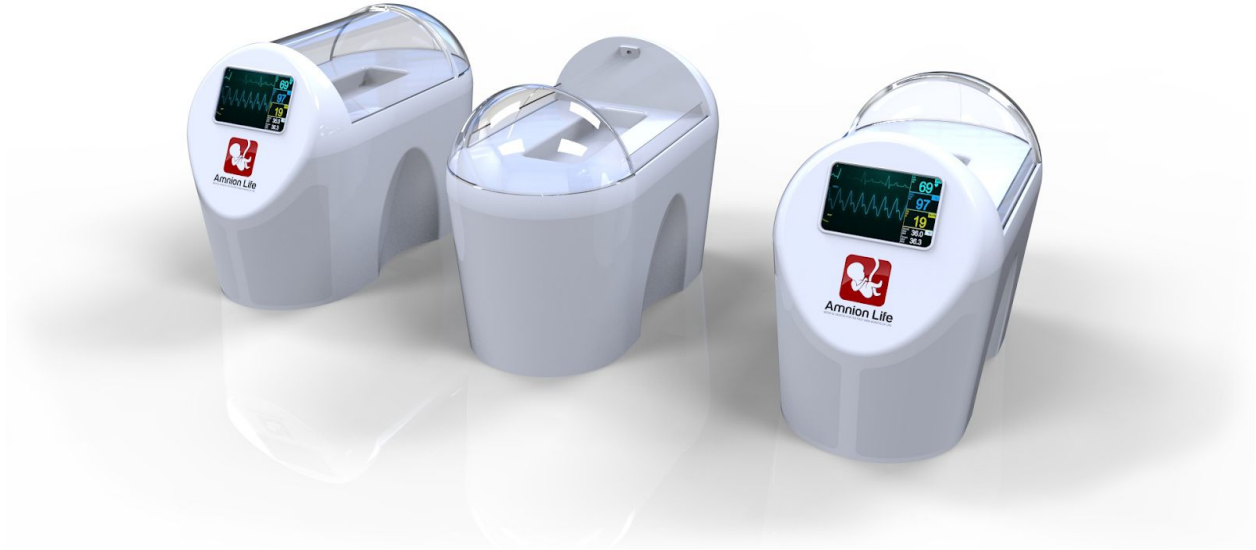


Top Deal: Next Generation Preterm-Infant Care



Key Deal Stats

- Raising Platform: WeFunder
- Valuation Cap: \$25MM
- Minimum Investment:\$100
- Round Type: Seed
- Security Type: SAFE
- To date and as of 1/15, Amnion Life has raised \$149K

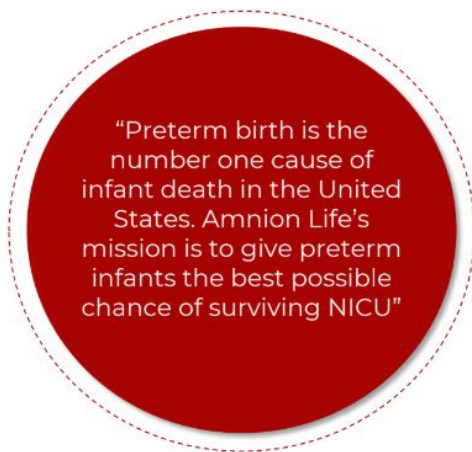
Amnion Life has been selected as a “Top Deal” by KingsCrowd. This distinction is reserved for deals selected into the [top 10% of our deal diligence funnel](#). If you have questions regarding our deal diligence and selection methodology please reach out to hello@kingscrowd.com.

Check out our discussion with Founder & CEO, Amir Fassihi [HERE](#), which was conducted as part of our due diligence process.

The Problem

Did you know that [more than 50% of infants born before 25 weeks](#) don't survive, and that the leading cause of death among children under 5 years of age is premature birth? In 2015, there were [1M premature infants](#) that died globally.

It is estimated by the [World Health Organization](#) that $\frac{3}{4}$'s of these deaths can be prevented with cost-effective care. For babies that survive and make it out of the NICU, their future prospects can also be grim, with most babies falling into the lowest [10th percentile of infants](#) in terms of height and weight.



One such method that could help with this is 'kangaroo mother care,' (the baby is carried by the mother with skin-to-skin contact and frequent breastfeeding). Now the reality is, when infants are that premature, this type of care can be near impossible because the baby is just too fragile.

A solution is needed that provides premature infants with an environment that mimics that of a mother's womb. A place that provides the type of moisture, static temperature and nutrition that a premature infant needs to develop like a full-term baby.

Unfortunately, current NICU solutions that try and provide the closest thing to 'kangaroo mother care,' are too hostile with heat lamps that dry the infant's skin, and humidified portholes that need to be opened and shut for evaluations, which create too much variation in temperature for the infant to maintain homeostasis.

The Solution

[Amnion Life](#) is a revolutionary effort to improve on the incubators we have now. Their iteration of the incubator, the AmnioBed, recreates the conditions inside the womb to minimize the amount that infants need to adapt to new external conditions.

The AmnioBed is designed with water that contains minerals, electrolytes, and other essential nutrients, and heats the solution to 98.6 F, the body temperature that the infant would normally be exposed to inside the womb. Infants are then submerged in this solution with a harness to ensure the infant's head is above water at all times. Infants can, therefore, absorb nutrients through their skin from the AmnioBed's water and maintain healthy body temperatures. It's the closest thing to a mother's womb that has ever been created.

AmnioBed's Competitive Advantages

Improved thermoregulation

Decreased incidents of hypothermia in NICU

Reduction of both evaporative water loss and need for IV saline administration

Re-establishment of the physiological intramembranous pathway (in-utero absorption of water across the membranes)



Reduction of skin drying, scaling and breakdown

Elimination of alkaline burns and diaper dermatitis from stool

Elimination of pressure sores and injuries from prolonged bed rest

Provision of improved overall comfort

Provision of a more natural fluid environment for infant exercise of arms and legs

-3 Days

Shorter Stays

\$1.1B

Massive Savings

Bottom Line: The AmnioBed is expected decrease complications and length of stay

Amnion Life's mission is to market and sell the AmnioBed to decrease critical and long-term complications common in PTB infants by **recreating the core conditions of an in-womb environment**

Source: Amnio Life Report

There are a number of advantages to using the AmnioBed. First, water is much more efficient at transferring heat than air. The fact that the baby is submerged in heated water, rather than the current practice of portholes, means that an infant's body temperature can be kept at a healthy level more consistently than with current devices.

Even more, when an infant needs to undergo assessments, the AmnioBed's water also does not have to take 20 minutes to rebalance interior conditions. Because of AmnioBed's water composition, infants are also able to absorb essential nutrients through their skin from the surrounding water, much like they would inside the womb, which is a significant improvement on the current practice of using IVs.

IV saline, which is used to replace water loss from their underdeveloped skin, has also been associated with chronic lung disease and is risky when not administered with the correct balance of other nutrients. In essence, there are many advantages to keeping premature infants in womb-like conditions that current practices cannot address.

With 15 million infants born premature globally every year, the market for [neonatal intensive care is valued at \\$6.2B, and is forecasted to grow to \\$9.09Bn by 2024.](#) A new solution that is less abrasive than current incubator solutions that can lead to timelier release of premature infants and decreased mortality rate is desperately needed.

With neonatal intensive care unit (NICU) [costing nearly \\$3,000 per day](#), any solution that can reduce time in the NICU and improve outcomes will be positively received by the medical community. Amnion Bed's technology seems poised to provide a truly promising solution to drastically improve the current standard of care.

Product Roadmap

Amnion Life, founded in 2016, has simultaneously made headway in realizing the potential of their innovations and generating additional uses for their intellectual property rights.

In April of 2018, the first prototype of the AmnioBed was completed, and the company is in the process of testing their prototype.

Even more, they hope to design and develop a secondary device to mimic the umbilical cord, where incubators may provide essential nutrients and oxygen to an infant's umbilical vessels, where they would naturally receive their nutrition. Further down the line, they also hope to create similar long-term care units for adult burn victims and other patients. This platform approach further enhances the long term prospects of this business.

Why We Like It:

1. Strong Stakeholder Incentives: AmnioBed is based on the concept that given the right care, premature infants may have a higher growth rate, and therefore be discharged from hospitals sooner.

Currently, preterm infants stay in the NICU for 46 days on average. These numbers are even higher for extreme preterm infants, with Florida reporting a 110 day stay on average.

This means that extreme preterm infants undergo nearly 42-46 weeks of gestation, compared to the normal 40-week gestation period. Given that the AmnioBed can provide better care and therefore reduce the time an infant takes to be discharged, hospitals will be able to service more infants in a shorter amount of time, with fewer incubators.

In fact, stakeholders on every side of premature births benefit from this innovation. Parents of infants can rest easier knowing that their infants are being kept in conditions similar to what other infants who were born at their due dates would undergo. Infants are clearly better off without the added risks of unstable external conditions, and the potential dangers of water and heat loss.

Society in general also benefits off of shorter hospitalization periods. With such a high cost associated with NICUs, a reduction of just three days in preterm infant length of stay represents a potential [\\$1.1 Bn decrease in societal cost](#).

This comprehensive set of benefits to all stakeholders means that the AmnioBed is likely to be well-received by the market.

2. Strong Product-line Potential

In pioneering this new perspective on premature infant care, Amnion Life has an advantage over competitors in generating other products that perform similar functions. For example, their idea for creating what is essentially an artificial umbilical cord has similar implications and societal benefits as their AmnioBed.

Additionally, the business model is attractive from the fact that the device is only one way to monetize the technology. It's very much a razor-razor blade model, where once they sell the unit to a hospital they will drive continued revenues off of selling consumables (amniotic fluid cartridges, catheters and lines, filters, etc.) and maintenance of the equipment. This makes the top line revenue opportunities attractive as each unit drives long term recurring revenues.

Their plan to eventually expand into developing devices tailored for burn victims or other long-term care patients also represents the potential applications of their innovative new idea. This means, the company will not simply stop growing if it saturates the premature infant care market, but instead Amnion Life can expand to other aspects of the healthcare industry as well. Put simply, platform technologies help to create more market opportunity.

3. Long Investment Horizon & Risks

Amnion Life estimates that the AmnioBed may take two years of testing or more, to ensure that the product is market-ready. But, even after the company is satisfied with the quality and safety of their product, the FDA still needs to approve their product, which takes on average another six months. So, investments in Amnion Life are likely to have a long time horizon and inherently hold more risk, due to the potential that the FDA does not approve their product.

The Rating: Top Deal

Amnion Life is solving a major pain point in the current treatment paradigm for premature infants. The \$25MM market cap is justified due to the multi-billion dollar exit opportunity available should this team succeed. They have made significant progress in the development of this tech and there is

a clear and unmet need, which should help support continued movement through the FDA regulatory approval process.

Clearly, stakeholders on all sides of preterm birth need an improvement on the status quo, and Amnion Life's product has a lot of potential in successfully mitigating the effects of such premature births, with an intuitive solution that is 10X better than anything currently on the market. With a strong management team, an excellent vision for a technology platform that is truly differentiated and a business model that has proven successful in the past we think this is a Top Deal with significant upside.

Though the long time horizon and approval risks associated with an investment into Amnion Life may inhibit certain investors, if their tests produce positive results and is accepted into the market, the company has a long way to grow, and will certainly have a higher valuation than \$25MM. If interested, be sure to invest in this Top Deal [HERE](#).