

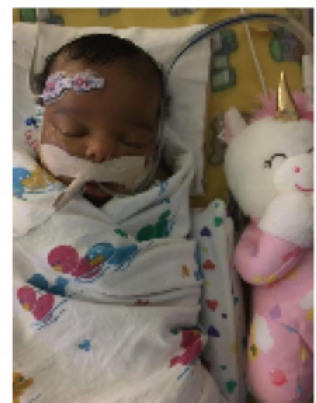
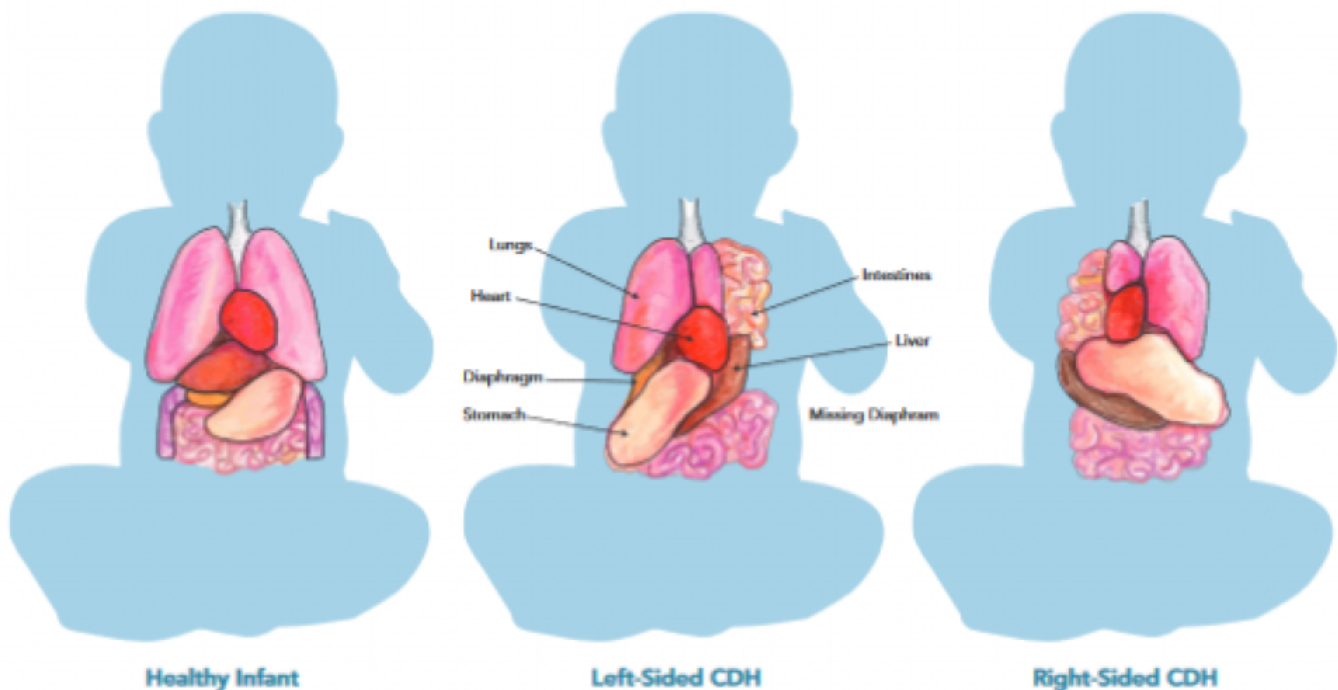
Research team in Canada gives hope to 100,000's of children around the world with new finding.

Charity cheers as research team uses exosomes from amniotic fluid stem cells to treat underdeveloped fetal lungs, restarting growth & normal functioning.



Congenital Diaphragmatic Hernia

CDH occurs when the diaphragm fails to fully form during gestation, allowing organs to migrate into the chest cavity and thereby inhibiting lung growth. CDH strikes 1 in every 2500 babies, equaling 1600 babies every year in the United States. 50% of babies diagnosed with Congenital Diaphragmatic Hernia do not survive. The cause is unknown.



North Carolina, Raleigh, May 17, 2021 ([Issuewire.com](https://www.issuewire.com)) - Charity cheers for an incredible breakthrough, as the international research team uses exosomes from amniotic fluid stem cells in animal

models and human lung cells to treat underdeveloped fetal lungs, restarting growth and normal functioning.

The patient families at CDH International were shocked by the recent news that Dr. Augusto Zani and his team at the Zani Lab at the University of Toronto were able to grow fetal lungs in experimental models of CDH. The shock quickly turned into hope for the over 52,000 children worldwide every year with Congenital Diaphragmatic Hernia (CDH).

CDH occurs during gestation when the diaphragm fails to fully form often allowing abdominal organs to reach the chest cavity and restrict lung growth. There is a 50 percent chance of survival with CDH and the cause is still unknown. Treatment is surgery shortly after birth and a long recovery for those who survive. This new research will make it possible to regenerate those damaged lungs before the baby is born, giving these children a much better chance at survival.

While the promising finding is still in its experimental stage, Dr. Augusto Zani and his team have been moving on to human samples to test how well their therapy works. The next steps are to test their therapy in large animal models, then in a small cohort of patients with CDH.

This research was supported by CDH International in a long supportive relationship between the Lab and the charity, which has helped secure research funding for Dr. Augusto Zani and his team.

"We are very excited about this potential therapeutic option for CDH, a devastating disease that currently does not have an effective and widely available antenatal treatment. The unwavering support of CDH International was critical for us to not only spread the word and reach thousands of CDH families but also to keep us motivated and inspired to push the research forward" said Dr. Augusto Zani.

"When Dr. Zani shared the lab's findings, we were just floored. We knew what he was researching, had so desperately hoped that they would be successful, and after all of these years of bated breath with so many research centers teasing hope... it has finally arrived. I truly believe that this is the beginning of the end of Congenital Diaphragmatic Hernia and I could not be more hopeful for these children and more proud of our charity's tiny role" says CDH International President, Dawn Ireland.

"This really is a miracle. That's not an overstatement. The Zani Lab has achieved what CDH researchers have tried to do for decades – find a way to grow lungs restricted by Congenital Diaphragmatic Hernia."

"This breakthrough means answered prayers for future babies to have a better chance at a healthy life," says Lynne Brogdon, mother to CDH survivor, Baer Brogdon.

Kimberly Job, a mother to Alexandria who did not survive CDH, had this to add to the discussion; "The work accomplished by Zani Lab gives an epic and eternal hope to families who have been, or will be dealing with this devastating and possibly detrimental birth defect!"

Ximena Arroyo, whose daughter, Rosalie is a CDH survivor says "Zani Lab's breakthrough means more; more hope, more survivors, more possibilities for the CDH community".

"Such an amazing breakthrough! This will give so much more hope to families with newly diagnosed CDH babies, so they can be given the best chances at life before they're even born!" added Deirdre McKenna in Ireland, who lost her son to Elliott to CDH and is part of a global network of patient families at CDH International.

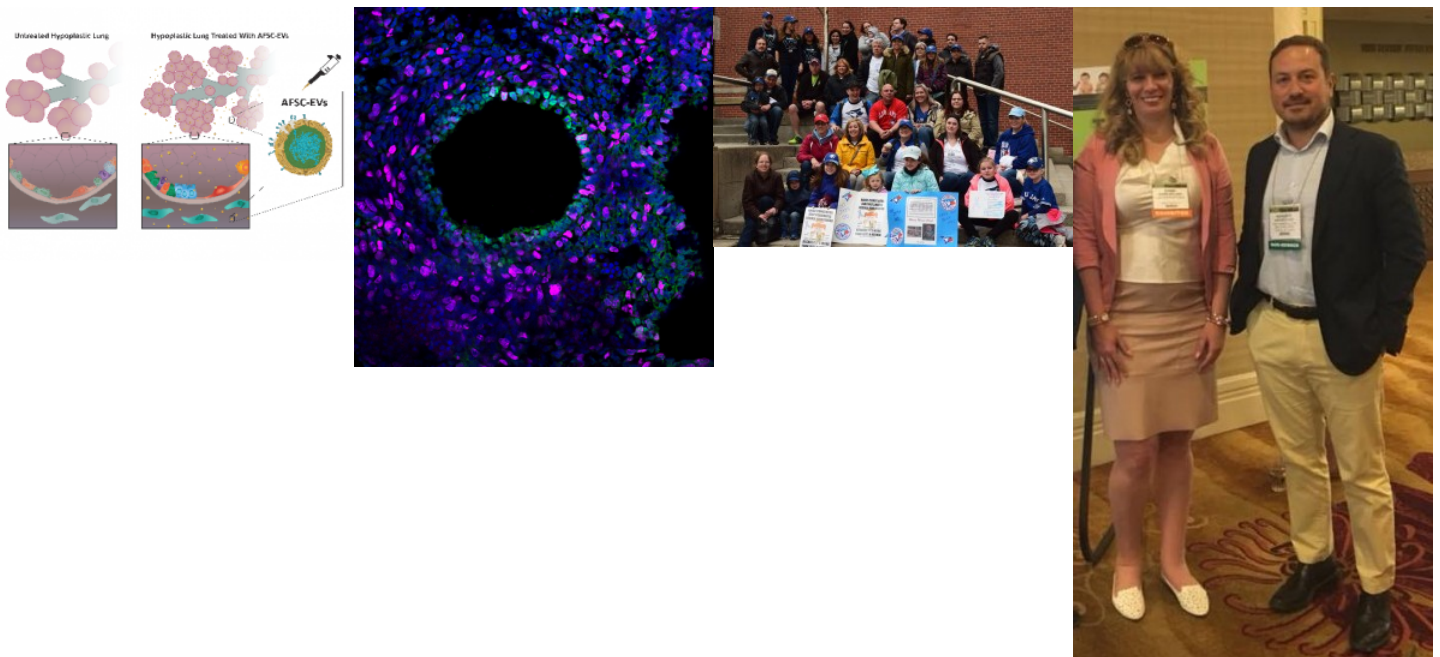
CDH is classified as a rare disease but it's a fairly common birth defect. The March of Dimes no longer funds birth defect research so our kids have lost over half of the little research funding that they had. NIH funds less than \$5,000,000 a year for CDH. The economic cost of CDH on families and governments is astronomical. Now, Covid-19 has taken much of that funding too and research is suffering across the board. Our kids feel invisible because the world doesn't see them but then incredible people like those at the Zani lab keep working for our children and accomplish something so big... It really gives our patient families hope. Not just our 100,000's of children with Congenital Diaphragmatic Hernia but numerous other birth defects and medical conditions as well" says Ireland.

"It's real hope for CDH and that's something this community has never truly had".

Learn more about this research at: <https://stm.sciencemag.org/content/13/590/eaax5941/tab-article-info>

The video can be found at <https://www.youtube.com/watch?v=0PU0jgbSMKY>

Learn more about the charity at: <http://www.cdhi.org>



Media Contact

Dawn Ireland

dawn.ireland@cdhi.org

19196100129

3650 Rogers Rd 290. Wake Forest, NC 27587

Source : CDH International

[See on IssueWire](#)