



Supported by a medical educational grant from Takeda



HTRS 2021 Mentored Research Award Recipient



Deirdre Nolfi-Donagan, MD

**Assistant Professor of Pediatrics, Division of Pediatric Hematology/Oncology
University of Pittsburgh School of Medicine**

Mentors: Cheryl Hillery, PhD and Sruti Shiva, PhD

Project Title: “Pathologic Platelet Activation in Sickle Cell Disease”

Nonmalignant hematology is the clinical focus for Dr. Deirdre Nolfi-Donagan, who is also a Pediatric Hematologist at University of Pittsburgh Medical Center (UPMC) Children’s Hospital of Pittsburgh. She received her undergraduate education at Seton Hall University and her Doctorate of Medicine from Rutgers Robert Wood Johnson Medical School. She completed her Pediatric Hematology/Oncology

fellowship training at UPMC Children’s Hospital of Pittsburgh. While there, Dr. Nolfi joined the labs of Cheryl Hillery, MD, and Sruti Shiva, PhD, where she was recruited as a mentored physician scientist to continue her development into an independent investigator in the field of pediatric hemostasis with an emphasis on normal and pathologic platelet function in sickle cell disease. Her HTRS MRA project investigates novel mechanisms of platelet activation that link hemolysis and oxidative stress to pathologic thrombosis in SCD. Dr. Nolfi will use measurements of mitochondrial bioenergetics, platelet function, and *in vivo* thrombus formation to examine how high mobility group box 1 (HMGB1) interacts with free hemoglobin to promote platelet mitochondrial reactive oxygen species production and platelet activation, laying the groundwork for preventing thrombo-inflammatory complications in sickle cell disease.