

BLFK

Curriculum Vitae

BARBARA LEE-FAUBERT KAPLAN

August 2024

## PERSONAL

Business  
Mississippi State University  
College of Veterinary Medicine  
Department of Comparative Biomedical Sciences  
Center for Environmental Health Sciences  
PO Box 6100  
240 Wise Center Drive (for express delivery)  
Mississippi State, MS 39762  
662-325-1113  
bkaplan@cvm.msstate.edu

## EDUCATION

2001  
Doctor of Philosophy  
Pharmacology and Toxicology  
Michigan State University  
East Lansing, MI  
Dissertation Title: *Cannabinoid-Induced Immune Suppression in Mouse Splenocytes Involves both Cannabinoid Receptor-Dependent and -Independent Mechanisms*

1992  
Bachelor of Sciences  
Environmental Toxicology  
University of California, Davis  
Davis, CA

## EMPLOYMENT

July 2019-present  
Associate Professor (with tenure)  
Mississippi State University  
Center for Environmental Health Sciences  
Department of Comparative Biomedical Sciences  
(name change from Basic Sciences in Fall 2020)  
College of Veterinary Medicine  
Mississippi State, MS

August 2013-June 2019  
Assistant Professor  
Mississippi State University  
Center for Environmental Health Sciences  
Department of Basic Sciences  
College of Veterinary Medicine  
Mississippi State, MS

July 2004-June 2013	Research Assistant Professor Michigan State University Center for Integrative Toxicology Neuroscience Program (joined August 2011) Department of Pharmacology and Toxicology East Lansing, MI
May 2001-May 2004	Postdoctoral Research Associate University of Chicago Department of Surgery Chicago, IL
March 1994-July 1995	Chemist III Quanterra, Inc. West Sacramento, CA
July 1992-March 1994	Chemist I Eureka Laboratories, Inc. Sacramento, CA

■ SCIENTIFIC AND PROFESSIONAL SOCIETIES

Member, Society of Toxicology and Immunotoxicology specialty section  
Member, South Central Chapter of the Society of Toxicology  
Member, International Cannabis Research Society

■ AWARDS

June 2024	Michigan State University Department of Pharmacology and Toxicology Kenneth E. Moore Distinguished Alumna Award
March 2024	Society of Toxicology Public Communications Award
September 2023	Finalist, Mississippi State University Office of Research and Economic Development Mid-career Research Scholar Award
August 2023	Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine Research Superior Faculty Award
December 2022	Mississippi State University College of Veterinary Medicine Dean's Pegasus Award for Research/Creative Activity
July 2021	Boehringer Ingelheim Research Mentorship Award
April 2021	Nominee, Mississippi State University Graduate Student Association Outstanding Advisor Award
February 2020	Society of Toxicology ToxScholar Travel Grant to visit Mississippi University for Women (\$200) <i>in person visit canceled due to COVID</i>
April 2019	Nominee, Mississippi State University Graduate Student Association Outstanding Advisor Award
April 2019	Nominee and accepted member, Omega Chapter of Phi Zeta Veterinary Academic Honor Society
February 2019	Society of Toxicology ToxScholar Travel Grant to visit Mississippi University for Women (\$220)
October 2018	Zoetis Award for Veterinary Research Excellence, Mississippi State University College of Veterinary Medicine

April 2018	Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine Faculty Research Award
March 2018	Society of Toxicology ToxScholar Travel Grant to visit Mississippi University for Women (\$180)
February 2017	Society of Toxicology ToxScholar Travel Grant to visit Mississippi University for Women (\$200)
October 2013	Mississippi State University Graduate Student Recruitment Grant (\$500)
March 2012	Immunotoxicology Specialty Section of the Society of Toxicology Outstanding Young Investigator Award
March 2007	American Association of Immunologists Junior Faculty Travel Award (\$500)
May 2006	National Food Safety and Toxicology Center Research Expense Award (\$1800)
June 2000	International Cannabis Research Society Annual Meeting Student Travel Award
May 1997	Michigan State University Chapter of Sigma Xi Graduate Student Research Grant (\$500)

 PROFESSIONAL DEVELOPMENT

October 2023	Accepted attendee, Nancy Walton Laurie Leadership Institute of Chi Omega Flagship Weekend “The Intentional Leader”, Memphis, TN
March 2022	Organizer and moderator, Scientific Liaison Coalition, “Toxmasters: Feedback Makes Perfect”, webinar
February and March 2022	Organizer, Mississippi State University Office of Research and Economic Development, “Science Communication: Practice Makes Progress” seminar, Starkville, MS
September 2021-December 2022	Accepted Participant, Mississippi State University Donald Zacharias Faculty Leadership Program, Starkville, MS <b>Myers-Briggs personality type ESTJ</b> <b>Extraversion, sensing, thinking, judging</b>
June 2021	Attendee, AAAS SciLine webinar “Ask a Reporter Anything: A Briefing for Scientists About how the News Works”, virtual
September 2020	Participant, Mississippi Science Communication Summit, virtual
May 2020	Certificate, ‘Online Teaching 101: Best Practices in Online Instruction’, Mississippi State University Center for Teaching and Learning, virtual
August 2018	Participant, Mississippi State University Alda-Kavli Leadership Workshop, Mississippi State University, Starkville, MS
October 2017	Accepted attendee, Nancy Walton Laurie Leadership Institute of Chi Omega Flagship Weekend “The Resilient Leader”, Memphis, TN <b>Gallup Strengths Finder 2.0</b> <b>Top 5 strengths identified: Woo, Positivity, Communication, Input, Learner</b>

June 2017 Accepted attendee, Alan Alda Center for Communicating Science Boot Camp, Stony Brook University, Long Island, NY

June 2008 Accepted attendee, Grantsmanship Workshop, National Institutes of Health, National Center for Complementary and Alternative Medicine, Bethesda, MD

## ■ TEACHING EXPERIENCE

### Mississippi State University College of Veterinary Medicine

CVM 5033 Veterinary Immunology  
Innate immunology lectures, Summers 2014-present  
Innate immunity section director, Summers 2016-present

CVM 6021 Essentials of Research Practice and Professionalism  
Laboratory sociology and etiquette lectures, Fall semesters, 2014-present

CVM 8011 Graduate Research Seminar  
Course Director, Fall 2015, Spring 2019, Fall 2022  
Course Co-director, Fall 2018, Spring 2022

### Mississippi State University Department of Comparative Biomedical Sciences

CVM 4193/6193 Medical Pharmacology  
CNS drugs, immunopharmacology, chemotherapeutics, biologics, and steroid lectures, Spring semesters 2015-present  
Course co-director, Spring semesters 2015-present

CVM 8303 Advanced Immunology  
Immunotoxicology lectures, Spring semesters, 2014-present

CVM 8523 Organ Systems Toxicology I  
Immunotoxicology lectures, Spring semesters (even years), 2014-present

CVM 8523 Organ Systems Toxicology I  
Toxic responses of the blood lectures, Spring semesters (even years), 2024-present

### Mississippi State University Department of Biological Sciences

BIO 4413 Immunology  
T cell development lecture, March 2014

### Michigan State University Department of Pharmacology and Toxicology

PHM 431 Pharmacology of Drug Addiction  
Marijuana and cannabinoids lectures, Fall semesters, 2005-2012

PHM 820 Cellular and Molecular Pharmacology and Toxicology  
Halogenated aromatic hydrocarbons lectures, Fall semesters, 2004-2012

PHM 450 Introduction to Chemical Toxicology  
Liver toxicology, metals toxicology, and immunotoxicology lectures, Spring semesters (various), 1999-2011

## ■ GRADUATE MENTORING

Mississippi State University

- Ryanne Murray      January 2024-present  
Masters of Science  
Veterinary Medical Sciences Concentration
- Arpita Deb      June 2023-present  
Doctor of Philosophy  
Environmental Toxicology Concentration
- 3<sup>rd</sup> place, Graduate student poster presentation, Mississippi State University Graduate Student Symposium, February 2024
- Christa Frodella      June 2020-December 2022  
Doctor of Philosophy  
Veterinary Medical Sciences Concentration  
Dissertation title: *Unraveling the Anti-inflammatory Mechanisms and Efficacy of Cannabidiol on the Progression of a Murine Model of Multiple Sclerosis from the Innate to the Adaptive Immune System to Clinical Symptoms*
- Mississippi State University Office of Research and Economic Development Graduate Student Travel Award, March 2022
  - 1<sup>st</sup> place, Graduate student poster presentation, Mississippi State University Graduate Student Symposium, June 2022
  - 2<sup>nd</sup> place, Graduate student poster presentation, Mississippi State University College of Veterinary Medicine Annual Research Day, August 2022
- Brittany Szafran      July 2014-December 2020  
Doctor of Philosophy (DVM/PhD program; DVM earned 2017),  
Environmental Toxicology Concentration (Co-PI with Matthew Ross),  
Dissertation title: *The Role of the Endocannabinoid System in Immune Homeostasis with an Emphasis on the Immune Effects of Carboxylesterase Inhibition by Chlorpyrifos in Murine Lung Tissue*
- Student representative for Society of Toxicology Comparative and Veterinary Specialty Section, May 2017-present
  - 2<sup>nd</sup> place, Graduate student poster presentation, Society of Toxicology South Central Regional Chapter Annual Meeting, October 2017
  - 2<sup>nd</sup> place, Graduate student poster presentation, Mississippi State University Graduate Research Symposium, February 2018
  - Society of Toxicology Roger O. McClellan Student Award, March 2018
  - 1<sup>st</sup> place, Graduate student oral presentation, Mississippi State University College of Veterinary Medicine Research Day, August 2018
  - 2<sup>nd</sup> place, Graduate student oral presentation, Society of Toxicology South Central Regional Chapter Annual Meeting, October 2018
  - 2<sup>nd</sup> place, Graduate student oral presentation, Mississippi State University College of Veterinary Medicine Research Day, August 2019
  - Society of Toxicology Outstanding Graduate Student Leadership Committee Award, March 2019

- Mississippi State University Office of Research and Economic Development Graduate Student Award for the College of Veterinary Medicine, March 2020
- 2<sup>nd</sup> place, Graduate student poster presentation, Mississippi State University College of Veterinary Medicine Research Day, August 2020 (virtual)
- 2<sup>nd</sup> place Graduate student poster presentation, Mississippi State University Graduate Research Symposium, October 2020 (virtual)
- Grand Champion Runner Up Mississippi State University 3-Minute Thesis (3-MT) competition, November 2020 (virtual)
- Mississippi State University College of Veterinary Medicine 2021 Graduate Student Hall of Fame Award
- 2021 Boehringer Ingelheim Graduate Veterinary Research Award
- <https://vimeo.com/579189477/92a855264c>

James Nichols

January 2015-May 2020

DVM, Doctor of Philosophy (PhD started while in DVM; DVM earned 2016)

Veterinary Medical Sciences, Infectious Disease Concentration

Dissertation title: *Exploring the immunosuppressive properties of various agents in the experimental autoimmune encephalomyelitis models of multiple sclerosis*

- Selected for platform presentation for Veterinary Science Training Program (VSTP) Colloquium at NIH, August 2017
- The C. Edward Couvillion DVM/PhD Endowed Graduate Scholarship, October 2017
- American Association of Immunologists 2018 Trainee Poster Award, May 2018
- International Cannabinoid Research Society Student Travel Award, July 2018
- CVM-ORGS Graduate Student Travel Award, July 2018
- 3<sup>rd</sup> place, Graduate student poster presentation, Mississippi State University College of Veterinary Medicine Research Day, August 2018
- Mississippi State University College of Veterinary Medicine 2020 Graduate Student Hall of Fame Award

Michigan State University

Tyrell Simkins

August 2007-January 2014

Doctor of Philosophy (DO/PhD program), Neuroscience Program (Co-PIs Keith Lookingland and John Goudreau)

Dissertation Research Director for PhD dissertation: *The Function of Sympathetic Innervation in the Spleen and the Role of Endogenous CB<sub>1</sub>/CB<sub>2</sub> Receptor Signaling*



## POSTDOCTORAL TRAINEE MENTORING

Mississippi State University

Evangel Kummari

September 2015-May 2019

Postdoctoral researcher

- Outstanding Poster Presentation Award, UMMC Neuroscience Research Day, Jackson, MS, April 2017
- 2<sup>nd</sup> place, Postdoctoral poster presentation, Society of Toxicology South Central Regional Chapter Annual Meeting, Baton Rouge, LA, October 2017

Saphala Dhital April 2014-September 2016  
Research associate

Eun-Ju Yang March 2014-November 2015  
Postdoctoral researcher

## ■ VETERINARY SUMMER RESEARCH EXPERIENCE (SRE) MENTORING

Peter Spoelker 1<sup>st</sup> year DVM summer research scholar 2024  
Sabrina Dixon 1<sup>st</sup> year DVM summer research scholar 2023  
Karis Blankenship 1<sup>st</sup> year DVM summer research scholar 2022  
Matt Mitsch 1<sup>st</sup> year DVM summer research scholar 2022  

- 1<sup>st</sup> place, Oral Presentations for SRE Category, MSU-CVM Research Day, August 2022

Madison Mertz 1<sup>st</sup> year DVM summer research scholar 2021  
Abbey Fleming 1<sup>st</sup> year DVM summer research scholar 2020  
Carly Campbell 1<sup>st</sup> year DVM summer research scholar 2020  
Mimi Pelanne 1<sup>st</sup> year DVM summer research scholar 2019  
Clare Brown 1<sup>st</sup> year DVM summer research scholar 2018  
Jessica Sherman 1<sup>st</sup> year DVM summer research scholar 2017  

- 1<sup>st</sup> place, Oral Presentations for SRE Category, MSU-CVM Research Day, August 2017

Christa Gilfeather 1<sup>st</sup> year DVM summer research scholar 2016  
Yianelly Rodriguez 1<sup>st</sup> year DVM summer research scholar (Tuskegee University)  
Ruiz 2015  
Brittany Szafran 1<sup>st</sup> year PhD/DVM summer research scholar 2014

## ■ VETERINARY STUDENT RESEARCH INITIATIVE (VSRI) MENTORING

Clare Brown 4<sup>th</sup> year DVM student research rotation 2020  

- 2024 MSU-CVM Phi Zeta Chapter Manuscript award for Brown, *et. al.*, 2023, *Vet Immunol Immunopathol* doi 10.1016/j.vetimm.2023.110667

## ■ POST BACCALAUREATE STUDENT MENTORING

Abigail Bell part time research associate, May 2019-May 202  

- 3<sup>rd</sup> place, Non-student non-faculty poster presentation, Society of Toxicology South Central Regional Chapter Annual Meeting, October 2019

## ■ UNDERGRADUATE MENTORING

Mississippi State University

Josie Baird	Mississippi State University undergraduate student worker May 2024-present
Kacy Crothers	Mississippi State University undergraduate student worker May 2024-present
Audrey Miceli	Mississippi State University undergraduate student worker January 2022-April 2024
Kailyn Lott	Mississippi State University undergraduate student worker January 2022-April 2024
Lucy Sword	Mississippi State University undergraduate student worker September 2022-May 2023
Olivia Cresswell	Mississippi State University undergraduate volunteer, directed independent study and Provost Scholar January 2020-May 2023 Honors college thesis title: <i>Cannabinoids Modulate T Cell Function in vitro Following Stimulation with a Peptide Associated with Multiple Sclerosis</i> <ul style="list-style-type: none"> <li>▪ 2<sup>nd</sup> place (tie), Undergraduate student poster presentation, Society of Toxicology South Central Regional Chapter Virtual Annual Meeting, November 2021</li> </ul>
Quintrell Sturgis	Mississippi State University Mississippi INBRE Research Scholars Mentor Program May 2021-July 2021
Ashleigh Nicaise	Mississippi State University undergraduate student worker January 2019-June 2021 <ul style="list-style-type: none"> <li>▪ 1<sup>st</sup> Place Poster Award, Undergraduate Division Ecology, Cellular and Molecular Biology, Mississippi Academy of Sciences Summer Meeting, Starkville, MS, July 2019</li> </ul>
Randi Jenkins	Mississippi State University directed independent study January 2020-April 2020
Erin (Rushing) Sears	Mississippi State University undergraduate student worker November 2017-May 2020 <ul style="list-style-type: none"> <li>▪ 3<sup>rd</sup> Place Award, Poster Presentation, Biological Sciences and Engineering Category, Mississippi State University Shackouls Honor College Undergraduate Research Symposium, Mississippi State, MS, April 2018</li> </ul>
Amye McDonald	Mississippi State University undergraduate student worker and Provost Scholar August 2017-May 2020 Honors College Thesis Title: <i>Effect of TCDD on B Cell Populations in Various Anatomic Locations in EAE</i> <ul style="list-style-type: none"> <li>▪ 1<sup>st</sup> place, Undergraduate student poster presentation, Society of Toxicology South Central Regional Chapter Annual Meeting, October 2018</li> </ul>
Jaylan Sears	Mississippi State University undergraduate volunteer August 2018-May 2019 <ul style="list-style-type: none"> <li>▪ Mississippi State University Shackouls Honor College Travel Award, March 2019</li> <li>▪ 3<sup>rd</sup> Place Award, Poster Presentation, Biological Sciences and Engineering Category, Mississippi State University Shackouls Honor College Undergraduate Research Symposium, Mississippi State, MS, April 2019</li> </ul>
Luke Wojohn	Mississippi State University undergraduate student worker



Jada Parish June 2017-December 2018  
Mississippi State University undergraduate volunteer  
October 2014-May 2016

- 2<sup>nd</sup> Place Award, Poster Presentation, Biological Sciences and Engineering Category, Mississippi State University Shackoul's Honor College Undergraduate Research Symposium, Mississippi State, MS, April 2015

Gabriella (Yray) Decker Mississippi University for Women Mississippi INBRE Research Scholars Mentor Program  
May 2016-July 2016

- Honorable Mention, Poster Presentation, Mississippi Academy of Sciences Annual Meeting, Hattiesburg, MS, February 2017

Robert Grady Mississippi State University undergraduate volunteer  
September 2015 - May 2016

Leanne Cornelius Mississippi State University undergraduate volunteer  
February 2014-April 2015

William Parker Mississippi State University undergraduate volunteer  
January 2014 May 2014

#### Michigan State University

Anthony Bach Michigan State University undergraduate volunteer  
May 2011-August 2011 and June 2012-August 2012

Nidhal Ghraib Michigan State University undergraduate volunteer  
October 2010-April 2011

Ryan DasGupta Michigan State University undergraduate volunteer  
September 2009-December 2010

Nicholas Lichorobiec Michigan State University undergraduate volunteer and independent study  
March 2009-July 2010

Lauren Topper Michigan State University undergraduate volunteer  
March 2008-July 2010

Sapna Sharma Kalamazoo College senior individualized project  
June 2009-September 2009

Ericka Velez University of Puerto Rico at Cayey  
Michigan State University McNair-Summer Research Opportunities Program (SROP) Scholars Program  
May 2009-August 2009 and May 2010-August 2010

#### ■ HIGH SCHOOL STUDENT MENTORING

Chaeyeong Ahn junior-senior at Starkville High School, Starkville, MS  
January 2023-April 2024

- 1<sup>st</sup> place, State of Mississippi Region V Science Fair 2024, Excellence in Animal Investigations section
- Regeneron Biomedical Science Award, Mississippi Science and Engineering Fair, 2024

Jordan Rogers senior at Mississippi School of Math and Science, Columbus, MS  
May 2021-August 2021

## STUDENT ADVISORY COMMITTEES

### Mississippi State University

Oluwabori Adekanye	Doctor of Philosophy, Department of Comparative Biomedical Sciences PI Matthew Ross, May 2023-present
Yi Cheng	Doctor of Philosophy, Department of Clinical Sciences PI Andrew Mackin, March 2023-present
Cassandra Barber	Doctor of Philosophy (DVM/PhD program), Department of Pathobiology and Population Medicine PI Amelia Woolums, June 2021-present
Chiquita Price	Doctor of Philosophy, Department of Comparative Biomedical Sciences Environmental Toxicology track PI Janice Chambers, August 2019-May 2023
Darby Stanford	Doctor of Philosophy, Department of Comparative Biomedical Sciences Environmental Toxicology track PI Janice Chambers, January 2019-May 2023
Katie Strickland	Masters, Department of Comparative Biomedical Sciences PI Janice Chambers, October 2021-May 2023
Kylee Burroughs	Masters, Department of Comparative Biomedical Sciences PI Russell Carr, October 2021-July 2022
Afzaal Nadeem Mohammad	Doctor of Philosophy, Department of Basic Sciences Environmental Toxicology track PI Russell Carr, November 2014-June 2018
Juyeun Lee	Doctor of Philosophy, Department of Basic Sciences PI Keun Seok Seo, April 2016-March 2018

### Michigan State University

Weimin Chen	Doctor of Philosophy, Department of Microbiology and Molecular Genetics PI Norbert Kaminski, August 2008-February 2014
Shawna D'Ingillo	Master of Science, Department of Pharmacology and Toxicology PI Norbert Kaminski, January 2012-November 2013
Jose Suarez- Martinez	Doctor of Philosophy, Comparative Medicine and Integrative Biology Program PI Norbert Kaminski, August 2012-August 2013
Natalia Kovalova	Doctor of Philosophy, Department of Pharmacology and Toxicology PI Norbert Kaminski, August 2010-August 2013
Thitirat Ngaoteprutaram	Doctor of Philosophy, Department of Pharmacology and Toxicology PI Norbert Kaminski, August 2008-February 2013
Priyadarshini Raman	Doctor of Philosophy, Department of Pharmacology and Toxicology PI Norbert Kaminski, February 2007-December 2011
Peer Karmaus	Doctor of Philosophy, Department of Cell and Molecular Biology PI Norbert Kaminski, November 2006-August 2011
Haitian Lu	Doctor of Philosophy, Department of Pharmacology and Toxicology PI Norbert Kaminski, June 2007-October 2010
Kelly Janis	Doctor of Philosophy (DO/PhD program), Neuroscience Program PI John Goudreau, February 2007-September 2008

## FUNDING

### *PENDING*

None at this time.

### *CURRENT*

PI, "Multiple therapy approach for multiple sclerosis: Probiotics, antidepressants, and plant-derived immune suppressants"

MSU CVM  
Office of Research and Graduate Studies

08/01/24-07/31/25  
\$10000 total directs

PI, "Investigation of AhR Ligands on FcGamma Receptor Signaling: Consequences of Antibody Suppression"

2R15 ES027650  
NIH/National Institute for Environmental Health Sciences

08/03/22-08/02/25  
\$300,000 total directs

PI, "Research Experience Program for Veterinary Students"

N/A  
Boehringer-Ingelheim

04/28/23-08/31/23  
\$13,000 total costs

Co-PD/PI (Co-PD/PI, Samuel), "Summer Research Experience for Veterinary Students"

T35OD010432  
NIH

05/01/21-04/30/27  
\$545,025 total directs

Co-I (PI Ross), "Crosstalk between CES1 and PPAR $\gamma$  and LXR $\alpha$ "

1R15HL157818-01A1  
NIH/National Heart, Lung, Blood Institute

03/15/22-03/14/25  
\$300,000 total directs

Co-I (PI Howell), "Role of pregnane x receptor activation on macrophage function and diabetic wound healing"

1R15ES035527  
NIH/National Institute for Environmental Health Sciences

09/01/23-08/31/26  
\$300,000 total directs

### *COMPLETED*

Co-I (PI Stillwell), "Investigation of Tissue Enzymes and Environmental Toxicants in Wild-caught Sharpnose Sharks"

MSU CVM Office of Research and Graduate Studies  
USDA Section 1433 Formula (CRIS)

9/1/22-5/31/24  
\$10,090 total directs

Co-PI (Co-PI Carr, Ross and Swanson), "Analysis of Blood Levels of CBD utilizing a Slow-Release Device"

N/A  
NanoMedical Systems, Inc. (Austin, TX)

11/01/21-04/30/22  
\$28,141 total cost

PI, "TCDD-treated B Cells Modulate T Effector and T Regulatory Function in EAE"

R15 ES027650  
NCE 2021

09/30/17-08/31/20

NIH/National Institute for Environmental Health Sciences \$300,000 total directs

PI, "Superantigen-induced T Regulatory Cells as a Cell-based Treatment for EAE"  
 Junior Investigator NIH/NIGMS (\$200,000 direct per year) 06/01/16-05/31/18  
 Parent grant:  
 P20GM103646 (PI Pruett) 06/01/13-05/31/18  
 NIH/National Institute of General Medical Sciences \$2,016,391 (FY 2015)  
 "Center for Biomedical Research Excellence on Pathogen-Host Interactions"

Co-I (PI Ross), "Role of Carboxylesterases in Innate Immunity"  
 R15 GM128206 04/01/18-03/30/21  
 NCE 2021  
 NIH/National Institute for General Medical Sciences \$300,000 total directs

#### INTRAMURAL COMPLETED

PI, "Investigation of Additive or Synergistic Anti-inflammatory and Analgesic Effects Between Cannabidiol (CBD) and Lipoxin A4 (LXA4)" Mississippi State University College of Veterinary Medicine Office of Research and Graduate Studies Seed Grant (\$10,000), September 2020

PI, "Investigation of mechanisms for cannabinoid-mediated suppression of Th1/Tc1 immunity" Mississippi State University College of Veterinary Medicine Office of Research and Graduate Studies Seed Grant (\$10,000), September 2019

PI, "The role of interleukin (IL)-6 in inflammation-induced suppression of endocannabinoid metabolizing enzymes" Mississippi State University College of Veterinary Medicine Office of Research and Graduate Studies Seed Grant (\$9,990), August 2015

Co-PI, "Effect of exposure to persistent organic pollutants on the development of hepatic steatosis and steatohepatitis" Mississippi State University College of Veterinary Medicine Office of Research and Graduate Studies Seed Grant (\$9,800), August 2014

PI, "The Effect of Plant-Derived Cannabinoids on LPS-Induced Pulmonary Inflammation" Michigan State University Respiratory Research Initiative Group Seed Grant (\$15,000), February 2008

PI, "The Effect of Plant-Derived Cannabinoids on LPS-Induced Pulmonary Inflammation", Michigan State University Respiratory Research Initiative Group Seed Grant (\$15,000), November 2006

#### ■ PUBLICATIONS (74 published, 2 pending)

2024 Landrau-Giovanetti N, Rogers J, Murray R, Reichley S, Moore D, Madrigal T, Brown A, Meredith A, Childers C, Sparks D, Solangi M, Peterman B, Lawrence M, and Kaplan BLF. Determination of PCB and PAH Tissue Levels in Bottlenose Dolphins that Stranded in the Mississippi Sound Before and After the Unusual Mortality Event in 2019. *Sci Total Environ*, submitted.

2024 Hoberman A and Kaplan BLF. Practical Lessons of the 3Rs: Learning from Past and Looking Toward the Future. *Curr Opin Toxicol*, submitted.

- 2024 Sulentic CEW, [Kaplan BLF](#), and Lawrence PB. Using the Key Characteristics Framework to Unlock the Mysteries of Aryl Hydrocarbon Receptor-mediated Effects on the Immune System. *Ann Rev Immunol*, submitted.
- 2024 Frodella CM, Pruett SB, Ross MK and [Kaplan BLF](#). Oxytocin and Vasopressin Gene Expression in the Brain as Potential Biomarkers for Cannabidiol Exposure and Anti-inflammatory Efficacy. *Biomedicines*, 12: 1273. DOI: 10.3390/biomedicines12061273
- 2024 Frodella CM, Pruett SB and [Kaplan BLF](#). Mild Disease Course of Experimental Autoimmune Encephalomyelitis without Pertussis Toxin: Brain Transcriptome Analysis Reveals Similar Signaling to Active Lesions in Multiple Sclerosis. *Biomedicines* 12: 1215. DOI: 10.3390/biomedicines12061215
- 2024 Cresswell O, Blankenship K and [Kaplan BLF](#). Development of an in Vitro Peptide-Stimulated T Cell Assay to Evaluate Immune Effects by Cannabinoid Compounds. *Int Immunopharmacol*. 129:111654. DOI: 10.1016/j.intimp.2024.111654.
- 2024 Dixon S, Deb A and [Kaplan BLF](#). Potential to Use Cannabinoids as Adjunct Therapy for Dexamethasone: An In Vitro Study with Canine Peripheral Blood Mononuclear Cells. *Vet Immunol Immunopathol*. 269:110727. DOI: 10.1016/j.vetimm.2024.110727
- 2024 Frodella C, Liu L, Tan W, Pruett SB and [Kaplan BLF](#). The Mechanism by which Cannabidiol (CBD) Suppresses TNF- $\alpha$  Secretion Involves Inappropriate Localization of TNF- $\alpha$  Converting Enzyme (TACE). *Cell Immunol*. 397-398:104812. DOI: 10.1016/j.cellimm.2024.104812.
- 2024 [Kaplan BLF](#), Hoberman A, Slikker Jr W, Smith MA, Corsini E, Knudsen T, Marty MS, Sobrian S, Fitzpatrick S, Ratner M and Mendrick D. Protecting Human and Animal Health: The Road From Animal Models to New Approach Methods. *Pharmacol Rev*. 76:251. DOI: 10.1124/pharmrev.123.000967
- 2023 Brown C, Mitsch M, Blankenship K, Campbell C, Pelanne M, Sears J, Bell A, Olivier AK, Ross MK, Archer T and [Kaplan BLF](#). Canine Immune Cells Express High Levels of CB1 and CB2 Cannabinoid Receptors and Cannabinoid-Mediated Alteration of Canine Cytokine Production is Vehicle-Dependent. *Vet Immunol Immunopathol*, 265:110667. doi 10.1016/j.vetimm.2023.110667
- 2023 Nichols J and [Kaplan BLF](#). Age-dependent Effects of Transgenic 2D2 Mice Used to Induce Passive EAE in C57BL/6 Mice. *Neuroimmunomodulation*, 30: 291-301. doi 10.1159/000534351.
- 2023 Szafran B, Nichols J, Nicaise A, Borazjani A, Carr RL, Wilson JR, Ross MK and [Kaplan BLF](#). *Cnr1* Knockout has Minimal Impact on Chlorpyrifos-mediated Effects in the Mouse Endocannabinoid System, but it Does Alter Lipopolysaccharide-induced Cytokine Levels in Splenocytes. *Chemico-Biological Interact*. 375: 110425. doi 10.1016/j.cbi.2023.110425
- 2023 [Kaplan BLF](#) and Lawrence BP. Environmental Chemical-Sensing AHR Remains an Enigmatic Key Player in Toxicology. *Environ Health Perspect*. 131: 31307. doi 10.1289/EHP12535; *\*invited perspective*
- 2023 [Kaplan BLF](#), Swanson EA, Ross MK, Olivier AK, Guo-Ross SX, Burroughs KB, Ross AK, Matula M, Tarbox T, Greenberg M and Carr RL. Nanochannel Delivery for CBD Therapy: Sustained Low Level Plasma Levels without Liver Toxicity. *J Drug Delivery Sci Technol* 79: 104029. doi 10.1016/j.jddst.2022.104029
- 2022 McDonald A, Nicaise A, Rushing Sears E, Bell A, Kummari E and [Kaplan BLF](#). Potential for TCDD to Induce Regulatory Functions in B Cells as Part of the Mechanism for T Cell Suppression in EAE. *Toxicol Appl Pharmacol*. 454: 116259. doi 10.1016/j.taap.2022.116259

- 2022 Szafran B, Borazjani A, Scheaffer H, Crow J, McBride A, Adekanye O, Lehner R, Kaplan BLF and Ross, MK. Ces1d Inactivation Augments Lung Inflammation in Female Mice. *ACS Pharmacol Transl Sci.* 5: 919-931. DOI: 10.1021/acsptsci.2c00098
- 2022 Germolec DR, Lebrec H, Anderson SE, Burleson GR, Cardenas A, Corsini E, Elmore SE, Kaplan BLF, Lawrence BP, Lehmann GM, Maier CC, McHale CM, Myers LP, Pallardy M, Rooney AA, Zeise L, Zhang L and Smith MT. Consensus on the Key Characteristics of Immunotoxic Agents as a Basis for Hazard Identification. *Environ Health Perspect.* 130: 105001. DOI: 10.1289/EHP10800
- 2022 Kaplan BLF, Baglolle C and Sulentic CEW. The Enigmatic Role of the Aryl Hydrocarbon Receptor in Immune Modulation: Some Progress but More Questions. *Front Toxicol.* 4: 1-3. \*editorial DOI: 10.3389/ftox.2022.941665
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## CHAPTERS

- 2024 Kaplan BLF. Immunotoxicology of Drugs of Abuse. In: *Comprehensive Toxicology 4<sup>th</sup> Edition* (ed. L A Burns-Naas). Elsevier, Atlanta, GA. Chapter 11.36, In Press.
- 2024 Anderson S, Sulentic CEW and Kaplan BLF. Immunotoxicology in Industrial Hygiene and Occupational Exposures. In: *Patty's Toxicology 7<sup>th</sup> Edition* (eds. DJ Paustenbach, WH Farland and JE Klaunig). Chapter 14. Pp. 1-55. Wiley, Hoboken, NJ. DOI: 10.1002/0471125474.tox165

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## PODCASTS

- 2023 Up in Smoke. Where Cannabis Meets the Immune System. Society of Toxicology *Adverse Reactions*, season 3, "Intersections". Posted June 22, 2023. <https://www.adversereactionspodcast.com/1756958/13066879-up-in-smoke-where-cannabis-meets-the-immune-system>
- 2021 It's High Time We Talked About Cannabis. ScienceNight.com. Posted November 5, 2021 <https://www.scinight.com/episodes/its-high-time-we-talked-about-cannabis>

## BLOGS

- 2024 Kaplan BLF. US FDA and SOT Come Together to Discuss CBD. Society of Toxicology website. Posted July 25, 2024 [https://toxchange.toxicology.org/blogs/barbara-kaplan1/2024/07/25/us-fda-and-sot-come-together-to-discuss-cbd?utm\\_source=SOT%20Website&utm\\_medium=Referrals&utm\\_campaign=ToXchange&\\_zs=PiO2m&\\_zl=fMe23](https://toxchange.toxicology.org/blogs/barbara-kaplan1/2024/07/25/us-fda-and-sot-come-together-to-discuss-cbd?utm_source=SOT%20Website&utm_medium=Referrals&utm_campaign=ToXchange&_zs=PiO2m&_zl=fMe23)
- 2024 Kaplan BLF and Slikker Jr., W. Shifting the Balance from Animals to New Approach Methods: We're Working Toward It! PLOS One Science Communication Blog. Posted February 14, 2024. <https://scicomm.plos.org/2024/02/14/shifting-the-balance-from-animals-to-new-approach-methods-were-working-toward-it/>
- 2018 Kaplan BLF. CBD is Certainly a Big Deal! PLOS Science Communication Blog. Posted July 5, 2018. <http://blogs.plos.org/scicomm/2018/07/05/cbd-is-certainly-a-big-deal/>
- 2017 Kaplan BLF. Marijuana: More Than Just the High. PLOS Science Communication Blog. Posted October 25, 2017. <http://blogs.plos.org/scicomm/2017/10/25/marijuana-more-than-just-the-high/>

## INTERVIEWS

2019 Phone interview, Amanda Hoover, NJ.com, “CBD to cure the common cold? Experts are split on its powers” story posted November 25, 2019

## ■ INVITED SPEAKING ENGAGEMENTS

August 2024 Impact of a Freshwater Incursion on Chemical Contaminants in Tissues of Dolphins that Stranded in MS Sound, MSU Global Center for Aquatic Health and Food Security Marine Monday Seminar Series, Starkville, MS

June 2024 Let’s Talk About Science: Practice, Practice, Practice! Birth Defects Research and Prevention Annual Meeting Professional Development Session, Pittsburgh, PA

May 2024 NAMs for Immunotoxicology: What They Are and How to Talk About Them, Corteva Agrosiences NAMs Community of Practice Seminar, Indianapolis, IN, virtual

February 2024 Cannabinoid Effects in the Immune System: Lessons from Mice and Dogs, Arizona State University, New College Seminar for *Cannabis sativa*, the Environment, and Your Health, Glendale, AZ

September 2023 NAMs and In Vitro Assays for Immunotoxicity with Focus on the IL-2 Luc Assay, Michigan State University Center for Research on Ingredient Safety Annual Meeting, East Lansing, MI

September 2022 The Other Project in the Kaplan Lab: TCDD Induces Regulatory B Cells to Suppress Autoimmune Disease, Mississippi State University College of Veterinary Medicine Graduate Seminar Course, Starkville, MS

September 2022 Insights Regarding CBD’s Immune Suppressive Effects Obtained from Murine and Canine Cells, University of Iowa Interdisciplinary Graduate Program in Human Toxicology seminar series, virtual

February 2022 Pursuing Research with Integrity on Controversial Topics: Marijuana in the Immune System, Society of Toxicology, Faculty United for Toxicology Undergraduate Recruitment and Education (FUTURE) Committee, Undergraduate Education Network Webinar, virtual

October 2021 Research Opportunities at MSU-CVM, Mississippi State University Pre-Vet Club, Starkville, MS

November 2020 Inhibition of Peripheral Immune Function and Neuroinflammation by CBD in EAE, Michigan State University Center for Research on Ingredient Safety Annual Meeting, virtual

December 2019 Mechanisms and Critical Targets of Immune Modulation by CBD, University of Mississippi, Department of BioMolecular Sciences, Oxford, MS

October 2019 Mechanisms of Immune Suppression by Plant-Derived Cannabinoids, East Carolina University, Department of Anatomy and Cell Biology, Greenville, NC

February 2019 Basic Research in MSU CVM: A PhD Studies Marijuana, Mississippi State University Pre-Vet Club, Starkville, MS

April 2017 Immune Suppression by Plant-Derived and Endogenous Cannabinoids, University of Southern Mississippi, Department of Biological Sciences, Hattiesburg, MS

April 2017 The Immunopharmacology of Cannabinoid Compounds, University of Mississippi School of Pharmacy, Third Year Assembly, Jackson, MS

February 2017	Let's Talk About Toxicology, Mississippi University for Women, Department of Mathematics and Science, Columbus, MS
February 2014	NFAT is a Critical T Cell Target of Cannabinoid Compounds, Mississippi State University, Department of Biological Sciences, Starkville, MS
December 2013	Immunopharmacology of Cannabinoid Compounds: Roles of the G Protein-Couple Receptors CB <sub>1</sub> and CB <sub>2</sub> , Quarantine and Inspection Agency Veterinary Drugs and Biologics Division, Seoul, South Korea
December 2013	Immunopharmacology of Cannabinoid Compounds: Roles of the G Protein-Coupled Receptors CB <sub>1</sub> and CB <sub>2</sub> , Kyungpook National University College of Pharmacy, Daegu, South Korea
August 2012	The Role of CB <sub>1</sub> , CB <sub>2</sub> and $\beta$ 2AR in Cannabinoid-Mediated Inhibition of Spleen Capsule Norepinephrine and Humoral Immunity, Mississippi State University Department of Basic Sciences, Starkville, MS
April 2012	The Role of CB <sub>1</sub> , CB <sub>2</sub> and $\beta$ 2AR in Cannabinoid-Mediated Suppression of Immune Function, Midwestern University, Department of Pharmacology, Downers Grove, IL
April 2012	Cannabis Chemistry, Biology and Immunology: An Overview of the Compounds that Comprise Marijuana, University of Illinois, Alpha Chi Sigma Professional Chemistry Fraternity, Louis Krug Lecture, Champaign, IL
September 2011	$\Delta^9$ -Tetrahydrocannabinol (THC)-Induced Inhibition of Norepinephrine in the Splenic Capsule: A Mechanism for Immune Suppression by THC, Michigan State University Neuroscience Program, East Lansing, MI
July 2011	The Role of CB <sub>1</sub> , CB <sub>2</sub> and $\beta$ 2AR in Cannabinoid-Induced Immune Suppression, Michigan State University Department of Pathobiology and Diagnostic Investigation, East Lansing, MI
February 2011	The Role of CB <sub>1</sub> , CB <sub>2</sub> and $\beta$ 2AR in $\Delta^9$ -THC-Induced Suppression of Humoral Immunity, University of North Carolina, Greensboro, Department of Biology, Greensboro, NC
January 2009	Development of Models to Assess Effects of Cannabinoids on Pulmonary Inflammation, Michigan State University Respiratory Research Initiative Meeting, East Lansing, MI
September 2007	Intranasal Instillation of Lipopolysaccharide: A Murine Model of Pulmonary Inflammation, Michigan State University, Respiratory Research Initiative Meeting, East Lansing, MI
October 2006	The Non-Psychoactive Cannabinoid, Cannabidiol, Suppresses T Cell Function Through Inhibition of NFAT, Wright State University Department of Pharmacology and Toxicology, Dayton, OH
March 2006	An Overview of the Biological Effects of Marijuana, Montcalm Community College Science Club Meeting, Sidney, MI

## MEETING PRESENTATIONS

### ORAL PRESENTATIONS

March 2024	<u>Kaplan BLF</u> . How to Get Started With Science Communication. Society of Toxicology Annual Meeting Tiny Tox Talk (replaced speaker with family emergency), Salt Lake City, UT
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June 2023 Kaplan BLF. Detection of Contaminants in Bottlenose Dolphins (*Tursiops truncatus*) Stranded Along the Mississippi Sound from 2010 - 2021. Gulf of Mexico Energy Securities Act (GoMESA) Update and Strategy Meeting, virtual

November 2022 Kaplan BLF. Development of a Detailed Review Paper (DRP) on Non-animal Approaches for Immunosuppression, Japanese Society for Alternatives to Animal Experiments Annual Meeting, Shizuoka, Japan

March 2022 Kaplan BLF. Talking about Toxicology: Some Tips for Explaining the Frustrating Scientific Gray Areas. Society of Toxicology Annual Meeting, *The Toxicologist* 186 #1202, San Diego, CA

March 2021 Kaplan BLF. Interferon (IFN)-Gamma is a Sensitive Target in CBD-Induced Immune Suppression In Vivo and In Vitro. Society of Toxicology Annual Meeting, *The Toxicologist* 180 #1307, Virtual

November 2020 Kaplan BLF. Inhibition of Peripheral Immune Function and Neuroinflammation by CBD in EAE. Center for Research on Ingredient Safety at Michigan State University 2020 Science Symposium, Virtual

March 2020 Kaplan BLF. Cannabidiol Suppresses IFN- $\gamma$  Production and Neuroinflammation in the EAE Model. Society of Toxicology Annual Meeting, *The Toxicologist* 174 #2454, Virtual

August 2019 Kaplan BLF. Oral Administration of the Plant-derived Cannabinoid, Cannabidiol (CBD), Attenuates Experimental Autoimmune Encephalomyelitis (EAE). Mississippi IDeA Conference, Jackson, MS

March 2018 Kaplan BLF. Graduate Toxicology Presented in the Context of Problem Formulation and Experimental Design. Society of Toxicology Annual Meeting, *The Toxicologist* 162 #3292 San Antonio, TX

March 2018 Kaplan BLF. Model Systems and Regulations for Cannabinoid Research in Academia. Society of Toxicology Annual Meeting, *The Toxicologist* 162 #1702, San Antonio, TX

March 2017 Kaplan BLF. Neuroimmune Interactions and Drugs of Abuse: Overview of Marijuana Compounds with a Focus on Critical Exposure Windows. Society of Toxicology Annual Meeting, *The Toxicologist* 156 #1559, Baltimore, MD.

March 2016 Kaplan BLF. Make an Impact with Your Research Seminar. Society of Toxicology Annual Meeting, *The Toxicologist* 150 #3354, New Orleans, LA

March 2014 Kaplan BLF. Cannabinoid-Induced Suppression of  $\beta$ 2AR<sup>+</sup> B Cell Function. Society of Toxicology Annual Meeting, *The Toxicologist* 138 #1411, Phoenix, AZ

March 2012 Kaplan BLF. Current Challenges in Pursuit of Careers in Academia. Society of Toxicology Annual Meeting, *The Toxicologist* 126 #1697, San Francisco, CA

March 2009 Kaplan BLF and Kaminski NE. Immune Modulation by Plant-derived Cannabinoid Compounds. Society of Toxicology Annual Meeting, *The Toxicologist* 108 #676, Baltimore, MD

March 2008 Kaplan BLF and Kaminski NE. The Mechanism by Which Cannabidiol, a Plant-Derived Cannabinoid, Suppresses Immune Function Involves Suppression of Nuclear Factor or Activated T Cells (NFAT) Transcriptional Activation, but not Suppression of NFATc1 or NFATc2 mRNA Expression. Society of Toxicology Annual Meeting, *The Toxicologist* 102 #2002, Seattle, WA

March 2007 Kaplan BLF and Kaminski NE. The Non-psychoactive Cannabinoid, Cannabidiol, Suppresses T Cell Function Through Inhibition of Nuclear

- Factor of Activated T Cells (NFAT). Society of Toxicology Annual Meeting, *The Toxicologist* 96 #620, Charlotte, NC
- March 2005 Kaplan BLF, Ouyang Y, Rockwell CE, Rao GK and Kaminski NE. The Endogenous Cannabinoid, 2-Arachidonoyl-Glycerol, Suppresses NFAT Nuclear Translocation and Interferon- $\gamma$  Production. Society of Toxicology Annual Meeting, *The Toxicologist* 90 #369, New Orleans, LA.
- May 2002 Kaplan BLF, Roszkowski JJ and Nishimura MI. Alteration of T Cell Specificity with TCR Genes: Use in a Melanoma Model. Ninth Annual Charles Huggins Research Conference, Chicago, IL
- June 2000 Faubert BL and Kaminski NE. The Role of ERK MAP Kinases in Cannabinol-Induced Inhibition of AP-1 Binding Activity in PMA/Io-Stimulated Mouse Splenocytes. International Cannabinoid Research Society Annual Symposium, Hunt Valley, MD
- June 1999 Faubert BL. Cannabinol Inhibits the Activation of ERK MAP Kinases in PMA/Io-Stimulated Mouse Splenocytes. Twenty-seventh Annual Pharmacology Research Colloquium, Ann Arbor, MI
- June 1999 Faubert BL and Kaminski NE. Inhibition of AP-1 Activity by Cannabinol is Mediated by Inhibition of its Protein Components, c-fos and c-jun. International Cannabinoid Research Society Annual Symposium, Acapulco, Mexico
- June 1998 Faubert BL. Inhibition of AP-1 and NF-AT Binding by Cannabinol in Mouse Splenocytes. Twenty-Sixth Annual Pharmacology Research Colloquium, Toledo, OH
- June 1997 Faubert BL. Inhibition of AP-1 Binding in Splenocytes by Cannabinol is Mediated by an Inhibition of its Protein Components, c-fos and c-jun. Twenty-Fifth Annual Pharmacology Research Colloquium, Detroit, MI

#### POSTER PRESENTATIONS

- March 2024 Kaplan BLF, Hoberman AM, Slikker Jr W, Smith MA, Corsini E, Marty MS, Sobrian SK, and Ratner MH The Road From Animal Models to New Approach Methods for Protecting Human and Animal Health, Society of Toxicology Annual Meeting, *The Toxicologist* 198 #3494, Salt Lake City, UT
- February 2024 Kaplan BLF, Landrau-Giovanetti N, Reichley S, Moore D, Madrigal T, Brown A, Meredith A, Childers C, Sparks D, Solangi M, and Lawrence ML. POPs and Mercury Levels in Tissues of Bottlenose Dolphins Stranded from the Mississippi Sound (MSS) During the 2019 Unusual Mortality Event. Gulf of Mexico Conference (GOMCON), Tampa, FL
- March 2023 Kaplan BLF, McDonald A, Nicaise A, Rushing Sears E, Bell A, and Kummari E. TCDD Increased Populations of B Cells that Produce IL-10 In Vitro and in Experimental Autoimmune Encephalomyelitis. Society of Toxicology Annual Meeting, *The Toxicologist* #4044, Nashville, TN
- March 2022 Kaplan BLF, Nicaise A, Sturgis T, and Olivier A. Effects of TCDD in the Spleen, Blood, and Liver in Experimental Autoimmune Encephalomyelitis (EAE). Society of Toxicology Annual Meeting, *The Toxicologist* 186 #3375, San Diego, CA
- June 2021 Kaplan BLF, Szafran B, Nicaise A, Ross MK and Nichols J. CB<sub>1</sub> Inactivation Increases Pro-inflammatory Cytokine Production in Response to Lipopolysaccharide. 31<sup>st</sup> Annual International Cannabinoid Research Society Meeting, Jerusalem (hybrid/virtual)



- July 2018 Kaplan BLF, Szafran BN, Lee JH, Hou X, Borazjani A, Andrzejewski K and Ross MK. Characterization of Endocannabinoid Metabolizing Enzymes in Human Peripheral Blood Mononuclear Cells Under Inflammatory Conditions. 28<sup>th</sup> Annual International Cannabinoid Research Society Meeting, Leiden, the Netherlands
- March 2017 Kaplan BLF, Dhital S, Stokes J, Park N and Seo KS. Cannabidiol (CBD) Induces Functional CD4+CD25+FOXP3+ Tregs in Response to Low Level T Cell Activation. Society for Neuroimmune Pharmacology Annual Meeting, Philadelphia, PA
- August 2016 Kaplan BLF, Kummari E, Yang E-J and Dhital S. Low Dose TCDD Inhibits MOG-specific T and B Cell Response. AHR 2016: The aryl hydrocarbon receptor as a central mediator of health and disease, Rochester, NY
- March 2016 Kaplan BLF, Szafran B, Borazjani A, Lee H-W and Ross MK. LPS Suppression of Serine Hydrolase Activity and 2-Arachidonylglycerol (2-AG) Hydrolysis: A Possible Mechanism to Regulate Inflammation. Marijuana and Cannabinoids: A Neuroscience Research Summit at NIH, Bethesda, MD
- March 2016 Kaplan BLF, Stokes J and Yang E-J. Inhibitory Effect of Subchronic Low Dose 2,3,7,8-Tetrachlorodibenzo-p-dioxin in Experimental Autoimmune Encephalomyelitis (EAE). Society of Toxicology Annual Meeting, *The Toxicologist* 150 #2869, New Orleans, LA
- November 2015 Kaplan BLF, Rodriguez-Ruiz Y, Park N, Yang E-J, Eells J, and Seo K-S. *Staphylococcus aureus* Superantigen-induced T Regulatory Cells in Mouse Splenocytes. 2015 Southeast MS IDeA Conference, Biloxi, MS
- March 2015 Kaplan BLF, Szafran B, Borazjani A, Lee J and Ross MK. LPS Suppresses Spleen Serine Hydrolase Activity and 2-Arachidonylglycerol (2-AG) Hydrolysis: A Possible Mechanism to Regulate Inflammation. Society of Toxicology Annual Meeting, *The Toxicologist* 144 #151, San Diego, CA
- March 2013 Kaplan BLF, Chen W, Zhang Q, Baker GL and Kaminski NE. Engineered Nanoparticles Enhanced CD8<sup>+</sup> T Cell Cytokine Production. Society of Toxicology Annual Meeting, *The Toxicologist* 132 #1760, San Antonio, TX
- March 2012 Kaplan BLF, Chen W, and Kaminski NE. Induced T Cell Cytokine Production is Enhanced by Engineered Nanomaterials. Society of Toxicology Annual Meeting, *The Toxicologist* 126 #1367, San Francisco, CA
- April 2010 Kaplan BLF, Topper LA, Lichorobiec NR and Kaminski NE. Mechanisms by Which Cannabidiol Enhances T Cell Function. Society of Neuroimmune Pharmacology Annual Meeting, Manhattan Beach, CA
- March 2010 Kaplan BLF, Crawford RB, Arencibia A, Kim SS, Pinnavaia TJ, and Kaminski NE. A Model to Mimic the Effect of TCDD-Contaminated Soil Ingestion on Immune Function. Society of Toxicology Annual Meeting, *The Toxicologist* 114 #1997, Salt Lake City, UT
- May 2007 Kaplan BLF and Kaminski NE. Nuclear Factor of Activated T Cells (NFAT) is Suppressed by the Plant-Derived Cannabinoid, Cannabidiol. American Association of Immunologists Annual Meeting, Miami, FL
- May 2006 Kaplan BLF, Springs AEB, and Kaminski NE. Cannabidiol, a Non-Psychoactive Congener of Marijuana, Suppresses Immune Function. American Association of Immunologists Annual Meeting, Boston, MA
- March 2006 Kaplan BLF and Kaminski NE. Characterization of the Immunosuppressive Activity of the Plant-Derived Cannabinoid, Cannabidiol. Society of Toxicology Annual Meeting, *The Toxicologist* 90 #1732, San Diego, CA



- May 2004 Kaplan BLF, Moore TV, Schreiber K, Callender GG, Schreiber H and Nishimura MI. Human Her-2/Neu-Reactive T Cells Recognize Two Novel Murine Tumor Cell Lines. Eleventh Annual Charles Huggins Research Conference, Chicago, IL
- January 2004 Kaplan BLF, Moore TV, Schreiber K, Callender GG, Schreiber H and Nishimura MI. Two Novel Murine Cell Lines Express Functional HLA-A2/K<sup>b</sup>. Midwinter Conference of Immunologists, Pacific Grove, CA
- October 2002 Kaplan BLF, Schreiber K and Nishimura MI. A New Mouse Tumor Model for Human Cancer. Committee on Immunology Annual Retreat, Lake Geneva, WI
- March 2001 Faubert Kaplan BL and Kaminski NE. Immune Suppression by Cannabinoids is Mediated via a CB1-, CB2-Independent Inhibition of Interleukin-2. Society of Toxicology Annual Meeting, *The Toxicologist* 60, San Francisco, CA
- October 1999 Faubert BL and Kaminski NE. Cannabinol-induced Immune Suppression Involves Inhibition of the Activation of ERK MAP Kinases. College of Veterinary Medicine Research Day, Michigan State University, East Lansing, MI
- September 1999 Faubert BL and Kaminski NE. Cannabinol-induced Immune Suppression Involves Inhibition of the Activation of ERK MAP Kinases. Fourteenth Annual Symposium on Mechanisms of Immunotoxicity, Morgantown, WV
- March 1999 Faubert BL and Kaminski NE. Inhibition of MAPK (ERK) Activation by Cannabinol in PMA/I $\alpha$ -Stimulated Mouse Splenocytes. Society of Toxicology Annual Meeting, *The Toxicologist* 48, New Orleans, LA
- September 1998 Faubert BL and Kaminski NE. Effects of Cannabinol on c-fos and c-jun Protein Expression in Mouse Splenocytes. Thirteenth Annual Symposium on Mechanisms of Immunotoxicity, Morgantown, WV
- May 1998 Faubert BL. Cannabinoid-Induced Inhibition of Transcription Factor Binding to Proximal and Consensus AP-1 Sites in Mouse Splenocytes. Michigan Regional Chapter of the Society of Toxicology, Spring Meeting. East Lansing, MI
- March 1998 Faubert BL and Kaminski NE. Cannabinoid Compounds Inhibit Binding to Several Different AP-1 Sites. Society of Toxicology Annual Meeting, *The Toxicologist* 42, Seattle, WA
- September 1997 Faubert BL and Kaminski, NE. Cannabinol-Mediated Inhibition of AP-1 and NF-AT Binding in the Interleukin-2 Promoter in Splenocytes is Due to an Inhibition of the Protein Components, c-fos and c-jun. Twelfth Annual Symposium on Mechanisms of Immunotoxicity, Morgantown, WV
- March 1997 Faubert BL and Kaminski NE. Inhibition of AP-1 Binding in Splenocytes by Cannabinol is Mediated by an Inhibition of c-fos. Society of Toxicology Annual Meeting, *The Toxicologist* 36, Cincinnati, OH.
- June 1996 Faubert BL, Pulaski J, Hwang SG and Kaminski NE. Immune System Tolerance to Cannabinoids: The Role of the CB2 Receptor *In Vivo* and *In Vitro*. Twenty-Fourth Annual Pharmacology Research Colloquium, East Lansing, MI



## MEETING ABSTRACTS (PAST 5 YEARS)

- June 2024 Kaplan BLF, Hoberman AM, Slikker Jr W, Knudsen T, Smith MA, Corsini E, Marty MS, Fitzpatrick S, Sobrian SK, Ratner MH, and Mendrick DM.

- Protecting Human and Animal Health: The Road from Animal Models to New Approach Methods. Society for Birth Defects Research and Prevention Annual Meeting, Pittsburgh, PA (presenter: Hoberman).
- May 2024 Kaplan BLF, Hoberman AM, Slikker Jr W, Knudsen T, Smith MA, Corsini E, Marty MS, Fitzpatrick S, Sobrian SK, Ratner MH, and Mendrick DM. Protecting Human and Animal Health: The Road from Animal Models to New Approach Methods. American Society for Pharmacology and Experimental Therapeutics Annual Meeting, Arlington, VA (presenter: Sobrian).
- April 2024 Kaplan BLF, Hoberman AM, Slikker Jr W, Knudsen T, Smith MA, Corsini E, Marty MS, Fitzpatrick S, Sobrian SK, Ratner MH, and Mendrick DM. The Road From Animal Models to New Approach Methods for Protecting Human and Animal Health. Congress of Toxicology in Developing Countries, Santiago, Chile (presenter: Hoberman).
- April 2024 Ahn C and Kaplan BLF. The Potential for the Hemp Chemical Cannabidiol to Increase Oxytocin. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Starkville, MS
- April 2024 Lott K, Deb A, and Kaplan BLF. Characterization of Fc $\gamma$  Receptors in Mouse Splenocytes Stimulated with IgG1 Immune Complex. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Starkville, MS
- April 2024 Miceli A, Deb A, and Kaplan BLF. AHR Ligand Effects on IgG2b Immune Complex-stimulated Mouse Innate Cells. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Starkville, MS
- April 2024 Ahn C and Kaplan BLF. The Potential for the Hemp Chemical Cannabidiol to Increase Oxytocin. Mississippi Science and Engineering Fair. Starkville, MS
- March 2024 Ahn C and Kaplan BLF. The Potential for the Hemp Chemical Cannabidiol to Increase Oxytocin. State of Mississippi Region V High School Science Fair, Starkville, MS
- March 2024 Optimization of Immune Complex Formation to Trigger Fc $\gamma$  Receptor Signaling for In Vitro Immunotoxicity Assays. Deb A and Kaplan BLF. Society of Toxicology Annual Meeting, *The Toxicologist* 198 #3452, Salt Lake City, UT
- February 2024 Kaplan BLF, Hoberman AM, Slikker Jr W, Knudsen T, Smith MA, Corsini E, Marty MS, Fitzpatrick S, Sobrian SK, Ratner MH, and Mendrick DM. The Road From Animal Models to New Approach Methods for Protecting Human and Animal Health. Arkansas Bioinformatics Consortium (AR-BIC) 2024, Little Rock, AR (presenter: Slikker).
- October 2023 Deb A and Kaplan BLF. Optimization of Immune Complex Formation to Trigger Fc $\gamma$  Receptor Signaling to Study Immunotoxicity. Society of Toxicology South Central Regional Chapter Annual Meeting, New Orleans, LA
- March 2023 Ross AK, Kaplan BLF, Swanson EA, Ross MK, Olivier AK, Ross SX, Burroughs KJ, Matula M, Tarbox T, Greenberg M and Carr RL. Sustained Low Plasma Levels of CBD Without Liver Toxicity Using a Nanochannel Delivery System. *The Toxicologist* #4138, Nashville, TN
- February 2023 Landrau-Giovanetti N, Rogers J, Moore D, Brown A, Meredith A, Childers C, Sparks D, Lawrence M, Reichley S, and Kaplan BLF. Detection of contaminants in bottlenose dolphins (*Tursiops truncatus*) stranded along

the Mississippi Sound from 2010 - 2021 Mississippi Academy of Sciences Meeting, Biloxi, MS

August 2022 Blankenship K, Mitsch M and Kaplan BLF. In Vitro Model of MOG and OVA Peptide-Stimulated T-Cell Responses and Effects of Cannabinoids. Mississippi State University College of Veterinary Medicine Annual Research Day, Starkville, MS

August 2022 Mitsch M, Blankenship K, Archer T and Kaplan BLF. Cannabinoid vehicle effects on immune function in dog PBMCs. Mississippi State University College of Veterinary Medicine Annual Research Day, Starkville, MS

August 2022 Frodella C, Pruett SB and Kaplan BLF. Pre-treatment with Cannabidiol Impacts Macrophage Polarization and Secretion of TNF $\alpha$  through Tumor Necrosis Factor- $\alpha$ -converting Enzyme (TACE). Mississippi State University College of Veterinary Medicine Annual Research Day, Starkville, MS

August 2022 Blankenship K, Mitsch M and Kaplan BLF. In Vitro Model of MOG and OVA Peptide-Stimulated T-Cell Responses and Effects of Cannabinoids. 23<sup>rd</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium, Minneapolis, MN

August 2022 Mitsch M, Blankenship K, Archer T and Kaplan BLF. Cannabinoid vehicle effects on immune function in dog PBMCs. 23<sup>rd</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium, Minneapolis, MN

June 2022 Frodella C, Pruett SB and Kaplan BLF. Exploring the Impact of Cannabidiol on the Brain Transcriptome in a Mild Disease Model of Experimental Autoimmune Encephalomyelitis. 32<sup>nd</sup> Annual International Cannabinoid Research Society Meeting, Galway, Ireland

April 2022 Cresswell O and Kaplan BLF. Cannabinoids Render Peptide-stimulated Immune Cells Sensitive to Inhibition in Response to Subsequent Stimulation. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Starkville, MS

April 2022 Rogers J, Moore D, Brown A, Sparks D, Lawrence M, Reichley S and Kaplan BLF. Detection of Persistent Organic Pollutants in the Tissues of Dolphins Stranded Along the MS Gulf Coast. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Starkville, MS

August 2021 Mertz M, Archer T and Kaplan BLF. Method Optimization for Studying Effects of Cannabinoids on Canine PBMC Immune Responses. 22<sup>nd</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium, Virtual

March 2022 Sturgis T, Nicaise A and Kaplan BLF. Effect of an Endogenous AhR Ligand, ITE, on Autoimmune Disease in Male and Female Mice. MS Academy of Sciences Annual Meeting. Biloxi, MS

November 2021 Sturgis T, Nicaise A and Kaplan BLF. Effect of an Endogenous AhR Ligand, ITE, on Autoimmune Disease in Male and Female Mice. Annual Biomedical Research Conference for Minority Students (ABRCMS). San Juan, Puerto Rico/Virtual

August 2021 Sturgis T, Nicaise A and Kaplan BLF. Effect of an Endogenous AhR Ligand, ITE, on Autoimmune Disease in Male and Female Mice. MS INBRE Conference, Jackson, MS

June 2021 Frodella C and Kaplan BLF. Pilot Study Reveals Sex Differences in T cell Stimulated Mouse Splenocytes Pre-treated with Cannabidiol. 31<sup>st</sup> Annual International Cannabinoid Research Society Meeting, Jerusalem (virtual)

April 2021 Cresswell O and Kaplan BLF. Development of an In Vitro Peptide-stimulated T Cell Model to Study Cannabinoid Effects. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Virtual

April 2021 Nicaise A and Kaplan BLF. TCDD Inhibits IgG1 Antibody Production *In Vivo* and *In Vitro*. Mississippi State University Shackouls Honors College Undergraduate Research Symposium. Virtual

March 2021 Szafran BN, Borazjani A, Carr R, Ross MK, and Kaplan BLF. Carboxylesterase Inactivation by Chlorpyrifos: Immunotoxic or Protective in the Murine Lung? Society of Toxicology Annual Meeting. Abstract #3110, Virtual

March 2021 Nicaise A and Kaplan BLF. TCDD Inhibits IgG1 Antibody Production *In Vivo* and *In Vitro*. Society of Toxicology Annual Meeting. Abstract #2414, Virtual

November 2020 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Immune Effects of Carboxylesterase Inactivation in the Neonatal Murine Lung. Society of Toxicology South Central Regional Chapter Annual Meeting. Virtual

November 2020 Frodella, C, Nanduri, B and Kaplan BLF. A Reanalysis: CBD-Treated Human Neuroblastoma Cells Reveal Potential Mediators in Understanding the Anti-inflammatory and Neuroprotective Mechanisms. Society of Toxicology South Central Regional Chapter Annual Meeting. Virtual

October 2020 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Immune Effects of Carboxylesterase Inactivation in the Neonatal Murine Lung. Mississippi State University Graduate Research Symposium. Virtual

August 2020 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Immune Effects of Carboxylesterase Inactivation in the Neonatal Murine Lung. Mississippi State University College of Veterinary Medicine Annual Research Day, Starkville, MS

August 2020 Frodella, C, Nanduri, B and Kaplan BLF. A Reanalysis: CBD-Treated Human Neuroblastoma Cells Reveal Potential Mediators in Understanding the Anti-inflammatory and Neuroprotective Mechanisms. Mississippi State University College of Veterinary Medicine Annual Research Day, Starkville, MS

August 2020 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Immune Effects of Carboxylesterase Inactivation in the Neonatal Murine Lung. 21<sup>st</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium, Virtual

August 2020 Campbell C, Fleming A and Kaplan BLF. Effects of Cannabinoids on TNF- $\alpha$  in Mouse Splenocytes as a Pre-clinical Model for Canine Immune Function. 21<sup>st</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium. Virtual

August 2020 Fleming A, Campbell C, Jaffe M and Kaplan BLF. Establishment of a Cell Culture Model Using Whole Lung to Study Effects of Cannabinoids. 21<sup>st</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium. Virtual

March 2020 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Immune Effects of Carboxylesterase Inactivation in the Neonatal Murine Lung. Society of Toxicology Annual Meeting. *The Toxicologist* 174 #2317. Anaheim, CA. (in person presentation canceled due to COVID-19).

March 2020 Rushing E, McDonald A, , Nicaise A, Bell A, Kummari E, and Kaplan BLF. TCDD-mediated Upregulation of FasL on B cells Triggers Apoptosis in T Cells in EAE. Society of Toxicology Annual Meeting. *The Toxicologist* 174 #1836. Anaheim, CA (in person presentation canceled due to COVID-19)

March 2020 McDonald A, Rushing E, Nicaise A, Bell A, Kummari E, and Kaplan BLF. Effect of TCDD on Antibody Production in Various Anatomic Locations in Experimental Autoimmune Encephalomyelitis. Society of Toxicology Annual Meeting. *The Toxicologist* 174 #1837. Anaheim, CA (in person presentation canceled due to COVID-19)

October 2019 Szafran B, Pinkston R, Perveen Z, Schexnayder M, Hossain E, Ross M, Penn A, Kaplan B, and Noel A. Immune Consequences of Electronic-Cigarette Vehicle and Flavoring in Mouse Lungs. Society of Toxicology South Central Regional Chapter Annual Meeting. Shreveport, LA

October 2019 Nicaise A, Bell A, McDonald A, Rushing E, Kummari E, and Kaplan BLF. The Effect of the Environmental Contaminant, TCDD, on IgG1 And IgG3 Antibodies In Vitro. Society of Toxicology South Central Regional Chapter Annual Meeting. Shreveport, LA

October 2019 Bell A, Nicaise A, McDonald A, Rushing E, Kummari E, and Kaplan BLF. Role of Iron in TCDD-Mediated Suppression of Experimental Autoimmune Encephalomyelitis. Society of Toxicology South Central Regional Chapter Annual Meeting. Shreveport, LA

August 2019 Nichols J and Kaplan BLF. The Role of CB1 in Experimental Autoimmune Encephalomyelitis. Mississippi State University College of Veterinary Medicine Annual Research Day. Starkville, MS

August 2019 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Immune Consequences of carboxylesterase isoform-selective inactivation in the murine lung. Mississippi State University College of Veterinary Medicine Annual Research Day. Starkville, MS

August 2019 Nicaise A, Kummari E and Kaplan BLF. Optimization of a Prime Flow RNA Expression Assay to Evaluate Effects of the Environmental Contaminant TCDD. Mississippi State University Shackoul's Honor College Undergraduate Research Symposium. Mississippi State, MS

July 2019 Pelanne M, Sears J, Ross M, Archer T and Kaplan BLF. The Effect of Cannabinoids on Pro-inflammatory Cytokines in Canine PBMCs and Granulocytes. 20<sup>th</sup> Annual Boehringer-Ingelheim National Veterinary Scholars Symposium. Boston, MA

July 2019 Nichols J and Kaplan BLF. The Role of CB1 in Experimental Autoimmune Encephalomyelitis. Mississippi Academy of Sciences Meeting. Starkville, MS

July 2019 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Carboxylesterase Isoform-Selective Inactivation in Lung Following Oral Chlorpyrifos Exposures of Neonatal and Adult Mice. Mississippi Academy of Sciences Meeting, Starkville, MS

July 2019 Nicaise A, Kummari E and Kaplan BLF. Optimization of a Prime Flow RNA Expression Assay to Evaluate Effects of the Environmental Contaminant TCDD. Mississippi Academy of Sciences Meeting. Starkville, MS

May 2019 Nichols J and Kaplan BLF. The Role of CB1 in Experimental Autoimmune Encephalomyelitis. American Association of Immunologists Annual Meeting. San Diego, CA

April 2019 Rushing E, Kummari E and Kaplan BLF. Optimization of JC-1 Apoptosis Assay to Evaluate Effects of the Environmental Contaminant TCDD.

- Mississippi State University Shackoul's Honor College Undergraduate Research Symposium. Mississippi State, MS
- April 2019 Sears J, Brown C, Archer T and Kaplan BLF. In vitro Assessment of Cannabinoids on Immune Responses in Canine PBMCs. Mississippi State University Shackoul's Honor College Undergraduate Research Symposium. Mississippi State, MS
- March 2019 Szafran B, Borazjani A, Carr RL, Ross MK and Kaplan BLF. Carboxylesterase Isoform-Selective Inactivation in Lung Following Oral Chlorpyrifos Exposures of Neonatal and Adult Mice. Society of Toxicology Annual Meeting. *The Toxicologist* 168 #1916. Baltimore, MD
- March 2019 Kummari E, Kaplan BLF. Effect of TCDD on B Cell Responses in the Spinal Cord in EAE. Society of Toxicology Annual Meeting. *The Toxicologist* 168 #2318. Baltimore, MD
- March 2019 Sears J, Brown C, Archer T and Kaplan BLF. In vitro Assessment of Cannabinoids on Immune Responses in Canine PBMCs. Society of Toxicology Annual Meeting. *The Toxicologist* 168 #2288, Baltimore, MD



## PROFESSIONAL ACTIVITIES

Peer reviewer as requested by Editor/Associate Editor (average ~11 reviews per year):

- January 2020-present Editorial Board Member, *Toxicological Sciences*
- February 2021-June 2022 Guest Editor, Role of The Aryl Hydrocarbon Receptor in Immune Modulation, *Frontiers in Toxicology Research Topic*

### PEER REVIEWER

- February 2019 International peer review panel for IL-2-Luciferase Assay, Multi-immunotoxicity Test Assay through the Japanese Centre for the Validation of Alternative Test Methods (JaCVAM), National Institutes of Health Sciences, Tokyo, Japan
- October 2019 *Ad hoc* reviewer, NSF International Health Advisory Board, Ann Arbor, MI
- May 2020 *Ad hoc* reviewer, NSF International Health Advisory Board, virtual
- January 2020 International working group member for Detailed Review Paper (DRP) submitted to the Organization for Economic Cooperation and Development (OECD: Paris, France). Tokyo, Japan  
*Deliverable:* "In vitro tests addressing immunotoxicity with a focus on immunosuppression". 2022. Authors: Kojima H (Contractor), Corsini E, Germolec D, Kaplan BLF, Roggen EL, Neff-LaFord H, van Lovern H, Yoshimoto T, Kimura Y and Aiba S.
- November 2022 International peer review panel for IL-2-Luciferase Lymphocyte Toxicity Test Assay, Multi-immunotoxicity Test Assay through the Japanese Centre for the Validation of

Alternative Test Methods, National Institutes of Health  
Sciences, Tokyo, Japan

*PEER REVIEWER GRANT PANELS (VIA VIDEO CONFERENCE)*

June 2024	National Institutes of Health, Hypersensitivity, Autoimmune, and Immune-mediated Diseases (HAI, R01 and R21) Scientific Review Group
November 2023	National Institutes of Health, Environmental Determinants of Disease (R03, R01 and R21) Scientific Review Group
June 2023	National Institutes of Health, Hypersensitivity, Autoimmune, and Immune-mediated Diseases (HAI, R01 and R21) Scientific Review Group
November 2020	National Institutes of Health, Interdisciplinary Molecular Sciences and Training Panel for Comparative Medicine Training Proposals (T32 and T35)
June 2019	National Institutes of Health, Exploring the Mechanisms Underlying Analgesic Properties of Minor Cannabinoids and Terpenes (R01 and R21) Scientific Review Group
July 2018	National Institutes of Health, Discovery and Biological Signatures of Diet-Derived Microbial Metabolites (R01) Scientific Review Group

*PEER REVIEWER GRANT PANELS (VIA E-MAIL/SUBMITTED ONLINE)*

March 2024	Israel Science Foundation, Personal Research Grants (Jerusalem, Israel)
June 2023	Center for Medicinal Cannabis Research grant review (CA, USA)
May 2023	Consortium for Medical Marijuana Clinical Outcomes Research grant review (FL, USA)
February 2022	Irish Research Council, Laureate Awards grant review (Dublin, Ireland)
May 2021	Consortium for Medical Marijuana Clinical Outcomes Research grant review (FL, USA)
April 2020	Natural Sciences and Engineering Research Council of Canada (NSERC) Alliance Grant review
January 2020	Barth Syndrome Foundation Grant Review (NY, USA)
April 2018	Natural Sciences and Engineering Research Council of Canada (NSERC) Collaborative Research and Development Grant review,
August 2018	National Institutes of Health Center for Scientific Review Anonymization Study Grant Review
February 2015	National Institutes of Health, Innate Immunity and Inflammation Scientific Review Group
January 2015	Natural Sciences and Engineering Research Council of Canada (NSERC) Collaborative Research and Development Grant review
July 2014	National Institute of Occupational Safety and Health, Internal Proposal

December 2012	Medical Research Council, Infections and Immunity Board, United Kingdom
February 2012	National Institute of Environmental Health Sciences Children's Environmental Health Sciences Core Center Pilot Project at Medical College of Wisconsin
June 2010	National Institute of Environmental Health Sciences Children's Environmental Health Sciences Core Center Pilot Project at Medical College of Wisconsin

*REGIONAL OR NATIONAL SERVICE*

May 2024-present	Appointed member, Society of Toxicology Board of Publications
December 2023-April 2024	Chair, Animal Models and Alternatives working group of the Scientific Liaison Coalition
May 2021-April 2024	Member, Scientific Liaison Coalition (Society of Toxicology representative)
September 2020-December 2022	Invited member, "Key Characteristics of Immunotoxicants" working group
May 2018- April 2021	Councilor (elected position), Society of Toxicology
May 2017-April 2020	Member, Society of Toxicology Undergraduate Consortium Task Force
May 2017-April 2018	Chair, Society of Toxicology Undergraduate Consortium Task Force
May 2016-April 2017	Chair, Society of Toxicology Education Committee
May 2015-April 2016	Co-Chair, Society of Toxicology Education Committee
May 2014-April 2017	Appointed Member, Society of Toxicology Education Committee
August 2013-July 2014	Co-Chair, Society of Toxicology Mentoring Breakfast Planning Committee
August 2012-July 2013	Chair, Society of Toxicology Mentoring Breakfast Planning Committee
May 2012-January 2013	Toxicology Consulting, Mead Johnson Nutrition (Evansville, IN)
February 2012-August 2012	Facilitator, Society of Toxicology Mentor Match Program
April 2010-March 2013	Appointed Member, Society of Toxicology Career Resource and Development Committee
June 2012	Faculty Judge for Graduate Student Oral and Poster Presentations, Midwest Annual Pharmacology Colloquium
June 2010	Faculty Judge for Graduate Student Oral and Poster Presentations, Midwest Annual Pharmacology Colloquium
May 2007-April 2009	Member, Program Committee, Society of Toxicology Immunotoxicology Specialty Section Program Committee

*SCIENTIFIC SESSION CHAIR/CO-CHAIR*



May 2024	Co-chair, Society of Toxicology/US Food and Drug Administration Colloquium, "Current State of the Science: Toxicology of Cannabidiol and Other Cannabinoids", virtual
March 2023	Co-chair, Continuing Education Session, "Put Your Science Where Your Mouth Is: Practice Makes Progress in Effective Science Communication", Society of Toxicology Annual Meeting. Nashville, TN
March 2022	Co-chair, Symposium Session "Communicating Science in an Age of Misinformation and Mistrust", Society of Toxicology Annual Meeting. San Diego, CA
March 2020	Co-chair, Symposium Session "Immunosuppressive and Anti-inflammatory Activity of Cannabis and Cannabinoids: Adverse or Therapeutic", Society of Toxicology Annual Meeting. Anaheim, CA (in person presentation canceled due to COVID-19)
March 2018	Chair, Education-Career Session "Research-based Approaches to Improve Teaching Effectiveness in Toxicology Classrooms", Society of Toxicology Annual Meeting. San Antonio, TX
March 2016	Chair, Education-Career Session "Talksology: Effective Oral Presentation Techniques", Society of Toxicology Annual Meeting. New Orleans, LA
March 2014	Chair, Workshop Session "Communication and Engagement with the Public about Toxicology in a World that Misunderstands Science and Scientists: How do you Make your Message Relevant and "Sticky?", Society of Toxicology Annual Meeting, Phoenix, AZ
March 2014	Co-Chair, Workshop Session "Contribution of Nonimmune Cells to Adverse Immune Responses: Implications for Toxicology", Society of Toxicology Annual Meeting, Phoenix, AZ
March 2013	Co-Chair, Educational Session "New Submissions to Competitive Renewals: Different Phases of Grant Writing", Society of Toxicology Annual Meeting, San Antonio, TX
March 2011	Co-Chair, Workshop Session "Polishing Today's Job Candidate in a Tough Economy", Society of Toxicology Annual Meeting, Washington DC
March 2009	Chair, Symposium Session "Immunomodulation During Complementary and Alternative Medicine (CAM) Therapy: Risks and Benefits", Society of Toxicology Annual Meeting, Baltimore, MD
March 2008	Chair, Platform Session "Immunotoxicology: T Cells", Society of Toxicology Annual Meeting, Seattle, WA
June 1998	Chair, 26th Annual Pharmacology Research Colloquium, Medical College of Ohio, Toledo, OH

*COLLEGE OR UNIVERSITY SERVICE*

Mississippi State University

One day annually since 2017	Faculty interviewer Mississippi State University College of Veterinary Medicine for veterinary school admission
February 2024-present	Member, Mississippi State University College of Veterinary Medicine Bylaws and Policy Task Force
January 2024-present	Member, Search Committee for Mississippi State University Department of Comparative Biomedical Sciences Head

May 2024-present	Director, Mississippi State University College of Veterinary Medicine Summer Research Experience (SRE) for veterinary students
August 2019-April 2024	Co-director, Mississippi State University College of Veterinary Medicine Summer Research Experience (SRE) for veterinary students
August 2015-December 2023	Member, CVM 8011 Seminar Course Leadership Committee
September 2022-May 2023	Member, Search Committee for Mississippi State University College of Veterinary Medicine Dean
January 2018-April 2023	Alternative faculty representative for Mississippi State University, Federal Demonstration Partnership
August 2014-August 2021	Faculty Judge for College of Veterinary Medicine Research Day, Mississippi State University
August 2016-August 2018	Coordinator, College of Veterinary Medicine Research Day, Mississippi State University
April 2014-April 2018	Faculty Judge for Shackoul's Honor College Undergraduate Research Symposium, Mississippi State University
April 2015-April 2016	Faculty Judge for Biology Undergraduate Research Program (BURP) Mississippi State University
March 2014-February 2016	Member, Mississippi State University College of Veterinary Medicine Scholarship Committee
May 2015-August 2015	Member ( <i>ad hoc</i> ), College of Veterinary Medicine Seminar Series Course Update Committee
August 2014	Member, Mississippi State University Department of Basic Sciences Faculty Search Committee for Research Assistant Professor (PI Henry Wan)
November 2013	Panel Member, Mississippi State University College of Veterinary Medicine Lab Animal and Research Club Discussion "Ethical Use of Animals in Research"
Michigan State University	
July 2011-June 2013	Faculty Representative, Michigan State University College of Veterinary Medicine Graduate Grievance Hearing Pool
October 2012	Faculty Judge for Graduate Student Oral Presentations, Michigan State University College of Veterinary Medicine Phi Zeta Day
October 2011	Faculty Judge for Resident, Intern and Masters Student Oral Presentations, Michigan State University College of Veterinary Medicine Phi Zeta Day
October 2004-February 2008	Member, Department of Pharmacology and Toxicology Graduate Student Recruitment Committee, Michigan State University
University of Chicago (post-doctoral training)	
May 2004	Faculty Discussion Leader for Medical Student Presentation Entitled "Impact of CD8 on Tumor Cell Recognition by High and Low Affinity T Cell Receptors", 58 <sup>th</sup> Senior Scientific Session for Medical Students, University of Chicago

## SEMINARS HOSTED AT MISSISSIPPI STATE UNIVERSITY

- October 2022 Dr. Courtney Sulentic, Associate Professor, Pharmacology and Toxicology  
Wright State University Boonshoft School of Medicine  
“A Key Transcriptional Regulator of Antibody Production May be a  
Significant Toxicological and Therapeutic Target”  
CVM 8011 Graduate Seminar Course  
Virtual presentation: October 25, 2022
- November 2019 Dr. Jason Organ, Assistant Professor of Anatomy and Cell Biology  
Indiana University School of Medicine  
“Tips and Tricks to Effectively Convey a Scientific Message”  
Sponsored by Mississippi State University Office of Research and  
Economic Development  
Date of visit: November 19-20, 2019
- April 2019 Dr. Leigh Ann Burns Naas, President of the Society of Toxicology and Vice  
President of Nonclinical Safety and Pathobiology  
Gilead Pharmaceuticals, San Francisco, CA  
“The Evolving Role of Toxicology in the Drug Development Paradigm”  
Date of visit: April 15-16, 2019
- October 2017 Dr. Chander Raman, Professor, Professor of Medicine, Division of Clinical  
Immunology and Rheumatology  
University of Alabama at Birmingham, Birmingham, AL  
“Interferons in Pathogenesis and Regulation in Autoimmunity”  
Date of visit: October 16-17, 2017
- October 2016 Dr. Steven Hermansky, Vice President, Science and Regulatory Affairs  
ConAgra Foods and Science Forum Chairman, Omaha, NE  
“Science Communication in a World that Mistrusts Scientists: What Can  
We Do?”  
Date of visit: October 10-11, 2016
- February 2016 Dr. Norbert Kaminski, Director, Institute for Integrative Toxicology,  
Professor, Pharmacology and Toxicology  
Michigan State University, East Lansing, MI  
“Plasmacytoid Dendritic Cells are a Sensitive Target for Modulation by  
Cannabinoids: Potential Relevance to HIV”  
Date of visit: February 1-2, 2016
- November 2013 Dr. Peer Karmaus, Post-doctoral fellow  
St. Jude Children’s Research Hospital, Memphis, TN  
“Metabolic Programming of Myeloid Cell Development”  
Date of visit: November 17-18, 2013