

Cool Japan Fund Inc.
Tokyo, November 28, 2018

Investment in Spiber's Apparel Business Utilizing Next Generation Fiber Materials Developed in Japan

- New Synthetic Protein Materials Based on Engineered Spider Silk DNA -

Cool Japan Fund is pleased to announce the investment of approximately 3 billion yen in Spiber Inc. (headquartered in Tsuruoka, Yamagata; hereafter "Spiber"), a biotech venture company launched out of the Keio University Institute for Advanced Biosciences in 2007. Spiber engages in the development and production of synthetic proteins based on engineered spider silk DNA. Funds raised from this round, in which the Cool Japan Fund was the lead investor, will be used to propel Spiber's transition into the commercialization phase.

Spiber is engaged in business development endeavors across a range of fields, including the development of new materials for use in the fiber market using their proprietary technologies. The successful establishment of the world's first mass production process for this new material has established Spiber as a leading candidate for success within the fiber industry. Taking advantage of the material's low environmental impact, Spiber intends to expand business operations through joint prototype development initiatives with outdoor apparel brands. Spiber is widely anticipated to become a unicorn company; that is, an unlisted company with an equity value of more than USD 1 billion.

Including the investment by Cool Japan Fund, Spiber has announced a total of 5 billion yen raised during this round. These funds will be utilized for the planned construction of the company's first mass-production plant, to be located in Thailand. This plant will allow for large scale fermentation and purification of a variety of synthetic proteins for use in materials such as fibers. Establishment of the plant represents Spiber's latest step towards mass production operations, and commercial production at the plant is expected to commence in 2021.

Through this investment in Spiber, Cool Japan Fund aims to increase global awareness of Japan's cutting-edge material and fiber development manufacturing initiatives and cultivate new demand in the international fashion and apparel markets.

Established in 2007, Spiber Inc. is a biotech startup based in Yamagata, Japan. Spiber's co-founders, Kazuhide Sekiyama and Junichi Sugahara, began researching spider silk protein synthesis in 2004 at the Keio University Institute for Advanced Biosciences in Tsuruoka, Yamagata. Their efforts led to the development of Spiber's proprietary QMONOS® protein material, as well as the successful establishment of the world's first mass production techniques for its production, achievements which have positioned Spiber as a forerunner in the fiber industry.

In addition to fibers, woven and knit textiles, and non-woven fabrics, Spiber's molecularly designed protein materials can also be processed into resins, films, gels, and composites. As such, they have garnered wide attention for their potential to serve as sustainable mainstay industrial materials, due to their low environmental impact, biodegradability, and non-reliance on traditional petroleum resources.

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These funds will be utilized for the planned construction of the company's first mass-production plant, to be located in Thailand. This plant will allow for large scale fermentation and purification of a variety of synthetic protein materials for use in materials such as fibers. Establishment of the plant represents Spiber's latest step towards mass production operations, and commercial production at the plant is expected to commence from 2021. The plant will be constructed at The Eastern Seaboard Industrial Estate in Raying(*), located approximately 120 km from Bangkok, and is expected to have a maximum annual production capacity of several hundred tonnes. Proteins produced at the plant will be shipped to and spun into fibers at Spiber's Tsuruoka spinning facilities, which are also slated for upgrades and expansion. Further announcements regarding Spiber's plans and product development initiatives within the apparel and other industries will follow at a later date.

Through this investment in Spiber, Cool Japan Fund aims to increase global awareness of Japan's cutting-edge material and fiber development manufacturing initiatives and cultivate new demand in the international fashion and apparel markets. Cool Japan Fund hopes that this investment will encourage widespread cooperation amongst the highly skilled enterprises within Japan's textile industry—companies specializing in areas such as spinning, processing, and sewing—and in so doing will contribute to the development of the textile industry as a whole.

* The Eastern Seaboard Industrial Estate in Rayong is an exemplar of the Thai government's Eastern Economic Corridor initiative, which seeks to gather together both domestic and international advanced technology enterprises to encourage economic and technological growth within Thailand. Located near Laem Chabang, site of Thailand's largest international port, the Estate is home to a variety of factories belonging to both Japanese and other foreign manufacturers from the automotive and other industries. The estate was established in 1996, and is developed by WHA INDUSTRIAL DEVELOPMENT.

About Spiber Inc.

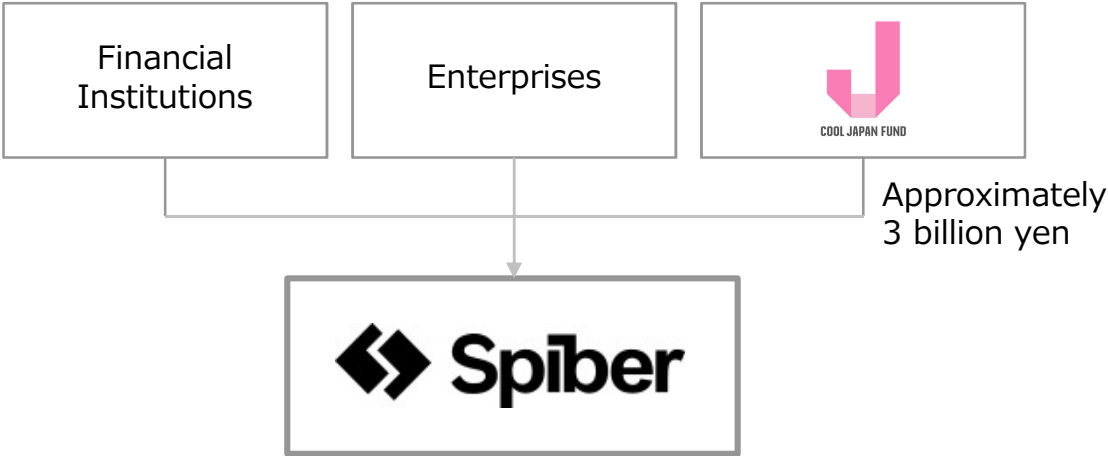
Founded: September 2007
Headquarters: Tsuruoka, Yamagata, Japan
Representative Executive Officer: Kazuhide Sekiyama
Business Domain: New-generation biomaterial development
URL: <https://www.spiber.jp/en>

* Spiber has been selected for the the Cabinet Office's Impulsing Paradigm Change through Disruptive Technologies Program (ImPACT), as well as both the Industrial Technology Research and Development Project, and the J-Startup project, offered by Japan's Ministry of Economy, Trade and Industry.

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Project Scheme:



Global development of apparel business utilizing synthetic structural protein materials



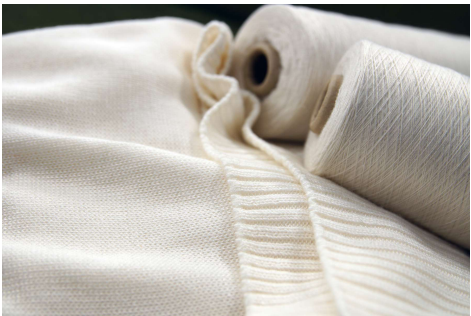
Gene synthesis room



The pilot fermentation plant at Spiber's Tsuruoka headquarters



Filament yarn sample



Spun yarn sample



An improved MOON PARKA® prototype undergoing testing

*Photos provided by Spiber Inc.