**Startup Name: Sakana AI**

**Summary:** Sakana AI is a Tokyo-based Japanese artificial intelligence startup founded in July 2023 by former Google researchers David Ha and Llion Jones. The company focuses on the development of basic generative AI models, and is committed to developing efficient, low-cost, small-scale AI models through a “nature-inspired intelligence” innovation path, challenging the Silicon Valley’s big-model-driven technology paradigm. Sakana’s core business includes the development of language models, image generation models, and multimodal AI systems, as well as the exploration of automated model merging technologies to improve model performance and reduce arithmetic power dependency. By the end of 2024, Sakana AI has completed multiple rounds of financing, with a valuation exceeding $1 billion, making it a representative unicorn in the Japanese AI space.

**Business Model Overview:** Sakana AI’s core business model revolves around the AI Scientist, whose technology path fuses evolutionary algorithms with the idea of group intelligence, and through “model merging Its technology path combines evolutionary algorithms with the idea of group intelligence, and through “model merging” it dynamically combines multiple open-source models to generate specialized models adapted to specific tasks. For example, its image generation model EvoSDXL-JP achieves efficient multi-language compatibility by merging Japanese-specific models with English-based models. At the commercialization level, the company offers three types of services:

* **Scientific research automation tools:** AI Scientist supports the whole process from research design to paper publication, and users can call its API or open-source code library to quickly generate customized research results, which is suitable for high-frequency experimentation scenarios such as universities and pharmaceutical companies;
* **Vertical solutions:** based on model merging technology, develop dedicated AI agents for finance, healthcare and other industries, such as automatically optimizing investment strategies or drug molecular design;
* **Basic model licensing:** providing lightweight and low-energy consumption basic models to enterprises, especially for the data privacy and arithmetic power limitation needs of Japanese local enterprises.

In terms of profit model, the company adopts the “basic model subscription + pay-as-you-go” mechanism, and at the same time obtains long-term revenue through technology licensing (e.g. cooperation with NTT Group) and open source community ecological construction.

**Recent Funding:**

* **Seed round (January 2024):** $30 million, led by Lux Capital and Khosla Ventures, with followers from Sony, NTT, and other Japanese giants, valued at $200 million. Funds used for AI Scientist prototype development and team expansion48;
* **Series A (September 2024):** over $100 million, led by New Enterprise Associates with participation from NVIDIA, rising to a $1 billion valuation. This round accelerates AI Scientist’s academic validation and commerciali-zation on the ground3;
* **Strategic financing (December 2024):** undisclosed amount, valuation of 180 billion yen (about 1.15 billion U.S. dollars), supported by the Japanese government’s arithmetic and international capital to increase, focusing on multi-modal model research and development.

**Industry Context & Growth:** The global research field is undergoing an AI-driven paradigm shift. Traditional scientific research relies on labor-intensive experiments, while AI Scientist increases research efficiency by 100 times through automated processes, directly impacting academic publishing and knowledge production systems. According to Nature statistics, the global AI research tools market will reach $8.7 billion in 2024, with an annual growth rate of more than 60%. The rise of Sakana AI is differentiated from DeepMind’s AlphaFold and OpenAI’s GPT series in terms of competition: its “small model collaboration” model is more suitable for research institutions with limited resources. Its “small model collaboration” model is more suitable for research organizations with limited resources, especially in the Asian market to fill the gap dominated by Western technology. The Japanese government has listed AI Scientist as a core project of its “Sovereign AI Strategy”, and plans to apply it to key fields such as nuclear fusion control and materials science in the next three years.

**Opinion:** Sakana AI’s AI Scientist business shows disruptive potential, but its future development faces threefold challenges and opportunities:

* On the technical level, the current system has limited ability to reason logically about complex experiments (e.g., mistakenly modifying code rules), and needs to strengthen its causal reasoning module. However, its open-source strategy (the GitHub codebase has attracted over 100,000 developers) may accelerate technology iteration and form ecological barriers.
* At the commercialization level, despite the low cost of a single paper, the controversy over AI attribution rights in academia may limit the willingness to pay. The company needs to explore the hybrid model of “research service + publishing share”, such as cooperating with Elsevier to provide AI-assisted review services.
* Strategically, the limitations of the Japanese domestic market require the company to accelerate internationalization. If AI Scientist can enter the European and American university market and cooperate with regional giants such as Cohere and Mistral, it can copy the globalization path of Stability AI.

In the long run, if AI Scientist can break through the multimodal limitations (e.g., analyzing charts, designing physical experiments), it may reshape the entire innovation chain from basic research to industrial applications.

**References:**

* <http://sakana.ai/ai-scientist/>
* <https://x.com/SakanaAILabs/status/1823178623513239992>