

Category

Best Startup

Product/Solution Name

Fertilo

Date of Approval

N/A

Indications

N/A

Therapeutic Categories

Biotech

Attached Files:

- Gameto Galien Foundation App.docx

Background information and need for solution/product

Women's health, and in particular women's reproductive health, is an underdeveloped area within the healthcare industry. While IVF has been a science success story, the fertility drug market is an outdated industry that no longer caters to the modern woman. Reproductive therapies have remained largely unimproved since inception decades ago - and the needs of women have changed drastically since then. Increasing demand has not been met with increasing access. Existing solutions, IVF and egg freezing, are not easily accessible and are hard on women physically, professionally and financially.

- Physically: The traditional IVF process subjects women to nearly two weeks of hormone injections and associated complications and side effects.

- Professionally: Many women who are considering IVF chose not to go through the process due to the downtime caused by the side effects, which could present challenges for working women.

- Financially: IVF is expensive. The average cost of injections for just one cycle is \$8,000. Women typically need to go through several rounds of egg retrieval, which can be costly.

1 in 6 reproductive-aged couples globally and 1 in 5 reproductive-aged women in the US experience infertility, but a minority of them access fertility services. In the US, only ~3% of women who experience infertility undergo Assisted Reproductive Technology (ART), and only ~2% of babies are born from IVF.

The demand for fertility services continues to increase as cultural shifts - such as women delaying motherhood to focus on their careers and an increased number of same-sex couples starting families - persist, chronic health conditions continue to drive up the infertility rate, and more people become aware of the options - although limited - available to increase their chances of having a family through sources including workplace reimbursements and benefits.

Decreasing the time and cost required for fertility treatment can improve access for women from all socioeconomic backgrounds. Research shows that a 1% reduction in the cost of fertility services relative to disposable income yields a 3.2% increase in utilization (Chambers et al., 2014).

Gameto's mission is to improve assisted fertility outcomes through a treatment solution that will make egg freezing and IVF processes easier, safer, and more accessible. Increased access to fertility treatment will improve the inequalities in reproductive health and give more women control over their reproductive timelines, thus increasing equality for women throughout their lives.

History of the development of the solution/product

Gameto was born out of a desire to have better IVF and egg freezing options for modern-day women. The CEO, Dr. Dina Radenkovic, a trained medical doctor and successful entrepreneur, co-founded Gameto after she began to feel pressured to start a family, but wanted to prioritize her career. When she looked into options for preserving her fertility, Dina was disappointed in the lack of available treatments on the market that allow women to take control of their reproductive timeline. In the midst of founding Gameto, while also working as a partner at SALT Fund and as the Chief Strategy Officer of a chain of longevity clinics, Dina was the prime example of a woman who wanted to freeze her eggs but felt limited by the required time investment and symptom burden. The current egg retrieval protocol used in both IVF and egg freezing requires intensive hormonal injections that cause uncomfortable and potentially serious side effects, limiting some women's ability to undergo the process due to the cost and downtime caused by symptoms.

Dina had a vision for a product that would allow women to preserve their eggs efficiently and without detracting from other priorities.

The solution that Dina and her co-founder, Martin Varsavsky, discovered through a partnership with George Church's lab at Harvard Medical School became the foundational program of Gameto. Fertilo, a product candidate derived from ovarian supporting cells (OSCs), is designed to improve outcomes of IVF and egg-freezing. Fertilo's protocol requires a minimal amount of hormonal stimulation prior to egg retrieval, the part of the process that causes uncomfortable and painful side effects. Dina and Martin see Fertilo as the enabling technology to improve the IVF and egg freezing experience and improve access for all women.

Why this solution/product is innovative, the broad implications for future research, and/or how it will improve the human condition

Fertilo mimics the ovarian environment outside of the body, providing a young ovarian support cell signaling environment that allows for egg maturation outside of the body. Unlike current treatments that require 10 to 14 days of hormone injections to increase the number of mature eggs in the body prior to retrieval, Fertilo matures and increases the quality of eggs outside of the body, resulting in a solution that is more natural, requires fewer hormone injections, lowers risk of complications, has higher success rates and reduces overall cost. By making these processes less painful and expensive, Fertilo could lower barriers to adoption of IVF and egg freezing, improving options and access for couples who want to build families and allowing women to take control of their timelines.

Beyond Fertilo, Gameto's technology can be used to generate a broad range of reproductive treatment solutions addressing areas including menopause and diseases of the reproductive system and ovarian

drug discovery.

Please provide appropriate references (ie Pubmed links)

<https://www.biorxiv.org/content/10.1101/2023.03.27.534477v1>

<https://www.biorxiv.org/content/10.1101/2023.03.27.534479v1>

<https://elifesciences.org/articles/83291>

<https://journals.biologists.com/dev/article/149/21/dev201354/278086/In-preprints-towards-reconstituting-an-ovary>

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[https://www.cell.com/stem-cell-reports/fulltext/S2213-6711\(22\)00056-X?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS221367112200056X%3Fshowall%3Dtrue](https://www.cell.com/stem-cell-reports/fulltext/S2213-6711(22)00056-X?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS221367112200056X%3Fshowall%3Dtrue)

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