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PROFESSIONAL EXPERIENCE

Current Positions

Tenure-Track Investigator, Inflammation and Autoimmunity Group

(2015 – present)

National Institute of Environmental Health Sciences, Immunity, Inflammation, and Disease Laboratory, Research Triangle Park, NC— Leading an independent research program to explore the molecular mechanisms of the functionally unique pathway of LC3-associated phagocytosis (LAP) in terms of signal initiation and modulation of immune response, as well as its role, as a process distinct from canonical autophagy, in regulating autoimmune and autoinflammatory disorders, including arthritis, type I diabetes, and colitis.

Adjunct Assistant Professor

(2016-present)

University of North Carolina, Department of Microbiology and Immunology, Chapel Hill, NC

Previous Positions

Postdoctoral Research Fellow

(2010-2015)

St. Jude Children's Research Hospital, Dept. of Immunology, Laboratory of Douglas R. Green, Memphis, TN - Characterization of the role and mechanism of LAP, and *in vivo* relevance to pathogen clearance and inflammation.

Adjunct Assistant Teaching Professor

(2012)

Rhodes College, Dept. of Biology, Memphis, TN - Conceptualization, design, and presentation of an advanced undergraduate biology curriculum. This experience was made possible by the Rhodes College Teaching Fellowship.

Research Scientist

(2003-2005)

Gene and Cell Therapy Core Laboratory, University of Washington, Seattle, WA - Development of and perform a variety of protocols within the ISO class 7 facility for re-infusion into the subject during Phase I/II clinical trials, including rapid expansion of HER-2/neu specific T Cells for the therapeutic treatment of breast cancer and HBVcore-specific Cytotoxic T-Lymphocytes for cell therapeutic treatment of chronic Hepatitis B.

EDUCATION

Ph.D., Department of Immunology, Duke University, Durham, NC

(2005 – 2010)

Laboratory of Yiping Yang, M.D., Ph.D.- Determination of the mechanisms by which the innate immune response recognizes and controls vaccinia viral (VV) infection, specifically the requirements for optimal Natural Killer (NK) cell activation in response to VV infection and the

mechanisms by which plasmacytoid dendritic cells produce type I interferons in response to VV infection.

Bachelor of Science, Cellular and Molecular Biology, Tulane University, New Orleans, LA (1997 – 2001)

Received Distinguished Scholars Scholarship and graduated on President's List.

PUBLICATIONS

Manuscripts Under Review (as of Oct. 7, 2019)

Yang G, Postoak JL, **Martinez J**, Zhang J, Wu L, Van Kaer L. Autophagy-related protein Vps34 in dendritic cells controls the induction and pathogenicity of experimental autoimmune encephalomyelitis. Submitted to ***Journal of Autoimmunity***.

Sil P, Suwanpradid J, Muse GW, Gruzdev A, Liu L, Corcoran DL, Willson CJ, Grimm S, Myers P, Degraff LM, MacLeod AS, and **Martinez J**. Non-canonical autophagy in CD301b⁺ dermal dendritic cells mediates immunosuppressive effects of UV exposure. Revised manuscript submitted to ***JACI***.

Sil P, Zhao F, Muse GW, Wong SW, Kolb JP, Degraff LM, Tucker CJ, Scappini E, Snyder AG, Grimm S, Oberst A, and Martinez J. Non-canonical autophagy in dendritic cells restricts cross-presentation and anti-tumor immunity. Under review at ***Cell Reports***. <http://biorxiv.org/cgi/content/short/789867v1>

Peer-Reviewed Research Articles

Zhang C, Miyagishima KJ, Dong L, Sharma Rising RA, Dejene R, Nimmagadda M, Wang Y, Maminishkis A, **Martinez J**, and Miller S. Regulation of phagolysosomal activity by miR-204 critically influences retinal pigment epithelium/retinal structure and function. ***Human Molecular Genetics***. 2019 Jul 23. pii: ddz171. doi: 10.1093/hmg/ddz171.

Dent P, Booth L, Roberts JL, Liu J, Poklepovic A, Lalani AS, Tuveson D, **Martinez J**, and Hancock JF. Neratinib inhibits Hippo/YAP signaling, reduces mutant K-RAS expression, and kills pancreatic and blood cancer cells. ***Oncogene***. 2019 Jul;38(30):5890-5904.

Wong SW, Huang BW, Hu X, Ho Kim E, Kolb JP, Padilla RJ, Xue P, Wang L, Oguin TH 3rd, Miguez PA, Tseng HC, Ko CC, and **Martinez J**. Global deletion of Optineurin results in altered type I IFN signaling and abnormal bone remodeling in a model of Paget's disease. ***Cell Death Differ***. 2019 May 10. doi: 10.1038/s41418-019-0341-6.

- NIEHS Intramural Paper of the Month (July 2019)

Daniels BP, Kofman SB, Smith JR, Norris GT, Snyder AG, Kolb JP, Gao X, Locasale JW, **Martinez J**, Gale M Jr, Loo YM, and Oberst A. The Nucleotide Sensor ZBP1 and Kinase RIPK3 Induce the Enzyme IRG1 to Promote an Antiviral Metabolic State in Neurons. ***Immunity***. 2019 Jan 15;50(1):64-76.

Qi YY, Zhou XJ, Cheng FJ, Hou P, Ren YL, Wang SX, Zhao MH, Yang L, **Martinez J**, and Zhang H. Increased autophagy is cytoprotective against podocyte injury induced by antibody and interferon- α in lupus nephritis. ***Ann Rheum Dis***. 2018 Dec;77(12):1799-1809.

Sliter DA, **Martinez J**, Hao L, Chen X, Sun N, Fischer TD, Burman JL, Li Y, Zhang Z, Narendra DP, Cai H, Borsche M, Klein C, and Youle RJ. Parkin and PINK1 mitigate STING-induced inflammation. *Nature*. 2018 Sep;561(7722):258-262.

Härtlova A, Herbst S, Peltier J, Rodgers A, Bilkei-Gorzo O, Fearn A, Dill, BD, Lee H, Flynn R, Cowley SA, Davies P, Lewis P, Ganley IG, **Martinez J**, Alessi, DR, Reith AD, Trost M, and Gutierrez MG. LRRK2 is a negative regulator of Mycobacterium tuberculosis phagosome maturation in macrophages. *EMBO J*. 2018 Jun 15;37(12).

Brault M, Olsen TM, **Martinez J**, Stetson DB, and Oberst A. Intracellular nucleic acid sensing triggers necroptosis through synergistic type-I interferon and TNF signaling. *J Immunol*. 2018 Apr 15;200(8):2748-2756.

Parekh VV, Pabbisetty SK, Wu L, Sebzda E, **Martinez J**, Zhang J, & Van Kaer L. Autophagy-related protein Vps34 controls the homeostasis and function of antigen cross-presenting CD8alpha+ dendritic cells. *PNAS* 2017 Aug 1;114(31):E6371-E6380.

Daniels BP, Snyder AG, Olsen TM, Orozco S, Oguin TH, Tait SW, **Martinez J**, Gale M Jr., Loo YM, and Oberst A. RIPK3 restricts West Nile virus pathogenesis via death-independent neuroinflammation. *Cell* 2017 Apr 6;169(2):301-313.e11.

Feeley, EM, Pilla-Moffett DM, Zwack EE, Piro AS, Finethy R, Kolb JP, **Martinez J**, Brodsky IE, and Coers J. Galectin-3 directs antimicrobial guanylate binding proteins to vacuoles furnished with bacterial secretion systems. *PNAS* 2017 Feb 28;114(9):E1698-E1706.

Martinez J*, Cunha LD, Park S, Yang M, Lu Q, Orchard R, Li Q-Z, Yan M, Janke L, Guy C, Linkermann A, Virgin HW, and Green DR*. Noncanonical autophagy inhibits the autoinflammatory, lupus-like response to dying cells. *Nature* 2016 May 5;533(7601):115-9. *co-corresponding authors

- NIEHS Intramural Paper of the Year (2016)
- Featured in NIH-wide “Hot Papers” (May 2016)

Ravindran R, Loebbermann J, Nakaya H, Khan N, Gama L, Machiah D, Sharma P, Lawson B, Wang Y-C, Hakimpour P, Kaufman P, Li S, **Martinez J**, and Pulendran B. The amino acid sensor GCN2 controls gut inflammation by inhibiting inflammasome activation. *Nature* 2016 Mar 24;531(7595):523-7.

Lu Q, Yokoyama CC, Williams JW, Baldrige MT, Jin X, DesRochers B, Bricker T, Wilen CB, Bagatkar J, Loginicheva E, Sergushichev A, Kreamalmeyer D, Keller B, Zhao H, Kambal A, Green DR, **Martinez J**, Dinauer MC, Holtzman MJ, Crouch EC, Beatty W, Boom ACM, Zhang H, Randolph GJ, Artyomov MN, and Virgin HW. Homeostatic Control of Innate Immune Lung Inflammation by Vici Syndrome Gene Epg5 and Additional Autophagy Genes Promotes Influenza Virus Pathogenesis. *Cell Host & Microbe* 2016 Jan 13;19(1):102-13.

Park S, Buck MD, Reese TA, Loginicheva E, Zhang X, **Martinez J**, Freeman ML, Blackman MA, Levine B, Green DR, Artyomov MN, and Virgin HW. Autophagy genes enhance murine gammaherpesvirus 68 reactivation from latency by preventing virus-induced systemic inflammation. *Cell Host & Microbe* 2016 Jan 13;19(1):91–101.

Liu L*, Lu Y*, **Martinez J***, Wang T, Wang J, Yang M, Liu G, Green DR, and Wang R. Pro-

inflammatory stimulation suppresses proliferation and shifts the regulation of macrophage metabolism from a Myc-dependent to a HIF1 α -dependent manner. *PNAS*. 2016 Feb 9;113(6):1564-9. *co-first authorship

Sanders MG, Parsons MJ, Howard A, Liu J, Fassio S, **Martinez JA**, and Bouchier-Hayes L. Single cell imaging of inflammatory caspase dimerization reveals differential recruitment to inflammasomes. *Cell Death, and Disease*. 2015 Jul 9;6:e1813.

Martinez J, Subbarao MRK, Lu Q, Cunha LD, Pelletier S, Gingras S, Orchard R, Tan H, Peng J, Kanneganti TD, Virgin HW, and Green DR. Molecular characterization of LC3-associated phagocytosis (LAP) reveals distinct roles for Rubicon, NOX2, and autophagy proteins. *Nature Cell Biology*. 2015 Jul;17(7):893-906.

Xu X, Araki K, Li S, Han JH, Ye L, Tan WG, Konieczny BT, Bruinsma MW, **Martinez J**, Pearce EL, Green DR, Jones DP, Virgin HW, and Ahmed R. Autophagy is essential for effector CD8(+) T cell survival and memory formation. *Nature Immunology*. 2014 Dec;15(12):1152-61.

Figueiredo N, Chora A, Raquel H, Pejanovic N, Pereira P, Hartleben B, Neves-Costa A, Moita C, Pedroso D, Pinto A, Marques S, Faridi H, Costa P, Gozzelino R, Doring G, Zhao J, Soares M, Gama-Carvalho M, **Martinez J**, Green D, Zhang Q, Grompe M, Simas P, Huber T, Baltimore D, Gupta V, Ferreira J, and Moita L. Anthracyclines induce DNA damage response-mediated protection against severe sepsis. *Immunity*. 2013 Nov 14;39(5):874-84.

Kim J-Y*, Zhao H*, **Martinez J**, Doggett T, Kolesnikov A, Tang P, Ablonczy Z, Chan C, Zhou Z, Green D, and Ferguson T. Non-canonical Autophagy Promotes the Visual Cycle. *Cell*. 2013 Jul 18;154(2):365-76. *co-first authorship

Lupfer C, Thomas P, Anand P, Vogel P, Milasta S, **Martinez J**, Huang G, Green M, Kundu M, Chi H, Xavier R, Green D, Lamkanfi M, Dinarello C, Doherty P, and Kanneganti T. Receptor interacting protein kinase 2-mediated mitophagy regulates inflammasome activation during virus infection. *Nature Immunology*. 2013 May;14(5):480-8.

Henault J*, **Martinez J***, Riggs J, Tian J, Latz E, Brinkmann M, Coyle A, Kolbeck R, Green D, and Sanjuan M. Noncanonical autophagy is required for type I interferon secretion in response to DNA-immune complexes. *Immunity*. 2012 Dec 14;37(6):986-997. *co-first authorship

Liao X, Sluimer J, Wang Y, Subramanian M, Brown K, Pattison J, Robbins J, **Martinez J**, and Tabas I. Macrophage Autophagy Plays a Protective Role in Advanced Atherosclerosis. *Cell Metabolism*. 15(4):545-53, 2011.

Martinez J, Almendinger J, Oberst A, Ness R, Dillon C, Fitzgerald P, Hengartner M, and Green D. Microtubule-associated protein 1 light chain 3 alpha (LC3)-associated phagocytosis is required for the efficient clearance of dead cells. *PNAS*. 2011 Oct 18;108(42):17396-401

Martinez J, Huang X, and Yang Y. Toll-like receptor 8-mediated activation of murine plasmacytoid dendritic cells by vaccinia viral DNA. *PNAS*. 2010 Apr 6;107(14):6442-7.

Martinez J, Huang X, and Yang Y (2010) Direct TLR2 Signaling Is Critical for NK Cell Activation and Function in Response to Vaccinia Viral Infection. *PLoS Pathogens*. 2010 Mar 12;6(3):e1000811.

Quigley M, **Martinez J**, Huang X, and Yang Y. A critical role for direct TLR2-MyD88 signaling in CD8 T cell clonal expansion and memory formation following vaccinia viral infection. *Blood*. 2009 Mar 5;113(10):2256-64.

Martinez J, Huang X, and Yang Y. Direct action of type I IFN on NK cells is required for their activation in response to vaccinia viral infection in vivo. *Journal of Immunology*. 2008 Feb 1;180(3):1592-7.

Zhu J, **Martinez J**, Huang X, and Yang Y. Innate immunity against vaccinia virus is mediated by TLR2 and requires TLR-independent production of IFN-beta. *Blood*. 2007 Jan 15;109(2):619-25.

Peer-Reviewed Editorial and Review Publications

Martinez J. LAP it up, fuzball: A short history of LC3-associated phagocytosis. *Current Opinions in Immunology*. 2018 Dec;55:54-61.

Kim EH, Wong SW, and **Martinez J**. Programmed Necrosis and Disease: We interrupt your regular programming to bring you necroinflammation. *Cell Death and Differentiation*. 2019 Jan;26(1):25-40.

Sil P, Wong SW, and **Martinez J**. More Than Skin Deep: Autophagy Is Vital for Skin Barrier Function. *Front Immunol*. 2018 Jun 25;9:1376.

Wong SW, Sil P, & **Martinez J**. Rubicon: LC3-associated phagocytosis and beyond. *FEBS J*. 2018 Apr;285(8):1379-1388.

Sil P, Muse G, and **Martinez J**. A ravenous defense: canonical and non-canonical autophagy in immunity. *Curr Opin Immunol*. 2018 Feb;50:21-31.

Kolb JP, Oguin TH, III, Oberst A, and **Martinez J**. Programmed cell death and inflammation: Winter is Coming. *Trends in Immunology* 2017 Oct;38(10):705-718.

Galluzzi L, Amaravadi RK . . . **Martinez J** . . . et al. Molecular definitions of autophagy and related processes. *EMBO J* 2017 Jul 3;36(13):1811-1836.

Oguin TH and **Martinez J**. Gut check: Dead cell samples leads to tolerant examples. *Cell Death Differ*. 2017 Sep;24(9):1471-1472.

Holl, E. K., Allen, I. C. & **Martinez, J**. Holding the Inflammatory System in Check: TLRs and NLRs. *Mediators Inflamm* 2016, 8156816, doi:10.1155/2016/8156816 (2016).

Green DR, Oguin TH, and **Martinez J**. The Clearance of Dying Cells: Table for Two. *Cell Death Differ*. 2016 Mar 18. doi: 10.1038/cdd.2015.172.

Kolb JP and **Martinez J**. Bon EPOtit! S1P-Mediated EPO Signaling Whets a Macrophage's Appetite for Apoptotic Cells. *Immunity*. 2016;44(2):209-11.

Klionsky DJ, Abdelmohsen K . . . **Martinez J** . . . et al. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy*. 2016 Jan 2;12(1):1-222.

Martinez J, Verbist K, Wang R, and Green D. The relationship between metabolism and the autophagy machinery during the innate immune response. *Cell Metabolism*. 2013 Jun 4;17(6):895-900.

Miller C, Dillon C, **Martinez J**, Parsons M, Weinlich R, Melino G. Scientists contemplate unexplained death in Austrian Alps. *EMBO Mol Med*. 2011 Jul;3(7):363-6.

Book Chapters

Cunha LD and **Martinez J**. Autophagy and LC3-Associated Phagocytosis Mediate the Innate Immune Response. *Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging*. 2017, Pages 303-319. <https://doi.org/10.1016/B978-0-12-805420-8.00016-0>.

Martinez J. Prix Fixe: Efferocytosis as a Four-Course Meal. *Curr Top Microbiol Immunol*. 2017;403:1-36.

PATENTS

United States Patent Application 20190145961: PPAR AGONIST OR LXR AGONIST FOR USE IN THE TREATMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS BY MODULATION OF LAP ACTIVITY (filed April 20, 2017; inventors: Herbert W. Virgin, Douglas R. Green, and Jennifer Martinez)

INVITED SEMINARS AND CONFERENCES

Invited Speaker. NIH-Japan Symposium. Bethesda, MD (2019)

Invited Speaker. Texas Children's Hospital. Houston, TX (2019)

Invited Speaker. Vanderbilt University. Nashville, TN (2019)

Invited Major Symposium Speaker. IMMUNOLOGY 2019. San Diego, CA (2019)

Invited Speaker. University of Virginia. Charlottesville, VA (2019)

Invited Speaker. University of Pennsylvania. Penn Institute for Immunology Seminar. Philadelphia, PA (2019)

Invited Speaker. Albert Einstein College of Medicine. New York City, NY (2019)

Invited Speaker. Columbia University. New York City, NY (2019)

Invited Speaker. Virginia Commonwealth University. Richmond, VA (2019)

Invited Speaker. NIH Inflammatory Interest Group Seminar Series. Bethesda, MD (2018)

Invited Speaker. University of North Carolina. Department of Pathology Grand Rounds. Chapel Hill, NC (2018)

Invited Speaker. IMMUNOLOGY 2018. Austin, TX (2018)

Invited Speaker. Southeastern Immunology Symposium. Birmingham, AL (2018)

Invited Speaker. 19th Biennial Meeting of the International Society for Free Radical Research. Lisbon, Portugal (2018)

Featured Speaker. 4th Annual Duke Innate Immunity Group Symposium. Durham, NC (2018)

Invited Speaker. Washington University. Immunology Program Seminar. St. Louis, MO (2018)

Invited Speaker. Autophagy as a Common Pathway in Diseases. NIDDK. Bethesda, MD (2018)

Chosen Speaker. Keystone Symposia: Cell Death, Inflammation, and Adaptation to Tissue Stress. Breckenridge, CO (2018)

Invited Speaker. Bristol Myers Squibb. Princeton, NJ (2017)

Invited Speaker. Institute of Biophysics of Chinese Academy of Sciences. Beijing, China (2017)

Invited Speaker. Nature Conference on Inflammatory Diseases. Beijing, China. (2017)

Chosen Speaker. Keystone Symposia: Integrating Metabolism and Immunity. Dublin, Ireland (2017)

Invited Speaker. University of North Carolina. Oral Biology Seminar Series. Chapel Hill, NC (2017)

Invited Speaker. IMMUNOLOGY 2017. Washington, D.C. (2017)

Invited Speaker. The Research Institute at Nationwide Children's Hospital. Columbus, OH. (2016)

Invited Speaker. Duke University, Department of Dermatology. *Durham, NC (2016)*

Invited Speaker. North Carolina State University, Department of Biological Sciences, Toxicology Program. Raleigh, NC (2016)

Chosen Speaker. Cell Symposia: 100 Years of Phagocytes. Giardini-Naxos, Sicily. (2016)

Chosen Speaker. NIH Immunology Interest Group Retreat. Leesville, VA. (2016)

Invited Speaker. Southeastern Immunology Symposium. Durham, NC (2016)

Invited Speaker. Gordon Research Conference: New Concepts in Cell Death Research: From Basic Mechanisms to Clinical Opportunities. Girona, Spain (2016)

Invited Speaker. Department of Microbiology and Immunology, University of North Carolina. Chapel Hill, NC. (2015)

Chosen Speaker. TOLL 2015: Targeting Innate Immunity. Marbella, Spain. (2015).

Invited Speaker. Duke Innate Immunity Group. Durham, NC. (2015)

Chosen Speaker. Keystone Symposia: Cell Death Signaling in Cancer and the Immune System. Guaruja, Sao Paulo, Brazil (2014)

Invited Speaker. Department of Immunology, University of Washington. Seattle, WA. (2013)

Chosen Speaker. IMMUNOLOGY 2013. Honolulu, HI. (2013)

Invited Speaker. Center for Gene and Cell Therapy, Baylor University. Houston, TX. (2012)

Chosen Speaker. XXXVII Congress of the Brazilian Immunology Society. Campos do Jordao, Brazil. (2012)

Chosen Speaker. Symposium on Cell Death: ICB-USP. Sao Paulo, Brazil. (2012)

Chosen Speaker. 8th European Workshop on Cell Death. Le Monétier-les-Bains, France. (2012)

Chosen Speaker. Keystone Symposia: Cell Death Pathways/Mitochondrial Dynamics and Physiology. Banff, Alberta, Canada. (2012)

Chosen Speaker. EMBO Molecular Medicine Workshop on Cell Death & Disease. Obergurgl, Austria. (2011)

LEADERSHIP

Member. AAI Minority Affairs Committee (MAC). (2019-2022)

Co-Organizer. NIEHS Tenure-track Retreat. NIEHS. (2019)

Organizer. Women in Science Coffee Break. NIEHS. (2018-present)

Associate Editor. *Cell Death and Disease*. (2018-present)

Organizing Committee. Southeastern Immunology Symposium. (2018-present)

Career Round Table Member. Annual AAI Symposia. (2018-2019)

Session Chair. Keystone Symposia: Autophagy: From Model Systems to Therapeutic Opportunities. Santa Fe, NM (2019)

Lead Guest Editor. *Frontiers in Immunology: Autophagy and Autoimmunity*. (2017-2018)

Recipient and Project Leader. DIR Innovation Award. "Characterization of the crosstalk between mitochondria and inflammation." (2017)

Chair. Earl Stadtman Investigator Search Committee (Immunology). NIH. (2016-2017)

Moderator and Organizer. American Academy of Allergy, Asthma & Immunology (AAAAI) 2016 Annual Meeting. Los Angeles, CA (2016).

Associate Guest Editor. *Mediators of Inflammation*: Holding the Inflammatory System in Check: TLRs and NLRs. (2015-2016)

Organizing Member. Cell Death Pathways: From Zero to Sixty (2014-2015)

HONORS AND RECOGNITION

Award Recipient. Presidential Early Career Award for Science and Engineering. (2019)

Intramural Paper of the Month. Wong SW, Huang BW, Hu X, Ho Kim E, Kolb JP, Padilla RJ, Xue P, Wang L, Oguin TH 3rd, Miguez PA, Tseng HC, Ko CC, and **Martinez J**. Global deletion of Optineurin results in altered type I IFN signaling and abnormal bone remodeling in a model of Paget's disease. *Cell Death Differ*. 2019 May 10. doi: 10.1038/s41418-019-0341-6. (July 2019)

Award Recipient. AAI Early Career Faculty Travel Grant. IMMUNOLOGY 2019™. (2019)

Recipient and Project Leader. DIR Innovation Award. "Characterization of the crosstalk between mitochondria and inflammation." (2017)

Intramural Paper of the Year. **Martinez J**, Cunha LD, Park S, Yang M, Lu Q, Orchard R, Li QZ, Yan M, Janke L, Guy C, Linkermann A, Virgin HW, Green DR. 2016. Noncanonical autophagy inhibits the autoinflammatory, lupus-like responses to dying cells. *Nature* 533(7601):115–119. (2016)

Associate Faculty Member. Faculty of 1000 (2013-2015)

Abstract Award Recipient. IMMUNOLOGY 2013™, 100th Annual Meeting of The American Association of Immunologists. "LC3-associated phagocytosis is a critical regulator of innate immunity." The American Association of Immunologists, Honolulu, HI. (2013)

Award Recipient. Rhodes College Teaching Fellowship. Memphis, TN (2012)

Competition Award Winner. 5th Annual Respiratory, Inflammation, and Autoimmunity Abstract Competition. "The role of LC3-associated phagocytosis in the clearance of dead cells." MedImmune, Gaithersburg, MD. (2010)

Award Winner. G. Bernard Amos Immunology Lecture. "The TLR8-dependent activation of plasmacytoid dendritic cells by vaccinia virus DNA." Duke University, Durham, NC. (2009)

Keystone Symposia Education Fund Scholarship Recipient. Keystone Symposia: NK and NKT Cell Biology, Keystone, CO. (2008)

GRANT AWARDS

NIH Pathway to Independence (K22) Award. "LC3-associated phagocytosis as a critical regulator of the innate immune response" (2015-2017, Awarded, but declined due to NIEHS position)

NIH Loan Repayment Award Recipient. "Characterization of LC3-Associated Phagocytosis." (2012-2014)

NIH Ruth L. Kirschstein National Research Service (F32) Award Recipient. “Characterization of LC3-Associated Phagocytosis.” (2011-2014)

TEACHING

Lecturer. Mechanisms in Environmental Toxicology. Duke University. Durham, NC (Spring 2019)

Ph.D. Thesis Committee and Mentor. Sing Wai Wong (Graduation May 2019). University of North Carolina. Chapel Hill, NC. (2015-present)

Ph.D. Thesis Committee. Wilfred Lopez-Perez (Expected Graduation May 2021). North Carolina State University. Raleigh, NC. (2018-present)

Adjunct Assistant Teaching Professor. Rhodes College. Memphis, TN. (2012)

Teaching Assistant. Principles of Immunology. Duke University. Durham, NC. (2007)

SERVICE

Committee Member. NEI/NINDS Neuroimmunology Search Committee. NIH. (2018)

Committee Member. Committee on Promotions IV (COPIV). NIEHS. (2017-2018)

Counselor. Association of Scientists. NIEHS. (2017-2018)

Committee Member. Epigenetics and Stem Cell Biology Laboratory Search Committee. NIEHS. (2017-2018)

Moderator and Organizer. American Academy of Allergy, Asthma & Immunology (AAAAI) 2016 Annual Meeting: Autophagy and Phagocytosis: At the Crossroads of Inflammation and Tolerance (2016).

Committee Member. NIEHS DIR Retreat Committee. (2015-2016)

Poster Judge. 2015 UNC Translational Medicine Symposium. (2015)

Peer Reviewer for numerous manuscripts at *Nature*, *Cell*, *Nature Microbiology*, *Nature Medicine*, *Nature Immunology*, *Autophagy*, *Developmental Cell*, *Cell Metabolism*, *PNAS*, *Cell Reports*, and *Immunity* (2011-present)