- 1999 Angiotensin II Research Award (Merck Co., 03/22/1999)

- 1991 Guang Hua Research Award (Shanghai Medical University, China. 04/26/1991)
1987 Outstanding Young Clinician Award (Yicheng Health Bureau, Shandong, China. 06/18/1999)

2. Membership

- 1994– Member of American Physiological Society (APS)
1996– Member of American Heart Association (AHA)
2003– Member of American College of Cardiology (ACC)
1998– Member of American Society of Hypertension (ASH)
1996– Member of American Association for the Advancement of Science (AAAS)
2003– Member of Society of Chinese American Professors and Scientists (SoCAPS)
2002– Member of the Academy of Cardiovascular Research Excellence (ACRE)
2008– Member of the Endocrine Society (TES)
2011– Member of the Chinese American Society of Nephrology (CASN)

XIII. NEWS RELEASE AND PUBLIC OUTREACH

1. The 2010 OUHSC news release “**Oklahoman Scientists Discover Unexpected Benefit of Thyroid Hormone in Type 2 Diabetes**”.

The Oklahoman (11/30/2010) “Thyroid hormone Could Help Diabetics”.

<http://www.ouhsc.edu/news/templates/?a=272&z=22>

<http://newsok.com/article/3519169>

2. The 2009 OUHSC news release “**Anti-Aging Gene Linked to High Blood Pressure**”.

The Oklahoman (08/19/2009) “**Discovery could help fight aging**”.

<http://ouhsc.edu/article-display.asp?idnum=1432>

http://www.eurekalert.org/pub_releases/2009-08/uoo-ag1081909.php

<http://newsok.com/discovery-could-help-fight-aging/article/3393917>

3. Newspaper interview “**Cold Temperatures and Heart Disease (OUHSC)**”.

The Oklahoman (02/11/2008) “**Why fatal heart attacks peak when it gets colder**”.

<http://NewsOK.com/article/3203119/1202709777>.

4. The 2005 University of Florida news release “**Cold weather hikes blood pressure, UF scientist warns (01/18/2005)**”. For details, click the following links (CTRL+Click)

<http://www.sciencedaily.com/releases/2005/02/050205124018.htm>

<http://news.ufl.edu/2005/01/18/cold-bp/>

5. The 2006 University of Florida news release “**Researchers use new technique to treat high blood pressure and kidney damage**” (04/06/2006). For details, click the following links (CTRL+Click)

<http://www.sciencedaily.com/releases/2006/04/060411082528.htm>
http://www.eurekalert.org/pub_releases/2006-04/uof-ren040506.php
<http://news.ufl.edu/2006/04/05/hypertension/>

6. Annual Capital Hill visit for urging the Congress to increase budget for biomedical research (APS Science Policy Committee) (2008– 2011).

7. Service to the community in health-related educational programs (*via* TV and Radio interviews). TV20, NPR, and VoD (Voice of Diabetes) (2005–2008).