

CURRICULUM VITAE

FULL NAME: Adebowale (Ade) Adebiji

WORK ADDRESS:

University of Tennessee Health Science Center
Department of Physiology
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CITIZENSHIP: USA

ACADEMIC POSITIONS

07/01/2020 – Date: Professor (Tenured)

Department of Physiology
University of Tennessee Health Science Center, Memphis TN

2018 – Date: Member and Faculty

Center for Sickle Cell Disease
University of Tennessee Health Science Center, Memphis TN

07/01/2016 – 06/30/2020: Associate Professor (Tenured)

Department of Physiology
University of Tennessee Health Science Center, Memphis TN

2014 – Date: Graduate Faculty

College of Graduate Health Sciences
University of Tennessee Health Science Center, Memphis TN

11/01/2010 – 06/30/2016: Assistant Professor (Tenure-track)

Department of Physiology
University of Tennessee Health Science Center, Memphis TN

03/2009 – 10/2010: Assistant Professor (Non-tenure track)

Department of Physiology
University of Tennessee Health Science Center, Memphis TN

EDUCATION AND TRAINING

****11/2004 – 02/2009:** Postdoctoral Research Fellow

Department of Physiology
University of Tennessee Health Science Center, Memphis TN

****American Heart Association Postdoctoral Fellow (07/2006-06/2008)**

****01/2000 – 08/2004:** PhD

National University of Singapore, Singapore
Department of Obstetrics & Gynecology

Research: Reproductive Pharmacology (*Control of uterine smooth muscle contractility by phytochemicals*)

****The National University of Singapore Scholar**

****03/1993 – 11/1996:** B.Sc. (Honors)

College of Medicine, University of Lagos, Nigeria

Major: Pharmacology

****Class Representative.**

PROFESSIONAL ACTIVITIES

Research Support

Current Extramural Grants

1. **04/01/2020 - 03/31/2024:** R01 HL151735-01, “Control of microvascular function by ion channels.”
Principal Investigator: Adebowale Adebisi, PhD
Agency: National Institutes of Health (NHLBI).
Total Cost: \$1,842,916
2. **05/01/2020 – 01/31/2025:** R01DK120595-01, “Vascular ion channels and microcirculation in neonatal urinary tract obstruction.”
Principal Investigator: Adebowale Adebisi, PhD
Agency: National Institutes of Health (NIDDK).
Total Cost: \$2,662,330
3. **09/15/2020 – 08/31/2025:** R01 DK127625-01, “Urotensin II and renal insufficiency in growth-restricted infants.”
Principal Investigator: Adebowale Adebisi, PhD
Agency: National Institutes of Health (NIDDK)
Total Cost: \$3,020,475

Current Institutional Grants

1. **04/01/2019 – 09/30/2020:** E073030049, “Progressive Glomerular Injury in Sickle Cell Disease.”
Principal Investigators: Adebowale Adebisi, PhD, and Kenneth Ataga, MD.
Agency: The Collaborative Intramural Research in the College of Medicine Award (CIRCA); UTHSC
Total Cost: \$50,000

Submitted Extramural Grants

1. **04/01/2021 – 03/31/2026:** R01DK- “Cannabinoids and kidney.”
Principal Investigator: Frank Park, PhD (PI)
Role: Co-investigator
Agency: National Institutes of Health (NIDDK)
Total Cost Requested: \$3,546,216
2. **04/01/2021 – 03/31/2026:** R01DK- “DNA repair and kidney.”
Principal Investigator: Frank Park, PhD (PI)
Role: Co-investigator
Agency: National Institutes of Health (NIDDK)
Total Cost Requested: \$2,343,299

Completed

Completed Extramural Grants

1. **07/01/2014 – 06/30/2020:** R01DK101668, “Regulation of neonatal renal hemodynamics.”
Principal Investigator: Adebowale Adebisi, PhD
Agency: National Institutes of Health (NIDDK).
Total Cost: \$1,500,000
2. **05/01/2019 – 04/31/2020:** R56DK120595-01, “Vascular ion channels and microcirculation in neonatal urinary tract obstruction.”
Principal Investigator: Adebowale Adebisi, PhD
Agency: National Institutes of Health (NIDDK).
Total Cost: \$114,000
3. **07/01/2017 – 06/30/2019:** Research Supplements to Promote Diversity in Health-Related Research (R01DK101668: Regulation of neonatal renal hemodynamics)
Principal Investigator: Adebowale Adebisi, PhD
Agency: National Institutes of Health (NIDDK)
Total Cost: \$100,000

4. **07/01/2016 – 06/30/2018:** 16GRNT30990069: Grant-in-Aid. “Myogenic renal autoregulation in neonatal acute kidney injury.”
Principal Investigator: Adebowale Adebiji, PhD
Agency: American Heart Association
Total Cost: \$154,000
5. **04/15/2009 – 03/31/2014:** K01HL096411, “Vasoregulation by IP₃ receptor coupling to TRPC channels.”
Principal Investigator: Adebowale Adebiji
Agency: National Institutes of Health (NHLBI)
Total Cost: \$583,929
6. **07/01/2006 - 06/30/2008:** Postdoctoral Research Fellowship, “Regulation of the cerebral artery myogenic response by caveolin-1.”
Principal Investigator: Adebowale Adebiji
Agency: American Heart Association
Total Cost: \$75,000

Completed Institutional Grants/Fellowships

1. **07/01/2018 – 06/30/2020:** E073030047, “New Grant Support Funding.”
Principal Investigator: Adebowale Adebiji, PhD
Agency: UTHSC Office of Research
Total Cost: \$30,000
2. **01/02/2019 – 10/04/2019:** R079700290, “UTRF Maturation Fund; Methods of detecting and reducing acute kidney injury in infants.”
Principal Investigator: Adebowale Adebiji, PhD
Agency: University of Tennessee Research Foundation (UTRF)
Total Cost: \$15,000
3. **03/01/2014 – 02/28/2015:** Grant Incentive Funds
Principal Investigator: Adebowale Adebiji, PhD
Agency: UTHSC Office of Research
Total Cost: \$30,000
4. **09/2011 – 09/2012:** O'Brien Fellowship
Principal Investigator: Adebowale Adebiji
Agency: Indiana Center for Biological Microscopy O'Brien Fellows Program
Total Cost: \$10,000

Declined due to project overlap with NIH K01

1. **07/01/2009 - 06/30/2013:** Scientist Development Grant, “Vasoregulation by IP₃ receptor coupling to TRPC channels.”
Principal Investigator: Adebowale Adebiji
Agency: American Heart Association
Total Cost: \$308,000
2. **07/01/2009 - 06/30/2011:** Beginning Grant-in-Aid, “Vasoregulation by IP₃ receptor coupling to TRPC channels.”
Principal Investigator: Adebowale Adebiji
Agency: American Heart Association
Total Cost: \$132,000

Awards and Honors

2020	John F. Perkins, Jr. Research Career Enhancement Award: American Physiological Society
2019	Publication recommendation: Faculty of 1000 - Renal, Fluid & Electrolyte Physiology
2018	University of Tennessee Research Foundation Technology Maturation Award .
2017	Selected to attend the 2017 American Heart Association Research Leaders Academy
2014	Marco Cabrera Poster Presentation Award (Basic Science), NIDDK/NMRI 12 th Annual Workshop, NIH Bethesda MD: NIDDK/NMRI

2014 Abstract-Based NMRI Travel Award: **Endocrine Society**
 2013 Research Recognition Award: **American Physiological Society Renal Section.**
 2011 O'Brien Fellow: **Indiana Center for Biological Microscopy (ICBM)**
 2009 *Young Scientist Travel Award: **American Society for Pharmacology and Experimental Therapeutics**
 *Declined to accept APS/NIDDK award
 2009 *Travel Award: **FASEB Minority Access to Research Careers.** *Declined
 2008 Travel Fellowship: **American Physiological Society/NIDDK**
 2007 Donald J Reis Memorial Trainee Symposium, 2007 Experimental Biology Annual Meeting, Washington DC, USA:
FASEB
 2007 Travel Fellowship: **American Physiological Society/NIDDK**
 2006 – 2008 Postdoctoral Research Fellowship: **American Heart Association**
 2003 Travel Award: **Society of Toxicology (SOT), USA**
 2003 Student Abstract Award: **Burdock Group, Society of Toxicology (SOT), USA**
 2000 Travel Award: **Lee Foundation, Singapore**
 2000 Travel Award: **National University of Singapore, Singapore**
 2000 – 2004 Predoctoral Research Scholarship: **National University of Singapore, Singapore**

Invited Presentations

National:

Pending: Physiology Department, Medical College of Wisconsin, Milwaukee WI
 03/2021: Department of Physiology Eastern Virginia School of Medicine, Norfolk, VA
 11.09.2020 Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH
 12/05/2019: College of Pharmacy, Department of Pharmacological and Pharmaceutical Sciences, University of Houston, Houston, TX.
 09/11-14/2019: Invited Section Speaker, 2019 American Physiological Society Interface of Mathematical Models and Experimental Biology, Role of the Microvasculature, Scottsdale, AZ.
 11/02/2016: Department of Physiology and Pharmacology, University of Toledo College of Medicine and Life Sciences, Toledo OH.
 05/04/2016: Pharmacology and Toxicology Department, University of Arkansas for Medical Sciences, Little Rock AR.
 05/28/2015: Department of Molecular Pharmacology and Physiology, Morsani College of Medicine, University of South Florida, Tampa FL.
 01/29/2015: Department of Pharmacology, Tulane University, New Orleans, LA.
 09/23/2011: Molitoris Lab Meeting, Indiana Center for Biological Microscopy, Indiana University School of Medicine.
 04/11/2011: Experimental Biology Meeting, Washington, DC: Featured Topic: Form and Function of Cellular Microdomains in the Vasculature.
 04/29/2007: Experimental Biology Meeting, Washington, DC: Donald J Reis Memorial Trainee Symposium.

Local:

11/09/2018: Tennessee Physiological Society Meeting.
 02/22/2016: Department of Microbiology, Immunology, and Biochemistry, UTHSC.
 11/18/2015: E. Eric Muirhead Hypertension Research Day, UTHSC.
 04/10/2015: Department of Biomedical Engineering, University of Memphis.
 03/17/2015: Department of Nephrology (Grand Rounds), UTHSC.
 02/23/2015: Department of Pediatrics, UTHSC.
 02/12/2015: UTHSC Postdoctoral Association.
 11/19/2014: Children's Foundation Research Institute, LeBonheur Children's Hospital, Memphis, TN.
 03/24/2009: The American Heart Association (Greater Southeast Affiliate).

Scientific Review Activities

Study Sections/Grants:

2019-2025: NIH Hypertension and Microcirculation Study Section: **Standing member**
2019: NIH National Center for Advancing Translational Sciences: **Ad hoc Reviewer**
2019: Medical Research Council, United Kingdom: **Ad hoc Reviewer**
2019: The Netherlands Organization for Health Research and Development: **Ad hoc Reviewer**
2015, 2017, and 2018: NIH Hypertension and Microcirculation Study Section: **Ad hoc member**

2014: NIH/NHLBI Special Emphasis Panels (March and June Study Sections): K22/K99/R00 (Mentored Transition to Independence Grants) [ZHL1 CSR - P (M1) and ZHL1 CSR-P (O1)]: **Ad hoc member**
2014: Czech Science Foundation: **Ad hoc Reviewer**
2010 - 2012: Cell Transport Physiology & Metabolism Committee, American Heart Association: **Ad hoc member**

Thesis:

2012: Ph.D. thesis examiner, University of Madras, India

Editorial Boards

2014 - Date: *Scientific Reports* (Nature Publishing Group)
2020 - Date: Topic Editor, *International Journal of Molecular Sciences*
2020 - Date: *American Journal of Physiology; Renal Physiology*

Journal Reviews:

Clinical and Translational Medicine
Science Advances
Circulation Research
Clinical Science
American Journal of Physiology. Renal Physiology
American Journal of Physiology. Endocrinology and Metabolism
American Journal of Physiology. Heart and Circulatory Physiology
Journal of Renin-Angiotensin-Aldosterone System
Journal of Cell Science
Kidney and Blood Pressure Research
International Journal of Nephrology
Renal Failure
Hypertension Research
Peptides
Biochimie
Scientific Reports
BMC Physiology
Molecular Pharmacology
Archives of Medical Research
Clinical and Experimental Pharmacology and Physiology
Journal of Pharmacology and Experimental Therapeutics
Journal of Cardiovascular Pharmacology
Neuroscience Letters
Vascular Pharmacology
Journal of Cellular Physiology

Current Professional Affiliations

2013 - Date American Society of Nephrology
2013 - Date American Heart Association
2009 - Date NIH/NIDDK Network of Minority Research Investigators (NMRI)
2007 - Date American Physiological Society (Cardiovascular and Renal Sections)

National Science Volunteer

2009 - Date Meeting mentor for graduate students and postdoctoral fellows, APS/NIH/NIDDK Minority Program (American Physiological Society Diversity Programs at the Annual Experimental Biology Meeting).
2017: Meeting Mentor and Presentation Judge, Annual Biomedical Research Conference for Minority Students (Largest scientific meeting of underrepresented minority undergraduate and graduate students in STEM).
2017 – 2019 American Physiological Society Porter Physiology Development and Minority Affairs: Mentor, Minority Outreach Fellowship (Dr. Anberitha Matthews). Year-long outreach fellowships for online outreach activities, including PhUn Week, conferences for minority students (ABRCMS or SACNAS national conference), and local K-12 classroom visits.

Teaching:

- 2017 – Date: **Medical Physiology:** Six lecture hours/year
2016 – Date: **Medical Physiology:** Small group conference/review sessions: 4 – 6 hours/year
2018 – Date: **Dental and Medical Physiology:** Small group conference: 4 hours/year
2013 – 2016: **Dental Physiology:** Six lecture hours/year
2011 – 2018: **Dental Physiology:** Small group conference/review sessions: 4 – 7 hours/year

Major Administrative and Committee Assignments; University of Tennessee Health Science Center:

1. Member, Operational Strategic Plan for Research Committee (2022-2027)
2. Enhanced Post-Tenure Performance Review Committee (2020)
3. Chair, Physiology Department Search Committee for Tenure-Track Assistant Professor Position (2020)
4. Laboratory Animal Care Advisory Board (2019-Date)
5. Connell Endowed Chair in Diabetes Research Search Committee (2018-date)
6. Physiology Department Research Committee (2018-date)
7. Physiology Department Graduate Committee (2016-date)
8. Physiology Department Promotion and Tenure Committee (2016-date)
9. Faculty Member, College of Graduate Health Sciences (2014-date)
10. College of Medicine Promotion and Tenure Committee (2017-2019)
11. Physiology Department Seminar Coordinator and PHY 919 Course Director (2013-2018)
12. Physiology Department Equipment Committee (2011-2018)
13. Physiology Chair Search Committee (2017)
14. Inaugural brand campaign for the UT College of Medicine (2016)
15. Assistant Dean for Program Assurance Search Committee (2016)
16. Junior Faculty Forum, UTHSC LCME Accreditation (2013)
17. Pharmacology Chair Search Committee (2013)
18. Physiology Department Faculty Search Committee (2012; 2016)
19. Eric Muirhead Hypertension Research Day Committee (2012-2016)

Personnel Trained:

Graduate Student:

- **Jeremiah Afolabi, DVM, MVSc.** (University of Ibadan, Nigeria): 2019-date
*Recipient of the 2019 UTHSC CGHS Travel Award
*Recipient of the 2019 American Physiological Society Martin Frank Diversity Travel Award
*Recipient of J. Paul Quigley Fellowship: 2019-2020
*Awarded 2019 Best UTHSC Physiology Dept. Graduate Student
- **Jada D. Williams, BS.** (University of Tennessee Martin): 2020-date

Postdoctoral Fellow:

Past

- **Hitesh Soni, Ph.D.** (Gujarat University, India): 2011-2017
* Recipient of the 2019 UTRF Maturation Award
*Recipient of the 2014 Leonard Share Young Investigator Award for Basic Science
*Instructor of Physiology, UTHSC: 2017-2019
***Current Position:** Senior Lead Scientist (Renal Fibrosis), Renascent Biosciences LLC., Boston MA
- **Anberitha Matthews, Ph.D.** (Mississippi State University): 2017-2019
*NIH Training Grant (2017-2019)
*Recipient of the American Physiological Society Porter Outreach Fellowship (2018-2019)
*Recipient of the 2019 American Physiological Society Martin Frank Diversity Travel Award
*Early career and Senior Blogger, American Heart Association (2018-2019)
***Current Position:** Scientific Writer, Redefining Health LLC
- **Dieniffer Peixoto-Neves, Ph.D.** (State University of Ceará, Brazil): 2015-2020

*Recipient of the AHA Postdoctoral Fellowship (2018-2020)

***Current Position:** UTHSC; Postdoctoral Fellow

Current

- **Praghalathan Kanthakumar MBBS, MD, Ph.D.** (University of Otago, New Zealand): 2019-date
- **Ravi Kumar Ph.D.** (Banaras Hindu University, India): 2020-date
- **Samson Iwhiwhu MD, MPH** (University of Memphis): 2020-date
- **Pratheesh Mankuzhy MVSc., Ph.D.** (Indian Veterinary Research Institute, India): 2020-date

Visiting Scholar:

Fen Yang, Ph.D. (Zhejiang University, China): 09-11/2011 (1 publication from the lab).

Non-UTHSC Student Assistant

Toni Patrick (Christian Brothers University, Memphis TN): 08/2014-04/2015

Summer Interns:

1. Sarah Brasher (Christian Brothers University, Memphis TN): 06-07/2019. **UTHSC Summer Research Scholar**
2. Aayushi Shah (Rice University in Houston, TX): 06-07/2019. **Summer Research Volunteer**
3. Logan Fortenberry (University of Tennessee, Knoxville TN): 06-07/2018. **UTHSC Summer Research Scholar**
4. **Paul Amartey (UTHSC medical student): 06-07/2017. **UTHSC Medical Student Research Fellowship Program** (**1 publication from the lab).
5. **Katherine Robinson (Christian Brothers University, Memphis TN): 06-07/2015. **UTHSC Summer Research Scholar** (**1 publication from the lab under review; TAS regional award from work done in the lab).
6. **Michael Olushoga, MD (UTHSC medical student): 06-07/2015. **UTHSC Medical Student Research Fellowship Program** (**1 publication from the lab).
7. Reid McCullough (University of Tennessee, Knoxville, TN): 06-07/2014. **UTHSC Summer Research Scholar**
8. Aaron Zuller (Oklahoma Christian University, Oklahoma City, OK): 06-07/2013. **UTHSC Summer Research Scholar**
9. Krista Cowan (University of Tennessee, Knoxville, TN): 06-07/2012. **UTHSC Summer Research Scholar**
10. Hana Roussey (St Mary's Episcopal School, Memphis TN): 05-06/2012. **Science Honors Program**
11. Priyanka Moolchandani (St Mary's Episcopal School, Memphis TN): 07/2011. **Science Honors Program**

Graduate Advisory and Examination Committees:


1. Yaya Zhang (Cell Biology and Physiology, UTHSC): 2019 – date
2. Briar Bell (Cell Biology and Physiology, UTHSC): 2019 – date
3. Jeffery Pressly (Pharmaceutical Sciences, UTHSC): 2017-2019
4. Xue Zhai (Physiology Department, UTHSC): 2015-2018
5. Rachel Escue (Physiology Department, UTHSC): 2015-2018

Inventions

1. Methods of detecting and reducing kidney injury (provisional patent filed by the UTRF).

Publications and Abstracts (reverse chronological order)

Peer-Reviewed Publications:

1. Park F, Soni H, Pressly JD, **ADEBIYI A**. Acute hydroxyurea treatment reduces tubular damage following bilateral ischemia-reperfusion injury in a mouse model of sickle cell disease. **Biochemical and Biophysical Research Communications**. 2019; 515:72-76.
2. **Soni H, Peixoto-Neves D, Olushoga MA, **ADEBIYI A**. Pharmacological inhibition of TRPV4 channels protects against ischemia-reperfusion-induced renal insufficiency in neonatal pigs. **Clinical Science**. 2019; 133(9) CS20180815. **Editorial Choice**.
 **Highlighted by Faculty of 1000 [Imig J: F1000Prime Recommendation of [Soni H et al., Clin Sci 2019 133(9)]. In F1000Prime, 22 May 2019; 10.3410/f.735566776.793560089].**
3. Soni H, Amartey PK, Yakimkova T, Matthews AT, Read RW, Buddington RK, **ADEBIYI A**. Early onset of renal oxidative stress in small for gestational age newborn pigs. **Redox Report**. 2019; 24:10-16.
4. **Pressly JD#, Soni H#, Jiang S, Wei J, Liu R, Moore BM, **ADEBIYI A**, and Park F. Activation of the cannabinoid CB2 receptor increases renal perfusion. **Physiological Genomics**. 2019; 51:90-96.
****APSselect publication award (American Physiological Society; April 2019); #Equal contribution.**

5. Peixoto-Neves D, Soni H, **ADEBIYI A**. CGRPergic nerve TRPA1 channels contribute to epigallocatechin gallate-induced neurogenic vasodilation. *ACS Chemical Neuroscience*. 2019; 10:216-220.
6. Soni H, Matthews AT, Pallikkuth S, Gangaraju R, **ADEBIYI A**. γ -secretase inhibitor DAPT mitigates cisplatin-induced acute kidney injury by suppressing Notch1 signaling. *Journal of Cellular and Molecular Medicine*. 2019; 23:260-270.
7. Peixoto-Neves D, Soni H, **ADEBIYI A**. Oxidant-induced increase in norepinephrine secretion from PC12 cells is dependent on TRPM8 channel-mediated intracellular calcium elevation. *Biochemical and Biophysical Research Communications*. 2018; 506:709-715.
8. Soni H, Kaminski D, Gangaraju R, **ADEBIYI A**. Cisplatin-induced oxidative stress stimulates renal Fas ligand shedding. *Renal Failure*. 2018; 40:314-322.
9. Soni H, **ADEBIYI A**. Urotensin II-induced store-operated Ca^{2+} entry contributes to glomerular mesangial cell proliferation and extracellular matrix protein production under high glucose conditions. *Scientific Reports* 2017; 7:18049.
10. Soni H, Peixoto-Neves D, Buddington RK, **ADEBIYI A**. Adenosine A1 receptor-operated calcium entry in afferent arterioles is dependent on postnatal maturation of TRPC3 channels. *American Journal of Physiology. Renal Physiology* 2017; 313: F1216-F1222.
11. Soni H, Peixoto-Neves D, Matthews AT, **ADEBIYI A**. TRPV4 channels contribute to neonatal renal myogenic response. *American Journal of Physiology. Renal Physiology* 2017; 313: F1136-F1148.
12. Soni H, **ADEBIYI A**. Early polymicrobial sepsis in neonatal pigs increases serum and urinary soluble Fas ligand and decreases kidney function without inducing significant renal apoptosis. *Renal Failure* 2017; 39: 83-91.
13. Soni H, **ADEBIYI A**. TRPC6-mediated activation of the calcineurin/NFAT and FasL/Fas signaling pathways promote neonatal glomerular mesangial cell apoptosis. *Scientific Reports* 2016; 6: 29041.
14. Arora K, Sinha C, Zhang W, Moon CS, Ren A, Yarlagadda S, Dostmann WR, **ADEBIYI A**, Haberman Y, Denson LA, Wang X, Naren AP. Altered cGMP dynamics at the plasma membrane contribute to diarrhea in ulcerative colitis. *American Journal of Pathology* 2015; 185:2790-2804.
15. Kandasamy K, Escue R, Manna J, **ADEBIYI A**, Parthasarathi K. Changes in endothelial Cx43 expression inversely correlates with microvessel permeability and VE-cadherin expression in endotoxin-challenged lungs. *American Journal of Physiology-Lung Cellular and Molecular Physiology* 2015; 309:L584-L592.
16. Soni H, Buddington RK, **ADEBIYI A**. Postnatal kidney maturation regulates renal artery myogenic constriction. *Journal of Perinatal Medicine* 2015; 1:119-122.
17. **ADEBIYI A**, Soni H, John TA, Yang F. Lipid rafts are required for signal transduction by angiotensin II receptor type 1 in neonatal glomerular mesangial cells. *Experimental Cell Research* 2014; 324:92-104.
****Curated and included in IntAct Molecular Interaction Database by the European Bioinformatics Institute (EMBL-EBI): <http://www.ebi.ac.uk/intact/pages/interactions/interactions.xhtml?query=pubid:24662198>**
18. **ADEBIYI A**. RGS2 regulates urotensin II-induced intracellular Ca^{2+} elevation and contraction in glomerular mesangial cells. *Journal of Cellular Physiology* 2014; 229:502-511.
19. Soni H, **ADEBIYI A**. Pressor and renal regional hemodynamic effects of urotensin II in neonatal pigs. *Journal of Endocrinology* 2013; 217:317-326.
20. **ADEBIYI A**, Thomas-Gatewood CM, Leo MD, Kidd MW, Neeb ZP, Jaggar JH. An elevation in physical coupling of type 1 inositol 1,4,5-trisphosphate (IP_3) receptors to transient receptor potential 3 (TRPC3) channels constricts mesenteric arteries in genetic hypertension. *Hypertension* 2012; 60:1213-1219.
21. Narayanan D, **ADEBIYI A**, Jaggar JH. Inositol trisphosphate receptors in smooth muscle cells. *American Journal of Physiology. Heart and Circulatory Physiology* 2012; 302:H2190-H2210.
22. Thomas-Gatewood CM, Neeb ZP, Bulley S, **ADEBIYI A**, Bannister JP, Jaggar JH. TMEM16A channels generate Ca^{2+} -activated Cl^- currents in cerebral artery smooth muscle cells. *American Journal of Physiology. Heart and Circulatory Physiology* 2011; 301:H1819-H1827.
23. **ADEBIYI A**, McNally EM, Jaggar JH. Vasodilation induced by oxygen/glucose deprivation is attenuated in cerebral arteries of SUR2 null mice. *American Journal of Physiology. Heart and Circulatory Physiology* 2011; 301:H1360-H1368.
24. Liang GH, **ADEBIYI A**, Leo MD, McNally EM, Leffler CW, Jaggar JH. Hydrogen sulfide dilates cerebral arterioles by activating smooth muscle cell plasma membrane KATP channels. *American Journal of Physiology. Heart and Circulatory Physiology* 2011; 300:H2088-H2095.
25. Bannister JP, Thomas-Gatewood CM, Neeb ZP, **ADEBIYI A**, Cheng X, Jaggar JH. $Ca_v1.2$ channel N-terminus splice variants modulate functional surface expression in resistance-size artery smooth muscle cells. *Journal of Biological Chemistry* 2011; 286:15058-15066.
26. **ADEBIYI A**, Narayanan D, Jaggar JH. Caveolin-1 assembles type 1 inositol 1,4,5-trisphosphate receptors and canonical transient receptor potential 3 channels into a functional signaling complex in arterial smooth muscle cells. *Journal of Biological Chemistry*

2011; 286:4341-4348.

**** Science Signaling Editor's Choice: Gough NR. Coupled by Caveolin. Science Signaling 2011; 4 (160): ec50. Featured paper: North American Vascular Biology Organization Publications Alert, March 2011.**

27. Zhao G, Neeb ZP, Leo MD, Pachuau J, **ADEBIYI A**, Ouyang K, Chen J, Jaggar JH. Type 1 IP₃ receptors activate BK_{Ca} channels via local molecular coupling in arterial smooth muscle cells. *Journal of General Physiology* 2010; 136:283-291.
28. **ADEBIYI A**, Zhao G, Narayanan D, Thomas-Gatewood CM, Bannister JP, Jaggar JH. Isoform-selective physical coupling of TRPC3 channels to IP₃ receptors in smooth muscle cells regulates arterial contractility. *Circulation Research* 2010; 106:1603-1612.
29. Bannister JP, **ADEBIYI A**, Zhao G, Narayanan D, Thomas CM, Feng JY, Jaggar JH. Smooth muscle cell $\alpha_2\delta$ -1 subunits are essential for vasoregulation by Ca_v1.2 channels. *Circulation Research* 2009; 105:948-955.
30. Zhao G, **ADEBIYI A**, Blaskova E, Xi Q, Jaggar JH. Type 1 inositol 1,4,5-trisphosphate receptors mediate UTP-induced cation currents, Ca²⁺ signals, and vasoconstriction in cerebral arteries. *American Journal of Physiology. Cell Physiology* 2008; 295:C1376-1384.
31. **ADEBIYI A**, McNally EM, Jaggar JH. Sulfonylurea receptor-dependent and -independent pathways for K_{ATP} channel opener-mediated vasodilation *Molecular Pharmacology* 2008; 74:736-743.
32. Xi Q, **ADEBIYI A**, Zhao G, Chapman KE, Waters CM, Hassid A, Jaggar JH. IP₃ constricts cerebral arteries via IP₃ receptor-mediated TRPC3 channel activation and independently of sarcoplasmic reticulum Ca²⁺ release. *Circulation Research* 2008; 102:1118-1126.
33. Zhao G, **ADEBIYI A**, Xi Q, Jaggar JH. Hypoxia reduces K_{Ca} channel activity by inducing Ca²⁺ spark uncoupling in cerebral artery smooth muscle cells. *American Journal of Physiology. Cell Physiology* 2007; 292(6):C2122-128.
34. **ADEBIYI A**, Zhao G, Cheranov SY, Ahmed A, Jaggar JH. Caveolin-1 abolishment attenuates the myogenic response in murine cerebral arteries. *American Journal of Physiology. Heart and Circulatory Physiology* 2007; 292(3):H1584-1592.
35. Li A, **ADEBIYI A**, Leffler CW, Jaggar JH. K_{Ca} channel insensitivity to Ca²⁺ sparks underlies fractional uncoupling in newborn cerebral artery smooth muscle cells. *American Journal of Physiology. Heart and Circulatory Physiology* 2006; 291: H1118-1125.
36. Adaikan PG, **ADEBIYI A**. Effect of functional modulation of Ca²⁺-activated Cl⁻ currents on gravid rat myometrial activity. *Indian Journal of Pharmacology* 2005; 37: 21-25.
37. **ADEBIYI A**, Adaikan PG. Modulation of jejunal contractions by extract of *Carica papaya* L. seeds. *Phytotherapy Research* 2005; 19:628-632.
38. **ADEBIYI A**, Adaikan PG. Effect of caffeine on response of rabbit isolated corpus cavernosum to high K⁺ solution, noradrenaline and transmural electrical stimulation *Clinical and Experimental Pharmacology and Physiology* 2004; 31:82-85.
39. Adaikan PG, **ADEBIYI A**. Mechanisms of the oxytocic activity of papaya proteinases. *Pharmaceutical Biology* 2004; 42:646-655.
40. **ADEBIYI A**, Adaikan PG, Prasad RNV. Effect of benzyl isothiocyanate on spontaneous and induced force of rat uterine contraction. *Pharmacological Research* 2004; 49:415-422.
41. **ADEBIYI A**, Adaikan PG, Prasad RNV. Oxytocic activity of thrombin: modulation of thrombin-induced gravid rat myometrial contractions by 5-hydroxytryptamine receptor antagonists. *Journal of Perinatal Medicine* 2004; 32:126-131.
42. **ADEBIYI A**, Adaikan PG, Prasad RNV. Pregnancy outcomes following pre- and post-implantation exposure of Sprague-Dawley rats to benzyl isothiocyanate. *Food and Chemical Toxicology* 2004; 42:715-720.
43. **ADEBIYI A**, Adaikan PG, Prasad RNV. Histaminergic effect of crude papaya latex on isolated guinea pig ileal strips. *Phytomedicine* 2004; 11:65-70.
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