



SYLVIA NATIVIDAD-DIAZ, PH.D.

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Sylvia Natividad-Diaz is an Assistant Professor in the Metallurgical, Materials, and Biomedical Engineering Department at UTEP. Dr. Natividad-Diaz's expertise is in the areas of stem cell tissue engineering and developing low-cost, microfluidic disease diagnostic platforms. Her research lab at UTEP focuses on two main areas:

1. Develop human induced pluripotent stem cell derived 3D in vitro cardiovascular tissue models for patient-specific pre-clinical drug screening and fundamental cardiac tissue research.
2. Develop low-cost 3D-printed disease diagnostic microfluidic devices for limited resource settings (point-of-care disease diagnostics)

Dr. Natividad-Diaz received her Ph.D. in Bioengineering from the University of California, Berkeley with a specialization in stem cell tissue engineering and regeneration. Dr. Natividad-Diaz's doctoral research consisted of developing a biomimetic in vitro angiogenesis model for pre-clinical drug screening. Within this work she developed a novel method for differentiating human induced pluripotent stem cells (originally skin cells) to vascular endothelial cells (hiPSC-ECs). Additionally, as a side project, she worked on developing an autonomous microfluidic cell-sorting device for low-cost, point-of-care monitoring of diseases such as HIV/AIDS. Following the completion of her Ph.D., Dr. Natividad-Diaz worked as a postdoctoral fellow in the Oncology Department at the Livestrong Cancer Institute in the Dell Medical School at UT Austin. During her postdoctoral training, she conducted fundamental research on the effects of the Hedgehog signaling pathway on acute myeloid leukemia. Prior to completing her Ph.D., Dr. Natividad-Diaz obtained her B.S. (summa cum laude) and M.S. in Metallurgical and Materials Engineering from UTEP.