Development of minimally invasive device system for evaluating the prospect of uterine receptivity for each cycle

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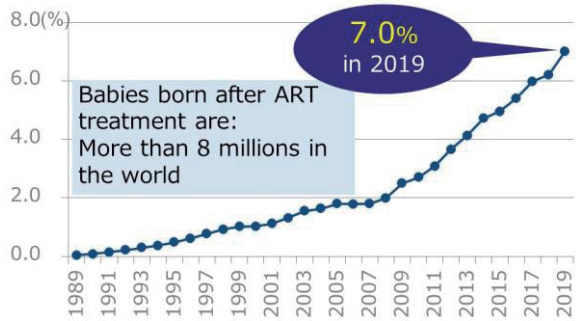
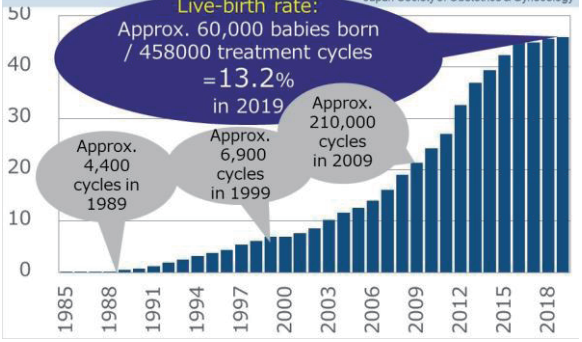
Project Outline

In recent years, the number of couples seeking treatment for infertility has dramatically increased due to factors such as postponement of childbearing in women. The number of infertility treatment cycles has been increasing, however, the pregnancy success rate is not good enough yet.

The number of babies after ART treatment as a percentage of total babies born in Japan (%) (1985-2019)



The number of assisted reproductive technology (ART) treatment cycle in Japan (10,000 cycles/year) (1985-2019)



To improve the efficiency of current infertility treatment, it is necessary to evaluate the prospect of uterine receptivity for each menstrual cycle and to provide appropriate treatment on each menstrual cycle. Unfortunately, there is no medical equipment to do this. In current infertility treatment methods, we do not have the accurate parameters to evaluate the prospect of uterine receptivity and we are just repeating embryo transfer cycles.

To use embryos (fertilized eggs) effectively…
A medical device that could detect the right menstrual cycle for good uterine receptivity

Product image

Category	Improved medical devices
Class classification	Class II (controlled medical device)

We developed a new system to evaluate the prospect of uterine receptivity using our accumulated knowledge from our basic research data and proved our concept using an animal model. We then confirmed that we can safely apply this concept to humans.

We have received an approval as a medical device in Jan 2023 from Pharmaceuticals and Medical Devices Agency (PMDA).

Condition : Infertility
Frequency : Approximately 9% worldwide in women aged 20-44.
Problem : No efficient method to evaluate uterine receptivity.
Patents : WO/2012/070569, PCT/JP2011/076900, PCT/JP2015/001708, US 15/129,783