



PRESS RELEASE

ASLAN ANNOUNCES PUBLICATION OF NEW PRE-CLINICAL DATA DEMONSTRATING THE ACTIVITY OF VARLITINIB IN TNBC CELL LINES

Singapore, 23 January 2019 – ASLAN Pharmaceuticals (NASDAQ:ASLN, TPEX:6497), a clinical-stage biopharmaceutical company targeting cancers that are both highly prevalent in Asia and orphan indications in the United States and Europe, today announced that new pre-clinical data on *varlitinib*'s activity in triple negative breast cancer (TNBC) cell lines have been published online in *Cancers*, a peer-reviewed oncology journal. The data suggest that HER-family signalling plays an important role in TNBC progression and that pan-HER inhibition is potentially an effective treatment for TNBC patients.

The article titled "*Varlitinib Downregulates HER/ERK Signaling and Induces Apoptosis in Triple Negative Breast Cancer Cells*" details the findings of the pre-clinical study in which investigators evaluated the efficacy of *varlitinib*, a reversible small molecule pan-HER inhibitor, in TNBC. In addition to data previously presented at the American Association for Cancer Research in 2017, the data show that *varlitinib* inhibited cell proliferation of three further TNBC cell lines.

TNBC is a complex disease associated with an aggressive phenotype and poor prognosis, and there are currently no approved therapies for the majority of TNBC patients. TNBC lacks HER2 expression, however it has been reported that other HER receptors are overexpressed. The data from the study show that *varlitinib* inhibited HER signalling in TNBC cell lines of multiple subtypes (basal-like, mesenchymal-like and luminal androgen receptor) which induced cell apoptosis and reduced cell viability. *Varlitinib* inhibited pHER3 and pHER4 activation, in addition to pEGFR, in *varlitinib*-sensitive MDA-MB-468 TNBC cells and suppressed tumour growth in a MDA-MB-468 xenograft mouse model. In one *varlitinib*-resistant TNBC cell line (MDA-MB-231), *varlitinib* in combination with either a MEK or ERK inhibitor induced cell apoptosis.

ASLAN has previously reported positive data from a clinical study of *varlitinib* in patients with HER2 positive metastatic breast cancer. The company is currently investigating *varlitinib* in global studies in biliary tract cancer.

Dr Mark McHale, Chief Operating Officer, ASLAN Pharmaceuticals, said: "*We're pleased to note the publication of these new data in an authoritative cancer research journal. The data provides further evidence of varlitinib's efficacy as a pan-HER inhibitor as we continue to study its ability to inhibit tumour growth in biliary tract cancer in the clinic, an indication associated with high HER family expression.*"

The publication is available to view via <https://www.mdpi.com/2072-6694/11/1/105>.

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About varlitinib (ASLAN001)

Varlitinib (ASLAN001) is a highly potent, oral, reversible, small molecule pan-HER inhibitor that targets the human epidermal growth factor receptors HER1, HER2 and HER4. These receptors can be mutated or overexpressed in many tumours, which can cause excessive proliferative activity and uncontrolled growth. Therefore, by inhibiting the activation of the HER receptors, *varlitinib* could inhibit proliferation and control tumour growth. *Varlitinib* is currently being studied in biliary tract, breast and colorectal cancers. *Varlitinib* has been granted orphan drug designation in the United States for cholangiocarcinoma, a sub-type of biliary tract cancer, and was awarded orphan drug designation for the treatment of biliary tract cancer by the Ministry of Food and Drug Safety in South Korea.

About ASLAN Pharmaceuticals

ASLAN Pharmaceuticals (NASDAQ:ASLN, TPEX:6497) is a clinical-stage oncology-focused biopharmaceutical company developing novel therapeutics for global markets. ASLAN targets diseases that are both highly prevalent in Asia and orphan indications in the United States and Europe. Led by a senior management team with extensive experience in global and regional development and commercialisation, ASLAN is headquartered in Singapore and has offices in Taiwan and China. ASLAN's portfolio is comprised of four product candidates which target validated growth pathways applied to new patient segments, novel immune checkpoints and novel cancer metabolic pathways. ASLAN's partners include Array BioPharma, Bristol-Myers Squibb, Ammirall and CSL. For additional information please visit www.aslanpharma.com.

Forward looking statements

This release and the accompanying financial information, if any, contains forward-looking statements. These statements are based on the current beliefs and expectations of the management of ASLAN Pharmaceuticals Limited and/or its affiliates (the "Company"). These forward-looking statements may include, but are not limited to, statements regarding the Company's business strategy, the Company's plans to develop and commercialise its product candidates, the safety and efficacy of the Company's product candidates, the Company's plans and expected timing with respect to regulatory filings and approvals, and the size and growth potential of the markets for the Company's product candidates. The Company's estimates, projections and other forward-looking statements are based on management's current assumptions and expectations of future events and trends, which affect or may affect the Company's business, strategy, operations or financial performance, and inherently involve significant known and unknown risks and uncertainties. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation the risk factors described in the Company's US Securities and Exchange Commission filings and reports (Commission File No. 001-38475), including the Company's prospectus dated May 8, 2018 filed with the US Securities and Exchange Commission on such date.

All statements other than statements of historical fact are forward-looking statements. The words "believe," "may," "might," "could," "will," "aim," "estimate," "continue," "anticipate," "intend," "expect," "plan," or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes are intended to identify estimates, projections and other forward-looking statements. Estimates, projections and other forward-looking statements speak only as of the date they were made, and, except to the extent required by law, the Company undertakes no obligation to update or review any estimate, projection or forward-looking statement.