



Press Release

Astellas and Kelonia Therapeutics Enter into Research and License Agreement to Develop Novel Immuno-Oncology Therapeutics

- Innovative universal, off-the-shelf in vivo CAR-T Cell therapy -

TOKYO and BOSTON, Mass., February 15, 2024 - Astellas Pharma Inc. (TSE: 4503, President and CEO: Naoki Okamura, "Astellas") and Kelonia Therapeutics (CEO, Founder: Kevin Friedman, Ph.D., "Kelonia") today announced that Xyphos Biosciences, Inc., (a wholly owned subsidiary of Astellas, "Xyphos") and Kelonia have entered into a research collaboration and license agreement to develop novel Immuno-Oncology therapeutics.

Kelonia is a biotech company pioneering a new wave of genetic medicines using its *in vivo* gene placement system (iGPS®). iGPS® uses next generation lentiviral particles to efficiently deliver genetic cargo precisely to the desired target cells inside the patient's body. Xyphos holds a novel and proprietary ACCEL™ technology*¹ platform that uses its *convertibleCAR*® (convertible Chimeric Antigen Receptor)*¹ on immune cells.

Under the terms of the agreement, the companies plan to combine Kelonia's iGPS® with Xyphos' ACCEL™ technology to develop innovative *in vivo* CAR-T Cell therapies*² targeting up to two programs. Xyphos will be responsible for the development and commercialization of products created from the collaborative research. Kelonia will receive US \$40 million upfront for the first program, and an additional US \$35 million should Xyphos exercise its options for the second program, and potential milestones and contingency payments approaching US \$800 million in total. Additionally, Kelonia will receive R&D funding for work performed in the collaboration and is eligible for tiered royalties on net sales up to the double digit percentage.

Kevin Friedman, Ph.D., CEO and Founder of Kelonia

"Our iGPS platform has the potential to be a step change in the treatment of cancer. Combining Kelonia's *in vivo* gene delivery capabilities with the ACCEL™ convertible CAR technology is an ideal marriage of technologies to create off-the-shelf, universal CAR-T Cell therapies. We see revolutionary promise in this approach, and will work

diligently with our partners at Astellas to unlock its full potential for patients that need it most.”

Adam Pearson, Chief Strategy Officer (CStO) of Astellas

“At Astellas, we have a strong commitment to developing novel treatments for patients with cancer and have positioned Immuno-Oncology as a Primary Focus of our R&D strategy*³. With iGPS, Kelonia has an elegant, cutting-edge *in vivo* delivery technology, and by combining with the ACCEL™ platform, we believe the collaboration will bring synergies between the two companies’ breakthrough research and will ultimately lead to expansion of Astellas’ portfolio and to delivery of innovative *in vivo* CAR-T cell therapies to cancer patients.”

***1 ACCEL™ technology and convertibleCAR®:** ACCEL™ technology is based on a synthetic biology approach that utilizes the binding of an engineered protein ligand to an orthogonal engineered receptor which forms the extracellular domain of a convertible CAR (chimeric antigen receptor). The *convertibleCAR®* is targeted to tumor cells with a tumor-associated antigen-specific engineered antibody-like molecule (MicAbody) containing the engineered ligand. For more information, please visit <http://www.xyphosinc.com>

***2 *in vivo* CAR-T cell therapies:** A therapy in which the CAR gene is introduced into the patient's cells residing in the body. The CAR gene is expressed *in vivo* to create immune cells that identify and attack cancer cells. Unlike conventional CAR-T cell therapy, there is no need to culture the extracted immune cells outside the body and then return them to the patient after conditioning chemotherapy, which is expected to be more tolerable and accelerate treatment to improve patients' access to the therapy.

***3:** Astellas has established a Focus Area Approach for its research and development strategy. For more information, please visit our website at [Areas of Interest | Astellas Pharma Inc.](#)

About Astellas

Astellas Pharma Inc. is a pharmaceutical company conducting business in more than 70 countries around the world. We are promoting the Focus Area Approach that is designed to identify opportunities for the continuous creation of new drugs to address diseases with high unmet medical needs by focusing on Biology and Modality. Furthermore, we are also looking beyond our foundational Rx focus to create Rx+® healthcare solutions that combine our expertise and knowledge with cutting-edge technology in different fields of external partners. Through these efforts, Astellas stands on the forefront of healthcare change to turn innovative science into VALUE for patients. For more information, please visit our website at <https://www.astellas.com/en>.

About Xyphos Biosciences, Inc., an Astellas Company

Xyphos Biosciences, Inc., located at South San Francisco, Calif., is a wholly owned subsidiary of Astellas featuring ACCEL™ technology, a CAR (chimeric antigen receptor) technology platform for immune cell therapies. Xyphos Biosciences was launched in 2017, and the Company was acquired by Astellas Pharma in December of 2019. For more information about the company, please visit www.xyphosinc.com.

About Kelonia Therapeutics

Kelonia is pioneering a new wave of genetic medicines using its *in vivo* gene placement system (iGPS®). The company's elegant, cutting-edge *in vivo* gene delivery technology uses an advanced lentiviral vector particle harboring envelope modifications to improve *in vivo* gene transfer efficiency and tropism molecules to facilitate tissue-specific delivery. Initially focused on developing transformational *in vivo* CAR T therapies for hematologic cancers, Kelonia is building a pipeline of genetic medicines for a range of diseases, with the bold goal of making genetic medicines accessible to every patient in need, when and where they need them. Learn more about Kelonia at <https://www.keloniadx.com/> and follow us on [LinkedIn](#) and [Twitter](#).

Cautionary Notes (Astellas)

In this press release, statements made with respect to current plans, estimates, strategies and beliefs and other statements that are not historical facts are forward-looking statements about the future performance of Astellas. These statements are based on management's current assumptions and beliefs in light of the information currently available to it and involve known and unknown risks and uncertainties. A number of factors could cause actual results to differ materially from those discussed in the forward-looking statements. Such factors include, but are not limited to: (i) changes in general economic conditions and in laws and regulations, relating to pharmaceutical markets, (ii) currency exchange rate fluctuations, (iii) delays in new product launches, (iv) the inability of Astellas to market existing and new products effectively, (v) the inability of Astellas to continue to effectively research and develop products accepted by customers in highly competitive markets, and (vi) infringements of Astellas' intellectual property rights by third parties.

Information about pharmaceutical products (including products currently in development) which is included in this press release is not intended to constitute an advertisement or medical advice.

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Contacts for inquiries or additional information:

Astellas Pharma Inc.
Corporate Communications
+81-3-3244-3201

Kelonia Therapeutics
Danielle Cantey, Inizio Evoke Communications
danielle.cantey@inizioevoke.com
+1 619-826-4657