PRESS RELEASE

Ascendis Pharma Announces Recommended Phase 2 Dose and Cohort Expansion for transcendIT-101, a Phase 1/2 Clinical Trial of TransCon™ TLR7/8 Agonist in Solid Tumors

- *TransCon TLR7/8 Agonist continued to be well-tolerated and demonstrated early signs of clinical activity as monotherapy or in combination with pembrolizumab*
- *Abstract for dose-escalation topline data accepted for an oral presentation at SITC 2022, November 8-12 in Boston*
- *Recommended Phase 2 dose to be evaluated in four indication-specific dose-expansion cohorts*

COPENHAGEN, Denmark, October 3, 2022 (GLOBE NEWSWIRE) – Ascendis Pharma A/S (Nasdaq: ASND) today announced completion of the dose-escalation portion and recommendation of the Phase 2 dose in transcendIT-101, a Phase 1/2 clinical trial to evaluate the safety and efficacy of TransCon TLR7/8 Agonist in locally advanced or metastatic solid tumors, alone or in combination with pembrolizumab. TransCon TLR7/8 Agonist is a novel investigational product candidate designed for sustained, localized release of resiquimod (a potent immune-response modifier with clinically demonstrated anti-tumor activity) with low systemic exposure. The abstract for the dose-escalation topline data was accepted for an oral presentation at SITC 2022, the annual meeting of the Society for Immunotherapy of Cancer being held November 8-12 in Boston.

All patients in the dose escalation portion of the trial had advanced or metastatic solid-tumors and had progressed on prior treatments. In the next phase of the trial, the recommended Phase 2 dose of TransCon TLR7/8 Agonist will be evaluated in four cohorts focused on cancers where increased Toll-like receptor (TLR) activity has potential to improve adaptive immune activation and host defense against cancers. The cohorts include head and neck squamous-cell carcinoma (HNSCC); other HPV-associated cancers; melanoma; and cutaneous squamous cell carcinoma (cSCC). In this portion of the study, all participants will be treated every three weeks with intratumoral TransCon TLR7/8 Agonist in combination with intravenous pembrolizumab. Limits on prior lines of therapy vary by cohort.

“Our vision in oncology is to leverage TransCon technologies to turn the body’s immune system into a more potent anti-cancer therapeutic. In this first-in-human oncology trial, we are especially pleased to see TransCon hydrogel technology working as designed to achieve sustained intratumoral release of resiquimod over weeks while limiting systemic exposure,” said Stina Singel, Senior Vice President, Head of Clinical Development, Oncology at Ascendis Pharma. “With a favorable safety profile and early signs of clinical activity observed, we are especially excited to be presenting topline dose-escalation data, including pharmacokinetic and biomarker data from injected and non-injected tumors, at the upcoming

SITC meeting. We are thankful to have the continued trust and engagement of patients and physicians working to transform the future of cancer care."

Later this year, Ascendis will initiate a clinical investigation of TransCon TLR7/8 Agonist intratumoral treatment in combination with TransCon IL-2 β/γ, the company's product candidate designed for systemic activation of tumor-antigen specific cytotoxic cells.

About TransCon TLR7/8 Agonist
Immunotherapies can stimulate, intensify, and sustain the immune system's natural ability to recognize and eliminate cancer cells, yet many patients do not respond to immunotherapies currently on the market, most of which are designed for intravenous administration and many of which have unfavorable toxicity profiles at therapeutically effective doses. TransCon TLR7/8 Agonist is an investigational long-acting prodrug of resiquimod, a small molecule agonist of Toll-like receptors (TLRs) 7 and 8 designed to provide sustained activation of intratumoral antigen-presenting cells driving tumor antigen presentation and induction of immune-stimulatory cytokines for weeks with a single intratumoral injection. TransCon TLR7/8 Agonist leverages the unique ability of Ascendis Pharma's TransCon hydrogel technology to achieve sustained, localized release of resiquimod (a potent immune-response modifier with clinically demonstrated anti-tumor activity) in the injected tumor over weeks, where it is designed to steadily activate and intensify the body's innate and adaptive immune responses to eradicate cancer cells in both injected and distal tumors, while maintaining low systemic drug exposure.

About Ascendis Pharma A/S
Ascendis Pharma is applying its innovative platform technology to build a leading, fully integrated, global biopharmaceutical company focused on making a meaningful difference in patients' lives. Guided by its core values of patients, science and passion, the company uses its TransCon technologies to create new and potentially best-in-class therapies. Ascendis is headquartered in Copenhagen, Denmark, and has additional facilities in Heidelberg and Berlin, Germany; Palo Alto and Redwood City, California; and Princeton, New Jersey. Please visit www.ascendispharma.com to learn more.

Forward-Looking Statements
This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this press release regarding Ascendis' future operations, plans and objectives of management are forward-looking statements. Examples of such statements include, but are not limited to, statements relating to (i) the potential for TransCon TLR7/8 Agonist and Ascendis' TransCon hydrogel technology to offer sustained, localized release of resiquimod and to steadily activate and intensify the body's innate and adaptive immune responses to eradicate cancer cells in both injected and distal tumors while maintaining low systemic drug exposure, (ii) the potential for TransCon TLR7/8 to provide sustained activation of intratumoral antigen-presenting cells driving tumor antigen presentation and induction of immune-stimulatory cytokines for weeks with a single intratumoral injection, (iii) Ascendis' plans and expectations with respect to future phases of the transcendIT-101 trial, (iv) Ascendis' ability to leverage its TransCon technologies to turn the body's immune system into a more potent anti-cancer therapeutic, (v) the continued trust and engagement of patients and physicians working to transform the future of cancer care, (vi) Ascendis' plans to initiate a clinical investigation of TransCon TLR7/8 Agonist intratumoral treatment in combination with TransCon

IL-2 β/γ later this year, (vii) the potential for TransCon IL-2 β/γ to provide systemic activation of tumor-antigen specific cytotoxic cells, (viii) Ascendis' ability to apply its platform technology to build a leading, fully integrated global biopharmaceutical company, and (ix) Ascendis' use of its TransCon technologies to create new and potentially best-in-class therapies. Ascendis may not actually achieve the plans, carry out the intentions or meet the expectations or projections disclosed in the forward-looking statements and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that Ascendis makes, including the following: dependence on third party manufacturers, distributors, and service providers for Ascendis products and product candidates; unforeseen safety or efficacy results in its development programs or on-market products; unforeseen expenses related to commercialization of any approved Ascendis products; expenses related to Ascendis' of its development programs; unforeseen selling, general and administrative expenses, other research and development expenses and Ascendis' business generally; delays in the development of its development programs related to manufacturing, regulatory requirements, speed of patient recruitment or other unforeseen delays; Ascendis' ability to obtain additional funding, if needed, to support its business activities and the effects on its business from the worldwide COVID-19 pandemic and the ongoing conflict in the region surrounding Ukraine and Russia. 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 Ascendis' business in general, see Ascendis' Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission (SEC) on March 2, 2022 and Ascendis' other future reports filed with, or submitted to, the SEC. Forward-looking statements do not reflect the potential impact of any future licensing, collaborations, acquisitions, mergers, dispositions, joint ventures, or investments that Ascendis may enter into or make. Ascendis does not assume any obligation to update any forward-looking statements, except as required by law.

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