

Solving the Mystery of Premature Birth

Meet Dr. David Stevenson, Legendary Neonatologist

In the United States, one in eight babies are born too early, and doctors still aren't sure why. Top expert Dr. David Stevenson finds this unacceptable. At the helm of Stanford's trailblazing Prematurity Research Center, he is bringing together the brightest minds from across campus to achieve an audacious goal: ending premature birth.

Dedicated to the Sickest Newborns

For the last four decades, Dr. Stevenson has been the face of neonatology at Lucile Packard Children's Hospital Stanford. He worked closely with Lucile Packard herself to design our original hospital building and forge our signature approach, treating mothers and babies together in the same facility. This approach remains unique among hospitals today.

While his expertise spans many disciplines and decades, Dr. Stevenson has never lost sight of his true passion. "First and foremost, I am a neonatologist," he says. "My main role is to take care of critically ill infants."

Dr. Stevenson knows that the best way to care for sick kids is to find out what is causing their illness in the first place. This is the driving force behind his work leading Stanford's Prematurity Research Center: uncovering the root causes of prematurity and inventing ways to stop it.

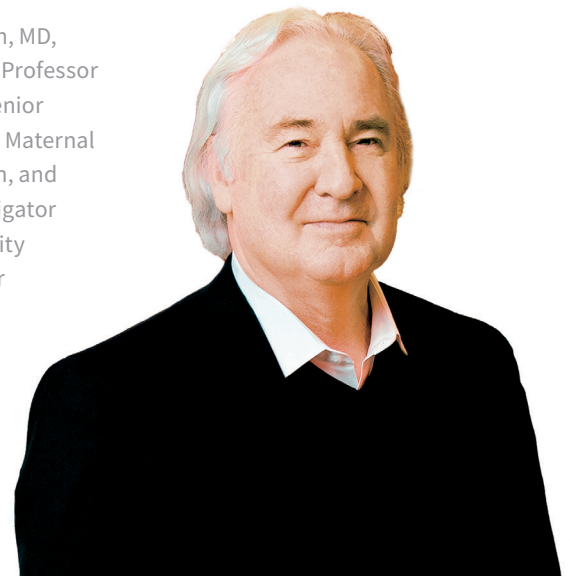
Under his leadership, experts from a wide range of disciplines—engineering, artificial intelligence, data science, and more—have teamed up and made groundbreaking progress. A decade after its founding, the Prematurity Research Center is primed to solve the puzzle of prematurity and save millions of newborns. Philanthropy will be critical to unlocking this hopeful new future.

FOR CHILDREN UNDER **5** prematurity is the leading cause of death

80% of premature births are unexpected

45% of premature births have no known cause

David Stevenson, MD,
Harold K. Faber Professor
of Pediatrics, Senior
Associate Dean, Maternal
and Child Health, and
Principal Investigator
of the Prematurity
Research Center



On the Cusp of Life-Saving Breakthroughs

Dr. Stevenson launched the Prematurity Research Center in 2011 with seed funding from the March of Dimes that has since come to an end. Now, more than ever, philanthropy is needed to bring our breakthroughs in the lab to the bedsides of infants whose lives are depending on it.



Breaking Down Silos

Dr. Stevenson is leading his team with a new approach: recruiting experts in all areas of science and medicine to focus on prematurity, build on each other's strengths, and find new solutions. One of our most exciting collaborations is with data scientist Dr. Nima Aghaeepour, who is using artificial intelligence to predict how at-risk newborns will fare in their first two months of life.



Leveraging Technology

Our multidisciplinary approach doesn't stop with people. Our researchers are also utilizing cutting-edge tech from multiple fields to make new discoveries. For example, we're using the latest big data computing tools to identify FDA-approved drugs that may be repurposed to treat other conditions. Using these methods, our team discovered that antacids may also work to prevent premature birth. This connection would not have been possible without interdisciplinary collaboration.



Driving Innovation Through Clinical Trials

Clinical trials are what turn discoveries in the lab into lifesaving new treatments for babies. An exciting current trial from bioengineer Dr. Stephen Quake uses a simple blood test to predict early delivery—up to two months in advance of pre-term labor! This intervention could be available to patients within five years if researchers have funding to support large-scale validation trials.



WE'RE IN IT FOR THE LONG HAUL

“Ending premature birth is not a short-term proposition. If it were simple and short-term, someone would have figured it out already.”

— Dr. David Stevenson

PHILANTHROPY MOVES US FORWARD

“We've figured out where we need to go to conquer preterm birth,” Dr. Stevenson says. “The more resources we have, the faster we can get there.” In this crucial moment, visionary philanthropists can make a lasting difference and bring us ever closer to ending premature birth.

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