Pre-clinical data on HOOKIPA's alternating 2-vector cancer therapeutics published in Cell Reports Medicine

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- Alternating, intravenous administration of two replicating arenaviral vectors induce tumor-specific responses exceeding 50% of the circulating CD8 T cells
- 2-vector approach resulted in tumor cures and long-term immunity against tumor rechallenge
- Publication underscores the potential of HOOKIPA's engineered arenavirus platform as a new class of cancer immunotherapeutics, currently being evaluated in a Phase 1/2 clinical trial in HPV16+ cancers

NEW YORK and VIENNA, Austria, March 04, 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 the publication of pre-clinical data highlighting the potential of its alternating 2-vector, intravenously administered cancer therapeutics in the peer-reviewed journal, *Cell Reports Medicine*. The publication, which is available online now, will appear in the 16 March print issue.

"The pre-clinical data published in *Cell Reports Medicine* underscore the potential of our engineered arenavirus platform to redefine success in cancer immunotherapy. Specifically, our alternating 2-vector approach delivered a substantial tumor-specific response, resulting in tumor cures and long-term anti-tumor immunity in a pre-clinical setting," said Joern Aldag, Chief Executive Officer at HOOKIPA. "The data in this peer-reviewed publication provide the scientific substantiation for the ongoing clinical trial of the alternating 2-vector therapy for Human Papillomavirus 16-positive (HPV16+) cancers as well as for advancing to prostate cancer."

Pre-clinical data featured in the article showed that intravenous, alternating administration of two different replicating arenaviral vectors that express the same antigen induces potent T cell response, exceeding 50% of the circulating T cell pool, and robust anti-tumor activity. The anti-tumor activity and very high T cell generation were demonstrated both with onco-viral antigens and also with a cancer self-antigen, illustrating the ability of the arenaviral platform to break tolerance.

Other key highlights from the paper include:

- Single-vector and alternating 2-vector therapy did not induce vector-neutralizing antibodies, supporting repeated intravenous administration
- Mice that cleared tumors after therapy were protected from tumor re-challenge
- Expanding on the data observed with single-vector therapy, alternating 2-vector therapy induced an even higher T cell response and more efficient tumor control

The study on which this publication is based, was conducted and led by an international group of researchers at the University of Basel.

HOOKIPA is evaluating its single-vector and alternating 2-vector technologies in the ongoing Phase 1/2 clinical trial of its lead oncology candidates, HB-201 and HB-202. HB-201 and HB-202 use the LCMV and PICV arenaviral backbones, respectively, while expressing the same antigen, an E7/E6 fusion protein derived from HPV16. Interim Phase 1 monotherapy data on HB-201 for the treatment of advanced HPV16+ cancers showed promising anti-tumor activity and favorable tolerability. Data demonstrated responses and stable disease in head and neck cancer patients who failed prior standard of care therapy, platinum therapy, PD(L)1 inhibitor, or both. Initial data on HB-201 and HB-202 as a replicating 2-vector therapy are anticipated by mid-2021. 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 developing a new class of immunotherapeutics based on its proprietary arenavirus platform that reprograms the body's immune system.

HOOKIPA's proprietary arenavirus-based technologies, non-replicating and replicating, induce robust antigen-specific CD8+ T cells and pathogen-neutralizing antibodies. HOOKIPA's viral vectors target antigen presenting cells in vivo to activate the immune system. Both technologies enable repeat administration to augment and refresh immune responses. Our replicating arenavirus technology has the potential to induce CD8+ T cell response levels previously not achieved by other immuno-therapy approaches.

HOOKIPA is building a proprietary immuno-oncology pipeline by targeting virally mediated cancer antigens, self-antigens and next-generation antigens. The lead replicating arenavirus oncology product candidates, HB-201 and HB-202, are in development for the treatment of Human Papilloma Virus 16-positive cancers in a Phase 1/2 clinical trial.

HOOKIPA's non-replicating prophylactic Cytomegalovirus (CMV) vaccine candidate, HB-101, is currently in a Phase 2 clinical trial for patients awaiting kidney transplantation. To expand its infectious disease portfolio, HOOKIPA entered into a collaboration and licensing agreement with Gilead Sciences, Inc. to research arenavirus-based functional cures for HIV and chronic hepatitis B infections.

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 quarterly report on Form 10-Q for the quarter ended September 30, 2020 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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