Name:	Annet Kirabo, D.V.M., M.Sc., Ph.D. F.A.H.A
Office Address:	Division of Clinical Pharmacology Department of Medicine Vanderbilt University Medical Center 2215 Garland Avenue P415C Medical Research Building IV Nashville Tennessee, 37232-6602
Office Phone Number: E-mail Address: Website: Twitter Handle:	615-343-0933 <u>annet.kirabo@vumc.org</u> <u>Welcome Kirabo Lab (vumc.org)</u> @annetkiraboc1
DEDCONAL DATA:	

PERSONAL DATA:

Place of Birth:	Iganga, Uganda
Citizenship:	United States
Marital Status:	Married to Christopher G. Church
Children:	1. Jeremiah W. Church, born on August 3 rd 2014
	2. Eliana K. Church, born on February 6th 2020

EDUCATION:

Makerere University, School of Veterinary Medicine, Kampala, Uganda, Doctor of Veterinary Medicine (D.V.M.), 1997-2002

St. Cloud State University, St. Cloud, Minnesota, Master of Science (M.Sc.) in Cell and Molecular Biology, 2004-2006 Mentor: Dr. Oladele Gazal. Thesis Title: Leptin and N-methyl-D-aspartate (NMDA) Receptor Activation, as a Mechanistic link between Nutrition and Reproduction.

University of Florida, Gainesville, Florida, Doctor of Philosophy (Ph.D.) in Physiology and Functional Genomics, 2007-2011.
Mentor: Dr. Peter Sayeski.
Dissertation Title: Jak2 Tyrosine Kinase as a Potential new Target in the Treatment of Myeloproliferative Disorders and Cardiovascular Disease.

TRAINING:

California Polytechnic University, San Luis Obispo, California, Global Cow Veterinary Fellowship, 2003-2004

Vanderbilt University School of Medicine, Nashville, Tennessee, Post-Doctoral Fellowship in Cardiovascular Disease and Inflammation, 2011-2014 Mentor: Dr. David G. Harrison

ACADEMIC APPOINTMENTS:

• Research Instructor in Medicine, Department of Medicine, Vanderbilt University School of Medicine, 2015-2016

- Assistant Professor of Medicine, Department of Medicine, Division of Clinical Pharmacology, Vanderbilt University School of Medicine, 2016-2022
- Assistant Professor, Department of Molecular Physiology and Biophysics, Vanderbilt University School of Medicine, 2016-2022
- Adjunct Assistant Professor, Department of Physiology, Meharry Medical College, 2018-2022
- Honorary Lecturer, University of Mulungushi, Zambia, 2020-2022
- Associate Professor of Medicine, Department of Medicine, Division of Clinical Pharmacology, Vanderbilt University School of Medicine, 2022-present
- Associate Professor, Department of Molecular Physiology and Biophysics, Vanderbilt University School of Medicine, 2022-present
- Associate Professor, Vanderbilt Institute of Global Health, Vanderbilt University, 2022-present

EMPLOYMENT:

- Undergraduate Student Researcher, Department of Pathology, School of Veterinary Medicine, Makerere University, Kampala, Uganda. 2000-2002
- Graduate Teaching Assistant, Anatomy and Physiology, Department of Biological Sciences, St. Cloud State University, St. Cloud, Minnesota, 2004-2006
- Graduate Teaching Assistant, Interdisciplinary Program in Biomedical Sciences, University of Florida Collegemof Medicine, 2007-2011

PROFESSIONAL ORGANIZATIONS:

- Member, American Physiological Society (APS), 2009-present
- Member, American Heart Association (AHA), 2009-present
- Member, North American Vascular Biology Organization (NAVBO), 2011-2012
- Member, Faculty 1000 aka Faculty Opinions. Associate Faculty, 2012-present
- Member, American Society of Nephrology (ASN), 2017-present
- Member, Women In Nephrology (WIN), 2021

PROFESSIONAL ACTIVITIES:

Editorial responsibilities

- *Hypertension* Editorial Board Member, 2018 present
- Section Editor-Inflammation & Cardiovascular Diseases, *Current Hypertension Reports*, 2018-present
- Associate Editor Circulation Research, 2019 present

- AJP-Heart and Circulatory Physiology Editorial Board member, 2021 present
- AJP-Heart and Circulatory Physiology Consulting Editor board, 2021 present
- AJP-Renal Editorial Board member, 2021 present
- Frontiers in Physiology, 2021 present

Reviewer

- F1000 Associate Faculty (Faculty Opinions) Reviewer, 2012-prensent
- American Journal of Hypertension, 2015
- Integrated blood pressure control, 2015
- African Journal of Physiology and Pharmacology, 2015
- Molecular Biology Reports, 2016
- Bioscience Reports, 2016-present
- BMC Cardiovascular Disorders, 2016-present
- American Journal of Physiology: Regulatory, Integrative and Comparative Physiology, 2017-present
- American Journal of Physiology Heart and Circulation Physiology, 2017-present
- Pharmacological Research Journal, 2017
- British Journal of Pharmacology, 2017
- Clinical Science, 2017
- JAHA, 2017-present
- Hypertension, 2017-present
- Cardiovascular Research (fast-track reviewer), 2017-present
- Nature Reviews Nephrology, 2018
- Circulation Research, 2018-present
- Circulation, 2019-present
- JCI Insight, 2019-present

Extramural Grant Review

- American Heart Association (AHA) Vascular Wall Biology Peer Review Study Group, 2017-present
- AHA Career Development Award Basic Vascular Sciences Review Committee, 2018-present
- NIH ECR (Early Career Reviewer) program, 2020
- NIH-NHLBI. Cellular and Molecular Immunology A (CMIA) Study Section, ad hoc. 2020
- NIH-NHLBI. Integrated Vascular Physiology and Pathology (IVPP) Study Section, ad hoc. 2021
- American Heart Association Fellowship Vascular Endothelial Review committee, 2021
- NIH-ZRG1. Molecular and Cellular Immunology, IDIA-E (02) M Study Section, Special Emphasis Panel, 2021
- Department of Defense (DOD) Health Program Study sections FY21 Peer Reviewed Medical Research Program (PRMRP) Investigator-Initiated Research Award Preapplication (IIRA-Pre), 2021
- Department of Defense (DOD) Health Program Study sections FY21 Peer Reviewed Medical Research Program (PRMRP) Technology/Therapeutic Development Award Preapplication (TTDA-pre), 2021

- American Heart Association Health Equity Research Network (HERN) on Prevention of Hypertension review committee, 2021
- NIH-ZRG1 IDIA-E (02) Study Section, Member Conflict: Innate and Adaptive Immunology Study Section, Special Emphasis Panel, 2021
- NIH-NHLBI. Cellular and Molecular Immunology A (CMIA) Study Section, ad hoc. Oct 2021
- NIH-NHLBI. Integrated Vascular Physiology and Pathology (IVPP) Study Section, ad hoc. Oct 2021
- NIH-ZRG1 IDIA-E (02) Study Section, Member Conflict: Innate and Adaptive Immunology Study Section, Special Emphasis Panel, Nov 30th, 2021 (Served as Alternate Chair)
- NIH-ZRG1 VH-B (02) Study Section, Member Conflict: Vascular and Hematology, Special Emphasis Panel, March 2022
- NIH-ZRG1 IDIA-E (02) Study Section, Member Conflict: Innate and Adaptive Immunology Study Section, Special Emphasis Panel, April 2022 (Served as Alternate Chair)
- NIH CSR ZRG1 IDIA-C (02) M Special Emphasis Panel: Cellular and Molecular Immunology 2022/10 Council Round, July 2022
- NIH-NHLBI. Integrated Vascular Physiology and Pathology (IVPP) Study Section, Standing Member 07/01/2022 to 06/30/2028.

Intramural Grant Review

- Vanderbilt Institute for Clinical & Translational Research (VICTR) Reviewer, 2016-present
- Diabetes Research and Training Center (DRTC) Pilot and Feasibility Project Reviewer, 2018
- Edge Review Vanderbilt Internal Study Section

Extramural Abstract/Poster Review

- Judge, Alachua County Schools Science Fair, Gainesville, Florida, 2009-2010
- Medical Guild Research Incentive Award Reviewer University of Florida, College of Medicine, 2010-2011
- The 23rd Annual University of Alabama at Birmingham Vascular Biology and Hypertension Symposium Poster Judging, 2012
- The 60th Annual Meharry Medical College Research Symposium Poster Judging, 2016
- The 61st Annual Meharry Medical College Research Symposium Poster Judging, 2017
- Abstract Reviewer for the American Society of Nephrology (ASN) Kidney Week, 2017
- Abstract Reviewer, Experimental Biology, American Physiology Society Translation Physiology Group, 2017

- Abstract Reviewer, Experimental Biology, American Physiology Society Translation Physiology Group, 2018
- The 31st Annual University of Alabama at Birmingham Vascular Biology and Hypertension Symposium –mPoster Judging, 2021
- American Heart Association (AHA) Scientific Sessions Abstract Review, 2021

Intramural Abstract/Poster Review

- Vanderbilt Summer Science Academy Poster Judging, Vanderbilt University, Nashville, 2012-2014
- Poster Judge, Vanderbilt University Medical Center Annual Research Forum, 2018
- Abstract Judge, Research Forum_VUMC trainees in this 39th Annual event, 2021
- Poster Judge, Vanderbilt Postdoctoral Association, 2021

Organization of Symposia and Featured Topics, National and International Conferences:

- Vascular Biology and Dysfunction American Society of Nephrology (ASN) Kidney Week (November 2017)
- Cell and Molecular Physiology Symposium on Molecular Mechanisms for Salt-induced Cardiovascular Disease, ExperimentalmBiology, San Diego (April, 2018)
- Oral New Advances in Levuglandins and Isolevuglandins Symposium, 17th International Winter Eicosanoid Conference (March, 2018)
- Nominated to Organize and Chair a Featured Topic session for the Cell & Molecular Physiology Section of APS "Cellular Signaling and Transduction" at the Experimental Biology Meeting in Philadelphia, April, 2022.
- American Society of Nephrology Abstract Chair, 2022

Scientific Session Chair/Moderator

- Abstract Category Chair for the American Society of Nephrology (ASN) Kidney Week, 2017
- Chair for Oral Session: Vascular Biology and Dysfunction, American Society of Nephrology (ASN) Kidney Week (November, 2017)
- Chair for the Oral Cell Physiology Symposium on Molecular Mechanisms for Salt-induced Cardiovascular Disease, Experimental Biology, San Diego (April, 2018)
- Co-chair for the Oral New Advances in Levuglandins and Isolevuglandins Symposium, 17th International Winter Eicosanoid Conference (March, 2018)
- Chair for the Joint Hypertension 2018 Scientific Sessions, Inflammatory Cytokines in Hypertension Chicago (September, 2018)
- Co-chair for ASBMB Annual Meeting, held in conjunction with Experimental Biology. Pennsylvania, Philadelphia (April, 2022).

- Chair for the Oral Session Cardio-Nephro Career Path: What does it take? American Heart Association 2022 Scientific Sessions, Chicago.
- Chair for the Oral Abstract Session on Sex Differences at the 2022 AHA Council on Hypertension Conference, San Diego California

Committees at National and International Level

- American Physiology Society (APS) Cardiovascular Section Trainee Committee, 2013-2016
- Chair of the American Physiology Society Translation Physiology Group Awards Committee, 2016-2019
- American Heart Association Membership Committee Council on Hypertension, 2018-present
- American Heart Association Communications Committee of the Council on Hypertension, 2018-present
- American Heart Association Council on Hypertension Nominating Committee, 2018-present
- Newsletter Editor on the Hypertension Membership & Communications Committee of the American Heart Association Council on HTN, 2020-present
- Hypertension Leadership Committee, American Heart Association Council on Hypertension, 2020present
- Awards Committee, American Heart Association Council on Hypertension, 2021-present
- Twitter Account Manager for Council on Hypertension (@CouncilonHTN), 2021-present
- Chair, American Heart Association Communications Committee of the Council on Hypertension, 2022present
- AHA Council on Hypertension @AHAScience Twitter Moderator, 2022

Committees at Vanderbilt

- Vanderbilt University Post-Doctoral Association Symposium Organizing Committee, 2012
- Vanderbilt University Career Symposium Organizing Committee, 2014
- Faculty Search Committee Department of Pharmacology and Division of Clinical Pharmacology, 2017
- Interviewing for the Vanderbilt MPB PhD program, 2018
- UNZA-Vanderbilt Partnership for HIV-Nutrition Research Training (UVP) leadership committee Vanderbilt Institute for Global Health, 2020-present
- Interviewing for the MSTP and Harrison Society PSTP program, 2021
- Vanderbilt Integrated Training Alliance [VITA] Symposium Steering Committee, 2021-present
- Department of Medicine Diversity Liaison for the Division of Clinical Pharmacology, VUMC, 2021
 Present

- Department of Medicine Neilson Society Faculty Development Liaison for the Division of Clinical Pharmacology, VUMC, 2022 Present
- Vanderbilt MSTP Admissions Subcommittee Member

LEADERSHIP

- Class Representative, School of Veterinary Medicine, Makerere University, Kampala, Uganda. 2000-2002
- Student Government Senate Representative for Graduate Family Housing, University of Florida, 2009-2010
- Discussion Group Coordinator, Fundamentals of Physiology & Functional Genomics (GMS 6008), Interdisciplinary Program in Biomedical Sciences, University of Florida, 2009-2010
- CO-Leader in the Student Science Training Program (SSTP), Physiology and Disease, University of Florida, 2009-2010
- Physiology and Pharmacology Representative, Graduate Students Organization (GSO), Interdisciplinary Program in Biomedical Sciences, University of Florida, 2009-2010
- Division of Clinical Pharmacology Department Representative, Post-Doctoral Association, Vanderbilt University, 2011-2013
- Junior Co-Chair, Vanderbilt University Medical Center Post-Doctoral Association, Vanderbilt University, Nashville, TN, 2012-2013
- Chair, American Physiology Society Translational Physiology Interest Group Awards Committee, 2016-2019
- American Society of Nephrology Abstract Chair, 2022
- American Physiological Society, Water and Electrolyte Section Data Diuresis Chair, 2022
- American Heart Association Council on Hypertension Communications Committee Chair, 2022

MENTORING

- Student Mentor, Scientific Discovery Program for Minority High School Students, St. Cloud State University, St. Cloud, Minnesota. 2005-2006
- University of Florida Summer Research Students Mentor, 2011
- Mentor of Minority Travel Fellowship American Physiology Society and the National Institute of Diabetes and Digestive and Kidney Diseases (APS/NIDDK). 2012-2019
- Experimental Biology 2012 Tour Guide for High School Students. 2012 -2013

- Vanderbilt Summer Science Academy (VSSA) mentor, Vanderbilt University, School of Medicine, Nashville Tennessee. 2013
- Mentor in the NeXXt Scholars Program conducted by The New York Academy of Sciences, 2013-2014
- Mentor for the Renal Section PI-trainee mixer at Experimental Biology. 2017-2019
- Visiting Lecturer and Mentor, University of Zambia Vanderbilt Partnership for HIV-Nutrition Research Training, 2019 -present
- Mentor for International Society of Hypertension Mentoring Program (Liang Xie, PhD student, Monash University), 2020 present
- Mentor of Minority Travel Fellowship American Physiology Society (Martin Frank). Round Table Speaker on CVs, Bio-sketches and Cover Letters, 2022.
- Mentoring panel for the CHAMP by the TAC at AHA Council on Hypertension, 2022

Trainees in the laboratory

Name	Current Status	Dates	Did work result in publications?
Natalia R. Barbaro, BPharm., PhD (Post- doc)	Scientist in immunology, Translational Research at Celularity, Inc.	2016-2020	Yes, 3 first authored and 8 co-authored publications
Jason D. Foss, PhD (Post-doc)	Senior Medical Writer at Loxo Oncology at Lilly	2016-2017	Yes, 1 first-authored and 5 co-authored publications
Justin PV Beusecum, PhD, (Postdoc)	Assistant Prof. at Medical University of South Carolina	2017-2021	Yes, 5 first-authored and 8 co-authored
Sepiso K. Masenga (Postdoc)	Faculty and Head of Physiology Department at Mulungushi University	2017-2020	Yes, 10 first-authored and 2 co-authored publications
Ashley Pitzer, PhD (Postdoc)	Faculty (Instructor) at Vanderbilt	2018- present	Yes, 4 first-authored and 8 co-authored publications
Jeanne Ishimwe Ph.D. (Postdoc)	Post-doctoral fellow	2021- present	Yes, 2 first-authored, 3 co-authored publications
Mohammad Saleem Ph.D. (postdoc)	Post-doctoral fellow	2021- present	Yes, 2 first-authored, 4 co-authored publications
Lale Ertuglu M.D. (Postdoc)	Post-doctoral fellow	2021- present	Yes, 10 manuscripts, 5 1 st authored
Taseer Ahmad Ph.D. (Postdoc)	Post-doctoral fellow	2022- present	No
Kala Dixon, MSc (Research Intern)	Director in Family Medicine at UAB.	2016	Yes, 1 first-authored publication
Shivani Kumaresan (Summer Research Intern)	Undergraduate student at John Hopkins	2016	Yes, 2 co-authored publications
Nikita Tsyba (rotating graduate student)	Graduate student at Vanderbilt	2017	Yes, 1 co-authored publication

Zoe McDowell (rotating	Graduate student at Meharry	2017	Yes, 1 co-authored
graduate student)			publication
Luul Aden	Medical student at Vanderbilt	2018-2020	Yes, 4 co-authored
(undergraduate			publications
research experience)			
Paul Kasner (summer	Graduate student at Vanderbilt	2021-2022	Yes, 1 co-authored,
undergraduate student)			under revision
Mutengo Hope	Graduate student Vanderbilt/UNZA	2022-	Yes, 2 manuscripts, 1 first
Katongo	Partnership	present	author
Thanvi Dola (summer	Undergrad student at Vanderbilt	2021-	Yes, 1 co-authored,
undergraduate student)		present	under revision
Tyrone Thomas	Undergrad student at Morehouse	2021-2021	No
(summer			
undergraduate student)			
Jalyn White (summer	Undergrad student at Morehouse	2022	No
undergraduate student)			
Jennifer Park (summer	Undergrad student at Vanderbilt	2021-	Yes, 1 co-authored,
undergraduate student)	-	present	under revision

Mentoring & Thesis Committees

2017-2022	Heather Beasley
2018-2020	Van Beusecum
2018-2020	David Patrick
2020-	Liang Xie
2021-	Keri M. Kemp
2022-	G. Ryan Crislip
2022-	Jamie Garcia, PhD

Graduate Student - Meharry Post-doctoral Research Fellow, VU Post-doctoral Research Fellow, VU Graduate Student – Monash Australia Post-doctoral Research Fellow, UAB Post-doctoral Research Fellow Post-doctoral Research Fellow, VU

TEACHING ACTIVITIES

Teaching Assistant/Fellow

- Graduate Teaching Assistant, Anatomy and Physiology, Department of Biological Sciences, St. Cloud State University, St. Cloud, Minnesota. 2004-2006
- Graduate Teaching Assistant, Physiology of Reproduction, Department of Animal Sciences, Texas A&M University, College Station, Texas. 2006-2007
- Graduate Teaching Assistant, Fundamentals of Physiology & Functional Genomics (GMS 6008), Interdisciplinary Program in Biomedical Sciences, University of Florida, Gainesville, Florida. 2009-2010
- Student Science Training Program (SSTP), Physiology and Disease, University of Florida, Gainesville, Florida. 2009-2010
- Graduate Teaching Assistant, Science for Life Seminar, University of Florida, Gainesville, Florida. 2009-2010
- Graduate Teaching Assistant, Interdisciplinary Program in Biomedical Sciences, University of Florida, Gainesville, Florida. 2010-2011
- Career Development Teaching Fellow for Vanderbilt Summer Science Academy Vanderbilt University, School of Medicine, Nashville Tennessee. 2013

Curriculum Vitae

• Teaching of summer students, graduate students and postdocs in the laboratory, 2012-present

Didactic Faculty Lectures/Courses

- Clinical Pharmacology Fellows Conference (1 hr panel discussion) "Pearls for Successful Grant Writing." 2015
- Lecture for the Clinical Pharmacology Fellows (1 hr) "The K word Developing a Successful Career Development Award.", 2016
- Lecture for the Clinical Pharmacology Fellows (1 hr) The role of the Immune System in Hypertension, 2017
- Lecture for the Clinical Pharmacology Fellows (1 hr) –Developing a Successful Career Development Award. 2018
- Harrison Society Obtaining Foundation Funding, 2018
- Directed and Independent Studies in Biological Sciences (BSCI3861, 3 credit hours). 2018
- Research Independent Study (2 credits) MLI-6025, section 02, 2018
- American Physiological Society Physiology Understanding Week at Big Picture High School (3 hours), 2018
- Directed and Independent Studies in Biological Sciences (BSCI3861, 5 credit hours), 2018
- Lecture for the Clinical Pharmacology Fellows (1 hr) ENaC Regulation and its role in Immune Salt-Sensitivity and Salt-Sensitive Hypertension, 2019
- Research Independent Study (2 credits) MLI-6025, section 02, 2019
- Undergraduate Research Credit (BSCI 3850, 2 credit hours), 2021
- Lecture for the Clinical Pharmacology Fellows (1 hr) The Immunology of Hypertension, 2021
- Undergraduate Research Credit (BSCI 3850, 2 credit hours), 2022

Honors & Awards

- Uganda Government Full Scholarship for University Education, Best students graduating from high school in the country, as well as the valedictorian in the class of 1997, 1997-2002:
- Dean's list Award, School of Veterinary Medicine, Makerere University, Kampala, Uganda. 2000
- Dean's list Award, School of Veterinary Medicine, Makerere University, Kampala, Uganda. 2001
- Dean's list Award, School of Veterinary Medicine, Makerere University, Kampala, Uganda. 2002
- Degree in Veterinary Medicine with Honors. 2002

- Best Poster Award, Honorable Mention, Students' Research Colloquium, St. Cloud State University. 2006
- Travel Fellowship Award American Physiological Society, Professional Skills Training Workshop, Orlando, Florida. 2009
- Pre-Doctoral Caroline tum Suden/Francis Hellebrandt and Steven M. Horvath Professional Opportunity Award, American Physiological Society. 2010
- Greater Southeast Affiliate American Heart Association (AHA) Pre Doctoral Fellowship, 2010
- International Honorary for Leaders in University Apartment Communities (IHLUAC). University of Florida and Department of Housing and Residence Education. 2011
- American Physiology Society and the National Institute of Diabetes and Digestive and Kidney Diseases (APS/NIDDK) Minority Travel Fellowship Award. 2011
- American Physiology Society and the National Institute of Diabetes and Digestive and Kidney Diseases (APS/NIDDK) Minority Travel Fellowship Award. 2012
- Post-Doctoral Caroline tum Suden/Francis Hellebrandt and Steven M. Horvath Professional Opportunity Award, American Physiological Society. 2013
- Greater Southeast Affiliate AHA Post-Doctoral Fellowship, 2013
- American Physiology Society Travel Fellowship Award, 2013
- Best Poster Award, AHA High Blood Pressure Research Conference, 2014
- NIH NHLBI K01 Career Development Award, 2014
- Clinical Pharmacology Service Award, Vanderbilt University Medical Center, 2016
- Distinguished service as Trainee Committee Representative, The American Physiological Society Cardiovascular Section, 2016
- Elected as a Fellow of the American Heart Association (FAHA) conferred by the Council Hypertension Council (HTN), 2017
- New Investigator Review Award, American Journal of Physiology (Regulatory, Integrative and Comparative Physiology), 2017
- Certificate of Recognition for participation in VICTR Studios, Vanderbilt Research Institute for Clinical and Translational Program, June 2018
- Frontiers in Physiology Research Community Leader Professional Development Fellowship Award, American Physiology Society, April 2019
- Clinical Pharmacology Faculty Teaching Award, Vanderbilt University Medical Center, June 2019
- Top #4 highly cited paper award by Vanderbilt VI4, 2020.

- AHA Harry Goldblatt Award for Early Career Investigators, 2020
- Hypertension High Impact Top Paper Award, 2020
- Featured Scientists by Advanced Genetics Women in Science, 2021
- AHA Nominee for the High Blood Pressure Research Council of Australia's Annual Scientific Meeting, 2021
- Top #4 highly cited paper award by Vanderbilt VI4, 2022.
- Top #3 highly cited paper award by Vanderbilt VI4, 2022.

Invited Lectures at Vanderbilt

- Activation of T Cells by Dendritic Cells in Hypertension: A Potential Role of Isoketal-modified Proteins. Clinical Pharmacology Grand Rounds, Vanderbilt University School of Medicine, Nashville Tennessee. 2012
- Communication Skills in a Research Laboratory: Vanderbilt Summer Science Academy (VSSA), Vanderbilt University, School of Medicine, Nashville Tennessee. 2013
- Role of excess Salt in Mediating Lipid Oxidation Leading to Inflammation and Hypertension. Clinical Pharmacology Grand Rounds, Vanderbilt University School of Medicine. 2015
- Pearls for Successful Grant Writing. Fellow's Conference. Division of Clinical Pharmacology, Vanderbilt University School of Medicine. 2015
- Excess Salt, Lipid Oxidation, Inflammation and Hypertension Clinical Pharmacology Grand Rounds, Vanderbilt University School of Medicine. 2016
- A Novel Mechanism for Salt-induced Lipid Oxidation in Inflammation and Hypertension. Department of Molecular Physiology and Biophysics, Vanderbilt University. 2016
- Oxidative Lipid-modifications, Inflammation and Hypertension. Translational Research Forum, Vanderbilt University Medical Center. 2016
- Effect of Excess Dietary Salt on the Gut Microbiome Leading to Hypertension. Departments of Biological Sciences and Pathology, Microbiology, and Immunology, Vanderbilt University. 2016
- Oxidative Lipid Modifications, Inflammation and Hypertension. Show-casing Vanderbilt VU EDGE Pre-VU event. 2016
- ENaC Regulation and its role in Immune Salt-Sensitivity and Salt-Sensitive Hypertension, Clinical Pharmacology Fellows Seminar, Vanderbilt University Medical Center. 2019
- Immune Salt-Sensitivity in Hypertension and Renal Inflammation: A role of Oxidative Lipid Modifications, Renal Research Conference, Vanderbilt University Medical Center. 2019
- Lipid Peroxidation and the Gut Microbiome in Salt-Sensitivity and Cardiometabolic Disease. Vanderbilt Digestive Disease Research Center (VDDRC) Retreat Progenitor Cells, Development, Regeneration and pre-malignant lesions (PC). 2019

- ENaC Regulation and its Role in Salt-induced Lipid Oxidation, Inflammation and Hypertension. Clinical Pharmacology Grand Rounds, Vanderbilt University School of Medicine. 2019
- Salty issues: The Roman Legion, epidemiology and inflammation. Medicine Grand Rounds, Vanderbilt University School of Medicine. 2019
- Salt-sensitivity of Blood Pressure: A role of ENaC-mediated Oxidative Lipid Oxidation in Antigen Presenting Cells. Clinical Pharmacology Grand Rounds, Vanderbilt University School of Medicine. 2021
- Immunity, Inflammation, and Salt-Sensitivity of Blood Pressure. The Vanderbilt Institute for Global Health Grand Rounds. 2021
- Myeloid Cell ENaC Regulation in Salt Sensitive Hypertension. Clinical Pharmacology Grand Rounds, Vanderbilt University School of Medicine. 2022
- The Immunology of Salt-Sensitive Hypertension: A role for ENaC and Oxidative Lipid Modifications. Cardiology Grand Rounds, Vanderbilt University School of Medicine. 2022

Invited Lectures at National Level

- Symposium Speaker, Outstanding Graduate Student during the Interdisciplinary Program in Biomedical
- Sciences Ph.D. Interviews. The role of Jak2 in human diseases. University of Florida, Gainesville. 2011
- Vascular smooth muscle Jak2 expression and the pathogenesis of cardiovascular disease, Georgia Health Sciences University. 2011
- Vascular smooth muscle Jak2 expression and the pathogenesis of cardiovascular disease, University of Mississippi Medical Center. 2011
- Vascular smooth muscle Jak2 expression and the pathogenesis of cardiovascular disease, Emory University. 2011
- Vascular smooth muscle Jak2 expression and the pathogenesis of cardiovascular disease, Vanderbilt University School of Medicine, 2011
- Inflammation, Immunity and Hypertension, the 23rd Annual University of Alabama at Birmingham Vascular Biology and Hypertension Symposium. 2012
- A Novel Mechanism for Excess Dietary Salt-induced Lipid Peroxidation in Dendritic Cells leading to Inflammation and Hypertension. Meharry Medical College, 2017
- Invited Guest Speaker for Women in Science. Pfeiffer University, North Carolina. 2017
- Hypertension and its links to Immunity in the Vasculature in Disease Session. Vasculata 2018, Washington University School of Medicine. St. Louis, Missouri, 2018
- Lipid Peroxidation and Immune Salt-sensitivity in Hypertension, University of Mississippi Medical Center, 2018
- The SCOPE from microscopes to the stethoscopes. A community outreach event to discussing gut health. Nashville Tennessee. 2019

- Myeloid Cell ENaC Regulation and its role in Renal Inflammation and Salt-Sensitive Hypertension, University of Pittsburg Medical Center. 2019
- Dendritic cell ENaC Regulation and its Role in Sodium-induced Renal Inflammation and Hypertension, Emory University School of Medicine. 2020
- Immune Salt-Sensing and Oxidative Protein Modifications in Hypertension and Kidney Disease. Tulane University, Department of Pharmacology, Tulane School of Medicine. 2020
- Renal versus Immune cell Sodium Sensing in Hypertension and Kidney Damage. University of Kentucky, Department of Pharmacology and Nutritional Sciences. 2020
- Inaugural Diversity Roundtable. University of Kentucky, Department of Pharmacology and Nutritional Sciences, 2020
- The role of ENaC in immunity and salt-sensitive hypertension. University of Utah, Division of Nephrology and Hypertension. 2021
- Excess Dietary Salt in Inflammation, and Cardiovascular Disease, the 31st Annual University of Alabama at Birmingham Vascular, Biology and Hypertension Symposium. 2021
- Myeloid Cell-specific ENaC and Salt-Sensitivity of Blood Pressure. University of Nebraska Medical Center. 2021
- Unrecognized Anti-oxidant and Anti-inflammatory actions of ENaC Inhibition in Salt-Sensitive Hypertension. Tufts University, Immunology. 2021
- The Gut Microbiome and Immunity in Salt-sensitive Hypertension. Baylor College of Medicine, Cardiovascular Research Institute, 2021
- Immune ENaC Regulation in Kidney Function and Salt Sensitive Hypertension. Columbia University, Renal Grand Rounds Lecture. Feb, 2022
- ENaC-dependent Myeloid Cell activation in Salt-sensitive Hypertension and Kidney Disease. Washington University in St Louis. March, 2022
- Dietary Sodium Loading/Depletion Effect on Antigen Presenting Cell Isolevuglandins in Humans with Salt-Sensitive, Salt-Resistant and Inverse Salt-Sensitive Hypertension. NIH NHLBI Cardiovascular Branch. March 2022.
- Dendritic Cell ENaC in Inflammation, Salt-sensitive Hypertension and Kidney Damage. Boston University College of Medicine, Renal Section Grand Rounds. May 2022.
- Excess Dietary Salt, Gut Microbiota and Immune Cell Activation Mechanisms in Hypertension. Johns Hopkins University School of Medicine, Microbiome Forum. June 2022
- Renal-Immune Mechanisms of Salt-Sensitive Hypertension. Duke, Renal Grand Rounds. September 2022
- Immune Cell ENaC and Lipid Peroxidation in Salt-sensitive Hypertension. Medical College of Wisconsin, Department of Physiology Seminar. November 2022

Invited Lectures at International Level

- Invited Keynote Speaker, Oxidative Protein Modifications, Inflammation and Hypertension in Cellular Mechanisms of Stress and Inflammation, Experimental Biology Conference, Chicago, Illinois, 2017
- Invited Symposium Speaker, Isoketals: Inflammation and Hypertension, American Heart Association Scientific Sessions, Anaheim, California (November, 2017)
- Invited Speaker, New Advances in Levuglandins and Isolevuglandins Symposium, 17th International Winter Eicosanoid Conference, Baltimore, Maryland (March 2018)
- Invited lecturer, Mechanisms of cardiovascular disease, with emphasis on hypertension. Cardiovascular Disease Research in Zambia - Priorities, Programs and Progress UNZA Public Health Lecture Theatre Lusaka, Zambia, 2019
- Invited lecturer, Immune mechanisms of salt-sensitive hypertension. Cardiovascular Disease Research in Zambia - Priorities, Programs and Progress UNZA Public Health Lecture Theatre Lusaka, Zambia -UNZA-Vanderbilt Training Partnership for HIV-Nutrition-Metabolic Research (UVP, D43TW009744, funded through 2020 and focused solely on building HIV/NCD research capacity with and at UNZA SOM), 2019
- Invited Symposium Speaker, Dendritic Cell Activation by Oxidative Stress in Cardiovascular Disease, American Heart Association Scientific Sessions, Philadelphia, Pennsylvania (November, 2019)
- AHA Harry Goldblatt Award for Early Career Investigators Lecture, American Heart Association, Scientific Sessions on Hypertension. 2020
- Strategies for Work-Life Continuum: Panelist at American Society of Nephrology 2020 conference. Kidney Week. 2020
- Journey to Becoming a Fellow of American Heart Association (FAHA). American Heart Association, Scientific Sessions. 2020
- Unique Challenges and Novel Strategies for Launching and Maintaining a Lab During a Global Pandemic. TAC CHAMP Session: American Heart Association, Scientific Sessions on Hypertension. 2021
- Immune Modulation of Salt-sensitive Hypertension, in the Session "The Pressure Is On: Update on Mechanisms of Salt-Sensitive Hypertension" American Society of Nephrology 2021 conference. Kidney Week. 2021
- Inflammation in Salt-sensitive Hypertension, in the Session "Inflammation: Too Much, Too Little, or Just Too Long?" American Heart Association, Scientific Sessions. 2021
- Webinar for the Emerging Leaders Program (ELP), International Society of Nephrology (ISN) on Personal journey, work tips and leadership strategies in the cardio-renal co-morbidities space.
- Role of Oxidative Protein Modifications in Salt-Induced Hypertension and Kidney Disease. High Blood Pressure Research Council of Australia's Annual Scientific Meeting. 2021

- Excess Dietary Salt, Gut Microbiota and Hypertension. Microbiome Symposium. High Blood Pressure Research Council of Australia's Annual Scientific Meeting. 2021
- Women in Hypertension Closing Remarks on Issues faced by Women in Hypertension. High Blood Pressure Research Council of Australia's Annual Scientific Meeting. 2021
- Immune Mechanisms of ENaC-mediated Lipid Oxidation in Salt-Sensitive Hypertension. Hudson Institute of Medical Research and Centre for Endocrinology and Metabolism, Monash University, Australia. 2022
- Invited NIH NHLBI Workshop/Symposium Speaker on Diet Interventions and Inflammation: Impact of Excess Dietary Salt on the Gut Microbiota, leading to Dendritic Cell Activation, Oxidative Stress in Hypertension, Experimental Biology, ASBMB, Philadelphia, Pennsylvania (April, 2022)
- Invited Speaker 2022 APS/ASN Control of Renal Function in Health and Disease conference. ENaCdependent Activation of the NLRP3 Inflammasome in APCs Contributes to Salt-Sensitive Hypertension. June 26–30, 2022, Boar's Head Resort, Charlottesville, Virginia.
- Speaker at Trainee Mentoring Session 2022 APS/ASN Control of Renal Function in Health and Disease conference. Personal Journey and Career Path in Academia. June 26–30, 2022, Boar's Head Resort, Charlottesville, Virginia.
- Invited speaker of the NCCR TransCure Final Conference, August, 2022 at University of Bern, Switzerland (https://www.nccr-transcure.ch/events/final-conference)
- Invited Speaker: Session Title: State of the Art Update on Salt and Hypertension. Talk Title: Salt Sensitivity: New Evidence and Gaps American Heart Association 2022 Scientific Sessions, Chicago
- Black in Cardio panel discussion on Being a Scientists in the Social Media Era American Heart Association 2022 Scientific Sessions, Chicago
- Panel Discussion for Circulation Research Highlights and Initiatives American Heart Association 2022 Scientific Sessions, Chicago
- Angiotensin II Gordon Conference, Ventura Beach California 2022 Discussion Panel for Women Power House

RESEARCH PROGRAM

Current Research Support

<u>ACTIVE</u>

5R01HL147818-22 (Kleyman, Kirabo **MPI**) 04/01/2019 – 03/31/2024 National Heart, Lung, and Blood Institute \$3,085,234 *ENaC regulation and its role in blood pressure homeostasis* 2.76 calendar months

Dr. Kirabo will be responsible for the overall administration and development of the proposed studies in Aim 1 including analysis/interpretation of the results, and publication of the findings in form of presentations at national meetings and in manuscripts

1R01HL144941-01A1 (Kirabo, **PI**) 04/01/2021 - 03/31/2026 NHLBI \$3,014,350 3.00 calendar months

Curriculum Vitae

Immune Mechanisms of Salt-Sensitive Hypertension

High salt consumption in the Western diet leads to inflammation and cardiovascular disease but the mechanisms are not known. A major problem with excess dietary intake is salt sensitivity of blood pressure, which is an increase or decrease in blood pressure when salt intake increases or decreases respectively, and is an independent predictor of death due to cardiovascular disease. Our proposed studies to determine the interplay between immune cell activation and tissue sodium accumulation in contributing to salt sensitivity of blood pressure may lead to better diagnosis and treatment of this important risk factor.

1R03HL155041-01 (Kirabo, PI)	09/01/2020 - 08/31/2022	0.12 calendar months
NHLBI	\$173,000	

Deep phenotypic and functional characterization of salt-responsive immune cells in human salt sensitive hypertension using ECTE-Seq

Excess dietary salt contributes to inflammation and aggravates cardiovascular disease. A major problem with excess salt consumption is that 50% of the hypertensive and 25% of the normotensive population exhibits salt-sensitivity of blood pressure which is an independent predictor of death due to cardiovascular disease. Proposed studies will determine if immune cell activation correlates with salt-sensitivity of blood pressure and may lead to more targeted diagnosis and therapy for salt-induced hypertension.

1R01HL157584-01 (Shibao, Kirabo - CoPI)
 04/01/2021 - 03/31/2026
 3.60 calendar months

 NHLBI
 \$3,041,495

 Enhancing parasympathetic activity to reduce vascular oxidative stress and endothelial dysfunction

Sub w/ Uni of Zambia (Heimburger, Kirabo - subcontract PI)04/01/2021 - 03/31/20261.20 calendarmonthsJohn E Fogarty International Center\$851,685UNZA-Vanderbilt Training Partnership for HIV-NCD Research (UVP-2)

Completed Research Support

1K01HL130497-01 (Kirabo, **PI**) 12/01/2015 - 11/30/2021, 11.76 calendar months National Heart, Lung, and Blood Institute \$763,189 Role of Salt, Isoketal-modified Proteins and Dendritic Cells in Hypertension

Pilot Vanderbilt Institute for Clinical and Translational Research (PI) 2019 – 2021, (\$75,360) Salt-Sensitivity and Immunity Cell Activation

Venture Pilot Funding (PI) Vanderbilt Microbiome Initiative (VMI) and Vanderbilt Institute for Infection, Immunology, and Inflammation (VI4) 08/24/2017 – 03/01/2018

13POST14440041 (PI) 01/01/2013-12/31/2014 Effect of hypertension on dendritic cells and a potential role of isoketals Greater Southeast Affiliate American Heart Association (AHA) Post-Doctoral Fellowship.

5P01 GM015431-48 (Co-investigator) 09/30/2011 - 06/30/2016 NIH/NIGMS. Research Center for Pharmacology and Drug Toxicology

5R01HL039006-26 (Co-investigator) 02/01/2013 – 01/31/2018 NHLBI. Immunity, Inflammation and Hypertension

14SFRN20420046 (Co-investigator) 07/01/2014 - 06/30/2018 (no cost extension to 2019), American Heart Association, Vanderbilt University Strategically Focused Prevention Research Center

1R01HL125865-01 (Co-investigator) 07/01/2015 - 06/30/2020

National Heart, Lung, and Blood Institute. The role of T cells in the genesis of hypertension

Student Research Award (PI) 2005-2006

St. Cloud State University, St. Cloud, Minnesota. To understand the mechanistic link between obesity and reproduction.

Medical Guild Research Incentive Award (PI) 2009–2010 University of Florida, College of Medicine. To determine the role of Jak2 signaling in cardiovascular disease.

10PRE4310065 (PI) 07/01/2010-08/15/2011

Jak2 and Cardiovascular Disease

Greater Southeast Affiliate American Heart Association (AHA) Pre Doctoral Fellowship: to determine the specific involvement of vascular smooth muscle cell expression of Jak2 in the pathogenesis of cardiovascular disease.

PENDING

1R01DK134399-01 (Hasty, Kirabo – mPI) 09/01/2022 - 08/31/2027 Antigen Presentation and Activation of Adaptive Immune Memory in Weight Cycling

R01DK135764 (Kon, Shelton, Kirabo -mPI) 09/01/2022 - 08/31/2027. Salt Mediated Cross Talk Between Lymphatic Vessels and Immune Cells in Kidney Disease – **Impact score 22, 3rd Percentile**

R01HL147818 (Kleyman, Kirabo – mPI) 05/01/1996 - 03/31/2028 ENaC regulation and its role in blood pressure homeostasis

R21TW012635 (Kirabo, Masenga – mPI) 07/01/2023 - 06/30/2025 Salt taste sensitivity, genetics and salt sensitivity of blood pressure in HIV

PR221986 (Harrison, Kirabo – Project Co-I) 03/01/2023 – 02/28/2027 Novel Inflammatory Targets in Hypertension Associated with Autoimmune Disorders

ARTICLES IN PEER-REVIEWED JOURNALS (*Corresponding Author)

Research Manuscripts

- McDoom I, Ma X, <u>Kirabo A</u>, Lee KY, Ostrov DA, and Sayeski PP. Identification of Tyrosine 972 as a Novel Site of Jak2 Tyrosine Kinase Phosphorylation and its Role in Jak2 Activation. *Biochemistry* 47:8326–8334, 2008 Jul. PMCID: PMC3636534
- Kiss R, Polgár T, <u>Kirabo A</u>, Sayyah J, Figueroa NC, List AF, Sokol L, Zuckerman KS, Gali M, Bisht KS, Sayeski PP, Keserű GM. Identification of a novel inhibitor of JAK2 tyrosine kinase by structure-based virtual screening. *Bioorg Med Chem Lett*. 2009 May. PMCID: PMC2812898.
- <u>Kirabo A</u>, Park SO, Majumder A, Gali M, Reinhard MK, Wamsley HL, Zhao ZJ, Cogle CR, Bisht KS, Keserü GM, Sayeski PP. The Jak2 Inhibitor, G6, Alleviates Jak2-V617F-Mediated Myeloproliferative Neoplasia by Providing Significant Therapeutic Efficacy to the Bone Marrow. *Neoplasia*. 2011 Nov;13(11):1058-68. PMCID: PMC3223609.
- <u>Kirabo A</u>, Kearns PN, Jarajapu YP, Sasser JM, Oh SP, Grant MB, Kasahara H, Cardounel AJ, Baylis C, Wagner KU, and Sayeski PP. Smooth Muscle Jak2 Tyrosine Kinase Mediates Angiotensin IIinduced Hypertension by Increasing the Levels of Reactive Oxygen Species. *Cardiovasc Res.* 2011 Jul 1;91(1):171-9. Epub 2011 Feb. PMCID: PMC3112021.

- <u>Kirabo A</u>, Oh SP, Kasahara H, Wagner KU and Sayeski PP. Vascular Smooth Muscle Jak2 Deletion Prevents Angiotensin II-mediated Neointima Formation Following Injury in Mice. *J Mol Cell Cardiol*. 2011 Jun. PMCID: PMC3092026.
- <u>Kirabo A</u>, Embury J, Kiss R, Polgár T, Gali M, Majumder A, Bisht KS, Cogle CR, Keserű GM, and Sayeski PP. The Jak2 tyrosine kinase inhibitor, G6, suppresses Jak2-V617F mediated human pathological cell growth. *J Biol Chem* 286(6):4280-91, 2011 Feb. PMCID: PMC3039371.
- Majumder A, Magis AT, Park SO, Figueroa NC, Baskin R, <u>Kirabo A</u>, Allan RW, Zhao ZJ, Bisht KS, Keserű GM, Sayeski PP. A46, a benzothiophene-derived compound, suppresses Jak2-mediated pathologic cell growth. *Exp Hematol*. 2012 Jan;40(1):22-34. Epub 2011 Oct. PMCID: PMC3237899.
- Majumder A, <u>Kirabo A</u>, Karrupiah K, Tsuda S, Caldwell-Busby J, Cardounel AJ, Keseru GM, Sayeski PP. Cell death induced by the Jak2 inhibitor, G6, correlates with cleavage of vimentin filaments. *Biochemistry*. 2011 Sep 13;50(36):7774-86. Epub 2011 Aug. PMCID: PMC3168676.
- <u>Kirabo A,</u> Park S, Majumder A, Kiss R, Polgár T, Gali M, Bisht KS, Cogle CR, Keserű GM, and Sayeski PP. The Small Molecule Inhibitor, G6, Significantly Reduces Bone Marrow Fibrosis and the Mutant Burden in a Mouse Model of Jak2-mediated Myelofibrosis. *Am J Pathol*. 2012 Jul. PMCID: PMC3432437.
- 10. Wu J, Thabet SR, <u>Kirabo A</u>, Trott DW, Saleh MA, Xiao L, Madhur MS, Chen W, Harrison DG. Inflammation and mechanical stretch promote aortic stiffening in hypertension through activation of p38 mitogen-activated protein kinase. *Circ Res.* 2014 Feb. PMCID: PMC4186716.
- Jin X, Zhao W, <u>Kirabo A</u>, Park SO, Ho WT, Sayeski PP, Zhao ZJ. Elevated Levels of Mast Cells Are Involved in Pruritus Associated with Polycythemia Vera in JAK2V617F Transgenic Mice. *The Journal of Immunology*. 2014 Jul. PMID: 24920845.
- 12. <u>Kirabo A,</u> Fontana V, de Faria AP, Loperena R, Galindo CL, Wu J, Bikineyeva AT, Dikalov S, Xiao L, Chen W, Saleh MA, Trott DW, Itani HA, Vinh A, Amarnath V, Amarnath K, Guzik TJ, Bernstein KE, Shen XZ, Shyr Y, Chen SC, Mernaugh RL, Laffer CL, Elijovich F, Davies SS, Moreno H, Madhur MS, Roberts J 2nd, Harrison DG. DC isoketal-modified proteins activate T cells and promote hypertension. *Journal of Clinical Investigation*. 2014 Oct. PMCID: PMC4220659. Highlighted in Editorial PMCID: PMC4191001
- Trott DW, Thabet SR, <u>Kirabo A,</u> Saleh MA, Itani H, Norlander AE, Wu J, Goldstein A, Arendshorst WJ, Madhur MS, Chen W, Li CI, Shyr Y, Harrison DG. Oligoclonal CD8+ T cells play a critical role in the development of hypertension. *Hypertension*. 2014 Nov. PMCID: PMC4191997.
- 14. Kamat NV, Thabet SR, Xiao L, Saleh MA, <u>Kirabo A</u>, Madhur MS, Delpire E, Harrison DG, McDonough AA. Renal transporter activation during angiotensin II hypertension is blunted in IFN-γ -/- and IL-17A-/-mice. *Hypertension*. 2015 Jan. PMCID: PMC4326622.
- 15. Saleh MA, McMaster WG, Wu J, Norlander AE, Funt SA, Thabet SR, <u>Kirabo A</u>, Xiao L, Chen W, Itani HA, Michell D, Huan T, Zhang Y, Takaki S, Titze J, Levy D, Harrison DG, Madhur MS. Lymphocyte adaptor protein LNK deficiency exacerbates hypertension and end-organ inflammation. *Journal of Clinical Investigation*. 2015 Feb. PMCID: PMC4362266.
- 16. Xiao L, <u>Kirabo A,</u> Wu J, Saleh MA, Zhu L, Wang F, Takahashi T, Loperena R, Foss JD, Mernaugh RL, Chen W, Roberts J 2nd, Osborn JW, Itani HA, Harrison DG. Renal Denervation Prevents Immune Cell Activation and Renal Inflammation in Hypertension. *Circ Res.* 2015 Aug. PMCID: PMC4629828.

- Wu J, Saleh MA, <u>Kirabo A,</u> Itani HA, Montaniel KR, Xiao L, Chen W, Mernaugh RL, Cai H, Bernstein KE, Goronzy JJ, Weyand CM, Curci JA, Barbaro NR, Moreno H, Davies SS, Roberts LJ 2nd, Madhur MS, Harrison DG. Immune activation caused by vascular oxidation promotes fibrosis and hypertension. *Journal of Clinical Investigation*. 2015 Nov. PMCID: PMC4701546.
- Itani HA, Xiao L, Saleh MA, Wu J, Pilkinton MA, Dale BL, Barbaro NR, Foss JD, <u>Kirabo A</u>, Montaniel KR, Norlander AE, Chen W, Sato R, Navar LG, Mallal SA, Madhur MS, Bernstein KE, Harrison DG. CD70 Exacerbates Blood Pressure Elevation and Renal Damage in Response to Repeated Hypertensive Stimuli. *Circ Res*. 2016 Mar. PMID:26988069
- <u>Kirabo A</u>, Ryzhov S, Gupte M, Sengsayadeth S, Gumina RJ, Sawyer DB, Galindo CL. Neuregulin-1β induces proliferation, survival and paracrine signaling in normal human cardiac ventricular fibroblasts. J Mol Cell Cardiol. 2017 April. PMID:28263756
- 20. Barbaro NR, Foss JD, Kryshtal DO, Tsyba N, Kumaresan S, Xiao L, Mernaugh RL, Itani HA, Chen W, Dikalov S, Titze JM, Knollmann BC, Harrison DG, and <u>Kirabo A</u>*. Dendritic cell amiloride sensitive channels mediate sodium-induced inflammation and hypertension. Cell Rep. 2017 Oct. PMCID:PMC5674815. Recognized among Top 4 highly cited papers by VI4. Role: I am the senior and corresponding author of this manuscript. I was actively involved in designing the experiments, analyzing the data, writing the manuscript, and funding this project. I supervised the first author, Natalia Barbaro, who was a post-doctoral fellow in my lab.
- 21. McDonnell WJ, Koethe JR, Mallal SA, Pilkinton MA, <u>Kirabo A</u>, Ameka MK, Cottam MA, Hasty AH, Kennedy AJ. High CD8 T Cell Receptor Clonality and Altered CDR3 Properties are Associated with Elevated Isolevuglandins in Adipose Tissue During Diet-Induced Obesity. *Diabetes*. 2018 Sep 4. pii: db180040. doi: 10.2337/db18-0040. PMID:30181158
- 22. Van Beusecum JP, Xiao L, Barbaro NR, Patrick DP, and <u>Kirabo A*.</u> Isolation and Adoptive Transfer of High Salt Treated Antigen-Presenting Dendritic Cells. 2019. J Vis Exp. 2019 Mar 5;(145). doi: 10.3791/59124. PMID:30907877
- 23. Ferguson JF, Aden LA, Barbaro NR, Van Beusecum JP, Xiao L, Simmons AJ, Warden C, Pasic L, Himmel LE, Washington MK, Revetta FL, Zhao S, Kumaresan S, Scholz MB, Tang Z, Chen G, Reilly MP, and <u>Kirabo A*.</u> High dietary salt-induced dendritic cell activation underlies microbial dysbiosis-associated hypertension. *JCI Insight. 2019 Jun 4;5. pii: 126241. doi: 10.1172/jci.insight.126241.* PMID: 31162138. Featured on issue cover. <u>https://insight.jci.org/posts/138</u>. Role: I am the senior and corresponding author of this manuscript. I was actively involved in designing the experiments, analyzing the data, writing the manuscript, and funding this project.
- 24. Van Beusecum JP, Barbaro NR, McDowell Z, Aden LA, Xiao L, Pandey AK, Itani HA, Himmel LE, Harrison DG, and <u>Kirabo A*</u>. High salt activates dendritic cells via serum glucocorticoid kinase 1, to promote renal inflammation and salt-sensitive hypertension. *Hypertension. 2019 Jul 8:. doi: 10.1161* PMID: 31280647. Selected by Editors as High Impact Paper in Hypertension. Selected for live Hypertension Twitter chat. Highly accessed. Role: I am the senior and corresponding author of this manuscript. I was actively involved in designing the experiments, analyzing the data, writing the manuscript, and funding this project. I supervised the first author, Justin Van Beusecum during these studies.
- 25. Masenga SK, Hamooya BM, Nzala S, Kwenda G, Heimburger DC, Mutale W, Koethe JR, <u>Kirabo A</u>, Munsaka SM. HIV, immune activation and salt-sensitive hypertension (HISH): a research proposal. BMC Res Notes. 2019 Jul 16;12(1):424. doi: 10.1186/s13104-019-4470-2. PMID: 31311574
- 26. Masenga SK, Elijovich F, Hamooya BM, Nzala S, Kwenda G, Heimburger DC, Elijovich F, Mutale W, Munsaka SW, Zhao S, Koethe JR, and <u>Kirabo A*</u>. Elevated eosinophils as a feature of inflammation associated with hypertension in virally suppressed people living with HIV. *JAHA*, 2020 February. PMID: 32064996. Highlighted in Editorial PMID: 32064997. Featured. *Role: I am the senior and*

corresponding author of this manuscript. I was actively involved in designing the experiments, analyzing the data, writing the manuscript, and funding this project. I supervised the first author, Sepiso Masenga, who was a graduate student in my lab.

- 27. Prinsen JK, Kannankeril PJ, Sidorova TN, Yermalitskaya LV, Boutaud O, Zagol-Ikapitte I, Barnett JV, Murphy MB, Subati T, Stark JM, Christopher IL, Jafarian-Kerman SR, Saleh MA, Norlander AE, Loperena R, Atkinson JB, Fogo AB, Luther JM, Amarnath V, Davies SS, <u>Kirabo A</u>, Madhur MS, Harrison DG, Murray KT. JACC Basic Transl Sci. 2020 May 27;5(6):602-615. doi: 10.1016/j.jacbts.2020.04.004. eCollection 2020 Jun. PMID: 32613146
- 28. Barbaro NR, Van Beusecum JP, Loperena R, Xiao L, Do Carmo L, Foss JD, Elijovich F, Laffer CL, Montaniel KR, Galindo C, Chen W, Ao M, Mernaugh RL, Alsouqi A, Ikizler AT, Fogo A, Moreno H, Davies SS, Harrison DG, and <u>Kirabo A*.</u> Sodium Activates Human Monocytes Via the NADPH Oxidase and Isolevuglandin Formation. Cardiovascular Research. 2020 Jul. doi: 10.1093/cvr/cvaa207. PMID: 33038226. Featured. Role: I am the senior and corresponding author of this manuscript. I was actively involved in designing the experiments, analyzing the data, writing the manuscript, and funding this project. I supervised the first author, Natalia Barbaro, who was a postdoctoral fellow in my lab.
- 29. Reis KG, Desderius B, Kingery J, <u>Kirabo A</u>, Makubi A, Myalla C, Lee MH, Kapiga S, Peck RN. Blood pressure, T cells, and mortality in people with HIV in Tanzania during the first 2 years of antiretroviral therapy. J Clin Hypertens. 2020 Aug 20. doi: 10.1111/jch.13975. Online ahead of print. PMID: 32815636
- **30.** Masenga SK, <u>**Kirabo A**</u>, Hamooya BM, Nzala S, Kwenda G, Heimburger DC, Mutale W, Koethe JR, Pilic L, Munsaka SM HIV-positive demonstrate more salt sensitivity and nocturnal non-dipping blood pressure than HIV-negative individuals. Clin Hypertens. 2021 Jan 15;27(1):2. doi: 10.1186/s40885-020-00160-0.PMID: 33446278
- 31. Ngwenyama N, <u>Kirabo A</u>, Aronovitz M, Velázquez F, Carrillo-Salinas F, Salvador AM, Nevers T, Amarnath V, Tai A, Blanton RM, Harrison DG, Alcaide P. Isolevuglandin-Modified Cardiac Proteins Drive CD4+ T Cell Activation in the Heart and Promote Cardiac Dysfunction. Circulation. 2021 Jan 19. doi: 10.1161/CIRCULATIONAHA.120.051889. Online ahead of print PMID: 33463362
- 32. Zhong J, Yang HC, Yermalitsky V, Shelton EL, Otsuka T, Wiese CB, May-Zhang LS, Banan B, Abumrad N, Huang J, Cavnar AB, <u>Kirabo A</u>, Yancey PG, Fogo AB, Vickers KC, Linton MF, Davies SS, Kon V. Kidney injury-mediated disruption of intestinal lymphatics involves dicarbonyl-modified lipoproteins. *Kidney Int*. 2021 Jun 5:S0085-2538(21)00577-9. doi: 10.1016/j.kint.2021.05.028. Online ahead of print. PMID: 34102217. Highlighted in Editorial PMID: 34420659.
- 33. Warden C, Simmons AJ, Pasic L, Davies SS, Layer JH, Mernaugh RL, <u>Kirabo A*.</u> Direct Detection of Isolevuglandins in Tissues using a D11 scFv-Alkaline Phosphatase Fusion Protein and Immunofluorescence. J Vis Exp. 2021 Jul 5;(173). doi: 10.3791/62603. PMID: 34279509
- 34. Ray EC, Pitzer A, Lam T, Jordahl AC, Patel R, Ao M, Marciszyn AL, Winfrey A, Barak Y, Sheng S, <u>Kirabo A,</u> Kleyman TR. Salt-Sensitivity of Volume and Blood Pressure in a Mouse with Globally Reduced ENaC γ Subunit Expression. Am J Physiol Renal Physiol. 2021 Oct 11. doi: 10.1152/ajprenal.00559.2020. Online ahead of print. PMID: 34632813
- 35. Liu J, Shelton EL, Crescenzi R, Colvin DC, <u>Kirabo A</u>, Zhong J, Delpire EJ, Yang H-C and Kon V. Kidney Injury Causes Accumulation of Renal Sodium That Modulates Renal Lymphatic Dynamics. Int J Mol Sci. 2022 Jan 27;23(3):1428. doi: 10.3390/ijms23031428. PMID: 35163352.
- **36.** Patrick DM, de la Visitación N, Krishnan J, Chen W, Ormseth MJ, Stein CM, Davies SS, Amarnath V, Crofford LJ, Williams JM, Zhao S, Smart CD, Dikalov S, Dikalova A, Xiao L, Van Beusecum JP, Ao M,

Fogo AB, <u>**Kirabo A**</u>, Harrison DG. Isolevuglandins disrupt PU.1-mediated C1q expression and promote autoimmunity and hypertension in systemic lupus erythematosus. *JCI Insight*. 2022 Jul 8;7(13):e136678. doi: 10.1172/jci.insight.136678. PMID: 35608913

- 37. Ishimwe JA, Breier N, Saleem M, Kastner PD, <u>Kirabo A,</u> Shibao CA. The Gut Microbiota and Short-Chain Fatty Acids Profile in Postural Orthostatic Tachycardia Syndrome. *Front Physiol.* 2022 Jun 2;13:879012. doi: 10.3389/fphys.2022.879012. eCollection 2022. PMID: 35733987
- 38. Parsa D, Aden LA, Pitzer A, Ding T, Yu C, Diedrich A, Milne GL, <u>Kirabo A</u>, Shibao CA. Enhanced parasympathetic cholinergic activity with galantamine inhibited lipid-induced oxidative stress in obese African Americans. *Mol Med*. 2022 Jun 3;28(1):60. doi: 10.1186/s10020-022-00486-5. PMID: 35659521
- 39. Blobner BM, <u>Kirabo A</u>, Kashlan OB, Sheng S, Arnett DK, Becker LC, Boerwinkle E, Carlson JC, Gao Y, Gibbs RA, He J, Irvin MR, Kardia SLR, Kelly TN, Kooperberg C, McGarvey ST, Menon VK, Montasser ME, Naseri T, Redline S, Reiner AP, Reupena MS, Smith JA, Sun X, Vaidya D, Viaud-Martinez KA, Weeks DE, Yanek LR, Zhu X; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium*, Minster RL, Kleyman TR. Rare Variants in Genes Encoding Subunits of the Epithelial Na+ Channel Are Associated With Blood Pressure and Kidney Function. *Hypertension.* 2022 Nov;79(11):2573-2582. doi: 10.1161/HYPERTENSIONAHA.121.18513. Epub 2022 Oct 4. PMID: 36193739
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- Masenga SK, Pilic L, Hamooya BM, Nzala S, Heimburger DC, Mutale W, Koethe JR, <u>Kirabo A</u>, Munsaka SM, Elijovich F. Immediate pressor response to oral salt and its assessment in the clinic: a time series clinical trial. *Clin Hypertens.* 2022 Sep 15;28(1):25. doi: 10.1186/s40885-022-00209-2. PMID: 36104796
- 42. Zhong J, Yang HC, Shelton EL, Matsusaka T, Clark AJ, Yermalitsky V, Mashhadi Z, May-Zhang LS, Linton MF, Fogo AB, <u>Kirabo A</u>, Davies SS, Kon V. Dicarbonyl-modified lipoproteins contribute to proteinuric kidney injury. *JCI Insight*. 2022 Sep 20:e161878. doi: 10.1172/jci.insight.161878. PMID: 3612590
- 43. Masenga SK, Povia JP, Mutengo KH, Hamooya BM, Nzala S, Heimburger DC, Munsaka SM, Elijovich F, Patel KP, <u>Kirabo A*.</u> Sex differences in hypertension among people living with HIV after initiation of antiretroviral therapy. Front Cardiovasc Med. 2022 Nov 17;9:1006789. doi: 10.3389/fcvm.2022.1006789. eCollection 2022. PMID: 36465432

Reviews and Editorials

- **44.** <u>Kirabo A</u> and Sayeski PP. Jak2 Tyrosine Kinase: A Potential Therapeutic Target for AT1 Receptor Mediated Cardiovascular Disease. *Pharmaceuticals* 3(11), 3478-3493, 2010. doi:10.3390/ph3113478 Free Article is Available.
- **45.** McMaster WG, <u>Kirabo A,</u> Madhur MS, Harrison DG. Inflammation, Immunity, and Hypertensive End-Organ Damage. *Circ Res.* 2015 Mar. PMCID: PMC4535695.
- **46.** Foss JD, <u>**Kirabo A**</u>, Harrison DG. Do high-salt microenvironments drive hypertensive inflammation? *Am J Physiol Regul Integr Comp Physiol*. 2017 Jan. PMID:27903514

- **47.** Dixon KB, Davies SS, <u>**Kirabo A**</u>*. Dendritic Cells and Isolevuglandins in Immunity, Inflammation and Hypertension. *Am J Physiol Heart Circ Physiol*. 2017 March. PMID:27986660.
- **48.** <u>Kirabo A</u>*. A new paradigm of sodium regulation in inflammation and hypertension. *Am J Physiol Regul Integr Comp Physiol*. 2017 Sep. PMID: 28931546. <u>Recipient of the New Investigator Review Award</u>.
- **49.** Barbaro NR, <u>Kirabo A</u>, Harrison DG. A New Role of Mister (MR) T in Hypertension: Mineralocorticoid Receptor, Immune System, and Hypertension. *Circ Res.* 2017 May. PMID:28495982
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