

## Info Sheet for Technical description

No. 0009 - 2

### Organization

\* Mandatoty fields

Name of Organization*	Orizuru Therapeutics, Inc.	
Address, City, States, Zip, Country*	2-26-1 Muraoka-higashi, Fujisawa-shi, Kanagawa, 251-8555 Japan	
URL	<a href="https://orizuru-therapeutics.com/en/">https://orizuru-therapeutics.com/en/</a>	
Brief Descriptions of Organization* (Approx. 100 words)	This company is a spinout from Takeda Pharmaceuticals and Kyoto University, focusing on the development of induced pluripotent stem cell (iPSC) technology-based regenerative medicine. It has two lead assets in development for the treatment of severe chronic heart failure and brittle type I diabetes mellitus. The IND-enabling studies are ongoing and clinical trials will start soon. The lead assets are OZTx-556: iPSC-derived cardiomyocytes, and OZTx-410: iPSC-derived pancreatic islet cells. Our 3D bioreactor and original differentiation methods using small molecule compounds gives us competitive advantages in pharma industry-level of quality and scalability.	
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### What kind of technology do you want to offer? \*

- A.** Clinical Development Pipelines → Please see **Sheet [A]**
- B.** Regenerative Medicine-related Consumables / Instruments / Materials / CDMO Services etc. → Please see **Sheet [B]**
- C.** Platform Technologies(\*) that are not included in the above (Group B) → Please see **Sheet [C]**
- \* Peripheral technologies that contribute to a significant improvement in productivity throughout the value chain of pharmaceuticals, from research and development to manufacturing and ultimately market launch.

### If you agree to the following, please check "Yes" below. \*

The technologies introduced in this 'Info Sheet' are in the public domain, as they have been published in research papers or have related patent applications.

- Yes

### Do you have any collaborations/partnerships with pharmaceutical companies?

- Yes
- No

### If you have already received funding from VCs or other sources, up to which stage has the investment round progressed?

- Angel / Seed (including AMED/JST grants)
- Series A
- Series B
- Series C
- Series D or further advanced stages

### Do you agree to leave your presentation materials at FIRM hands and entrust us to make use of them for the purpose of promoting your partnering opportunities? \*

Options*	Comments
<input checked="" type="checkbox"/> Yes	
<input type="checkbox"/> No	

Filled in by\*

Date\*

Michiko Isobe
20-Sep-23

**Sheet [A]** Clinical Development Pipelines**Info Sheet for Technical overview**

No. 0009 - 2

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**Title\*****OZTx-410, iPS cell-derived pancreatic islet cell (iPIC) sheet for brittle type 1 diabetes****Development Phase\***

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Basic Research           | <input type="checkbox"/> Drug Discovery            | <input checked="" type="checkbox"/> Pre-Clinical    |
| <input type="checkbox"/> Clinical Trial (Phase I) | <input type="checkbox"/> Clinical Trial (Phase II) | <input type="checkbox"/> Clinical Trial (Phase III) |
| <input type="checkbox"/> Review                   | <input type="checkbox"/> Others                    |   |

**Diesease Area\***

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Cancer          | <input type="checkbox"/> Central nervous system            | <input type="checkbox"/> Ophthalmology  |
| <input type="checkbox"/> Musculoskeletal | <input checked="" type="checkbox"/> Endocrine / Metabolism | <input type="checkbox"/> Cardiovascular |
| <input type="checkbox"/> Urogenital      | <input type="checkbox"/> Digestive organ                   | <input type="checkbox"/> Blood          |
| <input type="checkbox"/> Infection       | <input type="checkbox"/> Dermatology                       | <input type="checkbox"/> Immunity       |
| <input type="checkbox"/> Otolaryngology  | <input type="checkbox"/> Respiratory                       | <input type="checkbox"/> Others         |

**Description\***

iPIC was created using a unique purification method (~98% purity) that removes undesirable cells resulting exclusively in endocrine lineage-cells with 60%  $\beta$ -cells and 40% others ( $\alpha$ -cells, etc.). OZTx-410, an iPIC sheet, showed efficacy with the onset of normoglycemia within 40 days post-implantation in diabetes mellitus mice with long-term engraftment and physiological insulin release after subcutaneous implantation. Similar results were shown in pig models. Long term durability of implant was confirmed with immunohistochemical analysis of grafts 6 months post-implantation showing islet-like structures which contain glucagon resulting in dynamic regulation of insulin secretion through paracrine interactions between  $\beta$ -cells and  $\alpha$ -cells. Safety was shown past 1 year with neither teratoma nor hypoglycemia episodes. Furthermore, we have more than 10 billion iPIC generated using a liter-scale bioreactor for the massive and uniform-size islets (100-200  $\mu$ m diameter) needed per patient for treatment. In addition, there are more than 60 worldwide patents pending. First in human trial for OZTx-410 will initiate soon and we believe Orizuru Therapeutics will provide a best-in-class product in type 1 diabetes.

**Filled in by\***

Michiko Isobe

**Date\***

20-Sep-23