Replimune Presents New Analyses from the IGNYTE Study of RP1 plus Nivolumab in Anti-PD1 Failed Melanoma at the 2025 American Society of Clinical Oncology (ASCO) Annual Meeting

June 1, 2025

- RP1 plus nivolumab generated robust responses in both injected and non-injected lesions -

- Deep/visceral injections, including into the liver and lung, resulted in numerically higher rates of response compared to superficial injections only and were generally well tolerated -

WOBURN, Mass., June 01, 2025 (GLOBE NEWSWIRE) -- Replimune Group, Inc. (NASDAQ: REPL), a clinical stage biotechnology company pioneering the development of novel oncolytic immunotherapies, today presented two posters highlighting data updates for RP1 (vusolimogene oderparepvec) at the 2025 American Society of Clinical Oncology (ASCO) Annual Meeting taking place May 30-June 3 in Chicago.

"The new analyses we presented from the IGNYTE clinical trial of RP1 plus nivolumab in anti-PD-1 failed melanoma confirms our belief in the systemic activity of the combination, and also shows robust responses in injected liver and lung lesions with an acceptable safety profile," said Kostas Xynos, M.D., Chief Medical Officer of Replimune. "Additional data also presented at the meeting shows that RP1 can be handled safely with no additional biosafety protocols required confirming that standard disinfection procedures are sufficient for clean up."

Key findings are outlined below.

Poster Presentation: Response analysis for injected and non-injected lesions and the safety and efficacy of superficial and deep RP1 injection in the registrational cohort of anti-PD-1-failed melanoma patients of the IGNYTE trial (Track: Melanoma/Skin Cancers; June 1, 2025, 9:00 am – 12:00 pm CDT; **Location:** Hall A, Board 20; **Abstract:** 9537)

- The poster included an analysis from the IGNYTE clinical trial of RP1 plus nivolumab in the cohort of anti-PD-1 failed melanoma patients (n=140). In the trial, the objective response rate (ORR) was 32.9% using RECIST 1.1. The complete response rate was 15.0% and landmark overall survival (OS) rates at 1, 2, and 3 years were 75.3%, 63.3%, and 54.8% respectively. Median OS has not been reached.
- Patients experienced numerically higher objective response rates after receiving deep injections (± superficial) compared with superficial injections only. Deep responses were observed in injected and non-injected lesions.
    - The ORR by injection type using RECIST 1.1 was 29.8% when only superficial lesions were injected, 42.9% for deep/visceral plus superficial injections injected, and 40.9% when only deep/visceral lesions were injected.
    - There was a ≥30% reduction in 93.6% (73/78) of injected lesions and 79.0% (94/119) of non-injected lesions. The kinetics of response were similar in injected vs non-injected lesions.
    - Of the non-injected visceral organ lesions in responding patients, 96.2% (50/52) showed reduction from baseline, with 65.4% reduced by ≥30%.
- RP1 injections directly into the lung and liver were generally well tolerated and resulted in few organ-specific adverse events that were easily managed.
    - Liver and lung injections had a tolerable safety profile.
    - No bleeding events were reported after liver injection.
    - Lung injections were associated with low rates of pneumothorax events, which were typically of low grade and manageable.
- Overall, these data support the safety and efficacy of deep/visceral injections and demonstrate the development of a robust systemic anti-tumor response following treatment with RP1 plus nivolumab.

Poster Presentation: Biosafety analysis from the skin cancer cohorts in the IGNYTE clinical trial of RP1 (Track: Melanoma/Skin Cancers; June 1, 2025, 9:00 am – 12:00 pm CDT; **Location:** Hall A, Board 17; **Abstract:** 9534)

- RP1 was assessed in various samples taken from patients.
    - This demonstrated that RP1 DNA is primarily detected at the injection site, consistent with RP1 replication in the tumor, and much more rarely on dressings, in blood, on mucous membranes or in urine.
    - In all cases, live RP1 was only rarely if ever detected, demonstrating that while residual RP1 DNA may be present, this does not indicate the presence of live RP1
    - There were no systemic herpetic infections in patients or reports of HSV-1 infections in contacts.
    - RP1 is completely neutralized using standard disinfectants within 30 seconds of contact, confirming that standard disinfection procedures are sufficient for RP1 clean-up.
- Collectively these data demonstrate that the likelihood of transmission of RP1 to patients' contacts or into the external

environment is minimal, with no transmission having been reported to date.

Both posters will be available on the Company website under Events and Presentations.

About RP1
RP1 is Replimune's lead product candidate and is based on a proprietary strain of herpes simplex virus engineered and genetically armed with a fusogenic protein (GALV-GP-R-) and GM-CSF intended to maximize tumor killing potency, the immunogenicity of tumor cell death and the activation of a systemic anti-tumor immune response.

About RP2
RP2 is based on a proprietary strain of herpes simplex virus engineered and genetically armed with a fusogenic protein (GALV-GP-R-) and GM-CSF intended to maximize tumor killing potency, the immunogenicity of tumor cell death and the activation of a systemic anti-tumor immune response. RP2 additionally expresses an anti-CTLA-4 antibody-like molecule, as well as GALV-GP-R- and GM-CSF. RP2 is intended to provide targeted and potent delivery of these proteins to the sites of immune response initiation in the tumor and draining lymph nodes, with the goal of focusing systemic-immune-based efficacy on tumors and limiting off-target toxicity.

About Replimune
Replimune Group, Inc., headquartered in Woburn, MA, was founded in 2015 with the mission to transform cancer treatment by pioneering the development of novel oncolytic immunotherapies. Replimune's proprietary RPx platform is based on a potent HSV-1 backbone intended to maximize immunogenic cell death and the induction of a systemic anti-tumor immune response. The RPx platform is designed to have a unique dual local and systemic activity consisting of direct selective virus-mediated killing of the tumor resulting in the release of tumor derived antigens and altering of the tumor microenvironment to ignite a strong and durable systemic response. The RPx product candidates are expected to be synergistic with most established and experimental cancer treatment modalities, leading to the versatility to be developed alone or combined with a variety of other treatment options. For more information, please visit www.replimune.com.

Forward Looking Statements
This press release contains forward looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding the design and advancement of our clinical trials, the timing and sufficiency of our clinical trial outcomes to support potential approval of any of our product candidates, the regulatory review process and timing of potential product approval, our goals to develop and commercialize our product candidates, patient enrollments in our existing and planned clinical trials and the timing thereof, and other statements identified by words such as "could," "expects," "intends," "may," "plans," "potential," "should," "will," "would," or similar expressions and the negatives of those terms. Forward-looking statements are not promises or guarantees of future performance, and are subject to a variety of risks and uncertainties, many of which are beyond our control, and which could cause actual results to differ materially from those contemplated in such forward-looking statements. These factors include risks related to our limited operating history, our ability to generate positive clinical trial results for our product candidates, the costs and timing of operating our in-house manufacturing facility, the timing and scope of regulatory approvals, the availability of combination therapies needed to conduct our clinical trials, changes in laws and regulations to which we are subject, competitive pressures, our ability to identify additional product candidates, political and global macro factors including the impact of the coronavirus as a global pandemic and related public health issues and the Russian-Ukrainian and Israel-Hamas political and military conflicts, and other risks as may be detailed from time to time in our Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q and other reports we file with the Securities and Exchange Commission. Our actual results could differ materially from the results described in or implied by such forward-looking statements. Forward-looking statements speak only as of the date hereof, and, except as required by law, we undertake no obligation to update or revise these forward-looking statements.

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