# Development of automation systems for assisted reproductive technologies（ARCS Inc.）

| City | Year of Establishment | Founder | Website |
|---|---|---|---|
| Shibuya-ku, Tokyo | 2022 | Masayasu Tanase | https://www.arcs-inc.jp/en |

| Partner VC | Latest round of Fundraising | Valuation |
|---|---|---|
| DEEPCORE Inc. | Pre-seed | Non-Disclosure |

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## ○ Business Plan

Using artificial intelligence (AI) and robotics, we aim to create a world where everyone has access to safe, high-quality fertility treatment. Our system focuses on improving assisted reproductive technology. Concretely, our objective is to reduce the burden on medical workers and increase the success rate of treatment (i.e. improve the pregnancy rate) by automating 1) the selection of most suitable sperm and 2) delicate manipulator operations in the ICSI process. Therefore, we are developing two core technologies: sperm-recognition AI and autopilot feature.

## ○ Research Outline

This research and development aims to reduce the burden on medical workers and increase the success rate of treatment by utilizing two core technologies.

The goals at the end of the grant project period are as follows.
1. Sperm-recognition AI
By the end of the grant period,
・Collecting sperm imaging data to achieve sorting accuracy beyond that of a experienced embryologist.
(2) Automation system
By the end of the grant period,
・The PoC of an automation system with mice and evaluation tests of a mass-produced prototype have both been completed.

| Business Area/Field | Research Period | Research Grant Amount | International collaborative technology demonstration |
|---|---|---|---|
| Healthcare | STS 2023～2024FY | JPY 109 million | — |

As of February,2024