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PassPort Technologies, Inc.
Tokyo University of Science

PassPort Technologies and Tokyo University of Science Initiate Joint Research to Develop Anticancer and Antiviral Therapeutics using Ridaifen

Expectations for early clinical application of revolutionary anticancer drugs from Tokyo University of Science using a novel delivery technology

PassPort Technologies, Inc. (PPTI) has commenced joint research with the Research Institute for Science & Technology at Tokyo University of Science (Chemical Biology Division Supported by Practical Organic Synthesis), aiming to develop anticancer and antiviral drugs with a novel mechanism of action using a unique drug delivery technology.

PPTI is developing its proprietary PassPort® System to painlessly deliver drugs through the skin and efficiently treat various diseases. In parallel, Professors Isamu Shiina and Motoyuki Shimonaka of Tokyo University of Science, along with Professor Yukitoshi Nagahara of Tokyo Denki University (also currently a Visiting Professor at Tokyo University of Science), have created a molecular compound, Ridaifen, that has a clear pharmaceutical effect. Ridaifens, a novel series of tamoxifen derivatives, have the ability to control the human immune system and exert various biological activities through a novel mechanism that activates the function of scaffold proteins *in vivo* (patent pending). Researchers at Tokyo University of Science have successfully conducted animal experiments and observed tumor regression after direct injection of Ridaifen.

As part of the research collaboration between the organizations, a new anticancer drug targeting malignant tumors will be combined with the PassPort® System to enable effective transdermal drug delivery. It is anticipated that wide range of pharmaceutical candidates, including antivirals (dengue virus, cytomegalovirus, influenza virus, HIV, or hepatitis C virus, for example) and anti-infectives (antibacterial agents, for example), can also be developed and evaluated.

This joint research is being carried out in Japan by Tokyo University of Science and Tokyo Denki University, with support from the Strategic Program for Bridging Research of the Japan Agency for Medical Research and Development (AMED).

About the PassPort® System

The PassPort® System is a patent-protected innovative transdermal drug delivery platform developed exclusively by PassPort Technologies, Inc. The system combines needle-free device technology that painlessly creates micropores on the skin surface with patch formulation technology that controls drug absorption through the micropores. By using PassPort®, it is now possible for the systemic transdermal administration of drugs that have previously been limited to injections or infusions. Unlike conventional transdermal patches that are only applicable to low molecular weight drugs, PassPort® can also deliver other modalities such as medium molecular weight drugs (including peptides and oligonucleotides) and macromolecular biopharmaceuticals (such as proteins).

About PassPort Technologies, Inc.

Located in San Diego, California, PassPort Technologies Inc. (PPTI) is focused on the development of advanced drug delivery systems to create innovative pharmaceutical products. After being spun out of Nitto Denko Corporation in July 2019, the company was established to continue R&D efforts towards the commercialization of the PassPort® transdermal platform. With strong technical knowledge and decades of experience in both pharmaceutical sciences and engineering, the PPTI team possesses the necessary expertise in transdermal formulations and medical device development that the PassPort® system requires. The company currently collaborates with a wide range of partners that includes leading academic institutions, specialty biotechnology groups, and multinational pharmaceutical companies. In addition to an active internal pipeline of encompassing NCE, 505(b)(2) and BLA products, PPTI is also able to quickly formulate and evaluate partners' drug, vaccine, and cosmetic candidates using the PassPort® system. For more information, please visit https://PassPort-Tech.com

About The Tokyo University of Science

Tokyo University of Science (TUS) is a well-known and respected university, and the largest science-specialized private research university in Japan, with four campuses in central Tokyo and its suburbs and in Hokkaido. Established in 1881, the university has continually contributed to Japan's development in science through inculcating the love for science in researchers, technicians, and educators. With a mission of "Creating science and technology for the harmonious development of nature, human beings, and society", TUS has undertaken a wide range of research from basic to applied science. TUS has embraced a multidisciplinary approach to research and undertaken intensive study in some of today's most vital fields. TUS is a meritocracy where the best in science is recognized and nurtured. It is the only private university in Japan that has produced a Nobel Prize winner and the only private university in Asia to produce Nobel Prize winners within the natural sciences field. For more information, please visit https://www.tus.ac.jp/en/

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