Karen Mestan, MS, MD
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Karen Mestan, MS, MD, is the Division Chief of Neonatology at UC San Diego/Rady Children's Hospital. She received her B.A. in Human Biology from Stanford University and her M.D. from UHS/Chicago Medical School. She completed her residency in Pediatrics and fellowship in Neonatal-Perinatal Medicine at the University of Chicago, and spent nearly 20 years at Northwestern University/Lurie Children's Hospital as an attending neonatologist caring for critically ill newborn infants in the neonatal intensive care unit (NICU). The goal of her research program is to determine the biomarkers and mechanisms for predicting, understanding, and treating neonatal lung disease, with a particular sustained focus on bronchopulmonary dysplasia (BPD) and pulmonary hypertension. Over the past 20 years, she has also served as an attending neonatologist in high-risk NICU follow up clinics and has gained insight into the early risk factors and long-term outcomes of BPD. She has authored and co-authored several publications in peer-reviewed journals on premature infant outcomes, cord blood biomarkers, and placental dysfunction. In 2008, she initiated a biorepository which became one of the largest single-center cohorts of archived cord blood and placental tissues dedicated to neonatal outcomes research. The repository grew exponentially and has served as a key resource for several basic science and translational research projects for trainees and collaborators. Innovative translational studies include transplantation of human cord blood-derived monocytes into humanized mice, combined with -omics approaches to study innate immune and environmental mechanisms of BPD, intrauterine growth restriction, and placenta-lung crosstalk. In 2021, she transitioned to UC San Diego to become the division chief of neonatology, where she continues her translational work as a physician-scientist and mentor with collaborators and trainees in developmental lung biology, maternal-fetal medicine, placental pathology, and biomarker discovery.