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BrightPath Presents New Data on Personalized Neoantigen Vaccine at AACR 2022

- *New data highlighting scientific advancements in immune-checkpoint antibody-directed personalized neoantigen vaccine, BP1209.*

Tokyo, Japan - April 13, 2022/ -- BrightPath Biotherapeutics (TSE Growth 4954), a clinical-stage biopharmaceutical company has focused on developing novel immunotherapeutics, today announced that preclinical data on BP1209 (Personalized neoantigen vaccine) at the American Association for Cancer Research Annual Meeting (“AACR 2022”) on April 8-13. The abstract featuring data on a new platform for personalized neoantigen vaccine, BP1209 will be shared in a virtual and on-site poster viewing session.

BrightPath’s abstract is as follows:

Title: Personalized neoantigen cancer vaccine assembled on DC targeting antibody improves cancer immunity (3552)

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The abstract for this presentation is available on the websites of the [AACR](#) and [BrightPath](#).

- * **BP1209 dramatically improves the induction of tumor specific T-cells and their anti-tumor cytotoxicity over conventional cancer vaccines.**
- * **We demonstrated that the vaccine potency was enhanced not only by the function of the antibodies on dendritic cells (DCs), but also by the antigen delivery to DCs.**
- * **BP1209 promotes the increased infiltration of stem-like T cells into tumors.**
- * **BP1209 in combination with BrightPath’s algorithm to predict neoantigens exhibits efficient induction of the tumor-specific T cells and anti-tumor vaccine efficacy.**

BP1209 is a proprietary, advanced cancer vaccine which targets tumor-specific neoantigens for the personalized treatment of cancer patients. The BP1209 vaccine is delivered as a molecular complex of patient-specific neoantigen peptides and immune-checkpoint inhibitor antibody such as anti-PD-L1 and anti-CD40 antibodies. The antibody directs the vaccine complex to dendritic cells (DCs), and enhances the cellular uptake of vaccine as well as the antigen-specific T cell priming by suppressing PD-1/PD-L1 signaling or CD40 activation. The neoantigen peptides consists of three modules: HLA-class I and -class II neoantigen epitopes, and an IgG-binding motif. The peptides non-covalently bind Fc domain of IgG, and self-assemble the antibody-vaccine complex without any chemical reaction which enables individual synthesis and manufacturing fully personalized neoantigen vaccine. In this poster, authors demonstrate BP1209 strongly enhances antigen-specific immune responses and improves antitumor efficacy

using cancer neoantigen. BrightPath has developed in-house bioinformatic algorithms to identify highly immunogenic neoantigens from cancer patients. The new vaccine platform of BP1209 in combination with BrightPath's algorithm to identify high quality neoantigens provides an ideal option to improve neoantigen vaccine therapy.

About BrightPath:

BrightPath Biotherapeutics is an immuno-oncology focused biotech company dedicated to improving treatment and clinical outcomes for patients through cancer vaccine, therapeutic antibodies, and cell therapy that harness the immune system to fight cancer.

BrightPath's clinical-stage product, GRN-1201 is a new cancer vaccine in phase 2 trial in patients with melanoma and lung cancer in US. BP2201 in-collaboration with RIKEN, Japan is an iPS (induced pluripotent stem cell)-derived NKT therapy and the phase 1 trial is currently ongoing in Japan.

BrightPath's broad pipeline of immunotherapy includes several potentially first-in-class and best-in-class clinical and preclinical candidates in cancers with high unmet medical need.

BrightPath has been a pioneer in immunotherapy by cancer vaccine and has expanded its expertise in the tumor microenvironment and immune cell development as well as antibody engineering. This innovative approach has resulted in a diversified proprietary portfolio of cancer vaccine, therapeutic antibody, and immune-cell therapy.

Based in Tokyo, Japan, BrightPath is listed on Tokyo Stock Exchange in Japan. For more information, visit www.brightpathbio.com

Forward-Looking Statements:

This news release contains forward-looking statements that are based on the current expectations and beliefs of BrightPath. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements. BrightPath cautions that these forward-looking statements do not guarantee our future financial results but involve risks and uncertainties that could cause actual results to differ materially from those discussed in the forward-looking statements. These forward-looking statements speak only as of the date of this press release and BrightPath assumes no duty to update forward-looking statements, except as may be required by law.

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