OncoTherapy Science, Inc.
November 30, 2018

Announcement of a commissioned basic contract between OTS's subsidiary company and Cosmo Bio Co., Ltd. for peptide synthesis

OncoTherapy Science, Inc. (OTS) hereby announces that, its subsidiary company, Cancer Precision Medicine, Inc. (CPM) concluded a commissioned basic contract with Cosmo Bio Co., Ltd. (CB) for the peptide synthesis in cancer immunotherapy.

This contract is for that, based on CPM's neoantigen analysis (*1) results, CB synthesizes and delivers the commissioned peptides to CPM. CPM has concluded a collaborative research agreement with Cancer Precision Medicine Center (director: Dr. Yusuke Nakamura) at the Japanese Foundation for Cancer Research, and has provided cancer-related genetic analysis services such as liquid biopsy (*2) or neoantigen analysis to medical institutions and research institutes. On the conclusion of this contract, CPM will request entrusted peptide synthesis to CB in order to shorten the period of peptide synthesis for cancer immunotherapy, and CPM will provide a package service which can include neoantigen analysis as well as synthesized peptides to the medical institutions and research institutes.

Cancer immunotherapy is getting more attentions as a revolutionary cancer treatment via activation of our body's immune system. Neoantigen is a cancer-specific antigen derived from a somatic mutation (*3) in cancer cell and considered as an ideal target for cancer immunotherapy. Neoantigen prediction (*4) is regarded as a very important step to develop effective cancer therapeutic vaccines, as an individualized cancer immunotherapy.

Cosmo Bio Co., Ltd
Life science research biotools (reagents, kits, instruments, diagnostics, and software): import, export, manufacture, marketing, sales and customer support.
https://www.cosmobio.com/index.php

(*1) neoantigen analysis
It is to analyze a cancer-specific antigen (neoantigen) that is derived from a somatic mutation in a cancer cell and presented as a target of immune cell.

(*2) liquid biopsy
Cancer is a genetic disease with accumulation of genetic alterations. Recent advances in the next-generation DNA sequencing technologies have enabled to detect the presence of cancer in patient, by analyzing liquid specimens like blood and urine. This kind of approach is called as "liquid biopsy" which can detect mutated ctDNA (circulating tumor DNA) with very high sensitivity. One of useful clinical applications of the liquid biopsy is very early detection of tumor recurrence, which may detect even earlier than tumor imaging examination like CT

(Computed Tomography). Moreover, liquid biopsy is a non-invasive and safe method than collection of tumor tissue, and can be performed repeatedly.

(*3) somatic mutation

There are two types of genetic mutations, one is inherited mutation from parents and the other is acquired mutation occurring after birth, which is also called as somatic mutation. The former mutation will be present in all cells of the body. On the other hand, the somatic mutation is an acquired mutation, and will be present only in certain cells and their daughter cells which have continuously proliferated.

(*4) neoantigen prediction

By use of computer algorithms, it is to predict “neoantigen peptides” which contain somatic gene mutations, expressed in cancer cells, and can strongly bind to patient's HLA molecules. In the immune system, neoantigen peptides mark on cancer cells and induce very strong cancer cell-specific immune responses.