

The PMI Times

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



JANUARY 2016 ~ APRIL 2016

Honors & Awards:

P
M
I

Dr. Carole Oskeritzian was awarded a new R21 grant by NIH/NIAMS entitled “Mast Cell and sphingosine-1-phosphate functions in atopic dermatitis pathogenesis: a role for microRNA?” Dr. Oskeritzian serves as PI and Dr. Mitzi Nagarkatti serves as a co-I. The award was funded on April 1, 2016 for two years and a total amount of \$367,126.

Dr. Angela Murphy received an R21 award from the National Cancer Institute (NCI) entitled “Linking Macrophages to Gut Microbiota in Obesity Enhanced Colon Cancer”. Collaborators on the grant include Dr. Cory Robinson (WV School of Osteopathic Medicine), Dr. Udai Singh (PMI), Dr. Ioulia Chatzistamou (PMI), Dr. Traci Testerman (PMI) and Dr. Edsel Pena (Statistics). This is a 2 year award that started on April 1st in the amount of \$331,862.

Dr. Dev Karan received an NIH R01 grant from National Cancer Institute on “Modulation of host intrinsic immunity to reduce prostate cancer health disparity”. The total project award is \$1,547,965. Prostate cancer is a significant health problem and second leading cause of cancer-related deaths among men in the United States. Unfortunately, African American (AA) men are disproportionately affected by prostate cancer with considerably high incidence and as much as twice the mortality rate than Caucasians. To study the cause of prostate cancer disparity and to improve therapeutic efficacy, Dr. Karan will use epigenetic approaches to investigate the role of tumor infiltrating immune cells in the tumor microenvironment, and use immunotherapy for augmenting anti-tumor immunity. A novel combination of epigenetics and immunotherapy is expected to kill aggressively growing prostate cancer as often seen in AA men. Dr. Michael Wyatt from the Department of Drug Discovery and Biomedical Sciences in the College of Pharmacy is a collaborator on this study.

Dr. Prakash Nagarkatti received a Lifetime Career Achievement Award from the Society of Toxicology. The award was presented at the Immunotoxicology Specialty Section of Society of Toxicology Annual Meeting held in New Orleans, LA on March 13-17 and is named after Dr. Jeff Vos who is considered as the Father of Immunotoxicology.

Dr. Chatzistamou has been awarded an ASPIRE-I, Sub-Track IIA grant from the Office of the Vice President for Research. The title of the project is “Assessment of the anticancer activity of a novel multi-chemokine antibody for breast cancer management.”

Mary Harrell, an undergraduate researcher and Magellan Scholar in Dr. Gomez’s lab, won second place in the morning poster session at Discovery Day for her work entitled “Characterization of the toll-like receptor 4 pathway in human skin mast cells”. Mary graduated with a Bachelor’s of Science degree in Biomedical Sciences from USC in May 2016.

Dr. Kandy Velázquez (Murphy Lab) received an ASPIRE-I, Track 2 award from the Office of the VP for Research entitled “The Effects Of Ojeok-San On Neuro-Immune Interactions In Colon Cancer”.

Yvon Woappi received the top prize for the 11:30 AM Biomedical Science oral presentations at the 2016 Graduate Student Day and went on to receive the first place prize for all disciplines.

Kristin Lescalleet (Murphy lab) successfully defended her M.S. thesis entitled ‘Prospective assessment of health disparities and injury risk factors at basic combat training at Fort. Jackson’. Kristin will be attending D.O. School in the fall.

Cody McHale, a graduate student in Dr. Gomez’s lab, was selected to give an oral presentation at the Annual Meeting of the American Association of Immunologists (AAI) in Seattle, WA. The title of his presentation was “Human skin mast cells constitutively express gp130 and functional IL-6 receptor”. In addition, Cody was awarded a 2016 AAI Trainee Abstract Award to attend the meeting.

Dr. Berlin Londono-Renteria and Dr. Tonya Colpitts were awarded an ASPIRE II grant titled “Human – mosquito complement – like proteins cross talk in Flavivirus responses.” The aim of this project is to evaluate the effect of human complement proteins on the immune response of mosquitoes during dengue virus infection.

Dr. Reilly Enos (Murphy Lab) received an ASPIRE-I, Track 2 award from the Office of the VP for Research entitled "The role of PKC-Theta in obesity-induced hepatic insulin resistance".

Cody McHale, a graduate student in Dr. Gomez's lab, won first place in the poster competition in his section at Graduate Student Day.

Dr. Angela Murphy received an ASPIRE-I award from the office of the VP for research entitled "Maternal Obesity Induced Transgenerational Colon Cancer Risk". Co-investigators on this grant included Dr. Ioulia Chatzistamou and Dr. Traci Testerman.

Pegah Mehrpouya-Bahrami received the American Association of Immunologists(AAI) Trainee Poster Award, AAI annual meeting, Seattle, WA, 2016,

Pegah Mehrpouya-Bahrami received a laboratory Travel award to American Association of Immunologists (AAI) meeting, Seattle, WA,2016, with Dr. Udai Singh.

News and Updates:

Dr. Carole Oskeritzian served as a reviewer for the NIH/NIAID Asthma and Allergic Diseases Cooperative Research Center (U19) grants, Special Emphasis Panel (ZAI1-LAR-I-M1), March 15-17, 2016, Potomac, MD.

Dr. Ioulia Chatzistamou served as a Judge for Oral Presentations at the Graduate Student Day at USC on April 8th.

Dr. Angela Murphy was invited to give a talk at the Cancer Prevention and Control Program Colloquium Series in January 2016. Her talk was entitled "Behavioral Interventions in Animal Models of Cancer".

Dr. Udai Singh served on the National Institutes of Health (NIH) "Cellular and Molecular Immunology A" study section on February 25-26, 2016.

Dr. Berlin Londono-Renteria (Colpitts Lab) was invited by the Division of Parasitic Diseases & Malaria – Malaria Branch at the Center for Disease Control of Atlanta to give a seminar on the "Epidemiological Uses for Mosquito Saliva" in February.

On the mornings of 13 and 14 April, in celebration of National Medical Laboratory Professionals Week, the USCSOM MSIG for Pathology offered KrispyKreme® doughnuts and coffee, as well as promotional "SWAG" from the American Society for Clinical Pathology, together with pamphlets and booklets on a career in anatomic pathology and clinical pathology. The invited speakers for a "mini-boot camp" on laboratory medicine were Dr. Allan Brett, the Orlando Benedict Mayer Professor of Medicine at USC, Director of the Division of General Internal Medicine, Vice Chair of the Department of Medicine, and Editor-in-Chief of the New England Journal of Medicine Journal Watch General Medicine, who held an interactive session on liver enzyme tests, Dr. B. James McCallum, Assistant Professor of Clinical Internal Medicine at USC, Associate Director of Primary Care and Subspecialty Medicine for Inpatient Services and Clinical Attending at the Wm. Jennings Bryan Dorn VA Medical Center (DVAMC), Associate Chief of Staff for Education at the DVAMC, and a Diplomate of the American Board of Clinical Lipidology, who held an interactive session on lipid profiles, and Dr. Christine Wheeler, Clinical Assistant Professor in our Department, as well as a diplomate of the American Board of Pathology in Blood Banking and Transfusion Medicine, who held a talk on basic aspects of transfusion medicine.



In February, Dr. Robert Startz presented a seminar titled "Diseases of the Nineteenth Century" at USC Alumni Center. The presentation began with Lewis and Clark expedition and medicine on their journey and ended with examples of diseases that were present then and now. In addition to the presentation the attendees were allowed to exam plasticized specimens. Dr. Startz received rave reviews from the class, "Your class was terrific. We'd love to have you back again!" He will be returning to present the original "PILOT" and additional lectures on "Diseases of Famous People".

Dr. Carole Oskeritzian also served as a reviewer for the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), April 11, 2016, Bonn, Germany.

Dr. Mitzi Nagarkatti was a member of the NIH Outstanding Investigator Award Initiative, Special Emphasis Review Panel that took place in Washington, DC on March 22-24, 2016.

Dr. Ioulia Chatzistamou served as a reviewer of abstracts for presentations for the 15th Panhellenic Meeting of Pathology that will be held on 11-15 June 2016 at Ioannina, Greece.

Dr. Angela Murphy served as a judge for the Outcomes-Quality session at the Medical Scholarship Day of Focus on April 22, 2016 at the SC State Museum, Columbia, SC.

Dr. Carole Oskeritzian served as a judge for the inaugural Medical Scholarship Day of Focus, Therapeutic Effectiveness session, April 22, 2016, SC State Museum, Columbia, SC.

Dr. Udai Singh served as a Judge of poster presentations at Discovery Day on April 22nd 2016.

Muthanna Sultan, Osama Abdulla, and Zinah Al-Ghazi (Nagarkatti Lab) served as judges for Discovery Day on April 22nd 2016.

During the Spring 2016 school semester the USCSOM Medical Student Interest Group (MSIG) for Pathology, this academic year with Class of 2018 student leaders Ross Tanis and Jacob Nelson, and with Dr. James Catroppo as faculty advisor, hosted and catered for interested M1 and M2 students:

- 19 January lunch talk on a career in dermatopathology given by Dr. Alfonso Gonzalez of the Columbia Skin Clinic.
- 22 February lunch talk on a career in forensic pathology by Dr. Bradley Marcus, Chief Medical Examiner for Richland County.



Dr. Chatzistamou served as a Reviewer of grant applications for USC-SOAR IRG Grants.

Dr. Angela Murphy was invited to give a talk at the Department of Exercise Science Seminar Series in February 2016. The talk was entitled "Linking Obesity to Cancer".

Dr. Carole Oskeritzian served as a judge in the Molecular Biology Session at the 2016 South Carolina Academy of Science Annual Meeting on April 16th at Winthrop University, Rock Hill, SC.

Publications:

Shirley D, McHale C, Gomez G. Resveratrol preferentially inhibits IgE-dependent PGD2 biosynthesis but enhances TNF production from human skin mast cells. *Biochim. Biophys. Acta.* 2016; 1860: 678-685.

Kumar S, Stokes J III, Singh UP, Scissum Gunn K, Acharya A, Manne U, Mishra M. Targeting Hsp70: A possible therapy for cancer. *Cancer Lett.* 2016; 374(1): 156-66.

Chumanevich A, Wedman P, Oskeritzian CA. Sphingosine-1-Phosphate/Sphingosine-1-Phosphate Receptor 2 Axis Can Promote Mouse and Human Primary Mast Cell Angiogenic Potential through Upregulation of Vascular Endothelial Growth Factor-A and Matrix Metalloproteinase-2. *Mediators Inflamm.* 2016; 2016:1503206.

Kolawole EM, McLeod JJ, Ndaw V, Ababayehu D, Barnstein BO, Faber T, Spence AJ, Taruselli M, Paranjape A, Haque TT, Qayum AA, Kazmi QA, Wijesinghe DS, Sturgill JL, Chalfant CE, Straus DB, Oskeritzian CA, Ryan JJ. Fluvastatin Suppresses Mast Cell and Basophil IgE Responses: Genotype-Dependent Effects. *J Immunol.* 2016 Feb 15;196(4):1461-70.

Abdul-Qayum A, Paranjape A, Ababayehu D, Kolawole EM, Haque TT, McLeod JJA, Spence AJ, Caslin HL, Taruselli MT, Chumanevich AP, Baker B, Oskeritzian CA, Ryan JJ. IL-10-induced miR-155 targets SOCS1 to enhance IgE-mediated mast cell function. *J Immunol.* 2016 Jun 1;196(11):4457-67.

Chakrabarti M, Ray SK. Experimental procedures for demonstration of microRNA mediated enhancement of functional neuroprotective effects of estrogen receptor agonists. *Methods Mol. Biol.* 2016; 1366: 359-372.

Chakrabarti M, McDonald AJ, Reed JW, Moss MA, Das BC, Ray SK. Molecular signaling mechanisms of natural and synthetic retinoids for inhibition of pathogenesis in Alzheimer's disease. *J. Alzheimers Dis.* 2016; 50:335-352.

Chakrabarti M, Ray SK. Anti-tumor activities of luteolin and silibinin in glioblastoma cells: overexpression of miR-7-1-3p augmented luteolin and silibinin to inhibit autophagy and induce apoptosis in glioblastoma in vivo. *Apoptosis* 2016; 21:312-329.

Cranford TL, Enos RT, Velázquez KT, McClellan JL, Davis JM, Singh UP, Nagarkatti M, Nagarkatti PS, Robinson CM, Murphy EA. Role of MCP-1 on Inflammatory Processes and Metabolic Dysfunction Following High-Fat Feedings in the FVB/N Strain. *Int J Obes (Lond).* 2016 May;40(5):844-51.

Singh UP, Singh NP, Guan H, Murphy EA, Price RL, Fayad R, Nagarkatti M, Nagarkatti PS. Chemokine and cytokine levels in Inflammatory Bowel Disease patients. *Cytokine* 2016 Jan;77:44-9.

Velázquez KT, Enos RT, McClellan JL, Cranford TL, Chatzistamou I, Singh UP, Nagarkatti M, Nagarkatti PS, Fan D, Murphy EA. MicroRNA-155 deletion promotes tumorigenesis in the azoxymethane/dextran sulfate sodium model of colon cancer. *Am J Physiol Gastrointestinal Liver Physiol* 2016 Mar 15;310(6):G347-58.

Enos RT, Velazquez KT, McClellan JL, Cranford TL, Nagarkatti M, Nagarkatti PS, Davis JM, Murphy EA. High-Fat Diets Rich in Dietary Saturated Fat Protect Against Azoxymethane/Dextran Sulfate Sodium Induced Colon Cancer. *Am J Physiol Gastrointestinal Liver Physiol* 2016 Jun 1;310(11):G906-19.

Huang Q, Xiao B, Ma X, Qu M, Li Y, Nagarkatti P, Nagarkatti M, Zhou J. MicroRNAs associated with the pathogenesis of multiple sclerosis. *J Neuroimmunol.* 2016 Jun 15;295-296:148-61.

Sido JM, Nagarkatti PS, Nagarkatti M. Production of endocannabinoids by activated T cells and B cells modulates inflammation associated with delayed-type hypersensitivity. *Eur J Immunol.* 46:1472-1479, 2016.

Sido JM, Jackson AR, Nagarkatti PS, Nagarkatti M. Marijuana-derived Δ -9-tetrahydrocannabinol suppresses Th1/Th17 cell-mediated delayed-type hypersensitivity through microRNA regulation. *J Mol Med (Berl).* 2016 Apr 1. (In Press)

Elliott DM, Nagarkatti M, Nagarkatti PS. 3,3'-diindolylmethane ameliorates staphylococcal enterotoxin B-induced acute lung injury through alterations in the expression of microRNA that target apoptosis and cell cycle arrest in activated T cells. *J Pharmacol Exp Ther.* 357:177-187, 2016.

Guan H, Singh UP, Rao R, Mrelashvili D, Sen S, Hao H, Zumbun EE, Singh NP, Nagarkatti PS, Nagarkatti M. Inverse correlation of expression of microRNA-140-5p with progression of multiple sclerosis and differentiation of encephalitogenic T helper type 1 cells. *Immunology.* 2016 Apr;147(4):488-98.

Dattaroy D, Seth RK, Das S, Alhasson F, Chandrashekar V, Michelotti G, Fan D, Nagarkatti M, Nagarkatti P, Diehl AM, Chatterjee S. Sparstolonin B attenuates early liver inflammation in experimental NASH by modulating TLR4 trafficking in lipid rafts via NADPH oxidase activation. *Am J Physiol Gastrointest Liver Physiol.* 2016 Apr 1;310(7):G510-25.

Singh NP, Singh UP, Rouse M, Zhang J, Chatterjee S, Nagarkatti PS, Nagarkatti M. Dietary Indoles Suppress Delayed-Type Hypersensitivity by Inducing a Switch from Proinflammatory Th17 Cells to Anti-Inflammatory Regulatory T Cells through Regulation of MicroRNA. *J Immunol.* 2016 Feb 1;196(3):1108-22.

Monsanto SP, Edwards AK, Zhou J, Nagarkatti P, Nagarkatti M, Young SL, Lessey BA, Tayade C. Surgical removal of endometriotic lesions alters local and systemic proinflammatory cytokines in endometriosis patients. *Fertil Steril.* 2016 Apr;105(4):968-977.

Bam M, Yang X, Zhou J, Ginsberg JP, Leyden Q, Nagarkatti PS, Nagarkatti M. Evidence for Epigenetic Regulation of Pro-Inflammatory Cytokines, Interleukin-12 and Interferon Gamma, in Peripheral Blood Mononuclear Cells from PTSD Patients. *J Neuroimmune Pharmacol.* 2016 Mar;11(1):168-81.

Qin Q, Qu C, Niu T, Zang H, Qi L, Lyu L, Wang X, Nagarkatti M, Nagarkatti P, Janicki JS, Wang XL, Cui T. Nrf2-Mediated Cardiac Maladaptive Remodeling and Dysfunction in a Setting of Autophagy Insufficiency. *Hypertension.* 2016 Jan;67(1):107-17.

Mihailidou C, Katsoulas N, Panagiotou E, Farmaki E, Sklavounou A, Kiaris H, Chatzistamou I. Endoplasmic Reticulum stress is associated with the induction of Pemphigus Vulgaris. *Experimental Dermatology.* 2016 (In Press)

Farmaki E, Chatzistamou I, Kaza V, Kiaris H. A CCL8 gradient drives breast cancer cell dissemination. *Oncogene.* 2016 (In Press)

Chandrashekar V, Das S, Seth RK, Dattaroy D, Alhasson F, Michelotti G, Nagarkatti M, Nagarkatti P, Diehl AM, Chatterjee S. Purinergic receptor X7 mediates leptin induced GLUT4 function in stellate cells in nonalcoholic steatohepatitis. *Biochim Biophys Acta.* 2016 Jan;1862(1):32-45.

Ginwala R, McTish E, Raman C, Singh N, Nagarkatti M, Nagarkatti P, Sagar D, Jain P, Khan ZK. Apigenin, a Natural Flavonoid, Attenuates EAE Severity Through the Modulation of Dendritic Cell and Other Immune Cell Functions. *J Neuroimmune Pharmacol.* 2016 Mar;11(1):36-47.

Londono-Renteria B, Grippin C, Cardenas JC, Troupin A, Colpitts TM. Human C5a Protein Participates in the Mosquito Immune Response Against Dengue Virus. *J Med Entomol.* 2016 Feb 3. (In Press)

Presentations:

Bam M, Nagarkatti PS, Nagarkatti M. Argonaut and Dicer-mediated dysregulated expression of miRNAs in the PBMCs from PTSD patients. The Society on NeuroImmune Pharmacology (SNIP) 22nd Scientific Conference, April 6-9, 2016, Krakow, Poland.

Alghetaa H, Zumbun E, Mohammed A, Elliot D, Nagarkatti P, Nagarkatti M. Immunomodulatory and epigenetic effects of resveratrol in the attenuation of SEB-induced acute lung injury. 55th Annual Meeting of Society of Toxicology (SOT), 2016, 13–17 March, New Orleans, USA.

Kumaraswamy Naidu C, Nagarkatti P, Nagarkatti M. Molecular modeling of AhR ligand binding domain interactions with 2,3,7,8-tetrachlorodibenzo-p-dioxin, Indole-3-carbinol and Resveratrol. 55th Annual Meeting of the Society of Toxicology, 2016, 13–17 March, New Orleans, USA.

Kumaraswamy Naidu C, Nagarkatti P, Nagarkatti M. Bioinformatics-based approach to analyze the gene expression profiles in post-traumatic stress disorder. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22nd, 2016.

Becker, W, Nagarkatti, M, and Nagarkatti, PS. Allogeneic Skin Transplantation Triggers Unique miRNA Signature Profiles in CD4+ T cells with Potential Therapeutic Implications. American Association of Immunologists, Seattle, WA, May 13-17, 2016.

Becker, W, Nagarkatti, M, and Nagarkatti, PS. miRNAs Mediate Transplant Tolerance. Graduate Student Day, Russell House, University of South Carolina, Columbia SC, April 8th, 2016.

Busbee, P.B., Nagarkatti, M., and Nagarkatti, P.S. March 14th, 2016. Indole-3-carbinol ameliorates murine colitis symptoms through alterations in gut microbial composition by restoring Firmicute-associated species and decreasing colitis-associated Bacteroidetes species. Poster presentation, Society of Toxicology, New Orleans, LA.

Busbee, P.B., Nagarkatti, M., and Nagarkatti, P.S. April 22nd, 2016. Indole-3-carbinol ameliorates murine colitis symptoms through alterations in gut microbial composition by restoring Firmicute-associated species and decreasing colitis-associated Bacteroidetes species. Poster presentation, Medical Scholarship Day of Focus, Columbia, SC.

Becker, W., Nagarkatti, M., and Nagarkatti, P.S. Allogeneic Skin Transplantation Triggers Unique miRNA Signature Profiles in CD4+ T cells with Potential Therapeutic Implications. American Association of Immunologists, Seattle, WA, May 16th, 2016.

Becker, W., Nagarkatti, M., and Nagarkatti, P.S. miRNAs Mediate Transplant Tolerance. Graduate Student Day, Russell House, University of South Carolina, Columbia SC, April 8th, 2016.

Bam M, Yang X, Nagarkatti PS, Nagarkatti M. Dysregulated Immune System Networks as an Outcome of Altered miRNA Expression and DNA Methylation in War Veterans with Posttraumatic Stress Disorder. Society of Toxicology 55th Annual Meeting and ToxExpo (SOT) annual meeting in New Orleans, LA.

Mehrpouya-Bahrami, P., Zumbun E.E., Kumaraswamy Naidu C., Nagarkatti P.S., Nagarkatti M.i, Netrin-1 mediates macrophage retention in adipose tissue through AGAP-2 and UNC5B interaction. American Association of Immunologists (AAI) Annual Meeting, Seattle, WA, 2016.

Mehrpouya-Bahrami P., Nagarkatti P.S., Nagarkatti M. Blockade of CB1 cannabinoid receptors is associated with growth of the gut bacterium Akkermansia muciniphila and attenuation of diet-induced obesity. 55th SOT Annual Meeting, New Orleans, LA. March 2016.

Singh U., Mehrpouya-Bahrami P., Bam M., Singh, N.P., Murphy A., Manoj M., Nagarkatti, M., and Nagarkatti, P.S.. High Fat Diet Influences T Cell Homeostasis and microRNAs During Chronic Inflammation. AAI Annual Meeting, Seattle, WA, 2016.

Miranda, K., Mehrpouya-Bahrami, P., Nagarkatti, P.S., and Nagarkatti, M. Anti-inflammatory role of cannabinoid receptor type 1 antagonist AM251 in high fat diet-induced obesity— a focus on microRNAs. AAI Annual Meeting, Seattle WA, 2016.

Mitra S. Ganewattaa, Mehrpouya-Bahrami P., Md Anisur, Louis, R., N Mercado, Chen, YP, Nagarkatti, M., Nagarkatti, P.S., Dechob, A.W., Tanga, C. Converting Natural Biomass to Amphiphilic Antimicrobial Polymers in Solution and on Surfaces. American Chemical Society (252) Meeting, Philadelphia, PA.

- Sultan MA, Alghetaa, H, Mohammad, A., Busbee, B, Nagarkatti, P. and Nagarkatti, M. Endocannabinoids as anti-inflammatory agents in Acute Lung Injury: Role of microRNA. Graduate Student Day, University of South Carolina, April 8th, 2016.
- Cranford TL, Enos RT, Velazquez KT, Bader J, Davis JM, Nagarkatti M, Murphy EA. Effects of High Fat Diet-Induced Obesity on Mammary Tumorigenesis in the PyMT/MMTV Murine Model. Experimental Biology Annual Meeting, San Diego, 2016.
- Velázquez KT, Enos RT, McClellan JL, Cranford TL, Chatzistamou I, Singh UP, Nagarkatti M, Nagarkatti PS, Fan D, Murphy EA. MicroRNA-155 deletion promotes tumorigenesis in the azoxymethane/dextran sulfate sodium model of colon cancer. Keystone Conference - Myeloid Cells, Killarney, Ireland, 2016.
- Hébert JR, Wirth MD, Harmon BE, Shivappa N, Hurley TG, Davis L, Murphy EA, Adams SA, Brandt HM, Wilcox S, Blair SN. Results of a Diet and Lifestyle Randomized Community Trial to Reduce Inflammation in African-American Church Goers. Society of Behavioral Medicine Annual Meeting, Washington DC, 2016.
- Cranford TL, Enos RT, Velazquez KT, McClellan JL, Davis JM, Singh UP, Nagarkatti M, Nagarkatti PS, Robinson CM, Murphy EA. Role of Monocyte Chemoattractant Protein-1 on inflammatory processes and metabolic dysfunction following high-fat diet feedings in the FVB/N strain. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22nd, 2016.
- Ritchardson E, Farmaki E, Kaza V, Chatzistamou I, Kiaris H. Antibodies for Neutralization of Chemokine (C-C Motif) Ligand 8 (CCL8) Activity. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22nd, 2016.
- Cervino J, Farmaki E, Kaza V, Faulkner A, Havighorst A, Chatzistamou I, Kiaris H. Development of a reporter vector for the study of human CCL8 promoter. Discovery Day, Russell House, Columbia SC, April 22nd, 2016.
- Heuker J, Ray S. Flavonoid for protection of spinal cord cells from oxidative stress induced apoptosis. Discovery Day, Russell House, Columbia SC, April 22nd, 2016.
- Wedman PA, Aladhami A, Chumanovich AP, Fuseler JW, Oskeritzian CA. Mast cells and sphingosine-1-phosphate are linked to a previously undescribed cellular infiltration of the hypodermis driving pre-symptomatic atopic dermatitis. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22nd, 2016.
- Aladhami A, Chatzistamou I, Reisman D, Fuseler JW, Oskeritzian CA. Potential mast cell functions in prostate cancer diagnosis and progression. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22nd, 2016.
- Wedman P, Castleberry KM, Chumanovich AP, Fuseler JW and Oskeritzian CA . Skin ceramide profiling points to apoptosis as an early pathogenic clue of atopic dermatitis. Graduate Student Day, University of South Carolina, April 8th, 2016.
- Castleberry KM, Fuseler JW, Oskeritzian CA. Angiogenesis as an early sign of developing atopic dermatitis: a morphometric study. Discovery Day, Russell House, Columbia SC, April 22nd, 2016. Katherine is a Magellan Scholar co-mentored by Drs. John W. Fuseler and Carole A. Oskeritzian. She was awarded Honorable Mention in Biomedical Sciences.
- Choudhari A. Poster presentation, Medical Scholarship Day of Focus, April 22, 2016, Columbia, SC. Dietary agent with aferin-A regulates monocyte derived inflammatory cytokines via suppression of IL-1beta.
- Hosseinipour M. Poster presentation, Medical Scholarship Day of Focus, April 22, 2016, Columbia, SC. SIX1 overexpression extends the lifespan, promotes epithelial-mesenchymal transition and results in decreased p53 levels in normal human keratinocytes.
- Bader, J. Poster presentation, Medical Scholarship Day of Focus, April 22, 2016, Columbia, SC. Macrophage depletion decreases inflammation and tumorigenesis in the azoxymethane and dextran sulfate sodium mouse model of colon cancer.
- Penta, K. Poster presentation, Medical Scholarship Day of Focus, April 22, 2016, Columbia, SC. Effect of Arsenic on Inflammation and Type 2 Diabetes.
- Bam, M, Nagarkatti, M, and Nagarkatti, PS. Epigenetic regulation of pro-inflammatory cytokines in peripheral blood mononuclear cells from patients with Post-traumatic stress disorder. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22, 2016.

McHale C. Poster presentation, Medical Scholarship Day of Focus, April 22, 2016, Columbia, SC. Human skin mast cells constitutively express gp130 and functional IL-6 receptor.

Woappi, Y; Creek, K; Pirisi L. Stem cell properties of normal human keratinocytes influence transformation responses to HPV16. Graduate Student Day. Columbia, SC. April 8th, 2016.

Woappi, Y; Creek, K; Pirisi L. Stem cell properties of normal human keratinocytes influence transformation responses to HPV16. American Association for Cancer Research, New Orleans, LA. April 19th, 2016.

Woappi, Y; Creek, K; Pirisi L. Stem cell properties of normal human keratinocytes influence transformation responses to HPV16. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22nd, 2016.

Mehrpouya-Bahrami, P, Nagarkatti, M, and Nagarkatti, PS. Blockage of CB1 cannabinoid receptors is associated with growth of the gut bacterium *Akkermansia muciniphila* and attenuation of diet-induced obesity. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22, 2016.

Kumaraswamy Naidu C, Nagarkatti, P, and Nagarkatti, M. Molecular modeling of AhR ligand binding domain interactions with 2,3,7,8-tetrachlorodibenzo-p-dioxin, Indole-3-carbinol and Resveratrol. Society of Toxicology, New Orleans, LA, March 13–17, 2016.

Kumaraswamy Naidu C, Nagarkatti, P, and Nagarkatti, M. Bioinformatics-based approach to analyze the gene expression profiles in post-traumatic stress disorder. Medical Scholarship Day of Focus, South Carolina State Museum, Columbia SC, April 22, 2016.

