Moleculin Announces Positive Independent Report of No Cardiotoxicity in Annamycin Phase 1 To Date

Supports Moleculin's Claim that Annamycin is a "Next Generation" Anthracycline

HOUSTON, Feb. 20, 2020 /PRNewswire/ -- Moleculin Biotech, Inc., (Nasdaq: MBRX) ("Moleculin" or the "Company"), a clinical stage pharmaceutical company with a broad portfolio of drug candidates targeting highly resistant tumors, today announced that it has received an independent assessment of the absence of cardiotoxicity in patients treated with Annamycin in both its US and European open label and single arm Phase 1 clinical trials. Data from the first 5 patients in the US and the first 9 patients in Europe were made available to an expert in chemotherapy who is affiliated with a leading cancer research institute in assessing cardiotoxicity. After review of this data, the independent expert concluded that he "does not see evidence of cardio-toxicity."

The data made available included left ventricular ejection fraction (LVEF) as determined by echocardiograms, ECHO strain imaging, and Troponin levels. For a small population of patients, ECHO strains were not provided due to the limitations of delivery of such data by the clinical sites. "ECHO strain imaging" is a method in echocardiography (medical ultrasound) for measuring regional or global deformation of the myocardium (heart muscle). By strain rate imaging, the simultaneous function of different regions can be displayed and measured. Cardiac health biomarkers such as blood Troponin levels are considered an indicator of potential long-term heart damage.

"We are pleased to receive this independent assessment which further validates the absence of cardiotoxicity in patients to date of Annamycin," stated Wally Klemp, Chairman and CEO of Moleculin. "Currently approved anthracyclines are notoriously cardiotoxic, so demonstrating that Annamycin is not cardiotoxic, even in patients who have received more than the lifetime maximum cumulative anthracycline exposure established by the FDA, supports our claim that Annamycin is truly in a class by itself, and indeed a 'Next Generation' anthracycline." He continued, "We are excited to continue to demonstrate Annamycin's excellent safety profile. We believe continuing to demonstrate the lack of cardiotoxicity, along with initial efficacy data shown while increasing the dosage to a therapeutic level, will make
Annamycin an extremely promising new drug candidate."

**About Moleculin Biotech, Inc.**

Moleculin Biotech, Inc. is a clinical stage pharmaceutical company focused on the development of a broad portfolio of oncology drug candidates for the treatment of highly resistant tumors. The Company's clinical stage drugs are: Annamycin, a Next Generation Anthracycline, designed to avoid multidrug resistance mechanisms with little to no cardiotoxicity being studied for the treatment of relapsed or refractory acute myeloid leukemia, more commonly referred to as AML, WP1066, an Immune/Transcription Modulator capable of inhibiting p-STAT3 and other oncogenic transcription factors while also stimulating a natural immune response, targeting brain tumors, pancreatic cancer and hematologic malignancies, and WP1220, an analog to WP1066, for the topical treatment of cutaneous T-cell lymphoma. Moleculin is also engaged in preclinical development of additional drug candidates, including additional Immune/Transcription Modulators, as well as compounds capable of Metabolism/Glycosylation Inhibition.

For more information about the Company, please visit [http://www.moleculin.com](http://www.moleculin.com).

**Forward-Looking Statements**

Some of the statements in this release are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. Forward-looking statements in this press release include, without limitation, the ability of Annamycin to continue to show safety and efficacy in patients and whether the level of activity and lack of toxicity experienced in the Company's current trials can be demonstrated in a larger patient population. Although Moleculin believes that the expectations reflected in such forward-looking statements are reasonable as of the date made, expectations may prove to have been materially different from the results expressed or implied by such forward-looking statements. Moleculin Biotech has attempted to identify forward-looking statements by terminology including "believes," "estimates," "anticipates," "expects," "plans," "projects," "intends," "potential," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors, including those discussed under Item 1A. "Risk Factors" in our most recently filed Form 10-K filed with the Securities and Exchange Commission ("SEC") and updated from time to time in our Form 10-Q filings and in our other public filings with the SEC. Any forward-looking statements contained in this release speak only as of its date. We undertake no obligation to update any forward-looking statements contained in this release to reflect events or circumstances occurring after its date or to reflect the occurrence of unanticipated events.


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