



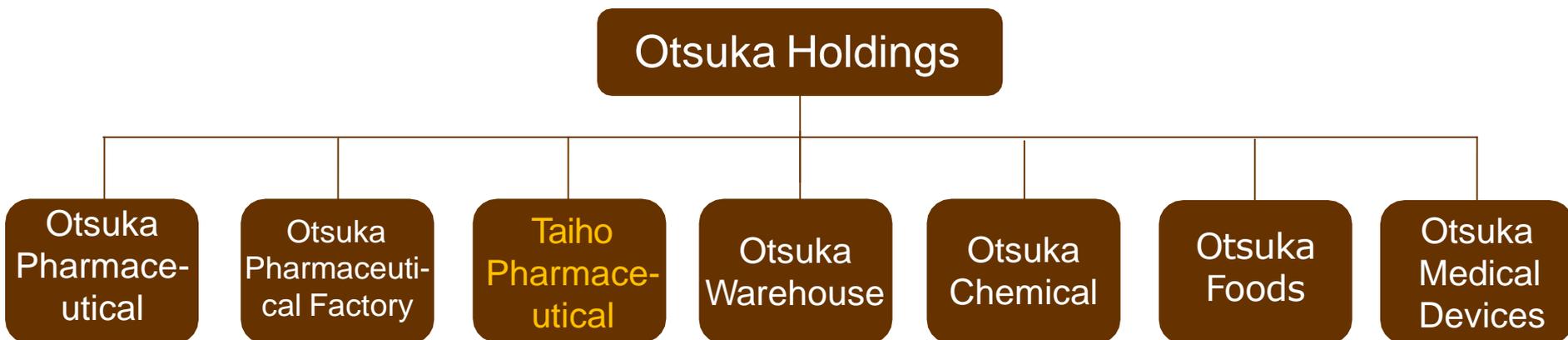
Taiho Ventures, LLC

June 2021

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Taiho Pharmaceutical Co., Ltd.

- ❑ Japanese specialty pharma company established in 1963, focusing on oncology, allergies/immunology, and urology.
- ❑ 75% of Revenues generated by oncology products while US sales contribute 20%.
- ❑ Aggressively allocating 26.3% for R&D.
- ❑ Strong Cash Balance for the potential partnering activities.
- ❑ Location: Japan, US/Canada, UK, Asia
- ❑ 2000+ FTEs globally



Taiho Ventures Fact Sheet

Inception	2016
Business	Investment into Global Biotech Ventures
Office	Menlo Park, CA
Investment Team	5
Investment Pool	\$300M
Report Line	Global Chief Corporate Officer
Goal of Investment	Strategic Benefits > Financial Returns

Strategic Benefits:

- ❑ Invest in promising biotech ventures with potential alliance opportunities in the near future
- ❑ Introduce deal flow to R&D and BD Group for potential business alliance
- ❑ Access to new biology beyond Internal R&D
- ❑ Option Investment including establishing Build to Buy opportunities
- ❑ Create spin-out companies using Taiho pipeline programs

Team Members



Sakae Asanuma, MBA/CFA, President & CEO

- Former CEO at Astellas Venture & US Head of Astellas Innovation Management
- Bay Area based biotech venture investor since 2000
- 50+ Investments achieving 18 IPOs and 11 M&As
- 20- Research Collaborations incl. Build to Buys, Option Investments & Spin-outs



Seiji Miyahara, Ph.D, Senior Investment Director

- Joined Taiho Ventures in 2016
- 12 years extensive experience in oncology drug discovery, medicinal chemistry at Taiho (5 years experience as a project leader)
- Developed first-in-class dUTPase/DPD dual inhibitor (PII) and novel protein-protein interaction inhibitor of RNR (PI)



Shinichi Hasako, Ph.D, Investment Director

- 16 years experience in drug discovery and biomarker development for anti-cancer agent at Taiho and Banyu/Merck
- Engaged in kinase inhibitor and HSP inhibitor projects
- Biology and product lead for a novel EGFR-TKI targeting exon 20 insertion mutation (FIH in 2019)



Hitoshi Miyakoshi, PhD, Asso. Investment Director

- 15 years experience as medicinal chemist in drug discovery for anti-cancer agent at Taiho
- Engaged in and led cancer metabolism and brain cancer projects
- Area of expertise: nucleosides, enzyme/kinase inhibitors, CNS drugs



Takaaki Ishii, MS, Asso. Investment Director

- 10 year at Taiho
- 4 years experience in Taiho medical affairs team for Abraxane (nab-paclitaxel) and Keytruda (pembrolizumab)
- 1 year experience in Global Portfolio Strategy Dept.

Investment Criteria

Investment Sectors:

- Drug Discovery (1st-in-class or New biology based approach)
- Innovative Platform Technologies for Drug Discovery
- Spin-out/Company creation from Taiho Pipelines & Academia assets
- Medical Device/Diagnostics/Digital Health (opportunistic)

Therapeutics Area:

- Oncology
- Non-oncology indications approachable by innovative oncology platform

Modality:

- Small molecules
- Biologics/Oncolytic virus
- Gene/Cell Therapy

Stage:

- Research to Pre-IND
- IND to PoC (opportunistic)

Investment size:

- Up to \$ 10.0 M for INITIAL INVESTMENT
- Up to \$ 20.0 M per COMPANY
- Lead/Co-lead as well as Syndication

Region:

- Mainly US, EU, Japan and China

Current Oncology Interest and Portfolio

(Examples of Potential Investment Arena)

Immune checkpoint pathway	CAR-T/TCR-T	In vivo CAR-T	2 nd generation T cell engager	Post PD-1 (tumor microenvironment)	Cytokine
					
Next generation oncolytic virus	Microbiome	Cancer resistance	Intracellular undruggable targets	Protein degrader/stabilizer	DNA damage response
					
Chromatin remodeling/instability	RNA epigenetics/modulator/splicing/editing	Undisclosed brand-new MOA to deplete cancer cells	Exoneural biology in cancer	New target ID platform (e.g. single cell analysis, AI-based approach)	Autophagy
					

Favorite cancer type :Pancreas/GBM/GI



Portfolio Companies

➤ **Arcus Biosciences, Inc. (Hayward, CA) IPO in 2018**

Developing multiple innovative immuno-oncology programs, including combination therapies, led by the successful management team of Flexus Biosciences. Major investors include GV, The Column Group (TCG), Foresite Capital, DROIA, Invus, Novartis and Celgene.



(2016 Fierce Biotech Top 15 Companies)

➤ **PACT Pharma, Inc. (Hayward, CA)**

Developing personalized T cell therapies targeting neo-antigens, based on the innovative platform technology licensed from Caltech. Major investors include GV, Foresite Capital, DROIA, Invus and Pontifax. Scientific Founders are David Baltimore (Nobel Prize winner for his discovery of reverse transcriptases) and Toni Ribas (conducted clinical research on anti-CTLA-4/anti-PD-1 antibodies).



➤ **Harpoon Therapeutics, Inc. (South SF, CA) IPO in 2019**

Immuno-oncology company developing the next generation bispecific T-cell engagers (TriTAC) for solid tumors, founded by Patrick Baeuerle, an inventor of Blincyto. Major investors include MPM, New Leaf Ventures and Arix Biosciences.



➤ **Storm Therapeutics, Ltd. (Cambridge, UK)**

A pioneer in the field of RNA epigenetics, focusing on developing small molecule inhibitors of RNA-modifying enzymes for the treatment of cancer. Tony Kouzarides and Eric Miska, two professors at the University of Cambridge, founded the company with investors of M Ventures, Cambridge Innovation Capital, Pfizer Venture Investments, IP Group and Taiho Ventures.



Portfolio Companies

- **ORIC Pharmaceuticals, Inc. (South SF, CA) IPO in 2020**
ORIC was started around Charles Sawyers' scientific focus of Overcoming Resistance in Cancer (ORIC). Their lead program is a small molecule glucocorticoid receptor antagonist and major investors are TCG, OrbiMed Advisors, Topspin, Foresite Capital and Fidelity.
- **NextCure, Inc. (Beltsville, MD) IPO in 2019**
Co-founded by Lieping Chen and developing first-in-class immunotherapy-based biologics with proprietary target ID platform. Their lead program is anti-Siglec-15 antibody and major investors are Canaan Partners, OrbiMed Advisors, Pfizer Ventures and Sofinnova Ventures.
- **Cullinan Pearl Corp. (Cambridge, MA)**
Co-founded by Cullinan Oncology and Taiho. The company is developing a novel EGFR exon 20 insertion mutation kinase inhibitor TAS6417 licensed from Taiho Pharma.
- **Axial Biotherapeutics, Inc. (Waltham, MA)**
Developing a unique class of gut-targeted therapeutics for CNS diseases with innovative platform technology that targets the gut-brain axis. The company is expand its platform to oncology space. Scientific founder is Sarkis Mazmanian and major investors are Longwood, DOMAIN and Seventure.
(2017 Fierce Biotech Top 15 Companies)



Portfolio Companies

- **Breakpoint Therapeutics GmbH (Hamburg, Germany)**
Co-founded by Medicxi Ventures, Taiho Ventures and Evotec, a spin-out company from Evotec focusing on DNA damage response with drugdiscovery platform and deep expertise in this field.
- **Werewolf Therapeutics (Cambridge, MA)**
Powerful protein engineering platform for novel immuno-stimulatory therapeutics designed to act selectively within the tumor microenvironment to enhance the immune response to cancer. Major investors are MPM Capital and Longwood.
(The NextGen Bio Class of 2021)
- **Dren Bio (San Carlos, CA)**
Enhanced antibody-based platform for depletion of disease-causing cells through a novel MOA. Potential applications are including solid tumors, hematologic neoplasms, infectious diseases and protein aggregate diseases. Major investors are SR One, 8VC, BVF, HBM and Mission BioCapital.
- **Theolytics (Oxford, UK)**
Focused on creating a step-change in the oncolytic viral therapy field, by using its phenotypic screening platform to discover and develop highly efficacious, targeted candidates, suitable for intravenous delivery and optimized for a chosen cancer patient population. Major investors are Epidarex and Oxford Science Innovation.



Portfolio Companies

➤ **Anavo Therapeutics (Leiden, Netherlands)**

Co-founded by M Ventures, INKEF Capital, Taiho Ventures and Bioqube Ventures. Leading company in unlocking the full potential of phosphatase-targeting allosteric modulators with deep drug discover expertise as well as world leading scientific advisors, Prof. Nicholas Tonks and Mathieu Bollen.



➤ **Orna Therapeutics (Cambridge, MA)**

Game-changing gene therapy with synthetic circular RNA (oRNA) applicable to a broad set of diseases including cancer, autoimmune, and genetic disorders. In particular, oRNA has a potential to manufacture CAR-T cells in the body (*in situ* CAR therapy). Major investors are MPM Capital and F2 Ventures.



Taiho Venture's Capability & Function

- Identify the innovative opportunities and work with Taiho R&D and BD Group
- **Term Sheet Negotiation with potential partners**
- **Internal Presentation to promote the partnering opportunities**

“Early Stage BD”

Innovative R&D Collaboration with Arcus Biosciences (a Taiho Ventures portfolio)

Innovative deal structure: Term Sheet negotiated by Taiho Ventures
Opted in AB928 ($A_{2a}R$ and $A_{2b}R$ dual antagonist) in 2018

Arcus Biosciences Announces Option and License Agreement with Taiho Pharmaceutical Co. Ltd.



September 19, 2017 09:30 PM Eastern Daylight Time

HAYWARD, Calif.--(BUSINESS WIRE)--Arcus Biosciences, a US-based biotechnology company focused on the discovery and development of innovative cancer immunotherapies, announced today that it has entered into an option and license agreement with Taiho Pharmaceutical Co. Ltd., for the potential development and commercialization of product candidates in Arcus's portfolio in Japan and certain other territories in Asia (excluding China).

"We founded Arcus in 2015 to create a broad portfolio of novel molecules that target the most prevalent mechanisms of tumor-induced immunosuppression"

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"We founded Arcus in 2015 to create a broad portfolio of novel molecules that target the most prevalent mechanisms of tumor-induced immunosuppression," said Terry Rosen, Arcus's CEO. "Our relationship with TAIHO began with the inaugural investment of Taiho Ventures in Arcus in 2016, and since that time, we have come to recognize an alignment in vision with TAIHO. We are thrilled to collaborate with TAIHO on the advancement of our rapidly growing pipeline for the benefit of patients in Japan and other important territories in Asia. Given its significant expertise in the oncology area, we are confident that TAIHO will maximize the value of our programs in these regions. We look forward to advancing at least

four immuno-oncology product candidates into clinical development by the end of 2018."

Based on the terms of the agreement, Arcus will receive \$35mm in payments during the first three years of the agreement. In return for these payments, TAIHO will receive an option to in-license the development and commercialization rights in its region to clinical stage product candidates from Arcus's portfolio over a five-year term. For any product candidate for which TAIHO exercises a license, Arcus will receive an option payment and is eligible to receive up to \$275mm in development, regulatory and commercial milestone payments per molecule. Arcus is also eligible to receive royalties on the net sales of each product



February 5, 2019
Taiho Pharmaceutical Co., Ltd.
Cullinan Oncology, LLC

**Taiho Pharmaceutical and Cullinan Oncology Establish Collaboration
to Develop TAS6417, Novel EGFR Tyrosine Kinase Inhibitor**

-FIH Study in EGFR Exon 20 Insertions Will Commence in 2019-

Taiho Pharmaceutical Co., Ltd. and Cullinan Oncology, LLC announced on February 5 an agreement to develop TAS6417, a novel EGFR (epidermal growth factor receptor) tyrosine kinase inhibitor discovered by Taiho Pharmaceutical.

Under the terms of the agreement, Taiho Pharmaceutical will grant an exclusive, global license ex-Japan for the development and commercialization of TAS6417 to Cullinan Pearl, a newly formed US-based company under the Cullinan Oncology umbrella. Taiho Pharmaceutical will receive an upfront payment, regulatory and sales milestones, as well as royalties based on net sales. Taiho Ventures, LLC, a strategic corporate venture arm of Taiho Pharmaceutical, alongside Cullinan Oncology, will provide funding for Cullinan Pearl's Series A.

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Option investment into Axial Biotherapeutics

Axial Biotherapeutics Announces \$10M Investment from Taiho Ventures to Access Axial's Expertise in the Gut-Brain Axis

- \$10M investment as Series B extension, bringing total amount raised to \$35M -



- Direct investment for the discovery of gut targeted, small molecule therapeutics in oncology utilizing Axial's novel platform technology -

June 20, 2019 08:01 AM Eastern Daylight Time

WALTHAM, Mass.--(BUSINESS WIRE)--Axial Biotherapeutics, a biotechnology company dedicated to building a unique class of gut-targeted therapeutics for neurodegenerative diseases and neurodevelopmental disorders, today announced a direct investment of \$10 million from Taiho Ventures, LLC to fund the discovery and development of novel gut-targeted, small molecule approaches in oncology.

"Axial has built, and continues to build, an exciting and innovative discovery platform that targets the gut-brain axis but we also believe that additional diseases and disorders outside of CNS can stem from the gut microbiome"

 [Tweet this](#)

"Axial has built, and continues to build, an exciting and innovative discovery platform that targets the gut-brain axis but we also believe that additional diseases and disorders outside of CNS can stem from the gut microbiome," said David H. Donabedian, Ph.D., co-founder and CEO of Axial Biotherapeutics. "We are pleased that Taiho Ventures sees the potential of this discovery platform, and we are honored to have their support as we look to progress the breadth and depth of our scientific platform. Just as we have done with the CNS space, we look to reshaping the scientific understanding of oncology with gut-targeted therapies."

The \$10 million investment from Taiho Ventures is an extension of Axial's previously closed Series B round in February 2019. With this investment, Axial has raised a total of \$35 million in its Series B financing. In conjunction with this investment, Axial will maintain control of the new oncology programs and Taiho Ventures will have a first right to negotiate for an exclusive license related to the new programs. Axial retains all of its rights to its existing CNS programs.

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Appendix

Dermatology Interest & Criteria

Sectors:

- Drug Discovery (1st & best-in-class)
- Platform Technologies for Dermatology indications (opportunistic)

Modality:

- Small molecules
- Biologics/Oncolytic virus
- Gene/Cell Therapy

Stage:

- Post Development Candidate selection

Investment size:

- Similar to Oncology Investment

Region:

- Mainly US, EU and Japan

*Please note that we are planning to start investment activities in dermatology from 2021