Pre-clinical data on HOOKIPA's arenaviral immunotherapeutic in melanoma published in Nature Communications

August 5, 2021

- HOOKIPA's arenaviral platform technology demonstrated ability to modulate the tumor microenvironment and induce potent melanoma-specific T cell responses
- A single, intra-tumoral injection of the arenaviral immunotherapeutic resulted in tumor regression in all mice and tumor cures in about 60 percent of recipients
- Publication adds to the growing body of evidence supporting the potential of HOOKIPA's novel arenaviral therapeutics in cancer

NEW YORK and VIENNA, Austria, Aug. 05, 2021 (GLOBE NEWSWIRE) -- HOOKIPA Pharma Inc. (NASDAQ: HOOK, 'HOOKIPA'), a company developing a new class of immunotherapeutics based on its proprietary arenavirus platform, today announced that pre-clinical data on its replicating Lymphocytic choriomeningitis (LCMV) arenaviral-based immunotherapeutic has been published in the peer-reviewed journal, *Nature Communications*. The data demonstrate that HOOKIPA's LCMV-based vector, designed to target melanoma, modulated the tumor microenvironment and induced potent, tumor antigen-specific T cell responses, resulting in tumor regression and tumor cures in a pre-clinical setting. The publication is available online.

"The pre-clinical data published in *Nature Communications* add to the growing body of evidence on our arenaviral therapeutics' ability to induce potent T cell responses and drive tumor regression and, in many cases, tumor cures," said Joern Aldag, Chief Executive Officer at HOOKIPA. "We're pleased to see parallels in significant T cell responses, even after a single administration, between these data in melanoma and the HPV data we've reported in both pre-clinical and clinical settings. We believe our novel, versatile platform has the potential to redefine success in cancer immunotherapy, and we continue to drive our lead HPV program forward while exploring additional indications to address unmet needs."

Pre-clinical data featured in the article showed that replicating LCMV-based arenaviral vector administered as a monotherapy led to melanoma tumor regression in all mice, with tumor cures in about 60 percent of recipients after a single, intra-tumoral administration. Importantly, a single, local injection of the vector into the tumor also led to systemic immune responses, significantly reducing the number of lung metastases.

Other key highlights from the paper include findings that HOOKIPA's single-vector therapy:

- Modulated the tumor micro-environment, producing a shift towards immune-stimulatory cells
- Produced a significant increase in tumor antigen-specific CD8+ T cells, known as killer cells, which are critical for effective tumor control
- Reduced T cell exhaustion, resulting in better functional CD8+ T cells within the tumor, as well as more immune-stimulatory CD4+ T cells
- Induced long-term memory and protection against melanoma tumor re-challenge
- Demonstrated the ability of the arenaviral platform to break tolerance in a difficult-to-treat, poorly immunogenic melanoma model, highlighting the potential of this approach more broadly

These data reinforce the promise of HOOKIPA's arenaviral immunotherapeutic technology to activate and mobilize anti-tumor T cells, as well as overcome some of the challenges of oncolytic virus technology.

HOOKIPA is evaluating its single-vector and alternating 2-vector technologies in cancer in an ongoing Phase 1/2 clinical trial with HB-201 and HB-202. Each single-vector compound uses a different arenavirus backbone (Lymphocytic Choriomeningitis Virus for HB-201 and Pichinde Virus for HB-202), while expressing the same antigen, an E7E6 fusion protein derived from HPV16. Phase 1 data on HB-200 has shown outstanding CD8+ T cell responses, preliminary efficacy as monotherapy in heavily pre-treated head and neck cancer patients who progressed on standard of care, including checkpoint inhibitors, and favorable tolerability. HOOKIPA's HB-300 program for prostate cancer also uses the LCMV and PICV arenaviral backbones directed against three validated antigens for prostate cancer: PAP, PSA, and PSMA.

About HOOKIPA
HOOKIPA Pharma Inc. (NASDAQ: HOOK) is a clinical-stage biopharmaceutical company focused on developing novel immunotherapies that mobilize and amplify targeted T cells and antibodies, the body's natural infection killers, to fight or prevent serious disease.

HOOKIPA is developing a broad pipeline of potential first-in-class arenaviral immunotherapies in oncology and infectious disease. We are leveraging our proprietary, versatile platform to engineer arenaviral therapeutics that induce robust antigen-specific CD8+ T cells and pathogen-neutralizing antibodies to a broad range of self and non-self antigens, including viral antigens, tumor-associated antigens and neoantigens. Our immunotherapies are designed to use either non-replicating or replicating viral vectors based on the target disease, with the potential to induce CD8+ T cell response levels previously not achieved by other immunotherapy approaches.

HOOKIPA's pipeline includes ongoing clinical trials in Human Papilloma Virus 16-positive cancers and Cytomegalovirus, as well as preclinical research

in prostate cancer, HIV and Hepatitis B. The latter two are in collaboration with Gilead Sciences, Inc.

Find out more about HOOKIPA online at www.hookipapharma.com.

HOOKIPA Forward Looking Statements

Certain statements set forth in this press release constitute "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements can be identified by terms such as "believes," "expects," "plans," "potential," "would" or similar expressions and the negative of those terms. Such forward-looking statements involve substantial risks and uncertainties that could cause HOOKIPA's research and clinical development programs, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the uncertainties inherent in the drug development process, including HOOKIPA's programs' early stage of development, the process of designing and conducting preclinical and clinical trials, the regulatory approval processes, the timing of regulatory filings, the challenges associated with manufacturing drug products, HOOKIPA's ability to successfully establish, protect and defend its intellectual property, risks relating to business interruptions resulting from the coronavirus (COVID-19) disease outbreak or similar public health crises, the impact of COVID-19 on the enrollment of patients and timing of clinical results for HB-101 and other programs, and other matters that could affect the sufficiency of existing cash to fund operations and HOOKIPA's ability to achieve the milestones under the agreement with Gilead. HOOKIPA undertakes no obligation to update or revise any forward-looking statements. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of the company in general, see HOOKIPA's annual report on Form 10-Q for the financial year ended March 31, 2021 which is available on the Security and Exchange Commission's website at www.sec.gov and HOOKIPA's website at www.hookipapharma.com.

Investors and others should note that we announce material financial information to our investors using our investor relations website (https://ir.hookipapharma.com/), SEC filings, press releases, public conference calls and webcasts. We use these channels, as well as social media, to communicate with our members and the public about our company, our services and other issues. It is possible that the information we post on social media could be deemed to be material information. Therefore, we encourage investors, the media, and others interested in our company to review the information we post on the U.S. social media channels listed on our investor relations website.

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