

Vincerx Pharma Presents Preclinical Data on Novel Small Molecule Drug Conjugates at the American Association for Cancer Research (AACR) Annual Meeting 2023

April 17, 2023

Latest small molecule drug conjugates (SMDCs) strengthen company strategy to discover and develop paradigm-shifting drug conjugates

PALO ALTO, Calif., April 17, 2023 (GLOBE NEWSWIRE) -- Vincerx Pharma, Inc. (Nasdaq: VINC), a biopharmaceutical company aspiring to address the unmet medical needs of patients with cancer through paradigm-shifting therapeutics, today presented a poster of preclinical data on novel integrin $\alpha_{v}\beta_{3}$ -targeted small molecule drug conjugates (SMDCs) at the American Association for Cancer Research (AACR) Annual Meeting.

Vincerx's next-generation modular bioconjugation platform is designed to effectively target tumors with different modalities, including SMDCs and antibody-drug conjugates (ADCs). Our next-generation bioconjugation technology overcomes many of the known challenges of first-generation conjugation platforms and has shown increased safety and efficacy in relevant whole animal models. The platform consists of novel linker chemistries for tumor specific payload release; a toolbox of potent payload classes with novel modes of action to address a broad range of cancer targets; and tunable features that allow for optimization of the payload's physiochemical profile to match target tumor biology.

"The preclinical data presented at AACR demonstrate our ability to synthesize and characterize novel SMDCs," said Ahmed Hamdy M.D., Chief Executive Officer of Vincerx. "The data showed high elastase-dependent potency and cytotoxicity across several cancer cell lines. Furthermore, the data demonstrate excellent plasma stability in rats with low plasma clearance from several $\alpha_v\beta_3$ conjugates."

Dr. Hamdy continued, "Based on these results, the large scope of potential payloads and tolerated conjugation chemistries gives rise to a versatile strategy for selective delivery of payloads to the tumor microenvironment that does not require the tumor target to internalize. Furthermore, these encouraging results demonstrate the extensive scientific expertise of the Vincerx team and our commitment to discovering and developing paradigm-shifting conjugates for patients with cancer. We are excited about the potential expansion of our bioconjugation platform and continue to evaluate linker variations with in vivo studies across different payload classes."

Key Presentation Highlights:

Poster presentation, titled, Synthesis and characterization of novel small molecule drug conjugates with different payloads designed to be released in tumor microenvironment by neutrophil elastase, presented by Hans-Georg Lerchen, Ph.D., Vincerx Pharma GmbH, Monheim, Germany, include:

- Imaging studies with fluorescent conjugates indicate efficient tumor homing in the tumor microenvironment of the α_vβ₃ binder and tumor-associated cleavage by neutrophil elastase (NE).
- An optimized camptothecin (CPT; topoisomerase inhibitor), P-TEFbi (CDK9/CycT inhibitor) and kinesin spindle protein inhibitor (KSPi) were successfully converted into α_vβ₃-targeted SMDCs (VIP550, VIP280, and VIP1339, respectively) using different chemical handles (alcohol, sulfoximine and primary amine).
- NE-cleavable linkers show high elastase-dependent potency with IC₅₀ values of $\alpha_v\beta_3$ conjugates VIP550, VIP280 and VIP1339 in the nanomolar range across several cancer cell lines (786-0, HT29, NCI-H292, and SUM149) reaching similar potency as compared with the respective payloads alone.
- α_vβ₃ conjugates VIP280, VIP550 and VIP1339 demonstrated excellent plasma stability and elastase-mediated release of CPT, P-TEFbi and KSPi payloads in rat plasma as well as in buffer at pH7.4.
- Plasma clearance of all 3 small molecule drug $\alpha_v\beta_3$ conjugates was low with clearance being in the following rank ordering: VIP1339 > VIP550 > VIP280. Half-life was longer for SMDCs with the lowest clearance estimates. The ratio between AUC of the payload and parent SMDC was decreasing in the order of VIP280 > VIP550 > VIP1339. A 15-fold reduction in this ratio between VIP280 and VIP550 suggest a large increase in in vivo stability of the payload linker for VIP550 compared with VIP280.
- Strong in vivo efficacy was shown with the SMDC VIP550 with a CPT payload in the MX1 TNBC mouse model. VIP550 monotherapy exhibits tumor regression in the 20 mg/kg intravenous 2 days on/5 days off treatment schedule (PR: 12/12). Once weekly application of VIP550 achieved stable disease (T/C: 0.34) and was slightly less efficacious compared with VIP236 (T/C: 0.24). No significant impact on mean body weight of mice was observed, indicating good tolerability of

VIP550 and VIP236.

The poster can be accessed on the presentations section of the Vincerx website.

About Vincerx Pharma, Inc.

Vincerx Pharma, Inc. (Vincerx) is a clinical-stage biopharmaceutical company committed to developing differentiated and novel therapies to address the unmet medical needs of patients with cancer. Vincerx has assembled a seasoned management team with a proven track record of successful oncology drug development, approvals, and value creation. The company's diverse pipeline consists of enitociclib, currently in Phase 1, and a proprietary modular bioconjugation platform, which includes a small molecule drug-conjugate, VIP236, in Phase 1, and preclinical next-generation antibody drug conjugates, VIP943 and VIP924.

Vincerx is based in Palo Alto, Calif., and has a research facility in Monheim, Germany. For more information, please visit www.vincerx.com.

Cautionary Statement

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the "safe harbor" created by those sections. Forward-looking statements, which are based on certain assumptions and describe future plans, strategies, expectations and events, can generally be identified by the use of forward-looking terms such as "believe," "expect," "may," "will," "should," "could," "suggest," "seek," "intend," "plan," "goal," "potential," "on-target," "on track," "project," "estimate," "anticipate," or other comparable terms. All statements other than statements of historical facts included in this press release are forward-looking statements. Forward-looking statements include, but are not limited to: Vincerx's business model, pipeline, strategy, timeline, product candidates and attributes, and preclinical and clinical development, timing, and results. Forward-looking statements are neither historical facts nor assurances of future performance or events. Instead, they are based only on current beliefs, expectations and assumptions regarding future business developments, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Forward-looking statements are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control.

Actual results, conditions and events may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause actual results, conditions, and events to differ materially from those indicated in the forward-looking statements include, but are not limited to: general economic, financial, legal, political, and business conditions; the potential effects of health epidemics and pandemics, including COVID-19; risks associated with preclinical or clinical development and trials, including those conducted prior to Vincerx's in-licensing; failure to realize the benefits of Vincerx's license agreement with Bayer; risks related to the rollout of Vincerx's business and the timing of expected business milestones; changes in the assumptions underlying Vincerx's expectations regarding its future business or business model; Vincerx's ability to develop and commercialize product candidates; Vincerx's capital requirements and availability and uses of capital; and the risks and uncertainties set forth in Forms 10-K, 10-Q, and 8-K most recently filed with or furnished to the SEC by Vincerx. Forward-looking statements speak only as of the date hereof, and Vincerx disclaims any obligation to update any forward-looking statements.

Vincerx and the Vincerx logo are our trademarks.

Contacts

Gabriela Jairala Vincerx Pharma, Inc. gabriela.jairala@vincerx.com

Bruce Mackle LifeSci Advisors, LLC 646-889-1200 bmackle@lifesciadvisors.com



Source: Vincerx Pharma, Inc.