BrightPath Biotherapeutics Press Release

July 20, 2017

Decision to grant patent for CTL inducer composition by Canadian Intellectual Property Office

BrightPath Biotherapeutics Co., Ltd. (TSE Mothers: 4594), a Tokyo-based clinical-stage immune-oncology company developing cancer vaccines, announced that it has been notified by the Canadian patent authority about the decision to grant a patent[*1] for the invention that induces CTL[*2] response against cancer cells. This follows decisions to grant patents by the authorities in Japan and the USA.

1. Overview of patent

Name of invention	CTL inducer composition
Application No.	2927770

The patent application concerns an invention relating to achievement of induction of an immune response by binding of peptides to HLA[*3] of multiple genotypes. The mechanism of action of cancer peptide vaccines in the human body is initiated by CTLs' recognition of the peptides bound to HLA on the surface of antigen presenting cells such as dendritic cells. The genotypes of HLA vary by individuals, and so does their frequency by region and ethnicity. In general, a specific peptide bind to only one specific HLA genotype, but there are some that bind to multiple HLA genotypes. This suggests that the availability of such peptides would increase the number of patients to whom the peptide vaccine could be administered.

The patent for which a decision to grant notification has been received from the Canadian authorities covers several peptides that can bind with multiple HLA genotypes.

2. Impact on financial forecast

This decision to grant a patent will have no impact on the company's financial results for the fiscal year ending March 31, 2018.

*1 *Decision to grant patent*: The result of examination of a patent application by the authorities in an individual country, resulting in the decision that the invention disclosed in the relevant patent application is worth granting patent rights. Following notification of the decision to grant the patent, with payment of the patent fee, the patent rights are registered in the respective country, and the patent becomes valid.

*2 *CTL (cytotoxic T-lymphocyte)*: T-lymphocytes are a type of lymphocyte, and CTLs are a type of T-lymphocyte. By means of T-cell receptors on cell surfaces, CTLs specifically recognize foreign matter presented by dendritic cells and other antigen-presenting cells that are infected with a virus or are cancerous, followed by cytotoxic effects on these cells. CTLs were previously termed "killer T-cells".

*3 *HLA (human leukocyte antigens)*: Important proteins in the immune system that are expressed on the surfaces of virtually all cells in the human body. HLAs present antigens that enable the immune system to distinguish between "self" and "non-self". There is a great variation in the types of "non-self", and, in order to distinguish between them, there is a very large number of different forms of HLA. A peptide binds to a specific type of HLA, but not to types that do not match.

BrightPath Biotherapeutics Co., Ltd.

BrightPath is a clinical-stage biopharmaceutical company developing immune-oncology agents. BrightPath has peptide vaccine candidates in clinical studies in Japan and the USA and a new type of T-cell therapy in which antigen-specific T-cells are converted to induced pluripotent stem cells, and then rejuvenated. Furthermore, it is developing innovative therapies using neoantigens, which are tumor-specific mutation antigens, this approach having high novelty worldwide.

On July 1, 2017, the company changed its name from GreenPeptide Co., Ltd., to BrightPath Biotherapeutics Co., Ltd.

Disclaimer

This is a translation of a news release published in Japanese. In the event of any deviations between the two language versions, the original document in Japanese shall take precedence.

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