

## Nektar Therapeutics Presents Preclinical Data on its Immuno-Oncology Pipeline Candidates at the American Association for Cancer Research (AACR) Annual Meeting 2019

April 2, 2019

SAN FRANCISCO, April 2, 2019 /PRNewswire/ -- Nektar Therapeutics (Nasdaq: NKTR) today presented preclinical data on its immuno-oncology pipeline candidates, bempegaldesleukin (NKTR-214 or bempeg), a CD122-preferential IL-2 pathway agonist, and NKTR-255, an IL-15 receptor agonist, at the American Association for Cancer Research (AACR) Annual Meeting 2019. The meeting is being held on March 29 to April 3, 2019 at the Georgia World Congress Center in Atlanta.

"We're excited to showcase our promising immuno-oncology pipeline, which is strategically developed to target multiple points in the cancer immunity cycle to amplify the body's ability to fight tumor cells," said Jonathan Zalevsky, Ph.D., Chief Scientific Officer at Nektar. "The preclinical studies presented at AACR 2019, by both Nektar scientists and our collaborators highlight the promise of targeting the IL-2 and IL-15 pathways to activate the immune system to induce durable anti-tumor responses in combination with complementary mechanisms such as personalized T cell vaccines and tumor-directed antibody therapies. We plan to explore these combinations further and look forward to advancing them into the clinic."

Details of the poster presentations at AACR Annual Meeting 2019 are as follows and each will be available for download at the time of presentation at <http://www.nektar.com/science/scientific-posters> or by clicking on the links below.

### Abstract #2256/Poster Board #15

**Title:** ["Combination of neoantigen DNA plasmid vaccine VB10.NEO and NKTR-214, a CD122-biased immunostimulatory cytokine, induces strong neoantigen-specific T cell responses and sustained tumor regression in pre-clinical models", Granum, S., et al.](#)

**Session:** Clinical Research - Combination Immunotherapies 1

**Date:** Monday, April 1, 2019, 1:00 p.m. – 5:00 p.m. Eastern Time

**Location:** Exhibit Hall B, Poster Section 19

- VB10.NEO and bempegaldesleukin (NKTR-214) worked synergistically to elicit greater breadth and depth of neoantigen-specific T cell responses than each individual treatment.
- The synergistic effect was observed in both CD4 and CD8 T cells, and most pronounced on CD8 T cell responses, further supporting the combination's potential to induce strong immunogenic CD8+ T cell responses.
- VB10.NEO in combination with bempegaldesleukin (NKTR-214) and anti-PD-1 induced rapid, complete and durable tumor regression of small tumors and long-lasting stabilization of large tumors supporting the rationale for examining the combination clinically.

### Abstract #3265/Poster Board #15

**Title:** ["NKTR-255, a polymer-conjugated IL-15 enhances anti-tumor NK cell responses and synergizes with monoclonal antibodies to provide long-term survival in human lymphoma model", Miyazaki, T., et al.](#)

**Session:** Immunology - Novel Immunomodulatory Agents 1

**Date:** Tuesday, April 2, 2019, 8:00 a.m. – 12:00 p.m. Eastern Time

**Location:** Exhibit Hall B, Poster Section 25

- NKTR-255 showed a dose-dependent effect on the proliferation and activation of natural killer (NK) cells.
- NKTR-255 enhanced the therapeutic efficacy of antibodies, daratumumab or rituximab.
- Combining NKTR-255 with a tumor-directed antibody with an antibody dependent cellular cytotoxicity (ADCC) mechanism may provide a synergistic effect for treating cancers.

### Abstract #3210/Poster Board #20

**Title:** ["A potential immunotherapeutic approach for the treatment of osteosarcoma", Wahba, A., et al.](#)

**Session:** Immunology – Combination Immunotherapies 2

**Date:** Tuesday, April 2, 2019, 8:00 a.m. – 12:00 p.m. Eastern Time

**Location:** Exhibit Hall B, Poster Section 23

- In an osteosarcoma mouse model, bempegaldesleukin (NKTR-214) monotherapy was shown to be effective in controlling the growth of primary tumor, regrowth of tumor after amputation and inhibition of lung metastasis.
- Bempegaldesleukin (NKTR-214) increased the migration of CD8, CD4 and F4/80+ cells to the tumor.
- Administering an anti-PD1 checkpoint inhibitor alone or in combination with bempegaldesleukin (NKTR-214) did not augment the anti-tumor response.

### About bempegaldesleukin (NKTR-214)

Bempegaldesleukin is an investigational, first-in-class, CD122-preferential IL-2 pathway agonist designed to provide rapid

activation and proliferation of cancer-killing immune cells, known as CD8+ effector T cells and natural killer (NK) cells, without over activating the immune system. Bempegaldesleukin stimulates these cancer-killing immune cells in the body by targeting CD122 receptors found on the surface of these immune cells. CD122, which is also known as the Interleukin-2 receptor beta subunit, is a key signaling receptor that is known to increase proliferation of these effector T cells.<sup>1</sup> In clinical and preclinical studies, treatment with bempegaldesleukin resulted in expansion of these cells and mobilization into the tumor micro-environment.<sup>2,3</sup> Bempegaldesleukin has an antibody-like dosing regimen similar to the existing checkpoint inhibitor class of approved medicines.

#### **About NKTR-255**

NKTR-255 is an IL-15 receptor agonist designed to engage the IL-15 pathway to stimulate and expand natural killer (NK) cells and promote the survival and expansion of central memory CD8+ T cells without inducing suppressive regulatory T cells. Through optimal engagement of the IL-15R $\alpha$ /IL-2R $\gamma$  receptor complex, NKTR-255 enhances formation of long-term immunological memory which may lead to sustained anti-tumor immune response. Native rhIL-15 is rapidly cleared from the body and must be administered frequently and in high doses limiting its utility due to toxicity. NKTR-255 is designed with IL-15 receptor alpha specificity to optimize biological activity and is uniquely engineered to provide optimal exposure and an improved safety profile.

#### **About VB10.NEO**

VB10.NEO, is a proprietary therapeutic DNA vaccine which uses the patient's own neoantigens for the personalized treatment of cancer patients. In September 2018, Nektar and Vaccibody entered into a clinical collaboration to evaluate bempegaldesleukin in combination with VB10.NEO. A pilot study evaluating the combination in patients with squamous cell carcinoma of the head and neck is planned to begin mid-2019.

#### **About Nektar**

Nektar Therapeutics is a research-based, development stage biopharmaceutical company whose mission is to discover and develop innovative medicines to address the unmet medical needs of patients. Our R&D pipeline of new investigational medicines includes treatments for cancer, autoimmune disease and chronic pain. We leverage our proprietary and proven chemistry platform in the discovery and design of our new therapeutic candidates. Nektar is headquartered in San Francisco, California, with additional operations in Huntsville, Alabama and Hyderabad, India. Further information about Nektar and its drug development programs and capabilities may be found online at <http://www.nektar.com>.

#### **Cautionary Note Regarding Forward-Looking Statements**

*This press release contains forward-looking statements which can be identified by words such as: "will," "may," "planned," "promise," "designed," "develop" and similar references to future periods. Examples of forward-looking statements include, among others, statements we make regarding the therapeutic potential of bempegaldesleukin and NKTR-255 (alone or in combination with other agents, such as bempegaldesleukin in combination with VB10.NEO), the future development plans of bempegaldesleukin and NKTR-255, and the availability of results and outcomes from our clinical and preclinical studies. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, anticipated events and trends, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results to differ materially from those indicated in the forward-looking statements include, among others: (i) our statements regarding the therapeutic potential of bempegaldesleukin alone, NKTR-255 alone, and bempegaldesleukin in combination with VB10.NEO are each based on preclinical findings studies and future data generated from new studies may be materially different; (ii) bempegaldesleukin, NKTR-255 and VB10.NEO are in early stage development and the risk of failure remains high and failure can unexpectedly occur at any stage for one or more of the cancer indications being studied prior to regulatory approval due to lack of sufficient efficacy, safety considerations or other factors that negatively impact drug development; (iii) the timing of the commencement and end of clinical studies and the availability of clinical data may be delayed due to regulatory delays, slower than anticipated patient enrollment, manufacturing challenges, changing standards of care, evolving regulatory requirements, clinical trial design, or clinical outcomes; (iv) scientific discovery of new medical breakthroughs is an inherently uncertain process and the future regulatory approval of potential new drug candidates (such as bempegaldesleukin, NKTR-255 and VB10.NEO) is therefore very uncertain and unpredictable; (v) patents may not issue from our patent applications for our drug candidates, patents that have issued may not be enforceable, or additional intellectual property licenses from third parties may be required; and (vi) certain other important risks and uncertainties set forth in Nektar's Annual Report on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission on March 1, 2019. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.*

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<sup>1</sup> Boyman, J., et al., Nature Reviews Immunology, 2012, 12, 180-190

<sup>2</sup> Charych, D., et al., Clin Can Res; 22(3) February 1, 2016

<sup>3</sup> Diab, A., et al., Journal for ImmunoTherapy of Cancer 2016, 4(Suppl 1): P369

 View original content: <http://www.prnewswire.com/news-releases/nektar-therapeutics-presents-preclinical-data-on-its-immuno-oncology-pipeline-candidates-at-the-american-association-for-cancer-research-aacr-annual-meeting-2019-300823268.html>

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