



CANCER PREVENTION & RESEARCH  
INSTITUTE OF TEXAS

Award ID:  
RP110412

Project Title:  
Biodegradable theranostic nanoparticles for detection and treatment of thyroid cancer

Award Mechanism:  
High Impact/High Risk

Principal Investigator:  
Yang, Jian

Entity:  
The University of Texas at Arlington

Lay Summary:

This research involves working on the design, synthesis, and development of a novel nanotechnology system for thyroid cancer detection and treatment. Our designed system will effectively detect thyroid cancer and deliver drugs to thyroid tumors only, thereby leading to potential combined diagnosis and treatment of diseases in a single setting. Thus, this research work is very important to public health as the proposed system will overcome several limitations of current detection and treatment modalities for thyroid cancer such as a low detection efficiency of small tumor lesions and severe complications from chemotherapy including hair loss, weakness, nausea, and hypertension.