

JAMES A. MOBLEY - CURRICULUM VITAE

University of Alabama at Birmingham School of Medicine Faculty

Date: April 02, 2024

PERSONAL INFORMATION

Name: James A. Mobley
Citizenship: United States

RANK/TITLE: Professor (Tenured)
Department: Department of Anesthesiology and Perioperative Medicine
Division: Molecular and Translational Biomedicine
Business Address: 1900 University Boulevard, Birmingham, AL 35294
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EDUCATION:

<u>Institution</u>	<u>Degree</u>	<u>Year</u>
The Ohio State University	Ph.D. (Medicinal Chemistry)	1995-2000
<i>Thesis Title: Oxidative mechanisms of estrogen induced carcinogenesis. Mentor, Dr. Robert Brueggemeier.</i>		
Oregon State University	B.S (Chemistry, ACS)	1987-1991
<i>Thesis Title: The Measurement of Redox Induced Changes in Inorganic Matrices as Potential Probes for Monitoring Chromium VI Levels in Groundwater. Mentor, Dr. James Ingle.</i>		

POSTDOCTORAL TRAINING:

N/A – Jr. Faculty position was awarded directly out of graduate school.

ACADEMIC APPOINTMENTS:

2021-Present	Professor (Tenured), Primary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Anesthesiology and Perioperative Medicine, <u>Division of Molecular and Translational Biomedicine</u> , Birmingham Alabama
2019-2021	Associate Professor (Tenured), Primary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Anesthesiology and Perioperative Medicine, <u>Division of Molecular and Translational Biomedicine</u> , Birmingham Alabama
2017-2019	Associate Professor (Tenured), Primary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Surgery, <u>Division of Gastroenterology</u> , Birmingham Alabama
2015-2017	Associate Professor (Tenured), Primary Appointment; University of Alabama at Birmingham, School of Medicine, <u>Department of Surgery Chair</u> , Birmingham Alabama

2015-Present Director, UAB-IRCP Institutional Mass Spectrometry/ Proteomics Core Facility; University of Alabama at Birmingham, Birmingham Alabama

2012-Present Professor, Biochemistry and Structural Biology Theme; University of Alabama at Birmingham

2009-Present Director, O'Neal Comprehensive Cancer Center (CCC) Mass Spectrometry/ Proteomics Shared Facility; University of Alabama at Birmingham, Birmingham Alabama

2009-2015 Assistant Professor, Primary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Surgery Chair, Birmingham Alabama

2009-Present Assistant/ Associate Professor, Secondary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Medicine, Division of Preventative Medicine, Birmingham Alabama

2009-2015 Assistant Professor, Secondary Appointment; University of Alabama at Birmingham, School of Natural Sciences and Mathematics, Department of Chemistry, Birmingham Alabama

2008-Present Assistant/ Associate Professor, Secondary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Pharmacology & Toxicology, Birmingham Alabama

2007-2009 Director, UAB CCC Clinical Proteomics Shared Facility; University of Alabama at Birmingham, CCC, Birmingham Alabama

2006-2009 Director, UAB Urologic Research Facility; University of Alabama at Birmingham, School of Medicine, Department of Surgery, Division of Urology, Birmingham Alabama

2006-2009 Assistant Professor, Primary Appointment; University of Alabama at Birmingham, School of Medicine, Department of Surgery, Division of Urology, Birmingham Alabama

2004-2006 Research Instructor; Vanderbilt University, School of Medicine, Department of Biochemistry, Mass Spectrometry Research Center, Nashville Tennessee

2002-2003 Research Assistant Professor; University of Massachusetts, School of Medicine, Department of Surgery, Division of Urology, Worcester Massachusetts

2001-2002 Research Instructor; University of Massachusetts, School of Medicine, Department of Surgery, Division of Urology, Worcester Massachusetts

2000-2001 Postdoctoral Research Associate (Faculty Status); University of Massachusetts, School of Medicine, Department of Surgery, Division of Urology, Worcester Massachusetts

1995-2000 Graduate Research Fellow; Ohio State University, School of Medicine, Department of Pharmacy, Division of Medicinal Chemistry, Columbus, Ohio

NON ACADEMIC - PROFESSIONAL POSITIONS:

2006-2007 Analytical Development Consultant; It'sFresh! Inc., Victoria, MN

1992-1995 Chemist; Roxane Labs, Quality Control Division, Columbus, Ohio

1991-1992 Research Assistant; Oregon State University, Department of Chemistry, Corvallis, Oregon

1990-1991 Teaching Assistant; Oregon State University, Department of Chemistry, Corvallis, Oregon

1989-1990	Environmental Chemistry Consultant; Evanite Battery Incorporated, <u>Division of R & D</u> , Corvallis, Oregon
1988-1989	Lab Technician; Oregon State University, <u>Department of Chemistry</u> , Corvallis, Oregon
1985-1988	Lab Technician; Evanite Fiber Corporation, <u>Division of R & D</u> , Corvallis, Oregon

NON-ACADEMIC APPOINTMENTS:

2012-Present	Associate Scientist, Center for Structural Biology (CSB); University of Alabama at Birmingham
2012-Present	Scientist, Comprehensive Arthritis, Musculoskeletal and Autoimmunity Center (CAMAC); University of Alabama at Birmingham
2010-Present	Scientist, Center for Cardiovascular Biology (CCVB); University of Alabama at Birmingham
2009-Present	Associate Scientist, Center of Clinical & Translational Science (CCTS); University of Alabama at Birmingham
2008-2018	Associate Scientist, Center for Free Radicals Biology (CFRB); University of Alabama at Birmingham, School of Medicine, Birmingham Alabama
2008-Present	Senior Scientist, Nephrology Research & Training Center (NRTC); University of Alabama at Birmingham, Birmingham Alabama
2007-Present	Scientist, O'Neal Comprehensive Cancer Center (CCC); University of Alabama at Birmingham, Birmingham Alabama
2007-2009	Associate Scientist, Center for Nutrient Gene Interaction (CNGI); University of Alabama at Birmingham, Birmingham Alabama

AWARDS/HONORS:

2007	MHRC Charles Barkley Mentoring Award
2000-2001	NIH Research Training Grant Award Interdisciplinary Studies of Hormone Function"; Endocrinology Department, University of Massachusetts Medical School
2000	Research Award; Society for Basic Urology Research; Mass Profiling the Serologic Proteome for Diagnosis of Prostate Cancer.
1999	Student Travel Award; Gordon Research Conference, Hormonal Carcinogenesis; Estrogen Increases Sensitivity to Oxidative DNA Damage in Breast Cancer Cell Lines.
1998	Hoechst-Roussel Award; Excellence in Medicinal Chemistry
1997	Student Travel Award; Gordon Research Conference, Hormonal Carcinogenesis; Understanding the connection between Catechol Estrogens and DNA Damage in Breast Cancer.
1996-2000	NIH Research Training Grant Award; Ohio State University, Pharmacy Department, Columbus, Ohio; "Estrogen Induced Oxidative Stress in Breast Cancer".
1990	Summer Internship Award; U.C. Davis Physics Department, Livermore Labs, Livermore, California; Modeling Propagated Error in Truncated Wave Functions.

PROFESSIONAL SOCIETIES/ MEMBERSHIPS:

2016 – Present	Association of Biomolecular Resource Facilities (ABRF).
2012 – 2016	Human Proteomics Organization (HUPO)
2002 – Present	American Society for Mass Spectrometry (ASMS)
2001 – 2004	American Urologic Association (AUA)
2001 – Present	American Association for Cancer Research (AACR)
1988 – Present	American Chemical Society (ACS)

COUNCILS AND COMMITTEES:

2009	NIH Reviewer Challenge Grants
2006-2007	Reviewer for the US Army Medical Research and Materiel Command (USAMRMC)
2004-2006	Reviewer for the Office of Navy Research (ONR)

UNIVERSITY ACTIVITIES:

2022-2023	Thesis Committee Member, Santhosh Kumar Karthikeyan, UAB Molecular & Cellular Pathology
2022-2024	Thesis Committee Member, Sanders Pair, UAB Neurosciences
2021-Present	UAB O'Neal Scientific Review Committee Member
2021-Present	Thesis Committee Chair, Christian Fey, UAB Biomed Sciences
2018-2022	Thesis Committee Member, Rachel M Carnes, UAB Biomed Sciences
2017-2019	Co-Mentor, Pankaj Arora M.D., Assistant Professor, Division of Cardiology, UAB; K23 & AHA Career Development Award
2017-2019	Thesis Committee Member, Brianna Buchalski, Urology
2017	Poster Judge, UAB CCC Annual Retreat
2016	Poster Judge, UAB CCC Annual Retreat
2016	Poster Judge, UAB Health Disparities Research Symposium
2012	Poster Judge, UAB Health Disparities Research Symposium
2011-2016	Thesis Committee Member, Kyle Fraser, Neurobiology
2011-2014	Co-Chair UAB School of Medicine Strategic Plan: Genomics and Proteomics
2011-2014	Committee Member UAB SOM Personalized Medicine Taskforce
2010	Thesis Committee Member, Jeffrey Stuart, Cell Biology
2009-2013	Thesis Committee Member, Phillip Weber, Neurobiology
2009-2011	Search Committee Member for Division Chief of Urology at UAB
2008-2009	Executive Steering Team Member for the Implementation of CaBIG at UAB
2008-2012	Thesis Committee Member, Sara Jenkins, Pharmacology & Toxicology
2008-2012	Thesis Committee Member, Kathrine Tuggle, Environmental Health & Sciences
2008	Search Committee Member for Chair of Pharmacology & Toxicology at UAB
2007	Thesis Committee Member, Kyoko Kojima, Microbiology
2006	Executive Steering Team Member for the Informatics and Clinical Roadmap as part of the UAB's submission for the Clinical Translational Science Award (CTSA).

EDITORIAL BOARD MEMBERSHIPS:

2014-Present Honorable Editor for MOJ Proteomics & Bioinformatics (MOJPB)
2014-2017 Editorial Board for Oncobiology and Targets
2016-2017 Editorial Board for Oncology Communications

MAJOR RESEARCH INTERESTS:

My continued and long-standing focus has included: 1) the identification of disease-specific and clinically relevant markers of any disease/ disease process by way of comprehensive proteomics analysis carried out on human biological fluids, tissue specimens, in addition to exosome-associated proteins. 2) The application of high-level informatics to single and multi – omics datasets for use in translational studies of disease. In this context, my laboratory is often involved in studies associated with high density genomic, and proteomic data generated from genetically engineered phenotypic mouse models as compared to that of respective human patients presenting with overlapping early vs late-stage pathologies.

TEACHING EXPERIENCE:

Teaching Lectures

2024 Molecular Biotechnology II (BT 702)
2023-2024 Cell Signaling (Annually: GBS 710)
2022-2024 Co-Director: Advanced Methods in Oncology Research (Annually: GBS 748)
2021-2023 Computational Biology Small Group (Annually: GBS 708)
2019-2021 Protein Mass Spectrometry (Annually: GBSC-705 – 3X1.5hr sessions)
2018, 2023 Principles of Biotechnology II-Amino Acids Technology (BT 550)
2017 Protein Mass Spectrometry (GBSC 705 – 3x1.5hr sessions; week-long course)
2016-17 Undergraduate Neuroscience Program (Annually: NBL401)
2016 Career Development Workshop (GRD 710)
2016-2018 Physical Biochemistry Laboratory (Annually: Chem 464 – Lecture & 3hr lab)
2015 Molecules and Cells (BHS 502)
2010, 2012 Molecular Biology and Nutrition Sciences (NTR 747)
2007-2008 Proteomics and technology (Annually: TOX 712)
2006-2011 Protein Mass Spectrometry (Annually: BMG/PHR 744)
2006 UAB Introduction to Proteomics Workshop
2006 UAB Introduction to Biological & Clinical Proteomics

Mentorships

Full Time Staff

2018-2019 Baylee Edwards, B.S., Researcher III, Methods Development
2012-2021 Brandon Young, B.S., Researcher III, Lab Manager
2009-2012 Niesje Larson, B.S., Research Technician, Lab Manager
2009 Sean Clayton, B.S., Database Manager
2007-Present Kyoko Kojima, Ph.D., Director of Operations Core Facility, Scientist III, Proteomics Applications Specialist
2007-2011 Senait Asmellash, Ph.D., Assistant Professor, Co-Director MSP-SF

2006-2015	Greg Bowersock, B.S., Software Lead Specialist, IT & Mass Spectrometry
2006-2011	Donald Shipman, B.S., Tissue Bank Manager
2006-2009	Anton Poliakov, Ph.D., Research Instructor, Lead Proteomics Specialist
2006-2009	Joscelyn Bowersock, B.S., Research Technician, Lab Manager

Part Time Faculty/ Staff

2016-Present	Willis Hampton, B.S. Dept. Computer Science, Web Designer/ IT
2015-2016	Greg Bowersock, B.S., Software Lead Specialist, IT/ Mass Spectrometry
2011-2014	Dongquan Chen, Ph.D., Associate Professor, Statistics/ Systems Biology
2011	Joshua Richman, M.D./ Ph.D., Associate Professor, Statistics
2009-2011	Chinatsu Kojima, Ph.D., Research Assistant, Systems Biology
2009-2011	Liuyan Yang, M.S., Research Assistant, Statistics/ Systems Biology
2009	Anand Satyam, B.S., Web Designer

Visiting Professors

2012	Laura Stultz, Ph.D., Professor, Chemistry
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Lab Mentored Students, Residents, Postdocs, & Fellows (part time, full time, & shared)

2023 - Fall	Shushruth Yellumahanthi, AS student, Cancer Biology (Proteomics Lab)
2018-2020	Vikram Pillai, Ph.D., Postdoctoral Fellow, Pathology, Division of Lab.Med. (P.I. Long Zheng, Ph.D. M.D)
2018	Jonathan Zheng, B.S. Rotating Graduate Student, GBS Theme
2017-2019	Brianna Buchalski B.S., Graduate Student, Urology (P.I. Mobley J.A)
2017-2019	Kadeem Hayes, Undergraduate Student, Chemistry
2016-2017	Willis Hampton, B.S. program, Computer Science, UAB CCC MSP-SF (P.I. James Mobley)
2014-2015	Kumudu Madduma, Ph.D., Volunteer, Inorganic Chemistry
2013	Pedro Ruiz, B.S., Rotating Graduate Student, GBM
2012	Hriday Bhambvani, High School Student
2012	Imani Alexander, High School Student
2011-2013	Michael Ludwig, B.S., Graduate Student, Microbiology (P.I. Chris Klug, Ph.D.)
2011-2012	Taylor Kesterson, Undergraduate Student, Physics
2010	Chelsea Ball, B.S., Rotating Graduate Student, Neurology
2010	Michael Knox, M.D., Resident, Urology
2009-2010	David Crossman, Ph.D., Postdoctoral Fellow, Microbiology
2009	Oxana Munoz, M.D., Resident, Urology
2009	Sergey Ananyev, M.D., Resident, Urology
2008-2009	Christopher Shubert, B.S., Medical Student, Medicine
2008	German Henostroza, M.D., Fellow, Infectious Disease
2008	Bradley Troxler, M.D., Fellow, Pediatrics
2008	Sean Clark, M.D., Resident, Urology
2008	Benjamin Martin, M.D., Resident, Urology
2007-2010	Archer Smith, Ph.D., Postdoctoral Fellow, Biochemistry
2007-2010	Angela Betancourt, Ph.D., Postdoctoral Fellow, Pharmacology
2007-2008	Colleen Martin, B.S., Graduate Student, Pharmacology

2007 Jared Cox, M.D., Resident, Urology
2007 Joe Ritchie, B.S., Rotating Graduate Student, GBM

MAJOR LECTURES:

Please See Oral Presentation Section

GRANT SUPPORT: OMB No. 0925-0001 and 0925-0002 (Rev. 10/2021 Approved Through 01/31/2026)

Active Support – Projects (Date: 07/25/2023, not up to date!)

Title: Environmental Cadmium, Persistent Inflammation and Airways Disease

Status of Support: ACTIVE

Project Number: Grant13645750

Name of PD/PI: Surolia, Co-Investigator: Mobley

Source of Support: NIH/DHHS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 05/01/2023 – 02/28/2028 0.12CM

Total Award Amount (including Indirect Costs): \$2,751,860

Title: Mechanisms that impact metastatic progression of triple negative breast cancer

Status of Support: ACTIVE

Project Number: 5IO1BX003374

Name of PD/PI: Samant, Co-Investigator: Mobley

Source of Support: Birmingham Veterans Administration Medical Center

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 01/01/21 – 12/31/24 0.12CM

Total Award Amount (including Indirect Costs): \$15,030

Title: Biosynthetic Metabolic Pathway Regulation of Glioma Growth

Major Goals: The major goal of this project is to determine the role of the GCH1/BH4 pathway in glioma biology, including brain tumor initiating cell maintenance and correlations with tumor grade and patient survival.

Status of Support: ACTIVE

Project Number: R01 NS104339

Name of PD/PI: Hjelmeland, Co-Investigator: Mobley

Source of Support: NIH/NINDS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 12/15/17 – 11/30/23 0.60CM

Total Award Amount (including Indirect Costs): \$1,920,902

Title: Molecular and Cellular Basis of Neurodevelopmental Disorders

Major Goals: The major goals of this proposal are to characterize novel models for neurodevelopmental disorders using Kctd13 knockout and Cul3 knockout and conditional knockout mice and neuronal cultures from same.

Status of Support: ACTIVE

Project Number: R01 MH113948

Name of PD/PI: Powell, Co-Investigator: Mobley

Source of Support: NIH/NIMH

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 03/10/2020 – 01/31/2025 0.60CM
Total Award Amount (including Indirect Costs): \$3,306,393

Title: Comprehensive Cancer Center Support Grant

Status of Support: ACTIVE

Project Number: P30CA013148

Name of PD/PI: Sleckman, Mass Spectrometry/Proteomics Core Director: Mobley

Source of Support: NIH

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 04/01/2022 – 03/31/2027 5.76CM

Total Award Amount (including Indirect Costs): \$28,784,355

Title: UAB CCC MSP-SF

Major Goals: Dr. Mobley will maintain infrastructure and oversight for the MSP-SF while also teaching and providing support for all UAB investigators.

Status of Support: ACTIVE

Project Number: Part of P30CA013148

Name of PD/PI: Mobley

Source of Support: UAB CCC

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 04/01/22 – 03/31/27 0.60CM

Total Award Amount (including Indirect Costs): Approximately \$150,000/year

Title: Sialylation in the Maintenance and Metabolic Plasticity of Neural Stem Cell-Like Brain Tumor Cells

Status of Support: ACTIVE

Project Number: R01NS127424

Name of PD/PI: Hjelmeland, Co-Investigator: Mobley

Source of Support: NIH/NINDS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 08/15/22 – 07/31/27 0.60CM

Total Award Amount (including Indirect Costs): \$2,462,208

Pending Support – Proposals (Date: 07/25/2023, not up to date!)

Title: Extracellular Vesicles as mediators of injury in inhaled exposures to toxic chemicals

Major Goals: The major goal of the proposal is to understand mechanisms by which extracellular vesicles causes acute lung injury and multiorgan dysfunction in exposures inhaled exposures to chlorine and sulfur mustard.

Status of Support: Pending

Project Number: 1R56ES034423-01A1(1R01ES034423-01A)

Name of PD/PI: PI: Ahmad, A., Co-PI: Ahmad, S.

Source of Support: NIH/NIEHS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 09/01/2023 – 8/30/2024 0.60CM

Total Award Amount (including Indirect Costs): \$ 450,000 (Total Costs)

Title: Mechanisms by which NS1 and NEP govern the influenza lifecycle

Major Goals: The overall goal of this study is to identify and structurally define the host-pathogen interactions that regulate NS1 and NEP function.

Status of Support: PENDING

Name of PD/PI: Petit C; Co-Investigator: Mobley J
Source of Support: NIH
Primary Place of Performance: University of Alabama at Birmingham
Project/Proposal Start and End Date: 04/01/2024 – 03/31/2029 0.60CM
Total Award Amount (including Indirect Costs): \$2,332,502

Title: 14-3-3 phosphorylation effects on 14-3-3 interactome and vesicular transport in synucleinopathies

Major Goals: In this proposal, we will investigate the mechanisms by which 14-3-3 phosphorylation promotes alpha-synuclein toxicity in these disorders. Our long-term goal is to establish whether 14-3-3 phosphorylation may serve a therapeutic target for this disabling disorder.

Status of Support: PENDING

Name of PD/PI: Yacoubian T; Co-Investigator: Mobley J
Source of Support: NIH
Primary Place of Performance: University of Alabama at Birmingham
Project/Proposal Start and End Date: 04/01/2024 – 03/31/2029 0.60CM
Total Award Amount (including Indirect Costs): \$3,484,649.00

Title: Dio3-Dio3os regulatory function in thyroid hormone linked bone formation

Major Goals: In our proposal, the lncRNA Dio3os, loss, and gain of function study establish novel epigenetic concepts to facilitate therapeutic advances in patients suffering from the skeletal consequences of hypothyroidism.

Status of Support: PENDING

Project Number:

Name of PD/PI: Hassan Q; Co-Investigator: Mobley J
Source of Support: NIH
Primary Place of Performance: University of Alabama at Birmingham
Project/Proposal Start and End Date: 04/01/2024 – 03/31/2029 0.24CM
Total Award Amount (including Indirect Costs): \$2,703,312

Title: Non-Metabolic Role for GLUT3 in Invasion

Major Goals: We seek to determine whether the neuronal glucose transporter GLUT3 has roles in invasion that are independent of metabolism. We believe our findings will have importance for neurodevelopment and brain tumor biology

Status of Support: PENDING

Project Number: R01NS135727

Name of PD/PI: Hjelmeland A; Co-Investigator: Mobley J
Source of Support: NIH
Primary Place of Performance: University of Alabama at Birmingham
Project/Proposal Start and End Date: 12/01/2023 – 11/30/2028 1.2CM
Total Award Amount (including Indirect Costs): \$2,386,475

Title: Role of the ST6GAL1 glycosyltransferase in pancreatic cancer development

Major Goals: The elucidation of mechanisms by which glycans fuel oncogenesis is expected to reveal novel molecular vulnerabilities that can be targeted for pancreatic cancer treatment.

Status of Support: PENDING

Name of PD/PI: Bellis S; Co-Investigator: Mobley J
Source of Support: NIH
Primary Place of Performance: University of Alabama at Birmingham
Project/Proposal Start and End Date: 07/01/2023 – 06/30/2028 0.30CM

Title: Role of BACE1 in AMD

Status of Support: PENDING

Name of PD/PI: Boulton M, Co-Investigator: Mobley J

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 12/01/2023 – 11/30/2028 0.30CM

Title: Blood-brain communication via extracellular vesicles underlying brain function and behavior

Major Goals: If successful, the proposed study will reveal a novel biological logic underlying EV entry into the brain and add to our understanding of the foundational mechanisms by which EVs act within the body. The study will also generate extensive datasets that could contribute to developing novel EV-inspired drug delivery systems for the brain. Therefore, our pioneering efforts have twofold impacts on EV research – moving forward our understanding of EV basic biology and accelerating drug delivery system research for the brain.

Status of Support: PENDING

Name of PD/PI: Kano S, Co-Investigator: Mobley J

Source of Support: The Paul G. Allen Frontiers Group

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 09/01/2023 – 08/31/2026 2.00CM

Total Award Amount (including Indirect Costs): \$1,500,000

Title: PAD4 and Efferocytosis in Emphysema

Status of Support: PENDING

Project Number: R01HL161044

Name of PD/PI: Surolia, Co-Investigator: Mobley

Source of Support: NIH/NHLBI

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 09/01/22 – 08/31/27 0.60CM

Total Award Amount (including Indirect Costs): \$2,371,940

Title: Long Non-Coding RNA Regulation in Thyroid Hormone Signaling and Bone Formation

Status of Support: PENDING

Project Number: R01DK132025

Name of PD/PI: Hassan, Collaborator: Mobley

Source of Support: NIH/NIDDK

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 04/01/23- 03/31/28 0.24CM

Total Award Amount (including Indirect Costs): \$1,825,940

Title: Metabolic Mechanism and Targeting of Inflammasome Activation in Lung Inflammation and Injury

Status of Support: PENDING

Project Number: R01AI170913

Name of PD/PI: Liu, Co-Investigator: Mobley

Source of Support: NIAD CO-I

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 06/01/23- 5/31/28 0.60CM

Total Award Amount (including Indirect Costs): \$2,855,476

Title: Extracellular Vesicles as Carriers of Lipid-Mediated Signals Between Beta-Cells & Immune Cells and Their Potential as Biomarkers for Type 1 Diabetes

Status of Support: PENDING

Project Number: R01DK133860

Name of PD/PI: Ramanadham, Co-Investigator: Mobley

Source of Support: NIH

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 07/01/2022-06/30/2027 0.42CM

Total Award Amount (including Indirect Costs): \$4,319,280

Title: Metabolic Mechanism and Targeting in Lung Fibrosis

Status of Support: PENDING

Project Number: R01AI170913

Name of PD/PI: Liu, Co-Investigator: Mobley

Source of Support: NIH

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 01/01/2023- 12/21/2029 0.60CM

Total Award Amount (including Indirect Costs): \$7,276,500

Title: Exosomal and Whole Urine Protein Biomarkers to Identify Carcinogenic Human Papillomavirus Related Higher Grades of Cervical Precancerous Lesions That Develop in Unvaccinated and Vaccinated Women

Status of Support: PENDING

Project Number: R21CA277338

Name of PD/PI: Piyathilake, C, Co-Investigator: Mobley

Source of Support: NCI/NIH/DHHS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 12/01/2022 - 11/30/2024 0.60CM

Total Award Amount (including Indirect Costs): \$408,375

Title: Strain Dependent Structure and Function of the Influenza NS1 Protein

Status of Support: PENDING

Project Number: Grant13566159

Name of PD/PI: Petit, C, Co-Investigator: Mobley

Source of Support: NIH/DHHS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 11/01/2022 – 10/31/2027: 0.36CM

Total Award Amount (including Indirect Costs): \$1,856,250

Title: Structure and Biogenesis of the Streptococcal Ribosome

Status of Support: PENDING

Project Number: Grant13637897

Name of PD/PI: Dokland T, Co-Investigator: Mobley

Source of Support: NIH/DHHS

Primary Place of Performance: University of Alabama at Birmingham

Project/Proposal Start and End Date: 04/01/2023-03/31/2027 1.00CM

Total Award Amount (including Indirect Costs): \$2,130,867

FUNDING COMPLETED:

PI – Wallis/ Co-I Mobley, Funding Agency: Johns Hopkins University/NIH, Title: “Cell Type Specificity of NF1 Binding Partners and Effects of Variants with Divergent Genotype Phenotype Correlations”

Dates of Funding: 01/01/20 – 06/30/21, Total Direct Funding Requested: \$408,375 annually.

PI – Matalon/ Co-I Mobley, Funding Agency: NIEHS/NIH/DHHS, Title “Bromine Inhalation Induced Lung Injury: Novel Mechanisms and Treatment Strategies”

Dates of Funding: 08/15/2015-06/30/2021, Total Direct Funds Requested: \$546,593 annually.

PI – Zhang/ Co-I Mobley, Funding Agency NIH, Title: “PATHOGENESIS OF THROMBOTIC MICROANGIOPATHY”

Dates of Funding: 09/14/15 – 09/14/2020, Total Direct Funds Requested: \$344,290 annually.

PI – Justement / Co-I Mobley, Funding Agency: NIH, Title “ANALYSIS OF NOVEL MOLECULAR MECHANISMS REGULATING EXPRESSION OF THE ADAPTOR PROTEIN HSH2 AND CLASS-SWITCHED ANTIBODY PRODUCTION”

Dates of Funding 01/22/18 – 01/21/20, Total Direct Funds Requested: \$178,320 annually.

PI – Ambalavanan/ Co-I Mobley, Funding Agency: NIH, Title “LungMap Consortium” Dates of funding 09/01/14 – 08/30/19, Total Direct Funds Requested: \$734,777 annually.

PI – Ambalavanan/ Co-I Mobley, Funding Agency: NIH, Title “Stop BPD” Dates of funding 02/01/16 – 01/30/21, Total Direct Funds Requested: \$367,500 annually.

PI – Mobley, UAB Health Services Foundation General Endowment Fund Application (HSF-GEF), Title: “An LTQXL Linear Ion Trap Mass Spectrometer for High Throughput Peptide Sequencing” Awarded 11/01/2016 – 10/31/2017, Total Direct Funds Requested: \$95,000

PI – Mobley, Entrepreneur Matching Funds, Mr. Leon Edwards (Edwards Chevrolet Co.): \$100,000 [http://www.edwardsdowntown.com/MiscPage_3] UAB Matching Funds, CCC, CCTS, SOM, & Research, Economic Development. Role: P.I., Dr. Mobley will provide proteomics and mass spectrometry support to UAB Faculty.

PI – Holmes/ Co-I Mobley, Funding Agency: NIH, Title: “Endogenous oxalate synthesis” Dates of funding: 07/02/11 – 03/30/16, Total Direct Funds Requested: \$227,142 annually.

PI – Buchsbaum/ Co-I Mobley, Funding Agency: NCI- Pancreatic SPORE; Title: “Biomarker Discovery applied to an Animal Model of Pancreatic Cancer” Dates of funding: 07/01/10-12/31/15, Total Direct Funds Requested: \$172,349 annually (Project 1 only)

PI – West/ Co-I Mobley, Funding Agency: NIH, Title: “LRRK2 and other novel exosome proteins in Parkinson's disease” Dates of funding 09/30/12 – 12/31/15, Total Direct Funds Requested: \$230,000 annually

PI – Mobley, Internal matching funds from the Comprehensive Cancer Center, the School of Medicine, the Department of Urology, in addition to Collaborations through Thermo Fisher and Agilent, Title “An LTQ Velos Orbitrap Pro Mass Spectrometer” PO Issued Oct 2012, [Agilent nHPLC-autosampler, Orbitrap Velos Pro, construction, and high speed multi-core server] Total Worth \$1.2 million.

PI – Grizzle / Co-I James Mobley, Funding Agency: NIH, Title: “Using Innovative Technologies to Overcome High Disparities: Development of Prostate Cancer Biomarkers for High Risk Populations” Dates of Funding 08/01/09-07/31/11, Total Direct Funds Requested: \$275,000 annually.

PI – Lamartiniere/ Co-I Mobley, Funding Agency; National Institutes of Health, Title: “Genomic and proteomic biomarkers of biological responses to exposure to investigate genomic and proteomic biomarkers in mammary and blood of rats and in blood of pubertal girls” Dates of Funding: 07/1/07 – 06/30/11, Total Direct Funds Requested: \$110,000 annually.

PI – Grizzle / Co-I Mobley, Funding Agency: NIH, Title: “Biomarker Reference Laboratory, EDNRN” 03/01/06 - 06/30/10, Total Direct Funds Requested: \$225,000 annually.

PI – Matalon / Co-I Mobley, Funding Agency: NIH, Title: “Identification and Validation of Pulmonary Biomarkers in Acute Chlorine Exposure as Predictors of Outcome” 08/1/09–07/31/11, Total Direct Funds Requested: \$275,000

PI – Oparil/ Co-I Mobley, Funding Agency: NIH, Title: “Identification of Estrogens Role on IKappaB Activation in Cardiovascular Disease” 09/01/09 – 08/31/14, Total Direct Funds Requested: \$275,000

PI – Partridge/ Co-I Mobley, Funding Agency: UAB Comprehensive Cancer Center, Title: “UAB Bioanalytical & Mass Spectrometry Shared Facility” Dates of Funding 03/01/09-02/31/11, Total Direct Funds Requested: \$300,000 annually

PI – Lopez/ Co-I Mobley, Funding Agency; Joint UAB CCC-CFAR Research Funds, Title: “Identifying Ligands on HPV Infected Cells Recognized by Cytosolic gamm-delta T”, Dates of Funding: 3/1/09 – 2/30/10, Total Direct Funds Requested: \$100,000

PI – Barnes/ Co-PI Mobley, Funding Agency: NIH, Title: “Urinary peptide excretion and onset of puberty”, Dates of Funding: 01/01/08 – 12/31/10, Total Direct Funds Requested: \$275,000

PI – Barnes/ Co-I Mobley, Funding Agency: Alabama Eyesight Foundation, Title: “Estrogen-mediated regulation of the expression and distribution of the human α A-crystallin lens protein”, Dates of Funding: 07/01/07-06/30/09, Total Direct Funds Requested: \$143,383

PI – Mobley, Funding Agency: Center for Nutrient Gene Interaction, Title: “New Investigator Award”, Dates of Funding: 07/01/06-06/31/09, Total Direct Funds Requested: \$90,000

PI – Poliakov/ Co-PI Mobley, UAB Junior Faculty Development Grant, Title: “Prostasomes as a novel source of prostate cancer biomarkers”, Dates of Funding: 04/01/08-03/31/09, Total Direct Funds Requested: \$30,000

PI – Mobley, Funding Agency: UAB Pancreatic SPORE Pilot Project, Title: “Biomarker Discovery applied to an Animal Model of Pancreatic Cancer”, Dates of Funding: 07/01/07-6/31/09, Total Direct Funds Requested: \$55,000

PI – Mobley PI/ Co-PI Amling, Funding Agency: Health Services Foundation General Endowment Fund Application, Title: “An LTQXL Linear Ion Trap Mass Spectrometer with ETD

for High Throughput Peptide Sequencing”, Dates of Funding: 06/01/08-05/31/09, Total Direct Funds Requested: \$225,000

PI – Barnes PI/ Co-PI Mobley, Funding Agency: Health Services Foundation General Endowment Fund Application, Title: “Instrumentation for HTP Quantitative Mass Spectrometry”
Dates of Funding: 06/01/07-05/31/08, Total Direct Funds Requested: \$350,000

PI – Barnes/ Co-PI Amling (Mobley), Funding Agency: Health Services Foundation General Endowment Fund Application, Title: “MALDI-Tof/Tof for High Throughput Protein Identifications”
Dates of Funding: 06/01/06-05/31/07, Total Direct Funds Requested: \$200,000

PI – Piyathilake PI/ Co-I Mobley, Funding Agency: UAB Ovarian SPORE Pilot Project, Title: “Identification of Serum & Urine Biomarkers in Cervical Intraepithelial Cancer”
Dates of Funding: 09/01/07-08/31/08, Total Direct Funds Requested: \$20,000

OTHER:

Patents and Provisions

- 2023 GLUT3 Phosphorylation Regulates Cancer Cell Invasion
- 2022 Plasma Angiotensinogen/Vasorin Ratio as Biomarkers of Preeclampsia
- 2022 Involvement of E2F1 in COVID
- 2013 Urine Proteomic Biomarkers in BPD
- 2011 Identification of key pathways in Kiss-1 induced cell death
- 2011 Novel biomarkers for the early diagnosis of pancreatic carcinoma
- 2009 Saliva Based Proteomic Marker for Cystic Fibrosis
- 2008 Ethnic Specific Proteomic Markers of Papilloma 16 in Urine
- 2004 A Novel Diagnostic Test for Prostate Cancer Emerges From the Determination of α -Methylacyl-CoA Racemase in Prostatic Secretions
- 2004 Estradiol-related compounds and methods of use as anti-tumor agents
SM Ho, J Mobley - US Patent App. 10/992,972, 2004. This invention relates to new estradiol-related compounds that can be used to treat, various types of cancer including prostate and breast cancers. <https://www.google.com/patents/US20060025394>
- 2002 Identification and Characterization of Disease Markers, and the Use Thereof for the Diagnosis and Classification of Disease

Ad Hoc Reviewer (*stopped agreeing to review journal as of Dec2022*)

- 2020-2022 Scientific Reports - Nature
- 2018-2020 Journal American Society for Mass Spectrometry
- 2017-2018 Journal of Pathology
- 2017-2022 Plos One
- 2015-2020 Experimental and Molecular Pathology
- 2015-2019 Springer Plus
- 2014-2018 BBA Biochemica et Biophysica Acta
- 2013-2019 Oncogene
- 2011-2021 Journal of Clinical Bioinformatics
- 2010-2015 Genome Research
- 2010 Journal Prostate
- 2009-2011 Systems Biology in Reproductive Medicine
- 2009-2019 Journal BMC Bioinformatics

2009	Journal Proteome Science
2009	Journal Investigative Ophthalmology and Visual Science
2008-2012	Journal Shock
2008-2010	Journal Prostate
2008-2010	Journal Rapid Communications in Mass Spectrometry
2007-2009	Journal of Proteome Research
2006-200	Journal Proteomics
2006-2018	Journal of Expert Reviews in Proteomics
2004-2007	Journal of the American Society for Mass Spectrometry
2003-2010	European Journal of Cancer

MANUSCRIPTS/ CITATION INDEX:

Citations: 7,664; h-index; 48, i10-index; 88

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2. Starr CR, Zhylkibayev A, **Mobley JA**, Gorbatyuk MS, “Proteomic analysis of diabetic retinas” Front Endocrinol (Lausanne). 2023 Aug 25;14:1229089. doi: 10.3389/fendo.2023.1229089, eCollection 2023, PMID: 37693346
3. Matalon S, Yu Z, Dubey S, Ahmad I, Stephens EM, Alishlash AS, Meyers A, Cossar D, Stewart D, Acosta EP, Kojima K, Jilling T, **Mobley JA**. “Hemopexin Reverses Activation of Lung eIF2a and Decreases Mitochondrial Injury in Chlorine Exposed Mice.” Am J Physiol Lung Cell Mol Physiol. 2023 Dec 27. doi: 10.1152/ajplung.00273.2023. Online ahead of print. PMID: 38150547
4. Zhylkibayev A, Ung TT, **Mobley J**, Athar M, Gorbatyuk M., “The Involvement of Unfolded Protein Response in the Mechanism of Nitrogen Mustard-Induced Ocular Toxicity.” J Pharmacol Exp Ther. 2023 Nov 1:JPET-AR-2023-001814. doi: 10.1124/jpet.123.001814. PMID: 37914413
5. Kim HS, Parker DJ, Hardiman MM, Munkácsy E, Jiang N, Rogers AN, Bai Y, Brent C, **Mobley JA**, Austad SN, Pickering AM., Early-adulthood spike in protein translation drives aging via juvenile hormone/germline signaling. Nat Commun. 2023 Aug 18;14(1):5021. doi: 10.1038/s41467-023-40618-x., PMID: 37596266
6. Xia QQ, Walker AK, Song C, Wang J, Singh A, **Mobley JA**, Xuan ZX, Singer JD, Powell CM., Effects of heterozygous deletion of autism-related gene Cullin-3 in mice., PLoS One. 2023 Jul 10;18(7):e0283299. doi: 10.1371/journal.pone.0283299. eCollection 2023., PMID: 37428799

7. Earnhardt EY, Tipper JL, D'Mello A, Jian MY, Conway ES, **Mobley JA**, Orihuela CJ, Tettelin H, Harrod KS., "Influenza A induced cystic fibrosis transmembrane conductance regulator dysfunction increases susceptibility to Streptococcus pneumoniae." JCI Insight. 2023 Jun 15:e170022. doi: 10.1172/jci.insight.170022. PMID: 37318849
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9. Oh JY, Marques MB, Xu X, Li J, Genschmer KR, Phillips E, Chimento MF, **Mobley J**, Gaggar A, Patel RP. "Different-sized extracellular vesicles derived from stored red blood cells package diverse cargoes and cause distinct cellular effects." Transfusion. 2023 Feb 8. doi: 10.1111/trf.17271. PMID: 36752125
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11. Roberts BM, Deemer SE, Smith DL Jr, **Mobley JA**, Musi N, Plaisance EP. "Effects of an exogenous ketone ester using multi-omics in skeletal muscle of aging C57BL/6J male mice." Front Nutr. 2022 Nov 15;9:1041026. doi: 10.3389/fnut.2022.1041026. eCollection 2022. PMID: 36458175
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14. Eudailey KW, Pat B, Oh JY, Powell PC, Collawn JF, **Mobley JA**, Gaggar A, Lewis CT, Davies JE, Patel R, Dell'Italia LJ." Plasma Exosome Hemoglobin Released During Surgery Is Associated With Cardiac Injury in Animal Model" Ann Thorac Surg. 2022 Apr 7:S0003-4975(22)00483-0. doi: 10.1016/j.athoracsur.2022.02.084.PMID: 35398036
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19. Zhang E, Liu Y, Han C, Fan C, Wang L, Chen W, Du Y, Han D, Arnone B, Xu S, Wei Y, **Mobley J**, Qin G. "Visualization and Identification of Bioorthogonally Labeled Exosome Proteins Following Systemic Administration in Mice." *Front Cell Dev Biol*. 2021 Apr 7;9:657456. doi: 10.3389/fcell.2021.657456. eCollection 2021. PMID: 33898459
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Alternative Nucleophile that can Catalyze Substrate Cleavage.” J Biol Chem. 2015 Jan 21. pii: jbc.M114.635284. PMID: 25609251

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101. Islam M.M., Wallin R., Wynn R.M., Conway M., Fujii H., **Mobley J.A.**, Chuang D.T., Hutson S.M., "A Novel Branched-Chain Amino Acid Metabolite: Protein-Protein Interactions in a Supramolecular Complex." JBC, 2007, Feb 21.
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108. Zielie PJ, **Mobley J.A.***, Ebb R, Jiang Z, Ho SM. "A Novel Diagnostic Test for Prostate Cancer Using RT-PCR to Determine α -Methylacyl-CoA Racemase Levels in Prostatic Secretions." Journal of Urology, Sept 2004 (* - Equal contribution to first Author)

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110. **Mobley J.A.**, L'Esperance JO, Wu M, Hanson RH, Ho SM. "A Novel Estrogen 17 α -20Z-21-[(4-Amino)Phenyl]-19-Norpregna-1,3,5(10),20-Tetraene-3,17 β -Diol Induces Apoptosis in Prostate Cancer Cell Lines at Nanomolar Concentrations In Vitro." *Molecular Cancer Therapeutics*, May;3(5), 587-596, 22, 2005.
111. **Mobley J.A.**, Leav I, Wotkowicz C, Lam Y, Zielie P, Evans J, L'Esperance B, Jiang Z, Ho SM "Branched Chain Fatty Acids in Dairy and Beef Products Enhance α -MethylAcyl-CoA-Racemase in Prostate Cancer Cells In-Vitro." *Cancer Epidemiol Biomarkers Prev.* 2003 Aug;12(8):775-83
112. **Mobley J.A.**, Brueggemeier RW "Estrogen Receptor Mediated Increased Sensitivity to DNA Damage In Breast Cancer Cell Lines." *Carcinogenesis*. 2004 Jan;25(1):3-9. Epub 2003 Sep 26. PMID: 14514655
113. Kim YC, **Mobley J.A.**, Brueggemeier RW "Synthesis and Estrogen Receptor Binding Affinities of 7-Hydroxy-3-(4-hydroxyphenyl)-4H-1-Benzopyran-4-Ones Containing a Basic Side Chain." *Bioorganic Medicinal Chemistry Letters*, 2003; 13 (8).
114. **Mobley J.A.**, Brueggemeier RW "Increasing the DNA Damage Threshold in a Breast Cancer Cell Line." *Tox. & Appl. Pharm.* 2002; 180 (3) 219-226.
115. Pais V, Dahl D, Trainer A, **Mobley J.A.**, Gallagher K, Demetrius L, Blute R. "Evaluation of Surgical Margins Achieved by Laparoscopic Radical Prostatectomy." *Am. Col. Surg.* 2001 Supp. Vol. LII: 600.
116. Brueggemeier RW, Gu X, **Mobley J.A.**, Joomprabutra S, Bhat AS, Whetstone JL "Effects of phytoestrogens and synthetic combinatorial libraries on aromatase, estrogen biosynthesis, and metabolism." *Ann N Y Acad Sci.* 2001 Dec; 948:51-66.
117. **Mobley J.A.**, Brueggemeier RW "Measurement of Oxidative DNA Damage by Catechol Estrogens and Analogs In-Vitro." *Chem. Research.& Tox.* 1999; 12(3); 270-277.

BOOK CHAPTER:

Jenkins S., Betancourt A.M., Wang J, **Mobley J.A.**, and Lamartiniere C.A. "Proteomic basis for the increased susceptibility of the mammary gland to carcinogenesis after perinatal exposure to bisphenol A." In: *Environment and breast cancer*. Ed: Jose Russo. Springer. 2011. p 103-126.

PUBLISHED ABSTRACTS (1997 to 2008; *post 2008 not reported*):

1. American Society for Mass Spectrometry, Denver, CO, Poster Presentations, (2008): Seven Corresponding Authorship Posters/ Presentations in the area of Clinical Proteomics carried out on Tissues and Biological Fluids from diagnosis and prognosis to pharmaco-proteomics with focus on Cystic Fibrosis to Prostate Cancer.
2. American Society for Mass Spectrometry, Seattle, WA, Poster Presentations, (2006): Four Secondary Authorship Presentations in the area of Clinical Proteomics carried out on Tissues and Biological Fluids.
3. AACR-Annual Meeting, Poster Presentation (2006), Histology Directed Matrix Deposition for an Automated Workflow in MALDI-ToF Profiling of Tissue Samples.
4. American Society for Mass Spectrometry, Poster Presentation (2005): Monitoring Proteomic Changes from the Top to Bottom Using a Progressive Model of Breast Cancer.
5. American Society for Mass Spectrometry, Poster Presentation (2005): Novel Strategies in Top-Down-Directed Characterization of Proteins Identified Through Protein Profiling.
6. American Society for Mass Spectrometry, Poster Presentation (2005): Preparing MALDI Mass Spectra for Statistical Analysis: A Practical Approach The Invasive Proteome: Analyzing differentially expressed proteins from infiltrating tumor cells in glioblastoma multiforme using mass spectrometry.
7. AACR-Annual Meeting, Poster Presentation (2004), Mass profiling and multidimensional separation of serologic proteome of patients with advanced disease.
8. AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics Conference, Poster Presentation (2003), A Novel 17 α - Modified Estrogen Induces Apoptosis in Prostate Cancer Cell Lines at Nanomolar Concentrations In Vitro.
9. American Urologic Society, New England Section, Poster Presentation (2003), A Novel Diagnostic Test for Prostate Cancer Using RT-PCR to Determine α -Methylacyl-CoA Racemase Levels in Prostatic Secretions
10. American Urologic Society, New England Section, Poster Presentation (2003), Influence of Steroid Hormones on α -Methylacyl-CoA Racemase Expression using In-Vitro Cell Lines and the Lymph Node Sections.
11. American Urologic Society, New England Section, Poster Presentation (2003), Branched Fatty Acids in Dairy and Beef Products Markedly Enhance α - Methylacyl-CoA Racemase Expression in Prostate Cancer Cells In-Vitro.
12. American Urologic Society, National Meeting, Poster Presentation (2002), A Novel Estrogenic Compound Induces Apoptosis-Necrosis Through an Estrogen Receptor β Pathway in The DU145 Prostate Cancer Cell Line.

13. American Urologic Society, New England Section, Poster Presentation (2001), Citrus Drinks Increase Urinary Citrate and pH Levels In Patients at High Risk for Kidney Stone Formation
14. Society for Basic Urologic Research, Poster Presentation (2000), Protein Mass Profiling Strategies for Protein Marker Discovery
15. American Association for Cancer Research, Poster Presentation (1999), Estrogen Receptor Mediated Increased Sensitivity to DNA Damage In Breast Cancer Cell Lines
16. Gordon Research Conference, Hormonal Carcinogenesis, Poster Presentation (1999), Estrogen Increases Sensitivity to Oxidative DNA Damage in Breast Cancer Cell Lines.
17. Gordon Research Conference, Hormonal Carcinogenesis, Poster Presentation (1997), Understanding the connection between Catachol Estrogens and DNA Damage in Breast Cancer.
18. Annual meeting of the Western Region Hazardous Substance Research Center, Poster Presentation (1992), Redox Transformations of Inorganic Species: Coupling to the Biogeochemical Matrix.
19. Annual meeting of the Western Region Hazardous Substance Research Center, Poster Presentation (1992), Monitoring of Environmental Redox Conditions

INVITED ORAL PRESENTATIONS:

Invited lectures at international courses and meetings:

1. VII Congreso de la Asociación Mexicana de Biología Molecular en Medicina, Cuernavaca Morelos Mexico, Invited Speaker (2008): Current Applications in Clinical Proteomics; from Imaging & Profiling Mass Spectrometry to Multiplexing Tools for Quantification
2. Toppan Forms Japan, It's Fresh, & Novel Products, Tokyo, Japan, Invited Speaker (2007): Development of QC Approaches for Detection of Spoiled Food Products
3. Federal University of Porto Alegre, Porto Alegre, Brazil, Invited Speaker (2006): Mass Spectrometry Analysis in Clinical Proteomics "The Growing Science of Biomarker Discovery"
4. Proteomics Workshop, University of Puerto Rico Medical School, Rio Piedras, Puerto Rico Invited Speaker (2004), Mass profiling of tissues and biological fluids; connecting the bridge between data analysis and protein identification.
5. UPR RISE Activity, University of Puerto Rico Medical School, Rio Piedras, Puerto Rico Invited Speaker (2004), University of Puerto Rico Medical School, An update on proteomic and genomic approaches applied to prostate cancer detection.

Invited workshops, etc. at national postgraduate courses and meetings and at other universities:

1. Auburn University, Auburn Alabama, Department of Drug Discovery and Development, Invited Speaker (2016): Identification of Serologic Markers of Pre to Early Pancreatic Cancer, and Introduction to the UAB/CCC MSP-SF.
2. Baxter Healthcare, Round Lake Park Illinois, Invited Speaker (2013): Successes and Failures in Biomarker Discovery using Mass Spectrometry Driven Proteomics.
3. Baxter Healthcare, Round Lake Park Illinois, Invited Speaker (2013): Identification of Serologic Biomarkers to Predict Responders Vs. non-Responders Prior to Treatment for Stem Cell Generation.
4. OHSU Department of Urology, Portland Oregon, Invited Speaker (2011): Identification of Protein Biomarkers in Prostate Cancer Patients that Stratify Indolent Vs. Aggressive Disease.
5. OHSU Department of Biomedical Engineering, Portland Oregon, Invited Speaker (2011): Combining Genomics, Proteomics, and Systems Analysis to Weed out High Impact Markers Associated with Pre-Cancerous Lesions of the Pancreas
6. OHSU Cancer Institute, Portland Oregon, Invited Speaker (2009): The Future of Clinical Proteomics, Building Better!
7. Genedata, Tokyo Japan, Osaka Japan, & Boston, MA, Invited Speaker (2008): Spectral Preprocessing, and High Level Informatics; The Latest Approaches in Biomarker Discovery.
8. American Chemical Society, Little Rock, AR, Invited Speaker, (2008): Mass Spectrometry Driven Proteomics; Plug & Play, Quantitative, and Biomarker Discovery.
9. Atlanta-Athens MS discussion group (AAMSDG), Glycomics Research Center, Invited Speaker (2008): The In's and Out's of Mass Spectrometry Driven Biomarker Discovery; From Data Processing to Protein ID.
10. University of Georgia, Department of Biochemistry & Molecular Biology, Athens, GA, Invited Speaker (2008): Biomarker Discovery, Clinical Proteomics, and Mass Spectrometry; From SELDI to HTP Peptidomics, What Works and Why!
11. James C. Kimbrough Urological Seminar, San Diego, CA, Invited Speaker (2008): New Developments in Clinical Proteomics; Focus on Urologic Malignancies.
12. Department of Urology Naval Medical Center, San Diego, CA, Invited Speaker (2005): Newly Emerging Strategies in the Detection and Treatment of Prostate Cancer.
13. American Urologic Society, National Meeting, Orlando, FL, Podium Presentation (2002), Mass Profiling of Serologic Proteins Combined with Data Mining Algorithms Together Form A Highly Sensitive and Accurate Tool for the Diagnosis and Characterization of Prostate Cancer.

14. Medicinal Chemistry Society, Lafayette, IN, Podium Presentation (1998), Estrogen Metabolism and Oxidative DNA Damage.

Invited lectures at local and regional courses and meetings:

1. UAB Departments of Pathology, Surgery, and the O'Neal CCC; Translational Research Group Meeting, Birmingham Alabama, Invited Speaker (2022): "UAB Mass Spectrometry Core: Enabling Translational and Post-Translational Research"
2. UAB Department of Pathology, Research Series, Birmingham Alabama, Invited Speaker (2019): "Translating Pre-Pancreatic Cancer in Genetically Engineered Mouse Models to Human Disease."
3. UAB Department of Anesthesiology, Research Series, Birmingham Alabama, Invited Speaker (2019): Discovery Proteomics; "Traversing the Path from Drug Discovery to Discovery Proteomics"
4. UAB Department of Surgery, Works in Progress Seminar (WIPs) Series, Birmingham Alabama, Invited Speaker (2017): Discovery Proteomics; "Traversing the Path from Drug Discovery to Discovery Proteomics"
5. UAB NF-1 Research Meeting, Birmingham Alabama, Invited Speaker (2017): Presenting the UAB CCC Proteomics Shared Facility, Discovery Proteomics & Systems Analysis.
6. UAB Biomedical Engineering Seminar Series, Birmingham Alabama, Invited Speaker (2017): Presenting the UAB CCC Proteomics Shared Facility, Discovery Proteomics.
7. UAB GCAT Career Development Workshop, Birmingham Alabama, Invited Speaker (2016)
8. Southern Research Institute; Cancer Research Seminar, Birmingham Alabama, Invited Speaker (2014): Translating Pre-Pancreatic Cancer in Genetically Engineered Mouse Models to Human Disease.
9. UAB / UMN SPORE in Pancreatic Cancer, Clinical Core Mini-Retreat, Birmingham Alabama, Invited Speaker (2014): Diagnosis of Pre-Pancreatic Cancer Using Genetically Engineered Mouse Models and Human Biospecimens.
10. UAB Center for Metabolic Bone Disease, Birmingham Alabama, Invited Speaker (2011): MS/ Proteomics Shared Facility Overview.
11. UAB Comprehensive Cancer Center, Birmingham Alabama, Invited Speaker (2011): MS/ Proteomics Shared Facility Overview.
12. HudsonAlpha, Huntsville Alabama, Invited Speaker (2011): A Novel Perspective on the Initiation and Progression of Prostate Cancer; Diet, Aging, and AMACR.
13. HudsonAlpha and UAB Genetics Department Retreat, Birmingham Alabama, Invited Speaker (2011): Using Systems Analysis to Pinpoint Early Markers of Disease in Cross-Species and Multiplatform Translational Studies.

14. UAB Bioinformatics and Statistics; International Proteomics Collaborations, Birmingham Alabama, Invited Speaker (2010): Today's proteomics technologies; emphasis on biomarker discovery in translational animal models of disease.
15. UAB Comprehensive Cancer Center, Birmingham Alabama, Invited Speaker (2009): Clinical Proteomics Shared Facility Overview.
16. UAB Nephrology & Research Training Center, Birmingham Alabama, Invited Speaker (2009): Biomarker Discovery; Applications In Diseases of the Kidney.
17. UAB Bioinformatics and Statistics Shared Facility Oversight Committee Meeting, Birmingham Alabama, Invited Speaker (2009): Mass Spectrometry and Informatics; where we meet in the middle?
18. Flying Ions, Birmingham Alabama, Invited Speaker (2009): The Latest Tools in Mass Spectrometry; Focus on Global "Omics" Studies.
19. UAB School of Medicine Senior Leadership Retreat, Birmingham Alabama, Invited Speaker (2009): The Future of Mass Spectrometry at UAB.
20. UAB Bioinformatics Departmental Seminar Series, Birmingham, AL, Invited Speaker (2007): Spectral Preprocessing and Statistical Analysis Workflow of MALDI-ToF Data Applied to Clinical Studies.
21. Southern Urology Seminar, Destin, FL, Invited Speaker (2007): Current Strategies in Biomarker Discovery as Applied to the Detection and Monitoring of Prostate Cancer.
22. UAB Pancreatic SPORE, Birmingham, AL, Invited Speaker (2007): Clinical Proteomics Applied to an Animal Model of Pancreatic Cancer.
23. UAB Division of Hematology/ Oncology Research Conference, Birmingham, AL, Invited Speaker (2006) Discovery Proteomics Using HTP Mass Spectrometry.
24. UAB Proteomics Minisymposium, Birmingham, AL, Invited Speaker (2006): Discovering Pathophysiologic Peptide & Protein Biomarkers.
25. UAB Proteomics Workshop, Birmingham, AL, Invited Speaker (2006): Qualitative Proteomics.
26. US TOO Prostate Cancer Support Group, Birmingham, AL, Invited Speaker (2007): Current Strategies in Biomarker Discovery as Applied to the Detection and Monitoring of Prostate Cancer.
27. UAB Introduction to Mass Spectrometry Lecture Series, Birmingham, AL, Invited Speaker (2006): Imaging Mass Spectrometry Principals and Practice.
28. UAB Department of Surgery/ Division of Urology, Birmingham, AL, Invited Speaker (2006): Newly Emerging Tools for Disease Driven Biomarker Discovery.