

The PMI Times

Department of Pathology, Microbiology & Immunology
University of South Carolina ~ School of Medicine
The Communication Source for PMI Faculty, Staff & Students
Department Chair: Dr. Mitzi Nagarkatti, PhD
Editors: Mitzi Nagarkatti, PhD, Angela Murphy, PhD & Nicki Holt



May - August 2021

P Honors & Awards

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I Dr. Mitzi Nagarkatti was selected as a 2021 recipient of the SOM Award for the Advancement of Women in Science and Medicine! The UofSC School of Medicine Columbia Women in Science and Medicine (WIS&M) Committee, in consultation with Dean Les Hall, created the Award for the Advancement of Women in Science and Medicine in 2021 to recognize outstanding individual and organizational contributions to advancing women leaders in the health sciences. This year, the awardees were chosen by the WIS&M. Dr. Nagarkatti will be honored at the 2021 Alumni and Dean's Distinguished Award ceremony, October 21, 2021.

Drs. Prakash Nagarkatti and Mitzi Nagarkatti were awarded an NIH R01 grant to study the mechanisms underlying colitis and colon cancer. This is a 5-year grant for \$2.5million. This is the 14th NIH R01 grant awarded as PIs from the time they joined USC in 2005, besides the 2 Center grants, 1 Animal Facilities Renovation Grant and 1 Equipment grant, in addition to the VA Merit Award and 2 Equipment grants.

Dr. Jason Kubinak received an R01 grant from the National Institute of Allergy and Infectious Disease in the amount of \$2.1 million for a project titled, "B-cell-intrinsic MHCII Signaling is a Diversifying Force of Selection on IgA Repertoires and the Gut Microbiota".

Dr. Mitzi Nagarkatti has been elected to the American Association of Immunologists (AAI) Finance Committee for 3 years starting May 2021.

Congratulations to Nicholas Dopkins (Nagarkatti lab) for successfully defending his dissertation, "Role of Aryl Hydrocarbon and Cannabinoid Receptors in Regulation of Inflammation" on July 13, 2021. Nicholas has accepted a Postdoctoral fellowship at Weill Cornell College of Medicine.

Dr. Dean Hall, UofSC School of Medicine Dean, honored 3 of our PMI faculty with Teaching Excellence Awards - Drs. Alexa Gandy, Carole Oskeritzian and James Catroppo. Dr. Hall recognized and honored the outstanding contributions made by our faculty to medical and health science education. These faculty were voted by the Class of 2023 and presented with awards at the Teacher of the Year: An Evening at the Oscars Ceremony May 17, 2021.

- MII Pearls of Wisdom Speakers
James Catroppo, PhD
- Kay McFarland Women's Health Award
Alexa Gandy, PhD
- MII Class Teachers of the Year
Alexa Gandy, PhD

Graduate Programs

- Graduate Teaching Appreciation award presented by the Biomedical Science Graduate Student Association
Carole Oskeritzian, PhD

Dr. Keisha Wilson, (Nagarkatti lab) was the recipient of the International Cannabinoid Research Society (ICRS) Braude Foundation Award at the ICRS 2021 Symposium. Her abstract was titled, "Treatment of SEB-induced acute respiratory distress syndrome (ARDS) with CBD ameliorates fatal inflammatory response".

Nicholas Dopkins, PhD from the Nagarkatti lab received the Pre-doctoral Presentation Prize for "Cannabidiol treatment in experimental autoimmune encephalomyelitis inhibits production of the proinflammatory cytokine IL-1 β " at the 31st Annual ICRC Symposium, June 2021.

Dr. Osama Abdulla (Nagarkatti lab) was the recipient of the Society of Toxicology (SOT) Dharm V. Singh Carcinogenesis Award Fund at the virtual 2021 SOT annual meeting, March 15-26, 2021.

Muthanna Sultan (Nagarkatti lab) served as an Editor for the 2021 Biotechnology Specialty Section Newsletter for the Society of Toxicology (SOT) March 2021.

Muthanna Sultan (Nagarkatti lab) served as the 2021 Platform session chair for Ozone-induced Pulmonary Toxicity Session. 60th Annual Meeting for Society of Toxicology (SOT) (Virtual meeting due to Covid19), March 2021.

Muthanna Sultan (Nagarkatti lab) served as the 2021 Review Committee Member for the Annual Award Applications for the Biotechnology Specialty Section of the Society of Toxicology (SOT), March 2021.

Dr. Kiesha Wilson (Nagarkatti lab) was the recipient of the Society of Toxicology (SOT) Toxicologist of African Origin Endowment Fund at the Virtual 2021 SOT Annual Meeting, March 2021.

Dr. Kandy Velazquez and Dr. Angela Murphy are topic editors for a collection of papers on Physical Activity and Nutritional Strategies to Counteract the Off-Target Effects of Cancer Therapy. Dr. Ciaran Fairman (Exercise Science USC) and Dr. Tormod Nilsen (Norwegian School of Sports Sciences, Oslo, Norway) complete the topic editor team. Participating journals include Frontiers in Sports and Active Living and Frontiers in Nutrition.

Dr. Brandon Busbee was the recipient of the American Association of Immunologists (AAI) Early Career Faculty Travel Grant Award. AAI Annual Virtual Meeting, May 10-15, 2021.

Dr. Carole Oskeritzian received the GSK award for best presentation in Allergy, Asthma and Respiratory Inflammatory Diseases during the 15th World Immune Regulation Meeting, held virtually on June 30 to July 3, 2021.

Congratulations to Patrice Cunningham, a former PREP student in the Velazquez lab, for being accepted into the Biomedical Science PhD program. Patrice will continue to work under the tutelage of Dr. Velazquez.

Dr. Ioulia Chatzistamou serves as a Co-PI of a grant funded by NSF titled "Sustaining the operation of the Peromyscus Genetic Stock Center". The funding period is 07/01/2021-06/30/2024 and the amount is \$487,134. Dr. Hippokratis Kiaris (College of Pharmacy, Drug Discovery and Biomedical Sciences) is the lead PI.

Dr. Ioulia Chatzistamou serves as a Co-I of an NIH/NCI funded R01 grant titled "Inhibiting tumor growth and metastasis in highly aggressive breast cancers with centrosome". The funding period is 07/01/2021-06/0/2026 and the amount is \$1,693,971. Dr. Ozgur Sahin (College of Pharmacy, Drug Discovery and Biomedical Sciences) is the lead PI.

Dr. Ioulia Chatzistamou serves as a Co-I on the NSF grant "From Genome to Fitness: An analysis of the stress response to Peromyscus". The grant was awarded as a \$400,000 supplement for 2 years to engage Claflin University investigators in research and training. Dr. Hippokratis Kiaris (College of Pharmacy, Drug Discovery and Biomedical Sciences) is the lead PI.

Dr. James F. Catroppo received a University of South Carolina Certificate of Service in recognition and appreciation of more than 10 years of service to the citizens of the State of South Carolina (April 27, 2021).

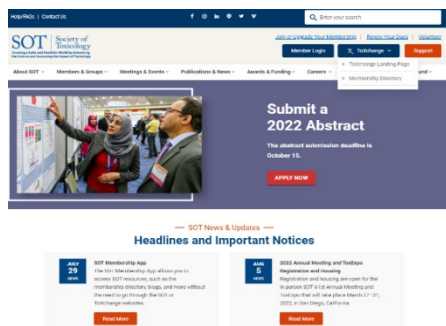
Dr. Swapan Ray recently received a grant, which was awarded by the South Carolina Spinal Cord Injury Research Fund (SCIRF), for a research project titled: "Inhibition of BMP signaling for neuroprotection in spinal cord injury in vitro and in vivo".

Amanda Manea, a Junior in UofSC Honors College who works in the laboratory of Dr Ray, has recently been selected to study abroad in Barcelona, Spain.

News & Updates

Dr. Prakash Nagarkatti serves on the National Science Foundation Committee on the Future of the Established Program to Stimulate Competitive Research (EPSCoR).

Dr. Prakash Nagarkatti was featured in the article by Jeffrey Mervis, "Senate bill gives 'have-not' states a gigantic research set-aside" July 12, 2021. "Talent is everywhere," says Prakash Nagarkatti, Vice President for Research at the University of South Carolina, an EPSCoR state, and Chair of the EPSCoR/IDeA council. "But we lose many of our most talented students to universities in non-EPSCoR states, and they don't come back because we don't have enough good jobs to offer them. My goal is to be able to say to a student: 'If you stay in South Carolina, you'll have a wonderful research experience and the chance to start a company.'" <https://www.sciencemag.org/news/2021/07/senate-bill-gives-have-not-states-gigantic-research-set-aside>



The Nagarkatti lab is featured on the 2022 Society of Toxicology (SOT) website. The four members pictured are Prakash Nagarkatti, PhD, Wurood Neamah, PhD, Hasan Alghetaa, PhD, and Amira Mohammed, PhD.

Dr. Prakash Nagarkatti chaired and authored "Announcing the 2021 SOT Endowment Fund Award Recipients" posted 08-12-20. The SOT Endowment Fund serves as a mechanism for supporting toxicologists and the science of toxicology now and into the future. To recognize their outstanding achievements, this year, more than 100 deserving undergraduate and graduate students, postdoctoral scholars, and scientists across career levels received awards funded through the Endowment. https://toxchange.toxicology.org/blogs/prakash-nagarkatti/2021/08/12/announcing-the-2021-sot-endowment-fund-award-recipient?CommunityKey=fc369e8b-e268-48fa-b276-8edd4ab68fb2&tab=community-home-blogs&utm_source=SOT%20Website&utm_medium=Referrals&utm_campaign=ToXchange

Dr. Prakash Nagarkatti was featured by News 19 the article titled "Delta-8 is the newest cannabis product to emerge in the Midlands" by Emily Correll, May 25, 2021. <https://www.wtx.com/article/news/local/delta-8-cannabis-product-emerges-in-midlands/101-632bcb2d-f1f2-4035-bb4c-32bf528eb4f>

Yvonne Hui, B.S., joined the Oskeritzian Lab on June 1 as a Research Specialist II. Yvonne brings a wealth of experience with animal models as well as cellular and molecular techniques. Welcome, Yvonne! We are fortunate to have you onboard!

This summer PMI was honored to have Support for Minority Advancement in Research Training (SMART) program students and undergrads join the labs.

- Kira Chiles – Brandon Busbee lab - UNC-Charlotte: Explore the immunological changes associated with Th22 activation.
- Amaya Calloway – Brandon Busbee lab - USC-Columbia: Examine the effect of indole-3-carbinol on cellular differentiation.
- Saibriyya Pou – Nagarkatti lab - Clemson University: Examine the role of 2-(1'-H-indole-3'-carbonyl)-thiazole-4-carboxylic acid methyl ester (ITE) on immune cell differentiation.
- Antwon Cannon – Nagarkatti lab - Claflin University: Examine the effect of 3,3'-diindolylmethane (DIM) treatment on cellular metabolism.
- Alanna Langford – Xiaoming Yang - USC-Columbia: Examine the effect of specific immune cell activation on gene expression.

Dr. Carole Oskeritzian served as a grant reviewer for NIH/NIAID Investigator-Initiated Program Project (P01) applications, May 26, 2021.

Dr. Carole Oskeritzian served as a grant reviewer for NIH/NIAMS Mentored Clinical Scientist Research Career Development Award (K08) applications, June 18, 2021.

Dr. James F. Catroppo attended the following UofSC Center for Teaching Excellence (CTE) workshops:

- 5 August 2021 Attended University of South Carolina Center for Teaching Excellence (CTE) Webinar workshop "Managing Faculty Fatigue"
- 27 May 2021 Attended University of South Carolina Center for Teaching Excellence (CTE) Webinar workshop "Introduction to Ultra Course View in Blackboard"

Dr. James F. Catroppo was accepted into and completed University of South Carolina Center for Teaching Excellence (CTE) Reflective Teaching Practices for Medical Educators (RTPforME) Certificate of Completion (CoC) Program (1-28 June 2021).

Dr. James F. Catroppo was appointed Co-Block Director, General Principles/Fundamentals Curriculum Block and Block Director, Musculoskeletal System Block, for the Academic Year 2021-2022 at the University of South Carolina School of Medicine – Columbia.

Dr. James F. Catroppo was elected to the University of South Carolina School of Medicine Faculty Representation Committee for a three-year term beginning 1 July 2021 and ending 30 June 2024.



Caroline Stanek, MD, UofSC SOM Class of 2021, was accepted into the Anatomic and Clinical Pathology Residency Program in the Department of Pathology at the University of Alabama (UAB) School of Medicine.

The Class of 2023 scored above the U.S. National average on the National Board of Medical Examiners (NBME) Basic Science Subject Examination (AKA the “Shelf Exam”) in Pathology (May 2021).

Dr. Swapan Ray served as a peer reviewer for the paper published in *Nature Communications*, “Advances and challenges in retinoid delivery systems in regenerative and therapeutic medicine”, *Nat Commun.* 2020;11(1):4265. doi: 10.1038/s41467-020-18042-2.

Dr. Swapan Ray joined the editorial board, as an Associate Editor, of the journal *Neuroimmunology and Neuroinflammation*.

Dr. Swapan Ray acted as the Academic Editor for the paper recently published in *Brain Sciences*, “Glutathione as a molecular marker of functional impairment in patients with at-risk mental state: 7-Tesla ¹H-MRS study”, *Brain Sci.* 2021, 11(7), 941; <https://doi.org/10.3390/brainsci11070941>.

Dr. Swapan Ray has been featured in the ‘Faculty Author Spotlights’ on August 6, 2021, by the Office of the Provost, UofSC, for Editing the book with the publisher Springer Nature: *Retinoid and Rexinoid Signaling*.

Dr. Swapan Ray has again been featured in the ‘Faculty Author Spotlights’ on August 11, 2021, by the Office of the Provost, UofSC, for Editing a book with the publisher Elsevier: *NEUROBLASTOMA - Molecular Mechanisms and Therapeutic Interventions*.

We are happy to welcome several new post-doctoral fellows & graduate students to the PMI family:

- Dr. Varsha K Kulangara joined the Nagarkatti Laboratory as Postdoctoral Fellow. Varsha received her Ph.D. from the Department of Biotechnology, CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, India.
- Khadija Kakar is a Fulbright PhD awardee from Pakistan. She joined the Nagarkatti lab in April 2021. Khadija is currently pursuing studies to determine the effects of cannabinoids on experimental autoimmune encephalomyelitis as well as the gene expression profile in T cell subpopulations in the tumor microenvironment.
- Hamida Ali has recently joined the lab of Dr. Mitzi Nagarkatti as a Fulbright doctoral student. Hamida received her M.Phil degree from Sardar Bahadur Khan Women’s University Quetta, Pakistan in 2017 and investigated the association of genetic polymorphisms with susceptibility to several types of cancer.

Dr. Angela Murphy served as a reviewer for NIH/NCI Transition to Independence awards on June 9-10, 2021.

Dr. Ahmed Mohammed will continue as a PDF in Dr. Jason Kubinak’s lab after graduating with his PhD.

Dr. Angela Murphy served as a reviewer of grants for the Searle Scholars Program in July 2021.

Dr. Carole Oskeritzian was invited to join a discussion panel at the 10th EMBRN International Mast Cell and Basophil Meeting held virtually on May 3, 2021.

Dr. Carole Oskeritzian was invited by the University of North Carolina at Greensboro to serve as an External Reviewer for Faculty Promotion.

Dr. Carole Oskeritzian was an elected member of the UofSC SOMC Women in Science and Medicine (WISaM) Committee and will serve as WISaM Co-Chair for a three-year term.

Dr. Carole Oskeritzian served as a Chair of the Tumor Antigen-Specific Immune Regulation Session during the 15th World Immune Regulation Meeting, held virtually on June 30 to July 3, 2021.

Dr. Carole Oskeritzian was invited to serve as a Panelist at the 2021 Academic Leadership and Career Development Workshop organized by the South Carolina IDeA Networks of Biomedical Research Excellence (SC INBRE) held virtually on June 14, 2021.

Dr. Carole Oskeritzian was invited to serve as a PMI representative on the UofSC SOMC Biomedical Sciences Certificate Program Task Force.

Dr. Velázquez was selected to participate in a three-week workshop focused on reflecting teaching practices for medical educators.

Dr. Velázquez served as a reviewer for the Journal '*Frontiers in Immunology*'.

Dr. Swapan Ray provided an expert interview to Thomas Gruel (Content Manager) on Parkinson's Disease that was aired on the TV station WCSC, Charleston, SC.

Publications

Abdulla OA, Neamah W, Sultan M, Alghetaa HK, Singh N, Busbee PB, Nagarkatti M, Nagarkatti P. The Ability of AhR Ligands to Attenuate Delayed Type Hypersensitivity Reaction Is Associated With Alterations in the Gut Microbiota. *Front Immunol*. 2021 Jun 29;12:684727. doi: 10.3389/fimmu.2021.684727. PMID: 34267755; PMCID: PMC8277436.

Chitralla KN, Nagarkatti P, Nagarkatti M. Computational analysis of deleterious single nucleotide polymorphisms in catechol O-Methyltransferase conferring risk to post-traumatic stress disorder. *J Psychiatr Res*. 2021 Jun;138:207-218. doi: 10.1016/j.jpsychires.2021.03.048. Epub 2021 Mar 31. PMID: 33865170.

Alghetaa H, Mohammed A, Zhou J, Singh N, Nagarkatti M, Nagarkatti P. Resveratrol-mediated attenuation of superantigen-driven acute respiratory distress syndrome is mediated by microbiota in the lungs and gut. *Pharmacol Res*. 2021 May;167:105548. doi: 10.1016/j.phrs.2021.105548. Epub 2021 Mar 15. PMID: 33722710.

Sultan M, Alghetaa H, Mohammed A, Abdulla O, Narendra S, Nagarkatti P, Nagarkatti M. The Endocannabinoid Anandamide Attenuates Acute Respiratory Distress Syndrome by Downregulating miRNA that Target Inflammatory Pathways. *Front Pharmacol*. 2021 Apr 27;12:644281. doi: 10.3389/fphar.2021.644281.

Holloman BL, Nagarkatti M, Nagarkatti P. Epigenetic Regulation of Cannabinoid-Mediated Attenuation of Inflammation and Its Impact on the Use of Cannabinoids to Treat Autoimmune Diseases. *Int J Mol Sci*. 2021 Jul 7;22(14):7302. doi: 10.3390/ijms22147302. PMID: 34298921; PMCID: PMC8307988.

Wu W, Qin Q, Ding Y, Zang H, Li DS, Nagarkatti M, Nagarkatti P, Wang W, Wang X, Cui T. Autophagy Controls Nrf2-Mediated Dichotomy in Pressure Overloaded Hearts. *Front Physiol*. 2021 May 13;12:673145. doi: 10.3389/fphys.2021.673145. PMID: 34054582; PMCID: PMC8155729.

Cai G, Du M, Bossé Y, Albrecht H, Qin F, Luo X, Androulakis XM, Cheng C, Nagarkatti M, Nagarkatti P, Christiani DC, Whitfield ML, Amos CI, Xiao F. SARS-CoV-2 Impairs Dendritic Cells and Regulates DC-SIGN Gene Expression in Tissues. *Int J Mol Sci*. 2021 Aug 26;22(17):9228. doi: 10.3390/ijms22179228. PMID: 34502134; PMCID: PMC8431536.

Mondal A, Saha P, Bose D, Chatterjee S, Seth RK, Xiao S, Porter DE, Brooks BW, Scott GI, Nagarkatti M, Nagarkatti P, Chatterjee S. Environmental Microcystin exposure in underlying NAFLD-induced exacerbation of neuroinflammation, blood-brain barrier dysfunction, and neurodegeneration are NLRP3 and S100B dependent. *Toxicology*. 2021 Sep;461:152901. doi: 10.1016/j.tox.2021.152901. Epub 2021 Aug 17. PMID: 34416350; PMCID: PMC8503918.

Saha P, Skidmore PT, Holland LA, Mondal A, Bose D, Seth RK, Sullivan K, Janulewicz PA, Horner R, Klimas N, Nagarkatti M, Nagarkatti P, Lim ES, Chatterjee S. Andrographolide Attenuates Gut-Brain-Axis Associated Pathology in Gulf War Illness by Modulating Bacteriome-Virome Associated Inflammation and Microglia-Neuron Proinflammatory Crosstalk. *Brain Sci.* 2021 Jul 9;11(7):905. doi: 10.3390/brainsci11070905. PMID: 34356139; PMCID: PMC8304847.

Hou L, Li Y, Wu Q, Li M, Older EA, Tang X, Nagarkatti P, Nagarkatti M, Liu Y, Li L, Fan D, Bugni TS, Shang Z, Li J. Discovery of anti-infective adipostatins through bioactivity-guided isolation and heterologous expression of a type III polyketide synthase. *Bioorg Chem.* 2021 Jul;112:104925. doi: 10.1016/j.bioorg.2021.104925. Epub 2021 Apr 22. PMID: 34022708.

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Kiran S, Kumar V, Murphy EA, Enos RT, Singh UP. High fat diet-induced CD8 + CXCR3 + T cells expression in adipose tissue mediates macrophages to sustain low-grade chronic inflammation. *Frontiers in Immunology.* 2021 Jun 23;12:680944.

Sougiannis AT, VanderVeen BN, Davis JM, Fan D, Murphy EA. Understanding chemotherapy-induced intestinal mucositis and strategies to improve gut resilience. *Am J Physiol Gastrointestinal Liver Physiol.* 2021 May 1;320(5):G712-G719.

Tanis RM*, Wedman-Robida PA*, Chumanevich AP, Fuseler JW, Oskeritzian CA. The mast cell/S1P axis is not linked to pre-lesional male skin remodeling in a mouse model of eczema. *AIMS Allergy and Immunology.* 2021;5:160-174. * co-first authors.

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Syed M, Kammala AK, Callahan B, Oskeritzian CA, Subramanian H. Lactic acid suppresses MRGPRX2-mediated mast cell responses. *Cell Immunol.* 2021;368:104422.

Zhang Y, Chatzistamou I, Kiaris H. Transcriptomic coordination at hepatic steatosis indicates robust immune cell engagement prior inflammation. *BMC Genomics.* 2021, Jun 16;22(1):454.

Naderi A, Soltanmaohammadi E, Kaza V, Barlow S, Chatzistamou I, Kiaris H. Persistent effects of pair bonding in lung cancer cell growth in monogamous *Peromyscus californicus*. *Elife.* 2021, May 7;10:e64711.
--Spotlight in Trends in Molecular Medicine by Ford & Young (<https://doi.org/10.1016/j.molmed.2021.07.010>)

Zhang Y, Lim C, Sikirzhyski V, Naderi A, Chatzistamou I and Kiaris H. The propensity to endoplasmic reticulum stress in deer mouse fibroblasts predicts skin inflammation and body weight gain. *Disease Models & Mechanisms.* In Press. 2021.
--Featured In First Person interview by Y. Zhang: *Disease Models & Mechanisms*

Al-Sammarraie N, Ray SK. Applications of CRISPR-Cas9 technology to genome editing in glioblastoma multiforme. *Cells.* 2021; 10, 2342. <https://doi.org/10.3390/cells10092342>.

Presentations

McDonald SJ, Cranford TL, Vanderveen BN, Fan D, Murphy EA. miR155 deficiency reduces breast tumor burden in a transgenic breast cancer murine model. National Cancer Institute Center to Reduce Cancer Health Disparities (CRCHD), July 19-22, 2021. Virtual Due to COVID-19.

Vanderveen BN, McDonald SJ, Cardaci TD, Madero SS, Fairman CM, Fan D, Murphy EA. The Impact of Weight Status and Multiple Dosing Cycles of 5 Fluorouracil on Skeletal Muscle Immune Cells in Mice. 6th Cancer Cachexia Conference, August 28, 2021. Virtual Due to COVID-19.

Cardaci TD, Vanderveen BN, McDonald S, Madero, SS, Velazquez K, Fairman CM, Fan D, Murphy EA. Multiple dosing cycles of 5-fluorouracil monotherapy induces adipose tissue atrophy in mice. 6th Cancer Cachexia Conference, August 28, 2021. Virtual Due to COVID-19.

Robida PA, Chumanevich AP, Orr Gandy, KA, Fuseler JW, Nagarkatti P, Nagarkatti M, Oskeritzian CA. Skin mast cells mediate ceramide elevation and apoptosis at the early pre-symptomatic phase of atopic dermatitis in a human-like mouse model. 15th World Immune Regulation Meeting, June 30-July 3, 2021. Virtual Due to COVID-19.

Al-Sammarraie N, Ray SK. Bone morphogenetic protein 4 and luteolin to target autophagy in glioblastoma. American Society for Neurochemistry (ASN) Annual Meeting, June 25-30, 2021. Virtual Due to COVID-19.

Al-Sammarraie N, Ray SK. Inhibition of bone morphogenetic protein signaling for prevention of cell death from Ca²⁺ overload in co-culture model of spinal cord injury. American Society for Neurochemistry (ASN) Annual Meeting, June 25-30, 2021. Virtual Due to COVID-19.

Mitchell C, Staley S, Wilson K, Rutkovsky A, Wisniewski P, Dopkins N, Nagarkatti M, Nagarkatti P, Busbee P. AhR expression on both Rorc-specific immune cells and Vil1-expressing colonic epithelial cells are essential for I3C-mediated protection against colitis. American Association of Immunologists (AAI), Annual Meeting, May 10-15, 2021. Virtual Due to COVID-19.

Cannon A, Wilson K, Miranda K, Nagarkatti M, Nagarkatti P. Downregulation of AW112010 upon treatment with 6-formylindolo[3,2-b] carbazole protects mice from fulminant Concanavalin-induced T cell-mediated liver injury. American Association of Immunologists (AAI), Annual Meeting, May 10-15, 2021. Virtual Due to COVID-19.

Abdulla O, Wilson K, Nagarkatti P, Nagarkatti M. A single cell sequencing approach to understand the nature of myeloid-derived suppressor cells in tumor-bearing mice. American Association of Immunologists (AAI), Annual Meeting, May 10-15, 2021. Virtual Due to COVID-19.

Sultan M, Nagarkatti P, Nagarkatti M. Butyrate mediates the amelioration of Staphylococcal Enterotoxin B-induced Acute Respiratory Distress Syndrome by downregulating the expression of Histone Deacetylases. American Association of Immunologists (AAI), Annual Meeting, May 10-15, 2021. Virtual Due to COVID-19.

Holloman B, Nagarkatti M, Nagarkatti P, Wilson K. Single-cell RNA Sequencing Reveals Heterogeneity Amongst Immune Cell Subpopulations in LPS-Induced ALI Mice treated with I3C. American Association of Immunologists (AAI), Annual Meeting, May 10-15, 2021. Virtual Due to COVID-19.

Wilson K, Cannon A, Sultan M, Nagarkatti P, Nagarkatti M. A single-cell atlas of the lung mononuclear cell response in Staphylococcus Enterotoxin B-induced Acute Respiratory Distress Syndrome. American Association of Immunologists (AAI), Annual Meeting, May 10-15, 2021. Virtual Due to COVID-19.

Wilson K, Sultan M, Cannon AI, Nagarkatti P, Nagarkatti M. Treatment of Seb-Induced Ards with CBD Ameliorates Fatal Inflammatory Response. 31st Annual International Symposium on the Cannabinoids, Jerusalem, Israel, International Cannabinoid Research Society (ICRS), June 23, 2021.

Dopkins N, Wilson K, Miranda K, Nagarkatti P, Nagarkatti M. Cannabidoil Treatment in Experimental Autoimmune Encephalomyelitis Inhibits Production of the Pro Inflammatory Cytokine IL-1B. 31st Annual International Symposium on the Cannabinoids, Jerusalem, Israel, International Cannabinoid Research Society (ICRS), June 23, 2021.

Sultan M, Wilson K, Nagarkatti P, Nagarkatti, M. Single cell RNA sequencing identifies multiple genes related to T regulatory cells induced in Cannabinoid treated Staphylococcus Enterotoxin B (SEB) mediated Acute Respiratory Distress Syndrome (ARDS). Society of Toxicology (SOT) Annual Meeting, March 12-26, 2021.