

Luis Polo-Parada

**University of Missouri researcher
Dr. Luis Polo-Parada advances
cardiovascular research and
nanomedicine.**

The heart is triggered to beat by a specialized electrical system. Polo-Parada studies how electrical activity develops in different regions of the heart. Specifically, he investigates the extracellular matrix (ECM), a complex architectural network of proteins that provides strength and plasticity. The role of ECM proteins during cardiac development is poorly understood; Polo-Parada is working to shed light on how these proteins impact both the developing and the adult heart.

Polo-Parada also specializes in nanotechnology, using molecular-sized particles to treat targeted cells while minimizing damage to healthy cells. He is developing nanomaterials for imaging (bio-photonics), diagnosis and tissue manipulation. Additionally, Polo-Parada was part of a team of researchers who devised a new tool that could lead to better and faster melanoma diagnosis. Using an emerging technique called photoacoustic spectroscopy, the team modified a microscope to enable irregular, dark melanoma cells to be easily seen and studied.

Polo-Parada has published numerous scholarly articles about his research. He is a member of the Society for Neuroscience, the Biophysical Society and the American Heart Association (AHA). He is also a recipient of the AHA's National Scientist Development Award.

Dr. Luis Polo-Parada is an associate professor of medical pharmacology and physiology in the School of Medicine and an investigator at Dalton Cardiovascular Research Center.

