



PRESS RELEASE

ASLAN PHARMACEUTICALS PRESENTS NEW DATA ON EBLASAKIMAB IN ATOPIC DERMATITIS AND COPD TRANSLATIONAL MODELS AT THE 7th DERMATOLOGY DRUG DEVELOPMENT SUMMIT

- Head-to-head study between *eblasakimab* and *dupilumab* in skin biopsies from atopic dermatitis (AD) patients confirm *eblasakimab*'s differentiated effects of targeting IL-13R vs IL-4R
- Using an established COPD model of human lung slices, new data demonstrate *eblasakimab*'s potential to reduce airway constriction and enhance dilation
- Results demonstrate for the first time the potential utility of *eblasakimab* in other indications beyond AD

San Mateo, California, and Singapore, November 3, 2023 – ASLAN Pharmaceuticals (Nasdaq: ASLN), a clinical-stage, immunology-focused biopharmaceutical company developing innovative treatments to transform the lives of patients, today announced new data was presented at the Dermatology Drug Development Summit (DDDS) that took place in Boston, MA, from October 31 to November 2, 2023. The datasets presented strengthen evidence for *eblasakimab*'s differentiated mechanism of action in atopic dermatitis (AD), and, for the first time, show application in a new indication, chronic obstructive pulmonary disease (COPD), which can be driven by Type 2 inflammation.

A head-to-head study between *eblasakimab* and *dupilumab* conducted in skin punch biopsies of AD patients showed differential expression of inflammatory cytokines secreted by the localized skin tissue, with *eblasakimab* treatment more efficiently reducing expression of Th2 cytokines IL-13, IL-4 and sCD40L, as well as IL-17F and chemokines CCL3 and CCL4, compared to *dupilumab* treatment. These preliminary results validate previously published data¹ from AD patient peripheral blood mononuclear cells from ASLAN's research collaboration with Dr Shawn Kwatra (Johns Hopkins Medicine) and Dr Madan Kwatra (Duke University). These data together demonstrate *eblasakimab*'s differentiated effects compared to *dupilumab* and highlight the potential advantages to targeting IL-13R with *eblasakimab*, which may lead to more efficient blockade of Type 2 signaling while also sparing the Type 1 receptor.

ASLAN also presented new data investigating the role of *eblasakimab* in COPD using an established *ex vivo* model of precision cut lung slices from human donors². The model tested airway hyperresponsiveness (AHR) in the lung tissue using IL-4 and IL-13, the key Th2 cytokines involved in COPD disease pathology³. *Eblasakimab* significantly reduced IL-4 and IL-13-induced AHR by reducing airway constriction. Furthermore, IL-4 and IL-13 sensitized the airways to further constriction in response to methacholine, but this sensitization was blocked by *eblasakimab* treatment. To examine the effects on airway dilation, formoterol was used to induce bronchodilation. IL-4 and IL-13 pre-treatment significantly decreased dilation in response to formoterol within 5 minutes of treatment, but these effects were effectively reversed by *eblasakimab*, restoring the airway's normal response. Hence, *eblasakimab* successfully blocked IL-4/IL-13 induced AHR in lung tissue and restored the normal response of airway constriction and dilation which are of clinical significance in COPD. *Eblasakimab* blocks both IL-4 and IL-13 through the Type 2 receptor, giving it the potential to be more effective in a broader range of indications compared to drugs that only target the IL-13 cytokine.

"COPD is the third most common cause of mortality globally⁴ and is a heterogeneous disease with a significant proportion of patients affected by Type 2-driven pathology that have a limited range of targeted treatment options. The data we have presented in the translational models are key to exploring the potential of *eblasakimab* in other indications beyond AD, and we believe that there is great potential for *eblasakimab* to provide an effective and differentiated treatment option for COPD, a market that is expected to be \$30 billion by 2032⁵," said **Dr Carl Firth**,



Chief Executive Officer at ASLAN Pharmaceuticals. “While *eblasakimab* has already demonstrated a monthly dosing regimen in AD without compromising on efficacy, there is a vast unexplored potential in other diseases driven by the common underlying biology of Type 2 inflammation.”

“The translational data we have presented provide evidence of *eblasakimab*’s unique mechanism of action and highlight its differentiation from drugs targeting the IL-4R,” said **Dr Ferda Cevikbas, Head, Translational Science at ASLAN Pharmaceuticals.** “We are grateful for the invitation to present these translational models at this industry conference and showcase *eblasakimab*’s potential to address Type 2-driven inflammation across AD and COPD.”

Studies in both translational models are ongoing and ASLAN plans to submit comprehensive data sets for publication to upcoming scientific meetings. The presentation from Drug Development Summit can be accessed via the ASLAN website [here](#).

1. Cevikbas et al (2023) 1st International Society of Investigative Dermatology Meeting, in late-breaker minisymposium
2. Kim et al (2023) Science Advances 9 (20)
3. Miotto et al (2003) Eur Resp J 22:602-608
4. World Health Organization (2023). [Chronic obstructive pulmonary disease \(COPD\)](#). Accessed 2 November 2023
5. Precedence Research (2023) COPD Treatment Market

About *eblasakimab*

Eblasakimab is a potential first-in-class monoclonal antibody targeting the IL-13 receptor subunit of the Type 2 receptor, a key pathway driving several allergic inflammatory diseases. *Eblasakimab*’s unique mechanism of action enables specific blockade of the Type 2 receptor and has the potential to improve upon current biologics used to treat allergic disease. By blocking the Type 2 receptor, *eblasakimab* prevents signaling through both interleukin 4 (IL-4) and interleukin 13 (IL-13) – the key drivers of inflammation in AD. Positive results from the Phase 2b TREK-AD study in moderate-to-severe AD support *eblasakimab*’s potential to deliver a monthly dosing regimen from initiation in AD without compromising on efficacy and with an encouraging safety profile demonstrated to date, with preparations for Phase 3 underway. ASLAN is also investigating *eblasakimab* in *dupilumab* experienced, moderate-to-severe AD patients in the Phase 2 trial, TREK-DX.

About ASLAN Pharmaceuticals

ASLAN Pharmaceuticals (Nasdaq: ASLN) is a clinical-stage, immunology-focused biopharmaceutical company developing innovative treatments to transform the lives of patients. ASLAN is developing *eblasakimab*, a potential first-in-class antibody targeting the IL-13 receptor in moderate-to-severe atopic dermatitis (AD) with the potential to improve upon current biologics used to treat allergic disease, and has recently reported positive topline data from a Phase 2b dose ranging study in moderate-to-severe AD. ASLAN is also developing *farudodstat*, a potent oral inhibitor of the enzyme dihydroorotate dehydrogenase (DHODH) as a potential first-in-class treatment for alopecia areata (AA) in a Phase 2a proof-of-concept trial with an interim readout expected in 1Q 2024. ASLAN has teams in San Mateo, California, and in Singapore. For additional information please visit the [website](#) or follow ASLAN on [LinkedIn](#).

Forward looking statements

This release 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 and clinical development plans; the Company’s plans to develop and commercialize *eblasakimab* and *farudodstat*; the safety and efficacy of *eblasakimab* and *farudodstat*; the Company’s plans and expected timing with respect to manufacturing activities, clinical trials, clinical trial enrolment and clinical trial results for *eblasakimab* and *farudodstat*; the potential of *eblasakimab* as a first-in-class treatment for atopic dermatitis and of *farudodstat* as a



first-in-class treatment for alopecia areata; the potential benefits, capabilities and results of the Company's collaboration efforts; and the Company's cash runway. 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 many risks and uncertainties, which include, unexpected safety or efficacy data observed during preclinical or clinical studies; the fact that results of earlier studies and trials may not be predictive of future trial results; clinical site activation rates or clinical trial enrolment rates that are lower than expected; the impact of the COVID-19 pandemic, the ongoing conflict between Ukraine and Russia and bank failures on the Company's business and the global economy; general market conditions; changes in the competitive landscape; and the Company's ability to obtain sufficient financing to fund its strategic and clinical development plans. Other factors that may cause actual results to differ from those expressed or implied in such forward-looking statements are described in the Company's US Securities and Exchange Commission filings and reports (Commission File No. 001- 38475), including the Company's Annual Report on Form 20-F filed with the US Securities and Exchange Commission on March 24, 2023. 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.

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