

Lion Biotechnologies Announces Positive New Data From Lead TIL Melanoma Program at ASH

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TILs Demonstrate 54% Objective Response Rate in Phase 2 Metastatic Melanoma Trial

LOS ANGELES, Dec. 8, 2014 (GLOBE NEWSWIRE) -- Lion Biotechnologies, Inc. (LBIO), a biotechnology company that is developing novel cancer immunotherapies based on tumor-infiltrating lymphocytes (TILs) under a Cooperative Research and Development Agreement with the National Cancer Institute (NCI), today announced that Steven A. Rosenberg, MD, PhD, chief of surgery at the NCI, presented positive, new data from a Phase 2 clinical trial of TIL therapy in metastatic melanoma. The updated results were presented on December 7, 2014 in a scientific symposium on adoptive T-cell therapy (ACT) at the American Society of Hematology annual meeting in San Francisco, CA.

New data from a Phase 2 clinical trial in patients with Stage 4 metastatic melanoma, which NCI is conducting with Lion under a collaborative research and development agreement, confirmed that TIL treatment was associated with high, durable objective response rates (ORR), including in patients who were refractory to checkpoint inhibitors.

In the randomized, 101-patient study, ORR was 54%, representing a significant improvement over data from recent clinical studies of ipilimumab (ORR 10-15%) and anti-PD-1 therapy (ORR 31-41%). Fourteen patients had complete responses, 13 of which are ongoing beyond two years. Of the 41 partial responders, 22 are ongoing beyond one year and 15 are ongoing beyond two years. Additionally, Dr. Rosenberg noted, TILs produced objective response rates in 19/45 (ORR 42%) patients who were ipilimumab refractory, and 5/10 (ORR 50%) patients who had previously progressed on anti-PD1.

"TILs continue to demonstrate curative potential in metastatic melanoma, including in patients who are refractory to other therapies and have no other treatment options available," said Laszlo Radvanyi, PhD, Lion's chief scientific officer. "We look forward to further investigating this potential in melanoma and in other solid tumors that historically have been difficult to treat, both alone and in combination with other immunotherapies."

Elma Hawkins, PhD, Lion's president and chief operating officer, added, "We are highly encouraged by the consistent strength of data from TIL clinical trials in melanoma, cervical cancer and other cancer indications with high, unmet need. We look forward to advancing our current clinical programs with NCI as we continue to work with Dr. Rosenberg to acquire rights to develop TIL therapy in additional tumor indications."

About Lion Biotechnologies

Lion Biotechnologies, Inc. is engaged in the development of T cells and engineered T cells for the treatment of various cancers. The company's lead product candidate is a ready-to-infuse autologous T-cell therapy utilizing tumor-infiltrating lymphocytes (TILs) for the treatment of patients with Stage IV metastatic melanoma and is based on a clinical CRADA with the NCI along with physician-sponsored investigational therapy at the MD Anderson Cancer Center and the H. Lee Moffitt Cancer & Research Institute. For more information, please visit <http://www.lionbio.com>

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements about the curative potential of TIL therapy in melanoma and other cancers, future results of the NCI's and Lion's ongoing clinical trials, Lion's ability to acquire additional rights from the NCI, as well as statements about the company's expectations, plans and prospects. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those identified under "Risk Factors" in Lion's Annual Report on Form 10-K for the year ended December 31, 2013 and most recent Quarterly Reports on Form 10-Q filed with the SEC. Actual results may differ materially from those contemplated by

these forward-looking statements. Lion does not undertake to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this press release.

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