



## **Aduro Biotech Announces Key Preclinical Data Published Highlighting New Approach to Treat Multiple Myeloma**

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### **Studies Demonstrated that BION-1301 anti-APRIL Monoclonal Antibody Blocks Multiple Myeloma Cell Proliferation, Drug Resistance and Immunosuppression in the Tumor Microenvironment**

BERKELEY, Calif., April 28, 2016 (GLOBE NEWSWIRE) -- Aduro Biotech, Inc. (Nasdaq:ADRO) today announced the publication of a pivotal paper elucidating the roles of B cell maturation antigen (BCMA) and its ligand A Proliferation-Inducing Ligand (APRIL) in multiple myeloma, highlighting the potential of its proprietary monoclonal antibody (mAb) BION-1301 targeting APRIL. The authors demonstrated through *in vivo* and *in vitro* preclinical studies that the APRIL/BCMA ligand/receptor pair drives multiple myeloma tumor growth and survival, and activates immunosuppressive mechanisms that allow the tumor to thrive. Importantly, the studies demonstrated that BION-1301 halts tumor growth and overcomes drug resistance to chemotherapeutic agents lenalidomide and bortezomib in preclinical models.

The study, entitled "APRIL and BCMA promote human multiple myeloma growth, chemoresistance, and immunosuppression in the bone marrow microenvironment," was published by Kenneth Anderson, M.D. Ph.D., and Yu-Tzu Tai, Ph.D. of the Dana-Farber Cancer Institute. The article appears [online](#) ahead of print in the peer-reviewed journal *Blood*.

"For the first time, we have identified several different molecular mechanisms by which APRIL activates BCMA to promote multiple myeloma progression *in vivo*," said Dr. Anderson, program director of the Jerome Lipper Multiple Myeloma Center and LeBow Institute for Myeloma Therapeutics at Dana-Farber and Kraft Family Professor of Medicine at Harvard Medical School. "Understanding the mechanism of tumor progression and resistance allowed us to test a novel approach to potentially combat disease advancement by using an anti-APRIL antibody. BION-1301 blocks the APRIL-induced signal cascade at a critical juncture, and represents a new potential mechanism to both achieve disease response and restore immune function, even in patients with myeloma resistant to current therapies."

The researchers also identified a novel and important role for APRIL and BCMA to induce immune suppression in multiple myeloma. They further developed a comprehensive understanding of APRIL as a strong driver of multiple features of tumor development even in the presence of protective bone marrow myeloid cells such as osteoclasts, macrophages, and dendritic cells. In contrast, introducing an anti-APRIL mAb blocked interaction with both BCMA and a second TNF receptor TACI to inhibit multiple myeloma tumor growth, adhesion to bone marrow cells and immune suppression. In addition, the introduction of BION-1301 allowed tumor cells to be susceptible to standard chemotherapy regimens of lenalidomide and bortezomib.

"Current therapies for patients with multiple myeloma have significantly improved patient survival, however a need for new treatments exists as drug resistance develops in the majority of the cases," said Andrea van Elsas, Ph.D., chief scientific officer of Aduro Biotech Europe. "With the recent elucidation of the important role of the tumor microenvironment, we believe that blocking APRIL using our proprietary monoclonal anti-APRIL antibody BION-1301 could allow for a highly targeted immunotherapy approach to treat multiple myeloma, particularly when added to standard of care chemotherapy. Based on these promising preclinical data, we intend to initiate a clinical trial of BION-1301 next year."

#### **About Multiple Myeloma**

Lymphocytes (B cells and T cells) are the primary cell types within the immune system that work together to fight infection and disease. As B cells respond to normal infection in the body, they mature and change into plasma cells, which in turn make antibodies that help the body attack infection. While lymphocytes circulate throughout the body, plasma cells remain primarily in the bone marrow. Multiple myeloma is a blood cancer that occurs when malignant plasma cells proliferate uncontrollably. Approximately 50,000 new cases of multiple myeloma will be diagnosed in the United States and Europe each year. While many new therapies have become available in recent years, multiple myeloma remains incurable and significant unmet needs exist among patients who relapse following, are resistant to, or cannot tolerate currently available agents.

#### **About APRIL and BION-1301**

APRIL is a member of the tumor necrosis factor (TNF) superfamily and is primarily secreted by bone marrow and/or myeloid cells. APRIL is overproduced in patients with multiple myeloma and binds to BCMA to stimulate a wide variety of responses that promote multiple myeloma growth and suppress the immune system so that the tumor cells are allowed to proliferate. The team at Aduro Biotech Europe, in collaboration with Jan Paul Medema, Ph.D. of the Amsterdam Medical Center, developed BION-1301, a humanized antibody that blocks APRIL from binding to its receptors, using Aduro's B-select monoclonal antibody platform. In preclinical studies, BION-1301 eliminated malignant cells and reduced resistance to therapy in models of multiple myeloma. In addition to multiple myeloma, APRIL's role in other cancers and in B cell dependent autoimmune and inflammatory diseases indicate that BION-1301 may also be useful in treating chronic lymphocytic leukemia, colorectal cancer and Berger's disease (caused by IgA antibody lodging in the kidneys).

#### **About Aduro**

Aduro Biotech, Inc. is an immunotherapy company focused on the discovery, development and commercialization of therapies that transform the treatment of challenging diseases. Aduro's technology platforms, which are designed to harness the body's natural immune system, are being investigated in cancer indications and have the potential to expand into autoimmune and infectious diseases. Aduro's LADD technology platform is based on proprietary attenuated strains of *Listeria* that have been engineered to express tumor-associated antigens to induce specific and targeted immune responses. Based on compelling clinical data in advanced cancers, this platform is being developed as a treatment for multiple indications, including pancreatic, lung and prostate cancers, mesothelioma and glioblastoma. Aduro's STING pathway activator platform is designed to activate the intracellular STING receptor, resulting in a potent tumor-specific immune response. Aduro's B-select monoclonal antibody platform includes a

number of immune modulating assets in research and preclinical development. Aduro is collaborating with leading global pharmaceutical companies to expand its products and technology platforms. For more information, please visit [www.aduro.com](http://www.aduro.com).

*Cautionary Note on Forward-Looking Statements*

*This press release contains forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements regarding our intentions or current expectations concerning, among other things, the therapeutic potential for BION-1301 and plans for and timing of a clinical potential trial of BION-1301. In some cases, you can identify these statements by forward-looking words such as "believe," "may," "will," "anticipate," "intend," "could," "would," "plan," "expect" or the negative or plural of these words or similar expressions. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results and events to differ materially from those anticipated, including, but not limited to, the results of preclinical studies and early clinical trials may not be predictive of the results of later-stage clinical trials, our history of net operating losses and uncertainty regarding our ability to achieve profitability, our ability to develop and commercialize our product candidates, our ability to use and expand our technology platforms to build a pipeline of product candidates, our ability to obtain and maintain regulatory approval of our product candidates, our inability to operate in a competitive industry and compete successfully against competitors that have greater resources than we do, our reliance on third parties, and our ability to obtain and adequately protect intellectual property rights for our product candidates. We discuss many of these risks in greater detail under the heading "Risk Factors" contained in our annual report on Form 10-K for the year ended December 31, 2015 which is on file with the Securities and Exchange Commission. Forward-looking statements are not guarantees of future performance, and our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate, may differ materially from the forward-looking statements contained in this press release. Any forward-looking statements that we make in this press release speak only as of the date of this press release. We assume no obligation to update our forward-looking statements whether as a result of new information, future events or otherwise, after the date of this press release.*

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