



Justin Hanes, Ph.D.

Titles & Department

Director, Center for Nanomedicine; Professor of Ophthalmology; Professor of Neurosurgery; Professor of Oncology; Professor of Pharmacology and Molecular Sciences

Specialization Areas

Nanomedicine; Drug delivery; Nanotechnology for Drug and Nucleic Acid Delivery.

Summary of Research & Work

Designing and synthesizing new biodegradable plastics to create nanoscopic, drug/gene-filled particles, capable of targeted delivery to specific sites in the body.

Publications

- PEGylation as a strategy for improving nanoparticle-based drug and gene delivery
- <u>Bioreducible Gene Delivery Platform that Promotes Intracellular Payload Release and Widespread Brain Dispersion</u>
- Strategy to enhance dendritic cell-mediated DNA vaccination in the lung
- Inhaled gene therapy of preclinical muco-obstructive lung diseases by nanoparticles capable of breaching the airway mucus barrier
- Nanoparticles for oral delivery: Design, evaluation and state-of-the-art
- Strategies to enhance the distribution of nanotherapeutics in the brain