

ESSA Pharma Announces Nomination of EPI-7386 as Lead Clinical Candidate in Metastatic Castration-Resistant Prostate Cancer

Houston, Texas and Vancouver, Canada March 28, 2019 – ESSA Pharma Inc. (TSX-V: EPI; Nasdaq: EPIX), a pharmaceutical company focused on developing novel therapies for the treatment of prostate cancer, today announced the nomination of EPI-7386 as the lead clinical candidate for the treatment of metastatic castration-resistant prostate cancer (“mCRPC”). EPI-7386 is a novel drug candidate that inhibits the N-terminal domain of the androgen receptor. Through this novel mechanism of action, EPI-7386 displays activity *in vitro* in numerous prostate cancer models including models where current antiandrogens are inactive. Compared to ESSA’s first generation compound, ralaniten acetate, EPI-7386 is significantly more potent, metabolically stable and more effective in preclinical studies. In addition, EPI-7386 has demonstrated a favorable tolerability profile in all animal studies of the compound conducted to date. IND-enabling studies are currently underway, and ESSA expects to enter clinical studies with EPI-7386 in the first quarter of 2020.

As recently presented at the 2019 Genitourinary Cancers Symposium, EPI-7386 demonstrates *in vitro* cellular potency against the androgen receptor in a similar range to the leading antiandrogens, bicalutamide and enzalutamide. Importantly, EPI-7386 shows activity in numerous *in vitro* models of antiandrogen resistance driven by the AR-V7 splice variant of the androgen receptor while enzalutamide is inactive. In addition, EPI-7386 is metabolically stable in liver microsome and hepatocyte preparations and shows a favorable pharmacokinetic profile in mice, exhibiting significant exposure and a long half-life. Lastly, EPI-7386 (60 mg/kg) displayed comparable activity to enzalutamide (30 mg/kg) in a prostate cancer LNCaP xenograft mouse model in which enzalutamide mouse exposure was estimated to be twice the clinical exposure of enzalutamide in humans.

“We are excited to announce the nomination of EPI-7386 as our lead clinical candidate for the treatment of mCRPC,” said David Parkinson, President and Chief Executive Officer of ESSA. “EPI-7386 represents a novel approach to targeting the androgen receptor, one of the most validated targets in oncology. We look forward to bringing this novel drug candidate to patients with mCRPC who have no other treatment options.”

About ESSA Pharma Inc.

ESSA is a pharmaceutical company focused on developing novel and proprietary therapies for the treatment of castration-resistant prostate cancer (“CRPC”) in patients whose disease is progressing despite treatment with current therapies. ESSA believes that its proprietary compounds can significantly expand the interval of time in which patients suffering from CRPC can benefit from hormone-based therapies, by disrupting the androgen receptor (“AR”) signaling pathway that drives prostate cancer growth and by preventing AR transcriptional activity by binding selectively to the N-terminal domain (“NTD”) of the AR. A functional NTD is essential for transactivation of the AR. In preclinical studies, blocking the NTD has demonstrated the capability to overcome the known AR-dependent mechanisms of CRPC. ESSA was founded in 2009.

ESSA proprietary compounds, otherwise known as aniten compounds, bind to the N-terminal domain of the androgen receptor (“AR”).

About Prostate Cancer

Prostate cancer is the second-most commonly diagnosed cancer among men and the fifth most common cause of male cancer death worldwide (Globocan, 2018). Adenocarcinoma of the prostate is dependent on androgen for tumor progression and depleting or blocking androgen action has been a mainstay of hormonal treatment for over six decades. Although tumors are often initially sensitive to medical or surgical therapies that decrease levels of testosterone, disease progression despite castrate levels of testosterone generally represents a transition to the lethal variant of the disease, metastatic CRPC ("mCRPC"), and most patients ultimately succumb to the illness. The treatment of mCRPC patients has evolved rapidly over the past five years. Despite these advances, additional treatment options are needed to improve clinical outcomes in patients, particularly those who fail existing treatments including abiraterone or enzalutamide, or those who have contraindications to receive those drugs. Over time, patients with mCRPC generally experience continued disease progression, worsening pain, leading to substantial morbidity and limited survival rates. In both in vitro and in vivo animal studies, ESSA's novel approach to blocking the androgen pathway has been shown to be effective in blocking tumor growth when current therapies are no longer effective.

Forward-Looking Statement Disclaimer

This release contains certain information which, as presented, constitutes "forward-looking information" within the meaning of the Private Securities Litigation Reform Act of 1995 and/or applicable Canadian securities laws. Forward-looking information involves statements that relate to future events and often addresses expected future business and financial performance, containing words such as "look forward", "anticipate" and, "believe", and statements that an action or event "is expected", "should", or "will" be taken or occur, or other similar expressions and includes, but is not limited to, statements regarding pre-clinical characteristics and potential performance of the EPI-7386 drug candidate, including potency, metabolic stability, effectiveness, tolerability, exposure and half-life length, the expected timeline for EPI-7386 entering clinical trials, and beliefs about ESSA's proprietary compounds significantly expanding the interval of time in which patients suffering from CRPC can benefit from hormone-based therapies.

Forward-looking statements and information are subject to various known and unknown risks and uncertainties, many of which are beyond the ability of ESSA to control or predict, and which may cause ESSA's actual results, performance or achievements to be materially different from those expressed or implied thereby. Such statements reflect ESSA's current views with respect to future events, are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by ESSA as of the date of such statements, are inherently subject to significant medical, scientific, business, economic, competitive, political and social uncertainties and contingencies. In making forward-looking statements, ESSA may make various material assumptions, including but not limited to (i) the accuracy of ESSA's financial projections; (ii) obtaining positive results of clinical trials; (iii) obtaining necessary regulatory approvals; and (iv) general business, market and economic conditions.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein and in ESSA's Annual Report on Form 20-F dated December 13, 2018 under the heading "Risk Factors", a copy of which is available on ESSA's profile on the SEDAR website at www.sedar.com or ESSA's profile on EDGAR at www.sec.gov, and as otherwise disclosed from time to time on ESSA's SEDAR and EDGAR profiles. Forward-looking



statements are made based on management's beliefs, estimates and opinions on the date that statements are made and ESSA undertakes no obligation to update forward-looking statements if these beliefs, estimates and opinions or other circumstances should change, except as may be required by applicable Canadian and United States securities laws. Readers are cautioned against attributing undue certainty to forward-looking statements.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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