Clinical contrast agents for MRI, which contain gadolinium, have been associated with nephrogenic sclerosis and gadolinium deposition in the brain. Therefore, a search for alternatives is currently underway. Ferumoxytol, an iron supplement, is FDA approved for the treatment of anemia and has been used by our group “off label” as an MR contrast agent. This presentation will provide an overview of the use of ferumoxytol nanoparticles for pediatric cancer imaging with MRI and PET/MRI, including safety data acquired in children thus far. Our team recently demonstrated unique enhancement properties of nanoparticles in pediatric cancers, providing an immediate, non-invasive imaging test to track innate immune responses from macrophages in patients. We will also introduce novel approaches of using nanoparticles to specifically deliver therapeutic drugs to tumors, thereby providing cancer therapy without side effects to normal organs.

**SPEAKER**

**HEIKE DALDRUP-LINK, MD**

Dr. Daldrup-Link is a Professor of Radiology and, by courtesy, of Pediatrics (Hematology-Oncology) at Stanford University and Lucile Packard Children’s Hospital, with administrative roles as Director of Pediatric Molecular Imaging, Associate Chair for Diversity in the Radiology Department, and as Co-Director of the Cancer Imaging and Early Detection Program at the Stanford Cancer Institute. She is a past a recipient of CHRI awards, including the Transdisciplinary Initiatives Program (TIP).

**SPEAKER**

**SUBHOSMIT MOHANTY, PHD**

Dr. Suchismita Mohanty is a Research Scientist in the Radiology Department at Stanford. Her research focuses on cancer therapy and imaging, which includes glioblastomas, osteosarcomas and breast adenocarcinomas. Dr. Mohanty develops novel tumor-targeted theranostics for disrupting tumor vasculature and tumor metabolism and deploys multi-modality imaging to monitor therapy responses to anti-tumor drugs.