

CURRICULUM VITAE

August 12, 2023

NAME: Gregory A. Graf, PhD
BIRTHDATE AND PLACE: 03/28/1972, Dallas, Texas
ADDRESS: Rm 345 Biological Biomedical Research Building
 741 S. Limestone
 University of Kentucky
 Lexington, KY 40536
 Phone: (859) 257-4749
 E-mail: Gregory.Graf@UKY.edu
 ORCID: 0000-0002-0130-9929

ACADEMIC APPOINTMENTS

2000-2002 Postdoctoral Scholar, Molecular Genetics, University of Texas Southwestern Medical Center at Dallas, Dallas, TX
 2002-2004 Postdoctoral Fellow (Training in Cardiovascular Research), Molecular Genetics University of Texas Southwestern Medical Center at Dallas, Dallas, TX
 2004-2010 Assistant Professor, Pharmaceutical Sciences, Drug Discovery Division, University of Kentucky, Lexington KY
 2005-2021 Associate Faculty, Saha Cardiovascular Research Center, University of Kentucky, Lexington KY
 2009-present Associate Faculty, Graduate Center for Nutritional Sciences, University of Kentucky, Lexington KY
 2010-present Associate Faculty, Barnstable Brown Diabetes and Obesity Center, University of Kentucky, Lexington KY
 2010-2018 Associate Professor, Pharmaceutical Sciences, Division of Pharmacology & Experimental Therapeutics, University of Kentucky, Lexington KY
 2015-2018 Assistant Dean for Translational Research, College of Pharmacy, University of Kentucky, Lexington KY
 2018-2021 Professor, Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, Lexington KY
 2019-2021 Vice-Chair, Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, Lexington KY
 2022-present Professor, Department of Physiology, Associate Director, Saha Cardiovascular Research Center, University of Kentucky, Lexington KY

EDUCATION

1990-1994	BS, Texas A&M University, College Station, TX	Animal Sciences
1994-1996	MS, University of Kentucky, Lexington, KY	Animal & Food Sciences
1996-2000	PhD, University of Kentucky, Lexington, KY	Physiology

TEACHING & TRAINING

Courses

1995-1996 Artificial Insemination/Fertility of Farm Animals (ASC 462G), Graduate Teaching Assistant
 1997-1998 Advanced Cardiovascular Physiology (PGY 604) Lecturer,
 1999-2000 Human Physiology (BIO 352) Lecturer, Asbury College,
 2005 Physiological Basis for Therapeutics I (PHR 911), Lecturer, 5 contact hours
 2006 Physiological Basis for Therapeutics II (PHR 921), Lecturer, 16 contact hours
 2007 Physiological Basis for Therapeutics II (PHR 921), Lecturer, 33 contact hours
 2008 Physiological Basis for Therapeutics II (PHR 921), Coordinator, 33 contact hours
 2008-2010 Topics in Cardiovascular Res. (PHR 760-005), Coordinator, 30 contact hours
 2009-2019 Physiological Basis for Therapeutics II (PHR 921), Coordinator, 28 contact hours
 2010 Pharmacologic Basis for Therapeutics II (PHS 931), Lecturer, 1 contact hour
 2010 College of Pharmacy PY1 Common Reading Experience (*The Immortal Life of Henrietta Lacks*, R. Slout, Crown Publishing, 2010)

2010-2011	Topics in Cardiovascular Res. (PHS 760-005), Coordinator, 30 contact hours
2010-2016	Introduction to Pharmaceutical Sciences (PHS 760-001), Lecturer, 2 contact hours
2011	Advanced Cardiovascular Physiology (PGY 604), Lecturer, 1 contact hour
2011	Interprofessional Healthcare Education Common Reading Experience (<i>The Immortal Life of Henrietta Lacks</i> , R. Sliot, Crown Publishing, 2010)
2012	Interprofessional Healthcare Education Common Reading Experience (<i>The Spirit Catches You and You Fall Down</i> , A. Fadiman, Farrar, Straus and Giroux, 1997)
2012-2022	Topics in Cardiovascular Res. (PHS 750-002), Co-Coordinator, 30 contact hours
2012-2015	Introduction to Biotechnology (ABT 101), Lecturer, 1 contact hour
2012	Physiological Basis for Therapeutics II (PHS 921), Lecturer, 35 contact hours
2013	Advanced Cardiovascular Physiology (PGY 604), Lecturer, 2 contact hours
2013	Interprofessional Healthcare Education Common Reading Experience (<i>Pox</i> , M. Willrich, Penguin, 2011)
2014-2016	Physiological Basis for Therapeutics II (PHS 921), Coordinator, 53 contact hours
2015	Fundamentals of BioEthics (PHS 760-011), Coordinator, 32 contact hours
2016-2018	Responsible Conduct of Research (PHS 711), Coordinator, 32 contact hours
2017	Integrated Drugs and Diseases Endocrine (PHR 938), Lecturer, 2 contact hours
2018-2022	Integrated Drugs and Diseases Genitourinary (PHR 947 IDD-GU), Coordinator, 12 contact hours
2018-2021	Community Service Learning Experience (PACE 910), Community Action Council, Faculty Partner
2019-2021	Scholarship II (PHR 961), Faculty Mentor
2019-2021	Integrated Drugs and Diseases Endocrinology (PHR 938 IDD-Endo), Co-Coordinator, 12 contact hours
2020-2021	Center for Interprofessional Health Education, Interprofessional Collaboration and Team Skills (iCATS), Faculty Facilitator
2022-	Advanced Topics in Cardiovascular Physiology & Disease (PGY 630-002), Co-Coordinator, 16 contact hours
2023-	Human Function (OBI814-001), Instructor, 16 contact hours

Graduate Committees

Major Advisor

<i>Name</i>	<i>Degree Awarded</i>	<i>Current Position</i>
Nadezhda Sabeva	PhD Pharm Sci 2011	Assistant Professor, Universidad Central Del Caribe, Bayaman, PR
Jingjing Liu	PhD Pharm Sci 2011	Associate Consultant, Attunix Inc., Bellevue, WA
Xiaoxi Liu	PhD Pharm Sci 2014	Assistant Professor, University of Utah School of Medicine
Jianing Li	PhD Nutr Sci 2015	Core Research Manager, Pediatric Research Alliance, Emory University School of Medicine
Yuhuan Wang	PhD Pharm Sci 2015	Scientist Quantitative Pharmacology at Regeneron Pharmaceuticals, Inc.
Sonja Pijut	PhD Pharm Sci 2017	Research Pharmacist, Investigational Drug Services, UK Healthcare
Hannah Lifsey	PharmD/MS PharmSci 2018	Chemotherapeutic Specialist Pharmacist, Wake Forest University Medical Center
Stuart Pope	PharmD/MS PharmSci 2019	Clinical Pharmacist, Critical Care, Emory University Hospital
Rupinder Kaur	PhD Pharm Sci 2022	Project Coordinator, Charles Rivers, Philadelphia, PA
Brittaney Poole	MS Medical Sciences 2022	Biomedical Sciences Graduate Program, University of Florida
Mikala Zelows	PhD Pharm Sci (Year 3)	

Committee Member

<i>Name</i>	<i>Degree Awarded</i>	<i>Graduate Program</i>
Bing Sun	PhD 2006	Nutritional Sciences (External Examiner)
Shoba Shetty	PhD 2007	Nutritional Sciences
Xia Li	PhD 2009	Nutritional Sciences
Akinwunmi Akinmusire	MS 2010	Nutritional Sciences
David Horton	PhD 2011	Pharmaceutical Sciences
Kuei-Ling Kuo	PhD 2012	Pharmaceutical Sciences
Ling Zhou	PhD 2013	Pharmaceutical Sciences
Joseph Layne	PhD 2014	Nutritional Sciences
Oreoluwa Adedoyin	PhD 2014	Pharmaceutical Sciences
Christopher Stamatkin	PhD 2014	Pharmaceutical Sciences
Joel Thompson	PhD 2014	Nutritional Sciences
Erin Casey	MS 2015	Pharmaceutical Sciences
Lin Ao	PhD 2016	Pharmaceutical Sciences
Robert Helsley	PhD 2016	Nutritional Sciences
Tori Stromp	PhD 2016	Physiology
Hua Qing	PhD 2017	Molecular Pharmacology & Nutritional Sciences
Manoj Kudupoje	PhD 2017	Animal and Dairy Sciences (External Examiner)
Jessica Hoffman	PhD 2018	Molecular Pharmacology & Nutritional Sciences
NaRa Lee	PhD 2019	Pharmaceutical Sciences
David Henson	PhD 2021	MD PhD, Pharmaceutical Sciences
Keller Toral	PhD 2021	Pharmaceutical Sciences
Lauren Weaver	PhD 2023	Pharmaceutical Sciences
Mark Wuenschel	MS 2023	MS/PharmD Pharmaceutical Sciences
Alex Petty	2023-	Physiology
Dillon Clemmer	2023-	Pharmaceutical Sciences
Olivia Hage	2023-	MD/PhD, Physiology

Predoctoral Trainees

<i>Name</i>	<i>Period</i>	<i>Last known Position</i>
Joy Mashni, PharmD	2004-2005	Pharmacy Team Leader at Meijer, Detroit, MI
Hannah Bryant, MD	2006-2008	Hospitalist, Baptist Health, Lexington Kentucky
Vanya Petrova, PhD	2007-2008	Janssen R&D PMO/Capacity Management Co-Op. Leonie, NJ
J. Andrew Brown, MD	2008-2011	Advanced Endoscopy Fellow, Gastroenterology, University of Kentucky
Joshua Lester, MD	2009-2011	Med Resident, Pulmonology, University of Kentucky
Kylie Newman, PharmD	2010-2012	Pharmacist, Parkville Medical Center, Pueblo, CO
Jessica Ruble (Flannery)	2012-2013	Veterinary Pharmacist, Chewy, Louisville, KY
Danielle Corbett-Otto, PharmD	2013-2015	Oncology Specialist, UK Markey Cancer Center, Lexington, KY
Stephen Hodge, PharmD	2014-2015	Pharmacy Intern Kroger, Alexandria, KY
Siying Xu	2017-2019	Graduate Student, Pharmaceutical Sciences, University of KY, College of Pharmacy
Garrett Anspach	2018-2022	University of Kentucky, College of Medicine, MD/PhD Program
Allison Segard	2019-2021	Graduate Student, Uniformed Services University, Rockville, MD
Isha Chauhan	2021-2024	University of Kentucky, Undergraduate, Biology
Ava Vilardo	2021-2022	University of Kentucky, Undergraduate, Agriculture & Medical Biotechnology
Erika Savage	2022-2024	University of Kentucky, Undergraduate, Biology

Bonnie Walton	2022-2023	University of Kentucky, Undergraduate, Public Health
Rachael Hutchinson	2022-2022	Mississippi State University, Undergraduate, Biochemistry
Megan Mutch	2022-2023	University of Kentucky, Undergraduate, Chemistry
Nikitha Dharanapragadi	2022-	University of Kentucky, Undergraduate, Neuroscience
Anna Mead	2023-	University of Kentucky, Undergraduate, Biology

Postdoctoral Trainees

<i>Name</i>	<i>Period</i>	<i>Last known Position</i>
Shuang Liang, MD	2009-2011	Director of Clinical Research Laboratory, Shanghai 6th People's Hospital, Shanghai China
Kai Su, MD, PhD	2009-2012	Clinical Trials Manager, UK Healthcare, Lexington, KY

Faculty Mentoring

<i>Name</i>	<i>Period</i>	<i>Role</i>	<i>Current Position</i>
Brian Finlin, PhD	2013-2015	Center for Obesity and Cardiovascular Disease, COBRE Co-Mentor	Assistant Professor, Pharmacology & Nutritional Sciences, University of Kentucky
Daniella Moga, MD, PhD	2015-2016	BIRCWH Co-Mentor	Associate Professor, Pharmacy Practice and Sciences, University of Kentucky
Moriel Vandsburger, PhD	2015-2016	Center for Obesity and Cardiovascular Disease, COBRE Co-Mentor	Associate Professor, Physiology, University of California, Berkeley
Vincent Venditto, PhD	2015-2018	Center for Obesity and Cardiovascular Disease, COBRE Co-Mentor	Associate Professor, Pharmaceutical Sciences, University of Kentucky
Marlene Starr, PhD	2017-2018	Center for Obesity and Cardiovascular Disease, COBRE Co-Mentor	Associate Professor, Surgery, Molecular Pharmacology & Nutritional Sciences, University of Kentucky
Vincent Venditto, PhD	2020-2021	Center for Pharmaceutical Research & Innovation, COBRE Co-Mentor	Associate Professor, Pharmaceutical Sciences, University of Kentucky
Mary Sheppard, MD	2021-2025	Co-Mentor, 1K01HL149984-01A1	Assistant Professor, Family Medicine, Saha Cardiovascular Research Center, University of Kentucky
Robert Helsley, PhD	2022-2026	Co-Mentor, 1K01DK128022-01A1 AHA-CDA	Assistant Professor, Molecular Pharmacology & Nutritional Sciences, Saha Cardiovascular Research Center, University of Kentucky
Lindsey Czuba, PhD	2022-2025	Center for Pharmaceutical Research & Innovation, COBRE Co-Mentor	Assistant Professor, Pharmaceutical Sciences, University of Kentucky
Christopher Radka, PhD	2023-	Co-Mentor, External Mentoring Committee Member	Assistant Professor, Microbiology, Immunology, and Molecular Genetics, University of Kentucky

SERVICE

Dept, College and University Committees

1993-1994	Texas A&M College of Agriculture, Alpha Zeta Agricultural Honor Fraternity, Chancellor
1998-1999	Graduate Student Representative to Faculty, Physiology, University of Kentucky
2004-2009	College of Pharmacy, Academic Performance Committee, PY1 – PY3
2008-2009	College of Pharmacy, <i>Ad hoc</i> Building Committee, multi-user equipment needs in new COP

2009-2010	College of Pharmacy, <i>Ad hoc</i> Building Safety and Security Committee needs for new COP
2009-2011	College of Pharmacy, Assessment Committee
2009-2011	PS Dept, <i>Ad hoc</i> Research Advisory Council
2010-2014	College of Pharmacy, Honor Code Committee
2010-2012	College of Pharmacy, Graduate Program Committee
2011-2012	PS Dept, <i>Ad hoc</i> Search Committee, Chair PS Dept.
2011-2013	PS Dept, Executive Committee
2011-2013	UK, University Committee on Academic Planning & Priorities (UCAPP)
2012-2013	PS Dept, <i>Ad hoc</i> Search Committee, Chair PS Dept.
2012-2013	College of Pharmacy, Symposium on Drug Discovery and Development Planning Committee
2012-2013	UK, University Senate's Admissions and Academic Standards Committee
2012-2018	College of Pharmacy, Research Advisory Council
2012-2014	College of Pharmacy, Clinical and Experimental Therapeutics Graduate Program Steering Committee
2012-2015	UK, University Senate, College of Pharmacy Faculty Senator
2012-2015	College of Pharmacy, Faculty Council, Faculty Senator (<i>ex officio</i>)
2013-2014	College of Pharmacy, Chair, Symposium on Drug Discovery and Development Planning Committee
2013-2015	UK, University Senate's Admissions and Academic Standards Committee, Chair
2013-2014	PS Dept, Executive Committee
2013-2015	PS Dept, Advisory Council
2014-2015	College of Pharmacy, Symposium on Drug Discovery and Development Planning Committee
2014-2019	UK, Service Core Scientific Advisory Committee, Office of the Vice-President for Research
2015-2018	UK, Research Advisory Group, Office of the Vice-President for Research
2015-2016	College of Pharmacy, Academic Performance Committee, PY1 – PY3
2015-2018	College of Pharmacy, Curriculum Committee
2016-2017	UK, <i>Ad hoc</i> Search Committee, Director of Division of Laboratory Animal Services (DLAR) Office of the Vice-President for Research
2017-2018	College of Pharmacy, <i>Ad hoc</i> Precision Medicine Working Group
2017-2018	UK, Vice President for Research Thematic Initiative Committee on Obesity and Diabetes, Core working Group
2017-2018	UK, Trial Innovation Task Force, Center for Clinical & Translational Sciences
2018-2020	College of Pharmacy, Academic Performance Committee, PY1 – PY3
2018-2021	College of Pharmacy, Graduate Program Committee
2019-2022	UK, Intellectual Properties Committee, Office of the President
2019-2021	College of Pharmacy, Curriculum Committee
2020-2021	College of Pharmacy, Strategic Planning, Educational Domain
2020-2021	College of Pharmacy, Appointment, Promotion and Tenure Committee
2022-	Department of Physiology, Education Committee
2022-2023	College of Medicine, Saha Cardiovascular Research Center, Chair, <i>Ad hoc</i> Search Committee Open Rank Faculty with Department of Surgery
2022-2023	College of Medicine, Department of Physiology, <i>Ad hoc</i> Search Committee Open Rank Faculty
2022-2023	College of Medicine, UK COMMITS DEI Hiring Initiative, <i>Ad hoc</i> Search Committee Open Rank Faculty

Professional Committees & Conferences

2012	American Heart Association, The Science Classification Taskforce
2013	Session Chair, <i>Reverse Cholesterol Transport</i> , Southeast Lipid Research Conference, Callaway Gardens, Pine Mountain GA, September 25-28
2014-2018	Board Member, Southeast Lipid Research Conference
2014	Conference Co-Chair & Session Chair, <i>Hepatic Lipid Metabolism</i> , Southeast Lipid Research Conference, Callaway Gardens, Pine Mountain GA, September 10-13
2015	Conference Chair, Southeast Lipid Research Conference, Stone Mountain Inn, Stone Mountain, GA, September 16-19

- 2016 Conference Co-Chair, Southeast Lipid Research Conference, 21C Hotel, Lexington, KY November 2-4
- 2018-present Chair of Board, Don S Fredrickson Lipid Research Conference
- 2024 Abstract Reviewer, Gordon Research Conference: Lipoprotein Metabolism, June 2-7, Waterville Valley, NH

Study Sections & Grant Reviews

- 2005-2006 University of Kentucky, Pediatric Research Pilot Program
- 2008-2009 Veterans Administration Research and Development Committee, Lexington, KY
- Apr 2010 American Heart Association, Lipoprotein & Lipid Metabolism - Clinical/Translational Committee
- Oct 2010 American Heart Association, Lipoprotein & Lipid Metabolism - Clinical/Translational
- Apr 2011 American Heart Association, Lipoprotein & Lipid Metabolism - Clinical/Translational
- Oct 2011 American Heart Association, Lipoprotein & Lipid Metabolism - Clinical/Translational
- Oct 2011 *Ad hoc* reviewer, National Institutes of Health, Center for Scientific Review, Study Section: Atherosclerosis and Inflammation of the Cardiovascular System (AICS)
- Apr 2012 American Heart Association, Lipoprotein & Lipid Metabolism - Clinical/Translational
- Oct 2012 American Heart Association, Lipoprotein & Lipid Metabolism - Clinical/Translational Committee
- Oct 2012 *Ad hoc* reviewer, NIH-NIDDK, Diabetes, Endocrinology, and Metabolic Diseases B Sub-Committee (DDK-B)
- Apr 2013 American Heart Association, Lipoprotein & Lipid Metabolism – Clinical
- Oct 2013 *Ad hoc* reviewer, NIH-NHLBI, Special Emphasis Panel/Scientific Review Group 2014/01 ZHL1 CSR-R (F1)
- Oct 2014 *Ad hoc* reviewer, National Institutes of Health, Center for Scientific Review, Study Section: Integrative and Clinical Endocrinology and Reproduction Study Section [ICER]
- Oct 2014 Vice-Chair, American Heart Association, Vascular Wall/ Lipids Clinical Peer Review Study Group, Combined
- Mar 2015 Metabolism, Nutrition and Molecular Endocrinology, Special Emphasis Panel/Scientific Review Group 2015/05 ZRG1 EMNR-S (02)
- Apr 2015 Chair, American Heart Association, Lipids Clinical Peer Review Study Group
- Jun 2015 *Ad hoc* reviewer, National Institutes of Health, Center for Scientific Review, Study Section: Integrative Nutrition and Metabolic Processes (INMP)
- Jun 2015 *Ad hoc* reviewer, U.S Department of Veterans Affairs Special Emphasis Panel/Scientific Review Group 2015/08 CLNB 1
- Oct 2015 Chair, American Heart Association, Lipids Clinical Peer Review Study Group
- Feb 2016 American Heart Association Institute for Precision Cardiovascular Medicine (CVGPS) Program-Standing Committee
- Apr 2016 Specialty Committee-2016 Collaborative Science Award, American Heart Association-National
- Jan 2017 American Heart Association. Strategically Focused Research Network, Phase I-Obesity Review Panel
- Jun 2017 University of Kentucky Center for Clinical and Translational Services, Pilot Project Study Section, Chair
- Jul 2017 National Institutes of Health, Center for Scientific Review, Special Emphasis Panel/Scientific Review Group 2017/10 ZRG1 EMNR-S (02) M
- Oct 2017 National Institute of Diabetes and Digestive and Kidney Diseases, DDK-C Subcommittee (T, K, R25, R03)
- Feb 2018 *Ad hoc* reviewer, National Institutes of Health, Center for Scientific Review, Study Section: The Hepatobiliary Pathophysiology (HBPP)
- May 2018 University of Kentucky Center for Clinical and Translational Services, Drug Discovery & Development Pilot Project Study Section, Chair
- Sep 2018 National Institutes of Health, National Heart, Lung and Blood Institute, Special Emphasis Panel/Scientific Review Group 2019/01 HLBP 1
- Oct 2018 National Institutes of Health, Center for Scientific Review, Special Emphasis Panel/Scientific Review Group 2019/01 ZGM1 RCB-5 (SC)

Jan 2019	National Institutes of Health, National Heart, Lung and Blood Institute, Special Emphasis Panel/Scientific Review Group 2019/05 HLBP 1
Sep 2019	National Institutes of Health, National Heart, Lung and Blood Institute, Special Emphasis Panel/Scientific Review Group 2019/05 HLBP 1
Oct 2019	American Heart Association, Collaborative Sciences Award (LOI Phase)
Jun 2021	National Institutes of Health, National Institute of General Medical Sciences, Special Emphasis Panel- SCORE Applications 2021/10 ZGM1 RCB-5 (NP)
Oct 2021	National Institute of Diabetes and Digestive and Kidney Diseases, DDK-C Subcommittee (2022/01 DDK-C 1)
Nov 2021	National Institutes of Health, National Institute of General Medical Sciences, Special Emphasis Panel- SuRE Applications 2022/01 ZGM1 RCB-5 (NP)
Jan 2022	American Heart Association, Collaborative Sciences Award (LOI Phase)
Mar 2022	National Institutes of Health, Vascular Regulation of Disease, Special Emphasis Panel/Scientific Review Group 2ZRG1 VH-D 02 M1
Dec 2022	National Institutes of Health, 2023/01 ZRG1 IVBH-D (02) M, Member Conflict: Vascular Biology and Hematology
Jan 2023	American Heart Association, Collaborative Sciences Award (LOI Phase)
Jun 2023	National Institutes of Health, 2023/10 NMHD Nutrition and Metabolism in Health and Disease Study Section
Oct 2023	American Heart Association, Collaborative Sciences Award (LOI Phase)

Editorial Boards

2009-2010	Associate Editor, PPAR Research
2011-2012	Review Editor, Frontiers in Integrative Physiology
2021-present	Associate Editor, Frontiers in Cardiovascular Medicine: Lipids in Cardiovascular Disease

Ad hoc Journal Reviewer

2007-present	Liver International
2007-present	Gastroenterology
2007-present	European Journal of Clinical Investigation
2007-present	Journal of Lipid Research
2009-present	Arteriosclerosis, Thrombosis and Vascular Biology
2009-present	The Journal of Cardiovascular Pharmacology
2011-present	Atherosclerosis
2011-present	BBA - Molecular and Cell Biology of Lipids
2011-present	American Journal of Physiology-Endocrinology and Metabolism
2012-present	Molecular Pharmacology
2012-present	Hepatology
2012-present	Lipids
2014-present	Journal of Clinical Lipidology
2015-present	Journal of Nutritional Biochemistry
2018-present	British Journal of Pharmacology
2021-present	Circulation: Genomic and Precision Medicine

MEMBERSHIP IN SCIENTIFIC SOCIETIES

1995-2000	Society for the Study of Reproduction
1997-2012	American Society for Cell Biology
1999-present	Arteriosclerosis, Thrombosis and Vascular Biology Scientific Council, American Heart Association
2006-2020	American Association for the Advancement of Science
2012-present	The American Society for Biochemistry and Molecular Biology
2016-2020	The American Association of Pharmaceutical Sciences
2018-2020	The American Association of Colleges of Pharmacy

2021-present The American Physiological Society

HONORS AND AWARDS

1990-1994 Merit Scholarship, San Antonio Livestock Exposition, Texas 4H Foundation
 1993 Gibbs Beef Production Scholarship, Department of Animal Science
 1992-1994 Alpha Zeta Agricultural Honor Fraternity
 1998 Outstanding Poster Presentation, Linda and Jack Gill Heart Institute, University of Kentucky
 2000 Visiting Distinguished Faculty Fellowship, University of Kentucky
 2000-2003 Training in Cardiovascular Physiology Fellowship, UT Southwestern
 2002 Merit Award for Young Investigators, American Heart Association Council on Arteriosclerosis, Thrombosis and Vascular Biology
 2005 Early Career Investigator Travel Stipend Award, Kern Aspen Lipid Conference, Aspen, CO
 2005-2019 University of Kentucky Wethington Award for Extramural Research Support
 2007 Early Career Investigator Travel Stipend Award, Kern Aspen Lipid Conference, Aspen, CO
 2009 Robert A. Blouin Excellence in Professional Education Teaching Award
 2016 Rho Chi Society, Academic Honor Society in Pharmacy
 2016 Skinner Distinguished Alumni Award, Department of Physiology, College of Medicine, University of Kentucky
 2018 Saha Cardiovascular Research Center Distinguished Alumni Lecture, University of Kentucky
 2019 Elected Fellow of the American Heart Association (FAHA), Council on Arteriosclerosis, Thrombosis and Vascular Biology (ATVB)

INVITED PRESENTATIONS

Local

2004 ABCG5 and ABCG8 in cholesterol homeostasis. Pharmaceutical Sciences, University of Kentucky, Lexington, KY
 2004 ABCG5 and ABCG8 in cholesterol homeostasis. Center for Nutritional Sciences, University of Kentucky, Lexington, KY
 2005 ABC transporters in lipid metabolism. Department of Physiology, University of Kentucky, Lexington, KY
 2007 The role of the G5G8 sterol transporter in dyslipidemia and gallstone disease: implications for women's health. Forum for Reproductive Sci & Women's Health, University of Kentucky, Lexington, KY
 2008 A novel role for peroxisomes in lipid metabolism, lessons from exercise and weight loss. Kentucky Pediatric Research Institute Lecture Series, University of Kentucky, Lexington, KY
 2008 Lipid Xenobiotics: ABC transporters determine when to dump or recycle. Center for Nutritional Sciences Lecture Series, University of Kentucky, Lexington, KY
 2010 The role of ABCG5/ABCG8 in hepatobiliary cholesterol transport and lipoprotein metabolism. Cardiovascular Seminar Series, University of Kentucky, Lexington, KY
 2012 The cholesterol excretory pump: is accelerating cholesterol elimination a viable therapeutic strategy? Cardiology Grand Rounds, University of Kentucky, Lexington, KY
 2017 The role of cholesterol in liver disease: simple steatosis to hepatocellular carcinoma. Markey Cancer Center Research Seminar, University of Kentucky, Lexington, KY

National

1999 The Role of caveolae in SR-BI mediated HDL cholesterol ester uptake. Molecular Genetics, University of Texas Southwestern Medical School at Dallas, Dallas, TX
 2001 ABCG5 and ABCG8 form a heterodimer to mediate transport of cholesterol across apical membranes. Department of Cell Biology, University of Texas Southwestern Medical School at Dallas, Dallas, TX

- 2002 ABCG5 and ABCG8 form a heterodimer to mediate transport of cholesterol across apical membranes. Department of Animal Sciences, Texas A&M University, College Station, TX
- 2003 The role of ABC transporters in biliary lipid secretion. Department of Biology, Midwestern State University, Wichita Falls, TX
- 2007 Protective effects of stearic acid on gestational and acquired diabetes mellitus. NIH- Intrauterine Environment Investigators Meeting, NIH, Rockville, MD
- 2008 Managing bioactive lipids: ABC transporters determine when to dump or recycle. University of Cincinnati Genome Research Institute, Lipid Research Group, Cincinnati, OH
- 2008 Regulation of the G5G8 sterol transporter. American Heart Association Research Symposium, Scientific Sessions, New Orleans, LA
- 2012 The G5G8 sterol transporter in reverse cholesterol transport and metabolic disease. Southeast Lipid Research Conference, Calloway Gardens, GA
- 2013 Novel roles for ABCG5/G8-mediated biliary cholesterol secretion in lipid metabolism. Reverse Cholesterol Transport-Session Moderator, Southeast Lipid Research Conference, Calloway Gardens, GA
- 2014 Simultaneous targeting of liver and intestine to promote cholesterol excretion and accelerate reverse cholesterol transport. National Heart Lung & Blood Institute, Lipoprotein Metabolism Section, Bethesda, MD
- 2017 Reverse cholesterol transport: routes and regulation. Learner Institute, Department of Cellular and Molecular Medicine Seminar Series, Cleveland, OH
- 2017 Cholesterol, a culprit in the development of nonalcoholic fatty liver disease. Department of Nutrition and Exercise Physiology Seminar Series, University of Missouri, Columbia, MO
- 2017 The impact of insulin receptor signaling on ApoA-I metabolism in hepatocytes. (presentation by Ailing Ji) Southeast Lipid Research Conference, Lexington, KY
- 2018 The ABCG5 ABCG8 sterol transporter: from cholesterol homeostasis to Sitosterolemia. American Association of Pharmaceutical Science (AAPS) Joint workshop on drug transporters in ADME: From the bench to the bedside, Herndon, VA
- 2018 Enterohepatic regulation of reverse cholesterol transport. Department of Pharmacology & Toxicology, Medical College of Wisconsin, Milwaukee, WI
- 2019 Reverse cholesterol transport: implications for vascular and liver disease. Marion Bessin Liver Research Center, Albert Einstein College of Medicine, Bronx, NY
- 2021 Accelerating Reverse Cholesterol Transport in Atherosclerotic Cardiovascular Disease and Metabolic Syndrome. Texas A&M University College of Pharmacy, Kingsville/College Station, TX (virtual)
- 2023 Enterohepatic regulation of lipoprotein metabolism. NextGen Cardiovascular Muscle and Metabolism Seminar Series, University of Missouri, Columbia, MO

International

- 2009 The absence of ABCD2 reveals a novel role of adipose tissue and peroxisomes in the clearance of proinflammatory dietary lipids. Molecular Genetics and Institute of Neuropathology, Institut d'Investigació Biomèdica de Bellvitge and Center for Biomedical Research on Rare Diseases, Barcelona, Spain
- 2009 The role of the leptin axis in the regulation of ABCG5/ABCG8 and hepatobiliary cholesterol transport. INSERM, U757, Université Paris-Sud Orsay, France
- 2009 Regulation of ABCG5/ABCG8 and hepatobiliary cholesterol transport. INSERM, U939, Université Pierre et Marie Curie, Hopital de la Pitié, Paris, France
- 2012 The ABCG5 ABCG8 sterol transporter opposes insulin resistance and fatty liver disease independent of phytosterol accumulation. 80th European Atherosclerosis Society Congress, Milan, Italy

- 2012 The role of ABCG5 ABCG8 in biliary sterol secretion and the development of nonalcoholic fatty liver disease. de l'école de médecine UMR872 INSERM, Centre de Recherches des Cordeliers Paris, France
- 2017 FGF15/19 Upregulates and localizes ABCG5 and ABCG8 to the canalicular surface of hepatocytes 85th European Atherosclerosis Society Congress, Prague, Czech Republic
- 2017 ABCG5 ABCG8: roles of the sterol transporter beyond phytosterolemia. Metabolic Disorders and Gastrointestinal Diseases Seminar, Amsterdam Medical Center, Amsterdam, The Netherlands
- 2018 The ABCG5 ABCG8 sterol transporter: from Sitosterolemia to cholesterol homeostasis. Medical University of Vienna, Vienna Austria
- 2020 Nonbiliary routes for cholesterol elimination. FEBS 2020 Advanced Course: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease, Innsbruck, Austria.
- 2021 Hepatic and intestinal contribution to cholesterol excretion. The 19th International Symposium on Atherosclerosis (ISA 2021), Kyoto, Japan (virtual)
- 2023 Classification of Sitosterolemia-associated mutants of the ABCG5 ABCG8 sterol transporter. FEBS 2023 Advanced Course: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease, Innsbruck, Austria.

PEER REVIEWED PUBLICATIONS

1. Spencer TE, Graf GH, Bazer FW. Sulfated glycoprotein-1 (SGP-1) expression in ovine endometrium during the oestrous cycle and early pregnancy. *Reprod Fertil Dev.* 1995;7:1053-1060
2. Burns PD, Tsai SJ, Wiltbank MC, Hayes SH, Graf GA, Silvia WJ. Effect of oxytocin on concentrations of prostaglandin h synthase-2 mRNA in ovine endometrial tissue in vivo. *Endocrinology.* 1997;138:5637-5640
3. Burns PD, Graf GA, Hayes SH, Silvia WJ. Cellular mechanisms by which oxytocin stimulates uterine pgf2 alpha synthesis in bovine endometrium: Roles of phospholipases c and a2. *Domest Anim Endocrinol.* 1997;14:181-191
4. Webb NR, Connell PM, Graf GA, Smart EJ, de Villiers WJ, de Beer FC, van der Westhuyzen DR. Sr-bii, an isoform of the scavenger receptor bi containing an alternate cytoplasmic tail, mediates lipid transfer between high density lipoprotein and cells. *J Biol Chem.* 1998;273:15241-15248
5. Graf GA, Burns PD, Silvia WJ. Oxytocin- and aluminum fluoride-induced phospholipase c activity and prostaglandin f2 alpha secretion during the ovine luteolytic period. *J Reprod Fertil.* 1998;112:225-231
6. Graf GA, Connell PM, van der Westhuyzen DR, Smart EJ. The class B, type I scavenger receptor promotes the selective uptake of high density lipoprotein cholesterol ethers into caveolae. *J Biol Chem.* 1999;274:12043-12048
7. Graf GA, Burns PD, Silvia WJ. Expression of a cytosolic phospholipase A2 by ovine endometrium on days 11-14 of a simulated oestrous cycle. *J Reprod Fertil.* 1999;115:357-363
8. Berge KE, Tian H, Graf GA, Yu L, Grishin NV, Schultz J, Kwiterovich P, Shan B, Barnes R, Hobbs HH. Accumulation of dietary cholesterol in sitosterolemia caused by mutations in adjacent ABC transporters. *Science.* 2000;290:1771-1775
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INVITED REVIEWS, COMMENTARIES & EDITORIALS

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9. Arnett DK, Graf GA Metabolomics, lipid pathways, and blood pressure change. *Arterioscler Thromb Vasc Biol.* 2020; 40:1801-1803 (PMC7384585)
10. Williams KS, Segard A, Graf GA Sitosterolemia: Twenty years of discovery of the function of ABCG5 ABCG8 *Int J Mol Sci* 2021; 22:2641 (PMC7961684)

RESEARCH SUPPORT

Current

Principal Investigator

- 1R01DK113625 "Contributions of hepatic and intestinal pathways to cholesterol excretion" (2017–2027), \$451,563/yr, PI: 30% effort) The aim of this project is to determine the relative contribution of the biliary and intestinal pathways in cholesterol excretion in mice and determine the factors that regulate intestinal cholesterol secretion.
- 1R13HL170691-01 "The Don S. Fredrickson Lipid Research Conference (2023-2024, \$10,000/yr PI: no salary support) The goal of this project is to provide support for an annual conference focused on lipid and lipoprotein metabolism.

Co-Investigator

- 5P20GM130456-03 "Center of Biomedical Research Excellence in Pharmaceutical Research and Innovation" (2022-2025, salary support only, 3.0% effort). The goal of this project is to develop new investigators in the area of drug discovery and development. I served as a faculty mentor for junior investigator, Lindsey Czuba. (PI: J Thorson)
- 1R01DK133184-01 "The Role of DENND5B in Dietary Lipid Absorption" (2022 – 2027, 5%) The goal of this project is to determine the impact of DENND5B on intestinal lipid absorption and chylomicron formation. (PI: S. Gordon)

Sponsor

- 1K01HL149984 "Pharmacological Mechanistic Insights into Thoracic Aortic Aneurysm" (2020–2025, no salary support) The goal of this proposal is faculty development and competitiveness for R0-equivalent independent research funding. (PI: Sheppard, MB)
- 1K01DK128022 "Elucidating Molecular Mechanisms Linking Fructose to Cholesterol Metabolism" (2022–2026, no salary support) The goal of this proposal is faculty development and competitiveness for R0-equivalent independent research funding. (PI: Helsley, RN)

Submitted/Pending

Principal Investigator

- 1 R01 DK136574-01 "The Impact of Hepatic Insulin Signaling on HDL Formation and Function" (2023-2028, \$452,249/yr direct, 30% effort, MPI S. Gordon) The goal of this project is to determine the impact of insulin signaling on apolipoprotein AI trafficking, HDL formation and HDL function
- 1 R01 HL164674-01 "Enhanced formation and activation of the ABCG5 ABCG8 sterol transporter in the treatment of Sitosterolemia and hypercholesterolemia"(2022-2027, \$428,923/yr direct, 25% effort) The goal of this

project is to determine if experimental therapeutic regulators of protein folding and proteostasis will rescue mutants of ABCG5 or ABCG8 that cause Sitosterolemia or enhance the formation of the normal transporter to reduce phytosterols and cholesterol. (reviewed 2/2022, 31st percentile)

Completed

Principal Investigator

- 053025N “Formation, Folding and Trafficking of the ABCG5 ABCG8 Sterol Transporter” American Heart Association – National, Scientist Development Grant (2005-2008, \$260,000) The goal of this proposal was to elucidate the molecular determinants of assembly and trafficking of the ABCG5ABCG8 sterol transport complex
- R01DK077632-01 “Protective Effects of Stearic Acid on Gestational and Acquired Diabetes Mellitus” NIH-NIDDK Multiple PI (2007-2010, \$288,333) The goal of this proposal was to determine the role of ABCD2, MitoNEET and CD36 in the alleviation of cardiovascular complications in offspring of dams with gestational diabetes. The role of my laboratory was to elucidate the role of ABCD2 in lipid metabolism in liver and adipose tissue.
- R01DK080874-01 “Regulation of the ABCG5 ABCG8 sterol transporter” NIH-NIDDK (2009-2013, \$1,327,396) This project focused on post transcriptional regulation of the ABCG5 ABCG8 sterol transporter. The aims of this proposal were to examine the role of the leptin axis in the regulation of the abundance and activity *in vitro* and *in vivo*.
- UK-CCTS Pilot Award “Ezetimibe-Ursodiol combination therapy in the treatment of nonalcoholic fatty liver disease” (2013-2014, \$50,000) The project was a Multi-PI (Paul Angulo) clinical trial intended to determine if Ezetimibe-Ursodiol combination therapy improved features of NASH. The trial was terminated prior to completion due to the death of Dr. Angulo.
- 4R01DK100892 “The role of hepatic insulin resistance on SR-BI dependent HDL cholesterol uptake” NIH-NIDDK (2013-2018, \$1,858,836) This was a multi-PI project with Dr. Deneys van der Westhuyzen. The aims will determine the impact of hepatic insulin resistance on the binding, uptake and metabolism of HDL cholesterol and the implications for reverse cholesterol transport.
- 3R01DK100892-04S1 Administrative Supplement for Research on Sex/Gender Differences to 1R01DK100892 “The role of hepatic insulin resistance on SR-BI dependent HDL cholesterol uptake” (2016-2018, \$75,000)
- 1R13HL154523 “The Don S. Fredrickson Lipid Research Conference (2020-2021, \$17,000/yr direct, PI: no salary support) The goal of this project is to provide support for an annual conference focused on lipid and lipoprotein metabolism.
- 1R13HL165800 “The Don S. Fredrickson Lipid Research Conference (2021-2022, \$17,000/yr direct, PI: no salary support) The goal of this project is to provide support for an annual conference focused on lipid and lipoprotein metabolism.

Co-Investigator

- R01GM085231-01 “Role of SR-BI in LPS detoxification” NIH-NIGMS (Graf 5%, 2008-2013) This project evaluated the role of SR-BI in the protection from death in rodent models of sepsis. The role of my laboratory was to generate and prepare a series of viral vectors to be used for *in vivo* expression of SR-BI and its mutants and to participate in weekly discussions with the principal investigator. (PI: Li, Xiang-an)
- IRC UK “Role of Zhx2 in Non-alcoholic steatohepatitis (NASH) and Hepatocellular carcinoma (HCC)” CoI: B Spear (2016, \$15,000 direct, no salary support) The aim of this pilot study is to determine if the absence of Zhx2 affects the progression of nonalcoholic fatty liver disease in a mouse model.
- 5P30GM127211 “Center of Research in Obesity and Cardiovascular Disease” PI: LA Cassis (2013-2023). The aim of this center is to foster research and career development of new investigators in the areas of obesity and cardiovascular disease. I am a “graduate” of this center and now serve as a co-mentor for new investigators.

1P20GM130456 “Center of Biomedical Research Excellence in Pharmaceutical Research and Innovation” PI: J Thorson (2020-2025, 1,500,000/yr direct, Co-I: 5% effort) The goal of this project is to develop new investigators in the area of drug discovery and development. I served as a faculty mentor for junior investigator.

Sponsor

09PRE2250526- “The role of ABCD2 in the metabolism of atypical fatty acids in adipose tissue” American Heart-Great Rivers Affiliate (2009-2011, \$23,000/yr fellowship) This project focused on the role of ABCD2 and peroxisomes in the metabolism of dietary and endogenous fatty acids generally excluded from the adipose triglyceride stores. (PI: Liu, J)