BostonGene and Saga University Announce Collaboration to Uncover Biomarkers for Improved Immunotherapy Response in Lung Cancer Patients

Study designed to explore novel markers for identifying responders with immune checkpoint inhibitors in patients resistant to targeted therapies

Waltham, Mass – April 16, 2024 – [BostonGene](), a leading provider of AI-driven molecular and immune profiling solutions, and Saga University located in Saga, Japan and known for its commitment to educating and training researchers and professionals in the medical and healthcare fields, announced today the launch of a collaboration aimed at discovering biomarkers for immunotherapy (IO) treatment response and treatment-related toxicity in advanced non-small cell lung cancer (NSCLC) patients.

EGFR-TKI treatment effectively targets EGFR mutation-positive NSCLC. Still, acquired resistance often leads to recurrence within 1 to 2 years, presenting a challenge for post-treatment optimization. Immune checkpoint inhibitors (ICIs) are standard therapy for NSCLC, but the efficacy in EGFR mutation-positive cases is limited. However, combination therapy with ICIs and anti-angiogenic agents has shown promise in EGFR-positive lung cancer.

This study will evaluate the tumor microenvironment (TME) utilizing the BostonGene Tumor Portrait™ test in tissue samples collected before EGFR-TKI treatment and before ICI administration in patients with EGFR-positive lung adenocarcinoma. The study aims to examine the relationship between TME characteristics and the effectiveness of ICIs in these patients and investigate TME changes resulting from EGFR-TKI therapy. Furthermore, researchers will review cases where small-cell transformation occurred as a mechanism of EGFR-TKI resistance, aiming to elucidate the molecular mechanisms underlying this transformation within the TME context. By addressing these objectives, we enhance our understanding of TME dynamics and its implications for treatment response, ultimately informing improved therapeutic strategies for EGFR-positive lung adenocarcinoma.

"We are dedicated to advancing medical research directly impacting patient care. By partnering with BostonGene, we aim to uncover novel biomarkers to revolutionize how we approach

immunotherapy treatment in EGFR-positive lung cancer, ultimately improving patient outcomes," said Dr.Naoko Aragane, Professor of Saga University.

"Our collaboration with Saga University underscores our dedication to advancing the standard of care in Japan by bringing novel technologies to the region. The study marks an opportunity to delve deep into the complexities of the tumor microenvironment in EGFR-positive lung cancer patients, equipping oncologists with more targeted and effective immunotherapy strategies for their patients," said Nathan Fowler, MD, Chief Medical Officer at BostonGene.

BostonGene, NEC Corporation and Japan Industrial Partners established [BostonGene Japan Inc.](), a joint venture leveraging BostonGene's advanced molecular technology and NEC's biocomputational algorithms in 2023. The company aims to deliver its industry-leading personalized tests to cancer patients in Japan and collaborate with academic and industry partners to accelerate the development of targeted therapies.

About BostonGene Corporation
BostonGene has a mission to provide transformative, AI-integrated molecular analytics and biomarker discovery for precision matching of therapies to improve the lives of patients living with cancer and other immune-related diseases. BostonGene's concierge-service model provides customized client solutions using a multi-omic approach prioritized for real-world impact to optimize standard-of-care therapies, accelerate research and provide cost-effective, measurable data-driven results. BostonGene's tests reveal key drivers of each patient's unique disease profile, including an in-depth profile of the immune microenvironment, actionable mutations, biomarkers of response to diverse therapies, and recommended therapies. Through these comprehensive analyses, BostonGene's tests generate a personalized roadmap for therapeutic decision-making for each patient. For more information, visit BostonGene at http://www.BostonGene.com.

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