



KONICA MINOLTA

## News Release

# Konica Minolta to Join Global Oncogenic Gene Panel Research

## Move Strengthens Konica Minolta's Advance into Personalized Medicine in Japan with Next-Generation Screening Capabilities

TOKYO, Japan (June 6, 2019) – Konica Minolta, Inc. (Konica Minolta) today announces agreement with the University of Tokyo (UTokyo) and the National Cancer Center Japan (NCC) to research and develop the next generation Todai OncoPanel (TOP)<sup>1</sup>, a world-leading oncogenic panel test. This research collaboration enables Konica Minolta, which has primarily been expanding its gene diagnosis business in the United States, to fully enter into the field to advance the cancer genome medical system in Japan.

The research collaboration combines the knowledge of Ambry Genetics Corporation (AG), a Konica Minolta company, and its global gene diagnostic technology, with the TOP technology, to reinforce the informatics foundation technology of the TOP and develop a breakthrough, next-generation, comprehensive gene panel test with advanced functionality. The TOP has a large number of targets of oncogenic somatic gene mutations in the DNA panel and fusion gene detection analysis in the RNA panel. AG is the world leader in germ cell mutation detection technology and was among the first to commercialize RNA testing to assess germline mutations.

Professor Hiroyuki Aburatani, from the UTokyo Research Center for Advanced Science and Technology, will serve as the head of research and development, along with Professor, Hiroyuki Mano, current Head of Cell Informatics, NCC, who will participate in this research to further develop the RNA analysis function. The Todai OncoPanel was primarily developed by Professor Aburatani and Professor Mano.

Konica Minolta will advance quality control of medical examinations and development of highly accurate pairing examination methods.<sup>2</sup> In addition, Konica Minolta aims to provide a complete domestic gene analysis service by setting up a commercial laboratory in Japan in order to carry out the panel test developed through this joint research and development. This laboratory will enable the panel developed through this research to be implemented in Japan; provide clinicians in Japan a complete gene analysis service; and will expand the cancer genome information repository<sup>3</sup> from the Center for Cancer Genomics and Advanced Therapeutics (C-CAT) in Japan.

---

<sup>1</sup> **Todai OncoPanel:** See definition on next page

<sup>2</sup> **Pairing Examination:** Examination method in cancer gene panel inspection, for not only genes in cancer tissue but also genes in normal cells such as blood cells are sequence analysis simultaneously. Refinement of detection of gene mutations specific to cancer tissue, and identification and evaluation of mutations that cause hereditary tumors become possible.

<sup>3</sup> **Cancer genome information repository:** Database of cancer genome information owned and managed by C-CAT. By receiving and storing clinical information at the same time, it is expected to become a system for securing and managing the quality of cancer genomic medicine. Also, a function that enables research and development of new medical care using stored data is to be developed.

Through this exciting new collaboration, Konica Minolta, UTokyo and NCC will contribute to the elucidation of heritable mutations unique to the Japanese population; the development of innovative cancer treatment and diagnostic methods; the creation of new drugs; the improvement of quality of life (QOL) for patients; and will contribute to the need to limit increases in medical expenses.

Kiyotaka Fujii, Senior Vice President and Executive Officer and President of Global Healthcare, Konica Minolta, commenting on the signing of this agreement said, “We are delighted to join forces with the University of Tokyo and the National Cancer Center Japan to research and develop the next generation Todai OncoPanel. Leveraging the capabilities of Ambry Genetics, a top American genetic testing and analysis firm, and Invicro, a leading provider of drug discovery support services using AI technology, we believe Konica Minolta can help play an important role in the advancement of research and development of the cancer genomic medical system in Japan.”

### **Konica Minolta: Precision Medicine**

Konica Minolta globally enhances development of new services to realize Precision Medicine by leveraging the group's state-of-the-art “visualization technology”. Precision medicine focuses on determining the composition of an individual at the molecular level – genes and proteins – and precisely stratifying them. Through this analysis, precision medicine offers treatment policies based on a precise early diagnosis. Ultimately precision medicine offers the prospect of delivering personalised medication and treatment which can reduce the burden on patients' bodies and reduce medical expenses.

As headquarters of Konica Minolta's precision medicine business, Konica Minolta Precision Medicine, Inc. (KMPM), based in Aliso Viejo, CA, was founded in 2018 on the belief that groundbreaking medical breakthroughs are possible by concentrating efforts on the health expression map, the undiscovered territory between an individual's genetics and biological impacts, and quantifiably measuring health over time. KMPM includes Ambry Genetics Corporation and Invicro LLC and its health intelligence and visualization platform that brings together the most novel and diverse set of data from genes, proteins, cells and tissues with sophisticated analytics and world-leading scientific and medical expertise, enabling more prescriptive, proactive and preventive care.

For further information, visit: [\\_KonicaMinoltaPrecisionMedicine.com](https://www.konicaminolta.com/precisionmedicine)

### **Todai OncoPanel**

The Todai<sup>4</sup> OncoPanel (TOP), which consists of DNA and RNA hybridization capture-based next-generation sequencing panels, was established in October 2018 in response to the need for an optimal platform for cancer sequencing as tumor molecular profiling is becoming a standard of care for patients with cancer. A novel method for target enrichment, named the junction capture method, was developed for the RNA panel to accurately and cost-effectively detect 677 fusion genes as well as aberrantly spliced transcripts. The TOP RNA panel can also measure the expression profiles of an additional 125 genes. The TOP DNA panel was developed to detect single nucleotide variants and insertions/deletions for 478 genes, to calculate tumor mutation burden and microsatellite instability status, and to infer chromosomal copy number.

###

---

<sup>4</sup> **Todai** is the Japanese abbreviation for The University of Tokyo.