Dr. Arnold Zea
Associate Professor
Researcher of Microbiology

Education

Universidad del Valle (Colombia)	M.S.	1986	Microbiology
Universidad de Antioquia (Colombia)	Ph.D.	2001	Immunology
Louisiana State University-HSC	Post-doctoral	2004	Tumor Immunology

Dr. Zea joined the faculty of LSU Health New Orleans as an Instructor of the Department of Microbiology, Immunology and Pathology and as a member of the LSU LCMC Health Cancer Center and the Louisiana Cancer Research Consortium. He was promoted to assistant professor in the Department of Microbiology, Immunology and Pathology in 2003 with a joint appointment in the Department of Pediatrics and to associate professor in 2014. Dr. Zea's laboratory has been supported over the years by local, national, and federal agencies.

In addition, Dr. Zea is currently the co-director and co-founder of the Louisiana Cancer Research Center's Biospecimen Repository, the director of the Comprehensive Research Alcohol Center Analytical Core Laboratory and the chairman of the Institutional Biosafety Committee (IBC)

During his graduate training, Dr. Zea worked at the National Cancer Institute in Maryland at the laboratory of immunotherapy. This laboratory oversaw the majority of the clinical trials conducted at the NCI. During this time, Dr. Zea gained expertise in flow cytometry, molecular biology, tissue culture, cell biology, cell signaling and laboratory management; all associated with his research focus.

Dr. Zea obtained his MS degree in Microbiology in 1986 from Universidad del Valle in Cali, Colombia, and his PhD degree in Immunology in 2001 from Universidad de Antioquia in Medellin, Colombia.

Research Interests

The Zea lab is focused on the immune biology of cancer and tuberculosis. As it relates to cancer, Dr. Zea's research will help to better understand mechanisms of resistance and tumor evasion and to develop new therapeutic strategies to control and possibly eradicate tumors. The knowledge and experience gained in cancer related research has allowed Dr. Zea to explore whether similar mechanisms can occur in infections by Mycobacterium tuberculosis (Mtb).

The main goal of these projects is to identify pathways involved in L-arginine metabolism that can be targeted to inhibit tumor and/or Mtb growth/persistence. These findings could facilitate the development of new, unconventional therapies that could eliminate tumors and tuberculosis based on their dependence on L-arginine or L-glutamine. It also has the potential to advance treatments for multi-drug and extensively-drug resistance tuberculosis, where current first line drug therapies are ineffective