Publication of a manuscript describing the development of a small molecule compound causing complete regression of tumors in mice model

A manuscript entitled "TOPK inhibitor induces complete tumor regression in xenograft models of human cancer through inhibition of cytokinesis", has been published in *Science Translational Medicine* in collaboration with the group of Professor Yusuke Nakamura in The University of Chicago.

Professor Yusuke Nakamura's group previously reported that TOPK (T-LAK cell-originated protein kinase), which is highly expressed in many types of human cancer including breast and lung cancers, should be a promising molecular target for the development of a novel type of an anti-cancer drug. The manuscript has described the development of small molecule compounds, which inhibit TOPK kinase activity with high affinity and selectivity. The compounds suppressed the growth of various types of human cancer cells and exhibited significant tumor growth suppression of human lung cancer in a mouse xenograft model. More importantly, intravenous administration of a liposomal formulation of the compound OTS964 as well as oral administration of its free form caused complete regression of transplanted tumors. In addition, colleagues in Chicago confirmed the TOPK-specific mode of action of the small molecular compounds. These results demonstrate the therapeutic potential of TOPK-specific inhibitors for the treatment of various human cancers.

For details of the manuscript, please refer to the following Web page of the journal Science Translational Medicine. (<u>http://stm.sciencemag.org/content/6/259/259ra145</u>)

We have been actively screening to the candidate molecules that are applicable for the development of novel types of anti-cancer agents including small molecular compounds reported in this manuscript, cancer peptide vaccines, and antibodies. We have been working hard to develop anti-cancer drugs with high efficacy and minimum risk of adverse effects.