

# From Labs to Lives

## How Research Funding Solves Real-World Problems

### NIH-Funded Research Advancing Gut Health in Newborns

At UC Davis, Dr. Geoanna Bautista is a neonatologist and a dedicated physician-scientist studying how intestines develop in fragile newborns. When babies are born too early or with defects like gastroschisis, their intestines often struggle to process food properly, leading to life-threatening complications like necrotizing enterocolitis (NEC). Her NIH-funded work focuses on Piezo1, a protein that senses stretching in the gut and helps regulate development. When this sensor malfunctions, it can lead to serious digestive problems and increase NEC risk. By integrating neonatal care with developmental mechanobiology, Dr. Bautista translates basic science into real-world insights for vulnerable infants.

### Helping Humanity

Every year, millions of babies are born prematurely or with birth defects that put them at risk for serious intestinal complications. Without proper care, many face months in intensive care, repeated surgeries, and lifelong medical challenges. Dr. Bautista's research is advancing earlier diagnoses, safer feeding strategies, and targeted treatments to help fragile newborns build stronger intestines from the start. Continued support brings these lab discoveries closer to the bedside, offering hope that these babies can spend less time in the hospital and more time thriving at home with their families.



**Dr. Geoanna Bautista**

School of Medicine

**Neonatal Healthcare**

Media Contact: Tricia Tomiyoshi  
[ttomiyoshi@health.ucdavis.edu](mailto:ttomiyoshi@health.ucdavis.edu)

**// Federal research funding cuts will silence scientific breakthroughs right as they begin to speak. Promising treatments for our most fragile newborns may never reach the babies who need them the most."**

**— Dr. Geoanna Bautista**

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