

Info Sheet for Technical description

No. 0010

Organization

* Mandatory fields

Name of Organization*	PharmaBio Corporation	
Address, City, States, Zip, Country*	3-25-22 Tonomachi, Kawasaki-Ku, Kawasaki, Kanagawa 210-0821 JAPAN	
URL	https://www.pharmabio.co.jp/en/index.html	
Brief Descriptions of Organization* (Approx. 100 words)	PharmaBio is engaged in the development of new regenerative medicines as well as high quality contract manufacturing services.	
Contact address	Name*	Hirohito Shimazu
	Department* / Position	Business Planning Department
	E-mail* / TEL	hshimazu@pharmabio.co.jp

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 type="checkbox"/> Yes	
<input checked="" type="checkbox"/> No	

Filled in by*

Date*

Hirohito Shimazu
2023/9/22

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

No. 0010

* Mandatoty fields

Title***PAL-222****Development Phase***

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

Disease Area*

- | | | |
|--|---|---|
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Central nervous system | <input checked="" type="checkbox"/> Ophthalmology |
| <input type="checkbox"/> Musculoskeletal | <input 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*

PAL-222 is a mesenchymal stem cell sheet with an endogenous scaffold structure. The cell sheet is fabricated by the world's first cell sheet creation method with Bruch's membrane-like structure composed only of extracellular matrix components produced by the cells themselves, a proprietary technology of Professor Chikara Yasukawa of the Nagoya City University Graduate School of Medicine, and is developed by PharmaBio. Compared to transplantation of cell suspensions, the new sheet has the potential to: (1) improve cell engraftment rate, (2) demonstrate the functions of transplanted cells (leading to improvement and maintenance of visual function), (3) reduce the risk of complications and be less likely to cause allogeneic rejection owing to the characteristics of mesenchymal stem cells. They are also expected to have a protective effect on the surrounding tissue functions by secreting various growth hormones and cytokines.

A Phase I/IIa clinical trial (PAMyCA study) has started this year at Nagoya City University Hospital (<https://www.pharmabio.co.jp/news/view/43>).

Filled in by*

Hirohito Shimazu

Date*

2023/9/22