Lion Biotechnologies Announces Updated Data at 2017 American Society of Clinical Oncology (ASCO) Annual Meeting from Ongoing LN-144 Phase 2 Clinical Trial

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Data show clinically-meaningful outcomes in advanced metastatic melanoma patients who were all refractory to anti-PD-1 and most to anti-CTLA-4 with a median of three prior therapies

SAN CARLOS, CA -- (Marketwired) -- 06/05/17 -- Lion Biotechnologies, Inc. (NASDAQ: LBIO), a biotechnology company developing novel cancer immunotherapies based on tumor-infiltrating lymphocyte (TIL) technology, today announced a poster presentation of additional data from 16 patients enrolled in the first cohort of its ongoing Phase 2 study of LN-144 for the treatment of metastatic melanoma at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting.

"The data presented today demonstrate that we can manufacture TIL at our central GMP facilities and treat a patient population with a high unmet need at multiple clinical sites," said Dr. Maria Fardis, PhD, MBA, Chief Executive Officer of Lion Biotechnologies. "These initial data show clinically-meaningful outcomes, as assessed both by ORR and DCR, in a heavily pre-treated patient group, all of which had received prior anti-PD-1 and over 80% with prior anti-CTLA-4 checkpoint inhibitors."

This Phase 2, multicenter, three-cohort study is designed to assess the safety and efficacy of LN-144 for treatment of patients with metastatic melanoma. Cohorts one and two will now enroll up to 30 patients each and cohort three is a re-treatment cohort for a second LN-144 infusion in up to ten patients. The first two cohorts are evaluating two different manufacturing processes for LN-144. Patients in cohort one are receiving fresh, non-cryopreserved TIL and cohort two patients are receiving product manufactured through a more streamlined and rapid three-week procedure yielding a cryopreserved product.

In the poster presentation entitled, "Efficacy of Single Administration of Tumor Infiltrating Lymphocytes (TIL) in Heavily Pre-treated Metastatic Melanoma Patients Following Checkpoint Therapy," Amod Sarnaik, MD, a surgical oncologist in the Department of Cutaneous Oncology at Moffitt Cancer Center and a member of the Immunology Program provided updated data from 16 patients in cohort one who were infused as of April 24, 2017. These advanced metastatic melanoma patients were a median age of 55 and were highly refractory to multiple prior lines of therapy with significant tumor burden at baseline. All had prior anti-PD-1 therapy, 88 percent had anti-CTLA4 therapy and 64 percent had received three or more prior therapies. The results show:

- Of the evaluable patients, a 29 percent objective response rate was reported including one complete response (CR) continuing beyond 15 months post-administration of a single TIL treatment
- 77 percent of patients had reduction in target tumor size
- Mean time to first response of 1.6 months, with the CR developing at 6 months
- Responses were observed in patients with tumors carrying wild type or BRAF mutations
- The protocol allows for administration of up to 6 doses of IL-2. The median number of IL-2 administrations was six.

Additionally, the protocol for this study was amended to both increase the sample size for the study as well as further define the patient population to patients with unresectable or metastatic melanoma who have progressed after immune checkpoint inhibition therapy (e.g., anti-PD-1), and if BRAF mutation-positive, after BRAF targeted therapy.

About Lion Biotechnologies, Inc.

Lion Biotechnologies, Inc. is a clinical-stage biotechnology company focused on the development of cancer immunotherapy products for the treatment of various cancers. The Company's lead product candidate is an adoptive cell therapy using tumor-infiltrating lymphocyte (TIL) technology being investigated for the treatment of patients with refractory metastatic melanoma, metastatic squamous cell carcinoma of the head and neck, and metastatic cervical carcinoma. For more information, please visit http://www.lionbio.com.

Forward-Looking Statements

This press release contains "forward-looking statements" regarding, among other things, the Company's clinical plans. The reader is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate, or if known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections. A further list and description of Lion Biotechnologies risks, uncertainties and other factors can be found in Lion Biotechnologies, Inc. most recent Annual Report on Form 10-K and the company's subsequent filings with the Securities and Exchange Commission. Copies of these filings are available online at www.sec.gov or www.lionbio.com. Any forward-looking statement made in this release speaks only as of the date of this release. Lion Biotechnologies, Inc. does not undertake to update any forward-looking statements as a result of new information or future events or developments.

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