

Launching a resource recycling business applying microalgae to precious metal recycling adsorbents. (Galdieria, Co., Ltd.)



City	Year of Establishment	Founder
Chuo-ku, Tokyo	2015	Tadashi Tanimoto

Partner VC	Latest round of Fundraising	Valuation
MIYAKO CAPITAL	Series B	JPY 3,500 million

Contact Information :
tel:+81-45-716-8753

Website : <https://galdieria.com/en/>

○ Business Plan

Developing precious metal adsorbents made from natural materials utilizing the properties of the microalgae Galdieria, this project aims to recycle precious metals from low-concentration waste liquids that are currently being discarded, while also reducing environmental impact. In this business, adsorbents manufactured at a commercial scale (4 tons per month) will be used to conduct a Proof of Concept (POC) in the customer's actual recovery process, thereby performing the final validation for product-market fit.

○ Research Outline

In this research and development effort, we aim to commercialize precious metal adsorbents using the microalgae Galdieria, and are developing a cultivation facility capable of producing 4 tons per month. Based on the developed high-functionality precious metal adsorbents, the goal is to enhance the recycling rate in urban mines and reduce environmental impact by substituting for existing chemical products.

Furthermore, the verification of the food application of the cell contents not used as precious metal adsorbents is also being advanced simultaneously.

The product-market fit for the developed precious metal adsorbents will be verified based on the following three criteria:

- 1.Completion of production facilities capable of shipping initial model products.
- 2.Verification that the recovery demonstration at potential customer companies is recognized as successful and contracts are made for sample shipments.
- 3.Verification that the incineration ash containing recovered precious metals is purchased.

Business Area/Field	Research Period	Research Grant Amount	International collaborative technology demonstration
Materials	PCA 2023～2025FY	JPY 299 million	—