

PregnanTech develops a novel device to prevent preterm births

Premature birth is the most common and one of the most dangerous problems in obstetrics. One in ten babies is born prematurely. Millions of babies each year around the world die or suffer long-term disability because of complications associated with preterm birth, all of which places an enormous burden and expense on healthcare systems. PregnanTech's innovative device is placed on the cervix during a simple, nonsurgical procedure that takes just minutes. The device delays the biomechanical process that leads to premature birth. "We want to revolutionize the current form of treatment to prevent preterm birth," says PregnanTech CEO Dr. David Shashar.

Lioness, the innovative product developed by PregnanTech, is a silicone ring that is placed high on the cervix during a simple, nonsurgical procedure that takes just minutes in a physician's office or clinic. The ring's special structure enables it to remain in place (like existing surgical options), and keeps the cervix elongated and closed, even in the presence of contractions. The device reduces the load on the cervix, thereby inhibiting the biomechanical cascade that leads to preterm birth, intended to delay premature births by a period of weeks. Every additional week of pregnancy has tremendous implications both medically and economically.

Premature birth is the most common and costly problem in obstetrics. The prevalence of preterm birth has not changed in many decades. Every year, about 15 million preterm infants are born worldwide, which represents about 5% to 12% percent of all births in the developed countries, and up to 18% of births in other countries. About 1 million of these newborns do not survive. Some that survive suffer from disabilities that have a significant affect not only on their quality of life but on their families. To date, there is no effective medical solution to prevent the phenomenon.

The global economic burden resulting from premature birth is huge. The cost of preterm newborn care is on average about 10 times the cost of caring for a full-term newborn. About half of all hospitalization costs among newborns are intended to cover the hospitalization costs of infants born prematurely.

PregnanTech was founded in 2018 under the leadership of Dr. David Shashar, in collaboration with a team of gynecologists and obstetricians from Israel's Sheba Medical Center and engineers from Trendlines Labs. The initial investment in the company was made by The Trendlines Group, an investment group that invents, discovers, invests in, and incubates innovation-based medical and agrifood. Trendlines has invested in dozens of advanced medical equipment technologies.

PregnanTech is currently conducting a clinical safety trial in women about to undergo hysterectomies. Next year, a clinical trial in pregnant women at risk for preterm birth is planned at King's College Hospital London.

"From my experience as a gynecologist, I know very well the extent of the phenomenon and the suffering it entails for newborns and families. Each extra week in the womb is critical for fetal development, and just one additional week can be the difference between a baby growing up healthy and a baby suffering from a variety of problems during its life," notes company CEO Shashar. "Between 9% and 17% of all pregnancies are at risk of premature birth. This is a large

target market. There are no successful solutions today and the health systems are desperate for it. Leading doctors in Israel and around the world see our product as a breakthrough.”

PregnanTech, developer of a smart device for preventing premature birth, has launched an investment round through the ExitValley platform.