ISET M. VERA, Ph.D.

Instructor of Research University of South Florida Internal Medicine, Infectious Diseases Interdisciplinary Research Building Laboratory of Dr. Kami Kim, MD 3720 Spectrum Boulevard, Suite 304 Tampa FL 33612-9415 Email: isetvera@usf.edu Tel: (954) 980-2709

Research Interests

	_	Molecular and	cell biology	of intracellular	pathogens
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- Parasitology/Plasmodium parasite biology
- Pathogen-host interactions/Pathogenesis
- Host cell defense mechanisms
- Microbe virulence mechanisms
- Immunity to infection and host response

Education

Doctor of Philosophy (PhD) Albert Einstein College of Medicine of Yeshiva University, Bronx Microbiology and Immunology	June 2010 , NY USA			
Masters of Science (MSc) Albert Einstein College of Medicine of Yeshiva University, Bronx Microbiology and Immunology	June 2006 , NY USA			
Bachelor of Science (BS) <i>University of California, Los Angeles (UCLA)</i> , Los Angeles, CA U Microbiology, Immunology, and Molecular Genetics	June 2004 JSA			
Positions and Experience				
Instructor of Research University of South Florida – Tampa, FL USA Laboratory of Dr. Kami Kim, MD	January 2018 – <i>Present</i>			
Postodoctoral Fellow Instituto de Medicina Molecular – Lisbon, PORTUGAL Laboratory of Dr. Maria Mota, PhD	July 2011 – November 2017			
Postdoctoral Fellow Albert Einstein College of Medicine, Bronx, NY USA Laboratory of Dr. Kami Kim, MD	June 2010 – June 2011			

Curriculum vitae	May 2022
Courses and Career Development	
UCLA Summer Program in Undergraduate Research (SPUR)	Summer 2002
American Society for Microbiology, Minority Undergraduate Research (MURF	
Course in Biology of Parasitism (BoP), Marine Biological Laboratories	Summer 2008
EMBO Practical Course: Non-coding RNAs	June 7-14, 2014
EMBL/EBI-Wellcome Trust Summer School in Bioinformatics 2014	June 23 – 27, 2014
Workshop "Communicating your Research with Impact" – Dr. Chapin Rodrigu	
Course in Animal Experimental Design – FELASA certification	October 2015
EMBO Laboratory Management Course for Postdocs	May 2017
Dreamcatchers Workshop 2022: Collective Wisdom to Empower Future Generations of Women in STEM. Santa Fe, NM	April 29-May 2, 2022
Academic and Professional Honors Funding Awards	
NIGMS Minority Access to Research Careers (MARC) U-Star (NIH T34)	2002-2004
American Society for Microbiology Student Travel Grant	May 2004
National Institutes of Health Training Grant (NIH T32)	2005-2008
American Society for Microbiology Student Travel Grant	June 2009
	July 2012 – June 2013
EMBO Long Term Fellowship	-
NIH F32 Ruth Kirschten Postdoctoral Fellowship	July 2013 – June 2016
Academic honors/Professional Awards/Professional presentations	
Best Oral Presentation – Microbiological Sciences ABRCMS Conference	November 2003
B.S. awarded with Dean's Honors List, UC Los Angeles	June 2004
Best Oral Presentation – Molecular Parasitology Meeting (Woodshole, MA) Oral Presentation – American Soc. Tropical Med & Hygiene (New Orleans, LA Poster Presentation – American Soc. Tropical Med & Hygiene (Washington D	,
Teaching and Mentoring Experience	
Tutor in Molecular Genetics – 1 st & 2 nd year graduate students	Fall 2006, 2007, 2008
Albert Einstein College of Medicine	
Supervisor – Research technician: Margarida Ruivo	Feb 2013 – Sep 2016
Instituto de Medicina Molecular, Lisbon Portugal	
Master's Thesis supervisor: Leonardo Rocha	Sep 2016 – Nov 2017
Instituto de Medicina Molecular, Lisbon Portugal	
Supervisor - Research technician: Dylan Allen	Aug 2018 - current
USF, Laboratory of Dr. Kami Kim, MD	
Summer student supervisor: John Hakim	June 2019 - Aug 2019
USF undergrad summer Research	
Master's Thesis supervisor: Ololade Ogunsina	Sep 2020 - May 2020
USF MS Science in Medical Sciences, Mol Med	
Master's Thesis supervisor: Freyda Mannering	Sep 2021 - current
USF MS Science in Medical Sciences, Mol Med	
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Leadership and Organization

Committee Member Postdoctoral Association, January 2015 – January 2016 Instituto de Medicina Molecular

Organized Portuguese Language Course for foreigners, Academic years 2015-2017 Instituto de Medicina Molecular

Publications

- 1. **Vera IM**, et al. A potential role for antibody-mediated thrombocytopenia in pediatric Cerebral Malaria. *manuscript in preparation*
- Vera IM, Kessler A, Ting LM, Harawa V, Keller T, Allen D, Njie M, Moss M, Soko M, Ahmadu A, Kadwala I, Ray S, Nyirenda TS, Mandala WL, Taylor TE, Rogerson SJ, Seydel KB, Kim K. Plasma cell-free DNA predicts pediatric cerebral malaria severity. JCI Insight. 2020 Jun 18;5(12):e136279. doi: 10.1172/jci.insight.136279. PMID: 32554925; PMCID: PMC7406267.
- Vera IM, Grilo Ruivo MT, Lemos Rocha LF, Marques S, Bhatia SN, Mota MM, Mancio-Silva L. Targeting liver stage malaria with metformin. JCI Insight. 2019 Dec 19;4(24):e127441. doi: 10.1172/jci.insight.127441. PMID: 31852843; PMCID: PMC6975259.
- Real E, Rodrigues L, Cabal G , J. Enguita, FJ, Mancio-Silva L, Mello-Vieira J, Beatty W, Vera IM, Zuzarte-Luís V, Figueira TN, Mair GR, Mota MM. (2018) Plasmodium UIS3 sequesters host LC3 to avoid elimination by autophagy in hepatocytes. *Nature Microbiology*. v3; 17–25
- Mancio-Silva L, Slavic K, Grilo Ruivo MT, Grosso AR, Modrzynska KK, Vera IM, Sales-Dias J, Gomes AR,, MacPherson CR, Crozet P, Adamo M, Baena-Gonzalez E, Tewari R, Llinás M, Billker O, Mota MM. (2017) Nutrient sensing modulates malaria parasite virulence. *Nature*. v13;547(7662):213-216.
- Vera IM*, Ruivo M*, Sales-Dias J, Meireles P, Gural N, Bhatia S, Mota MM, Mancio-Silva L (2016) Host AMPK is a modulator of Plasmodium liver infection. *Cell Reports*, v16: 2539–2545. * *first co-authorship*
- 7. Van Voorhis WC, Adams JH, Adelfio R, Ahyong V, Akabas MH, Alano P et al. (2016) Open Source Drug Discovery with the Malaria Box Compound Collection for Neglected Diseases and Beyond. *PLoS Pathogens.* 12(7): e1005763. *Consortium publication*
- Slavic K, Krishna S, Lahree A, Bouyer G, Hanson KK, Vera I, Pittman JK, Staines HM, Mota MM. (2016) A vacuolar iron-transporter homologue acts as a detoxifier in Plasmodium. *Nature Communications*. 7:10403.
- 9. Pavlides S, **Vera IM**, Gandara R, Sneddon S, Pestell RG, Mercier I, Martinez-Outschoorn UE, Whitaker-Menezes D, Howell A, Sotgia F, and Lisanti MP. Antioxidants & Redox Signaling.Jun 2012.1264-1284.
- 10. Vera IM, Beatty WL, Sinnis P, Kim K. (2011) Plasmodium protease ROM1 is important for proper formation of the parasitophorous vacuole. *PLoS pathogens.* 7(9):e1002197.
- 11. Pavlides S, Tsirigos A, **Vera I**, Flomenberg N, Philippe FG, Casimiro MC, Wang C, Fortina P, Addya S, Pestell RG, Martinez-Outschoorn UE, Sotgia F, Lisanti MP (2010) Loss of stromal caveolin-1 leads to oxidative stress, mimics hypoxia and drives inflammation in the tumor microenvironment,

conferring the "reverse Warburg effect": A transcriptional informatics analysis with validation, Cell Cycle, 9:11, 2201-2219, DOI: 10.4161/cc.9.11.11848.

- 12. Pavlides S, Tsirigos A, **Vera I**, et al. Transcriptional evidence for the "Reverse Warburg Effect" in human breast cancer tumor stroma and metastasis: similarities with oxidative stress, inflammation, Alzheimer's disease, and "Neuron-Glia Metabolic Coupling". Aging (Albany NY). 2010;2(4):185-199. doi:10.18632/aging.100134.
- Meng H, Vera I, Che N, Wang X, Wang SS, Ingram-Drake L, Schadt EE, Drake TA, Lusis AJ. (2007) Identification of Abcc6 as the major causal gene for dystrophic cardiac calcification in mice through integrative genomics. *Proceedings of the National Academy of Sciences of the United States of America* (PNAS) 104(11):4530-4535.