



## FREQUENTLY ASKED QUESTIONS

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### 1 WHAT DOES TMRW LIFE SCIENCES DO?

BY 2100, AN ESTIMATED 300 MILLION PEOPLE WILL OWE THEIR LIVES TO IN VITRO FERTILIZATION (IVF). BECAUSE OF RECENT ADVANCES IN MEDICAL TECHNOLOGY, ALMOST ALL OF THESE BIRTHS WILL BE ASSOCIATED WITH EGGS AND EMBRYOS THAT WERE ONCE VITRIFIED (FLASH-FROZEN).

TMRW Life Sciences has pioneered the first-ever automated platform for the management, identification, and storage of the vitrified human eggs and embryos at the center of nearly every IVF procedure. Despite the rapid growth and demand for IVF, the tools fertility clinics use to manage these frozen eggs and embryos have remained largely unchanged since IVF was first used in livestock breeding more than 50 years ago. By replacing this antiquated “barnyard” system with automated, software-guided specimen management, TMRW helps prevent the types of catastrophes that have dominated recent news headlines, including incidents of mistaken embryo transfer and the loss of thousands of frozen eggs and embryos.

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### 2 WHY IS THIS TECHNOLOGY NEEDED? WHAT PROBLEMS DOES TMRW SOLVE?

Thanks to recent medical breakthroughs, almost all IVF cycles now use eggs, sperm, and embryos that were once vitrified – and often stored for long periods of time. Because of this rapid shift towards cryopreservation, on any given day, IVF clinics around the world are actively managing and storing tens of millions of frozen fertility cells (and counting).

To keep track of the increasing number of frozen human eggs and embryos in their care, clinics have

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had to rely on antiquated manual systems borrowed from when frozen fertility cells were originally used to breed cattle and horses. Artifacts of this “barnyard” system include labeling specimens by hand, physically measuring liquid nitrogen levels in tanks (and therefore attempting to manually ensure cryogenic temperatures), and tracking patient data using insecure (and often paper) logs. These tasks are time-consuming and leave too much room for error, putting precious eggs and embryos at risk and preventing embryologists from being able to focus on the skilled work that they alone can do.

TMRW’s integrated software and hardware solution ensures that eggs and embryos are both traceable using radio frequency identification (RFID) technology and safely maintained at cryogenic temperatures. With TMRW’s platform, tracking and locating fertility samples, keeping patient data secure, and performing inventory audits can be done instantly and via touchscreen software that’s as easy to use as an ATM. By automating tasks prone to human error, TMRW provides peace of mind to embryologists, fertility clinics, and patients, while raising the standard of care for fertility treatments.

PROPRIETARY FEATURES INCLUDE:

**ivfOS™** introduces software-guided specimen management, in which the management and tracking of eggs and embryos is performed via an intuitive touchscreen.

**RFID technology** ensures 100% digital chain of custody so clinics can easily track and identify patient specimens and avoid catastrophic mix ups.

**Robotics and automation** allow clinicians to retrieve eggs and embryos while maintaining the optimal temperature for all specimens during the entire retrieval process.

**Military-grade data encryption** that’s HIPAA-compliant enables secure tracking of all patient data.

**TMRW Overwatch™**, a 24/7 cloud-based monitoring system, completes thousands of wellness checks on the fertility cells’ environment per day, and proactively alerts clinics of potential issues long before they become problems.

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## WHO CREATED TMRW?

TMRW's three co-founders are serial entrepreneurs Joshua Abram and Alan Murray, and Weill Cornell Professor of Surgery Dr. Jeffrey Port. The founders' immediate prior technology and life sciences ventures, in aggregate, were purchased for more than \$1 billion. TMRW's executive team includes many of the world's leading authorities in the fields of clinical medicine, reproductive biology, embryology, biorepository sciences, and software development who have collectively synthesized their knowledge, vision, and experience to develop the TMRW platform.

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## WHAT INSPIRED THE IDEA FOR TMRW?

In 2017, Abram and Murray met with a former colleague who had just undergone IVF. At the time, the two men knew little about the world of fertility medicine or IVF. However, they were intrigued by their friend's story and began researching the space. What they discovered shocked them. Despite staggering market growth, cryomanagement practices in IVF had barely evolved in half a century. They also learned that cryomanagement protocols used in IVF are further shaped by the fact that much of the field, particularly in the U.S., operates under legacy regulatory carve-outs that exempt clinics from having to observe many of the basic standards adhered to by every other branch of medicine that uses living tissues as part of clinical therapy.

Having spent more than 20 years building, funding, and selling companies in the data science and machine learning industries – fields in which everything is trackable and information accessible in real time – they couldn't believe that life's most precious cells were not being similarly tracked and managed. Together, they partnered with Dr. Port, who pioneered the use of RFID in surgical applications, to realize a new solution of automation and RFID technology for the fertility industry.

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## WHO DOES TMRW BENEFIT?

For clinicians, TMRW's software eliminates error-prone manual tasks in the lab that put specimens at risk, allowing embryologists to focus on the more skilled and technical aspects of their work.

For patients, TMRW ensures that those who go through the expensive, emotional, and laborious process of freezing their eggs or undergoing IVF can rest assured that their specimens are protected by the most sophisticated technology available to reliably track, store, and manage these irreplaceable eggs and embryos as they pursue their dreams of parenthood.

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## **WHERE WILL TMRW TECHNOLOGY BE AVAILABLE AND WHEN?**

TMRW will begin a phased commercial launch in October 2020 with over 20 leading fertility clinic partners in the U.S. representing approximately 25% of all U.S. IVF cycles. Already at capacity for 2020 launch commitments, TMRW will announce new future participating U.S. and international clients in 2021.

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## **HOW MUCH DOES TMRW COST?**

TMRW charges clinics an all-inclusive, per-patient-per-month fee in a software as a service (SaaS) model. This fee includes the use of TMRW's platform, along with all of the necessary hardware, software, RFID-enabled proprietary labware, and 24/7 monitoring. In order to reduce any barrier to clinics' ability to improve patient care by adopting TMRW's technology, TMRW requires no capital outlay on the part of the clinic.