

The Ecto Life

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I. INTRODUCTION

World's first artificial womb facility, ECTO LIFE, has surprised the entire world. In simple words, this artificial womb can facilitate the growth of a foetus outside the body of the mother. In medical terms, it is called extracorporeal pregnancy. Every part is designed to replicate the exact condition that exists in the mother's womb. A video of the artificial womb was shared by Hashem Al-Ghaili, a Berlin based science communicator in social media. "The world's first artificial womb facility, ECTO LIFE, will grow 30,000 babies a year. It's based on over 50 years of groundbreaking scientific research conducted by researcher's world wide".

Hashem Al-Ghaili extends ECTO LIFE is entirely powered by renewable energy and is the first artificial womb facility in the world. WHO reports around 300,000 deaths happen due to pregnancy complications. ECTO LIFE contributes to reduce infertility problems within the couples.

The uterus, also described as **THE WOMB** is where a baby grows during pregnancy. So what if we can have a baby without a womb. An amazing way of developing embryos outside the uterus "**THE ECTO LIFE**".

It's not a matter of if artificial wombs for humans will be available; it's a matter of "when". Although the notion of developing a human fetus outside the womb may seem unnaturally at the beginning, artificial wombs for humans are possible. Though women can get pregnant without sexual intercourse, pregnancy without sperm is impossible. Without intercourse, we can get pregnant with the help of fertility treatments and procedures like **IVF, IUI** etc....

ECTO LIFE is designed by Hashem Al-Ghaili to alleviate human suffering and reduce the chance of caesarean sections. The future of the world is completely based on science and technology. Hence ECTO LIFE might be one of the main processes of bearing child in upcoming years.

Hashem Al-Ghaili with his great achievement of ECTO LIFE will help infertile parents to conceive babies and become biological parents.

IS ECTO LIFE- TOO DANGEROUS IF MADE REAL

This concept can solve the problems of surrogacy and infertility issues. Yes, it might sound great for those who faced those issues. But I believe that there will be a lot of difference between machine reproduced babies and human reproduced babies. It becomes a disastrous world to live in and I wish to be in such a place, where these two concepts become reality and function as they want.

It'll start out, Al-Ghaili feels, as the only option for certain parents: those who can't conceive or bear kids naturally. But as it's refined and proven, it'll become an option for all prospective parents, linking in easily with the **IVF, genetic screening, embryo selection, genetic potential modelling and genetic engineering** we know is coming rapidly down the chute.

How it works

"ECTO LIFE allows your baby to develop in an infection-free environment. The pods are made of materials that prevent germs from sticking to their surfaces. IVFmode is used and the embryo is placed into the artificial womb. Every growth pod features sensors that can monitor your baby's vital signs including **heartbeat, temperature, blood pressure, breathing rate and oxygen saturation.**

Real-time data on your little Tamagotchi will pop up through a phone app, along with a live HD fetus cam and the ability to scroll through time-lapse videos of your child's development from embryo to nine months...

ECTO LIFE pods feature internal speakers that play a wide range of music and words in that way babies can recognize languages and learn while still in the pods. Along with this, a special app allows you to record and watch your baby's growth. Also with this app, you can create a playlist for your baby with your favourite music or your voice.



ECTO LIFE enhances your bonding with your baby. You will be able to **sense your baby's kicks** in the womb using a wireless haptic suit connected to your baby's growth pod and share this experience with your friends and family members. You can use your virtual reality headset to explore what your baby's sees and hear through a 360 camera installed inside your baby's growth pod.



ECTO LIFE's Elite Package allows you to genetically engineer the embryo before implanting it in the artificial womb.

The Elite Package allows you to customize many things such as your baby's **eye color, hair color, skin tone, physical strength, height, and level of intelligence** by genetically engineering a set of genes. It also enables you to correct any inherited genetic diseases in your family history, ensuring that your baby and their offspring live a healthy, comfortable life free of genetic diseases.

The artificial intelligence based system also monitors the physical features of the baby and reports any potential genetical abnormalities.

The parts are equipped with the screen that is placed with real time data on the developmental progress of the baby, these data's are sent directly to the parents phone and they can track the baby's growth and health. The app also provides with high resolution live view and can be shared.

ECTO LIFE makes use of highly efficient, clean, renewable energy sources such as solar and wind power. The advanced pods operate with minimal energy requirements, making it possible for your baby to reach full term without complications.

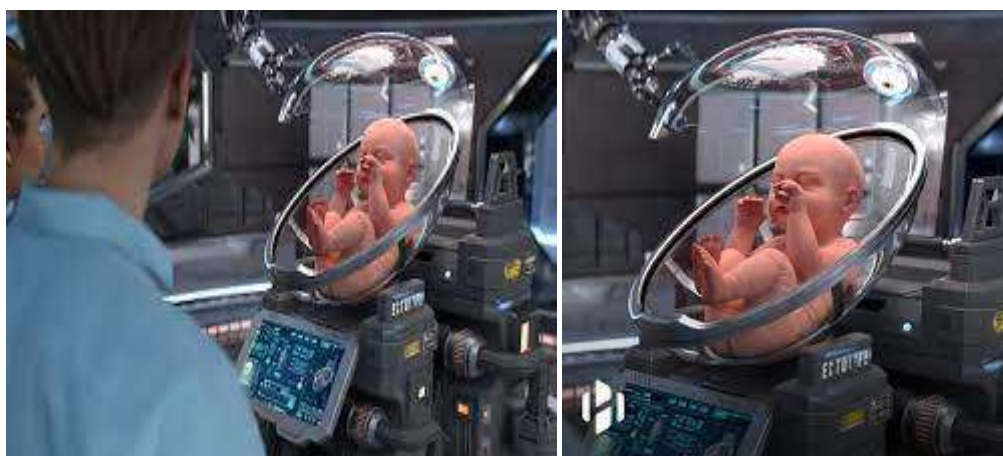
With ECTO LIFE the baby will receive the best nutrients that can support their growth; each group of pods is connected to two central bio reactors.

The first bioreactor contains nutrients and oxygen which are supplied to the baby with the artificial umbilical cord. It also contains liquid solution that serves as the amniotic fluid that surrounds the baby in the mother's uterus. It is rich in vital hormones, growth factors and antibodies that sustain the baby's growth and development.

The second bio reactors is designed to eliminate any waste products produced by the babies the artificial umbilical cord help the babies to release their waste products into the second bio receptor. With a help of an engineer enzymes, the second bio receptor can recycle waste products and turn them back to useful nutrients. This way the facility ensures a steady and suitable supply of fresh nutrients to the baby.

Delivery of the baby

Say goodbye to delivery pain and stress, ECTO LIFE delivery process is smooth and convenient and just on button pressing. When the discharge button is pressed the amniotic fluid will be cleared from the artificial womb and the baby can be removed from the growth part. To ensure, a free DNA paternity test helps to confirm that it is the own baby.



After effect of ECTO LIFE

The natural bonding between mother and child may decrease dramatically. May be considered unethical due to some religious or cultural beliefs. The child being born also would not be able to consent to being grown artificially.

II. Conclusion

Though many reports touted ECTO LIFE to be the "world's first artificial womb facility," concept creator Hashem Al-Ghaili – a producer, filmmaker and science communicator – confirmed to Reuters that this is only a conceptualization of the future of birth. Still, artificial womb technology (AWT) has a long history, with some researchers actively working on it with the primary aim of helping premature babies complete gestation outside their mother's womb.

New reproductive technologies could unarguably provide several benefits – from allowing infertile or queer couples to reproduce biologically, and improving neonatal care for preterm babies, to reducing risks of pregnancy. There has been considerable progress on this front. Researchers have created sperms from stem

cells, which eventually fertilized rat eggs and led to healthy offspring. Elsewhere, scientists managed to grow an embryo in the lab and sustain it for two weeks, before destroying it so they wouldn't breach the legal 14-day limit imposed on such research. AI is also being used to predict pregnancy risks and outcomes, making deliveries safer for both woman and child.

Reference

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