ImmunityBio Announces Biological License Application Resubmission for N-803 in BCG-Unresponsive Non-Muscle-Invasive Bladder Cancer Carcinoma-In-Situ

October 23, 2023

Provides updated data on prolonged duration of complete response in BCG-Unresponsive and BCG-Naïve NMIBC patients

- Following the Type A Meeting with the FDA, ImmunityBio has completed the BLA resubmission addressing the issues in the Complete Response Letter.
- As part of this resubmission, ImmunityBio provided an update on the Duration of Complete Response (CR) in BCG-unresponsive NMIBC patients with CIS ± Ta/T1 disease (QUILT-3.032) demonstrating a prolonged duration of remission with a median duration of CR not yet reached with a follow-up in responders exceeding 28 months.
- In the responding BCG-unresponsive NMIBC patients updated efficacy data demonstrated a probability of avoiding a cystectomy at ≥ 24 months of over 90%.
- ImmunityBio also provided an update on the long-term follow-up (QUILT-205) in BCG Naïve NMIBC patients demonstrating a prolonged duration of complete remission in 6 out of 6 patients available for follow-up with a median survival of 8.8 years with ongoing bladder preservation to date.
- These findings in both BCG-unresponsive and BCG-naïve patients demonstrate a prolonged duration of complete remission exceeding over 2 years in the unresponsive cohort and over 8 years in the BCG-naïve cohort.

CULVER CITY, Calif.--(BUSINESS WIRE)--Oct. 23, 2023-- ImmunityBio, Inc. (NASDAQ: IBRX), a clinical-stage immunotherapy company, today announced it has completed the resubmission of its Biologics License Application (BLA) to the U.S. Food and Drug Administration (FDA) for N-803 (Anktiva®), a first-in-class IL-15 superagonist, plus Bacillus Calmette-Guérin (BCG) for the treatment of BCG-unresponsive non-muscle-invasive bladder cancer carcinoma in situ (CIS) with or without Ta or T1 disease.

The BLA is supported by the results of ImmunityBio's studies in bladder cancer including the pivotal QUILT-3.032 study (NCT03022825), published in *NEJM Evidence*[1] in November 2022. An update of the duration of response regarding the responders identified by the FDA in the efficacy population for BCG unresponsive subjects with high-risk CIS disease was provided in the BLA resubmission. This update demonstrated a prolonged duration of remission in responding subjects, with a median duration of CR not yet reached with a follow-up in responders exceeding 28 months, and a safety profile as reported previously. The updated duration of CR in these responding BCG-unresponsive subjects showed that the probability of maintaining a CR for ≥ 24 months was 60%, with a cystectomy free rate at ≥ 24 months of over 90%.

In addition, ImmunityBio provided an update on the long-term follow-up (QUILT-205) of subjects receiving N-803 plus BCG for CIS ± Ta/T1 in the Phase 1b (QUILT-2.005) trial, examining the survival of the nine subjects entering the trial since 2014. All 9 subjects (100%) achieved a complete remission and the results are published in *Oncoimmunology*[2-5]. Of the nine subjects, two were deceased from causes other than bladder cancer and one was lost to follow-up. Of the 6 subjects available for follow-up (QUILT-205), 6 out of 6 subjects (100%) demonstrated long-term complete remission with bladder preservation over a median survival period of 8.8 years and all 6 subjects have avoided a cystectomy to date.

ImmunityBio's IL-15 superagonist N-803 (Anktiva)

The cytokine interleukin-15 (IL-15) plays a crucial role in the immune system by affecting the development, maintenance, and function of the natural killer (NK) and T cells. N-803 is a novel investigational IL-15 superagonist complex consisting of an IL-15 mutant (IL-15N72D) bound to an IL-15 receptor α/IgG1 Fc fusion protein. Its proposed mechanism of action is direct specific stimulation of CD8+ T cells and NK cells through beta gamma T-cell receptor binding with generation of memory T-cells while avoiding T-reg stimulation. N-803 is designed to have improved pharmacokinetic properties, longer persistence in lymphoid tissues and enhanced anti-tumor activity compared to native, non-complexed IL-15 in vivo.

N-803 is currently being evaluated in adult patients in two clinical NMIBC trials. QUILT-2.005 is investigating use of N-803 in combination with BCG for patients with BCG-naïve NMIBC; QUILT-3.032 is studying N-803 in combination with BCG in patients with BCG-unresponsive NMIBC CIS and Papillary Disease.

N-803 is investigational. Safety and efficacy have not been established by any Health Authority or Agency, including the FDA.

Selected Publications:

1. Chamie, K., Chang, S. S., Kramolowsky, E., Gonzalgo, M. L., Agarwal, P. K., Bassett, J. C., Bjurlin, M., Cher, M. L., Clark, W., Cowan, B. E., David, R., Goldfischer, E., Guru, K., Jalkut, M. W., Kaffenberger, S. D., Kaminetsky, J., Katz, A. E., Koo, A. S., Sexton, W. J., … Soon-Shiong, P. (2023). IL-15 Superagonist NAI in BCG-Unresponsive Non–Muscle-Invasive Bladder Cancer. In NEJM Evidence (Vol. 2, Issue 1). Massachusetts Medical Society. https://doi.org/10.1056/evidoa2200167
2. Rosser CJ, Tikhonenkov S, Nix JW, Chan OTM, Ianculescu I, Reddy S, Soon-Shiong P. Safety, Tolerability, and Long-Term Clinical Outcomes of an IL-15 analogue (N-803) Admixed with Bacillus Calmette-Guérin (BCG) for the Treatment of

Bladder Cancer. Oncoimmunology. 2021 May 3;10(1):1912885. doi: 10.1080/2162402X.2021.1912885. PMID: 33996264; PMCID: PMC8096327.
3. Chamie K, Chang SS, Gonzalgo M, Kramolowsky EV, Sexton WJ, Bhar P, et al.. Final clinical Results of Pivotal Trial of IL-15rαfc Superagonist N-803 with BCG in BCG-Unresponsive CIS and Papillary Non-Muscle Invasive Bladder Cancer (NMIBC). J Clin Oncol (2022) 40(16_suppl):4508. doi: 10.1200/JCO.2022.40.16_suppl.4508
4. Chamie K, Chang SS, Gonzalgo M, Kramolowsky EV, Sexton WJ, Bhar P, et al.. Phase II/III Clinical Results of IL-15rαfc Superagonist N-803 with BCG in BCG-Unresponsive Non-Muscle Invasive Bladder Cancer (NMIBC) Carcinoma in Situ (CIS) Patients. J Clin Oncol (2021) 39(suppl 6):510. doi: 10.1200/JCO.2021.39.6_suppl.510
5. Huang J, Shiao SL, Furuya H, Rosser CJ. Immunogenomic Analysis of Exceptional Responder to ALT-803 (IL-15 Analogue) in BCG Unresponsive Nonmuscle Invasive Bladder Cancer: A Case Series and Review of the Literature. J Immunother. 2019 Nov/Dec;42(9):354-358. doi: 10.1097/CJI.0000000000000269. PMID: 31107371; PMCID: PMC6783344.

About ImmunityBio

ImmunityBio is a vertically-integrated, clinical-stage biotechnology company developing next-generation therapies and vaccines that bolster the natural immune system to defeat cancers and infectious diseases. The company's range of immunotherapy and cell therapy platforms, alone and together, act to drive and sustain an immune response with the goal of creating durable and safe protection against disease. We are applying our science and platforms to treating cancers, including the development of potential cancer vaccines, as well as developing immunotherapies and cell therapies that we believe sharply reduce or eliminate the need for standard high-dose chemotherapy. These platforms and their associated product candidates are designed to be more effective, accessible, and easily administered than current standards of care in oncology and infectious diseases.

For more information, please visit: www.immunitybio.com

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, such as statements regarding ImmunityBio's resubmission of its BLA, ImmunityBio's belief that the BLA resubmission addresses the issues in the Complete Response Letter, ImmunityBio's beliefs about the comprehensive nature of its BLA resubmission and expectations regarding the acceptance by the FDA and a decision by the FDA on its BLA, including the timing thereof, the development of therapeutics for cancer indications and related business strategies, potential regulatory pathway for certain of ImmunityBio's product candidates and target indications, and ImmunityBio's investigational agents as compared to existing treatment options, among others. While ImmunityBio believes the BLA resubmission addresses the issues identified in the CRL, there is no guarantee that the FDA will agree, and it remains to be determined whether the FDA will accept the BLA, as resubmitted, for review. Further, even if accepted for review, the classification of the resubmission and timeline for review remains uncertain at this time. Statements in this press release that are not statements of historical fact are considered forward-looking statements, which are usually identified by the use of words such as "anticipates," "believes," "continues," "goal," "could," "estimates," "scheduled," "expects," "intends," "may," "plans," "potential," "predicts," "indicate," "projects," "seeks," "should," "will," "strategy," and variations of such words or similar expressions. Statements of past performance, efforts, or results of our preclinical and clinical trials, about which inferences or assumptions may be made, can also be forward-looking statements and are not indicative of future performance or results. Forward-looking statements are neither forecasts, promises nor guarantees, and are based on the current beliefs of ImmunityBio's management as well as assumptions made by and information currently available to ImmunityBio. Such information may be limited or incomplete, and ImmunityBio's statements should not be read to indicate that it has conducted a thorough inquiry into, or review of, all potentially available relevant information. Such statements reflect the current views of ImmunityBio with respect to future events and are subject to known and unknown risks, including business, regulatory, economic and competitive risks, uncertainties, contingencies and assumptions about ImmunityBio, including, without limitation, (i) the risks and uncertainties associated with the regulatory review process, (ii) whether or not the FDA will determine that the BLA resubmission is complete and acceptable for review, (iii) uncertainties regarding the timeline of FDA review of the resubmitted BLA, if accepted for review, (iv) any inability to successfully work with the FDA to find a satisfactory solution to address any concerns in a timely manner or at all during the review process for the BLA, including any inability to provide the FDA with data, analysis or other information sufficient to support an approval of the BLA, (v) the ability of ImmunityBio and its third party contract manufacturing organizations to adequately address the issues raised in the CRL, (vi) any potential facility re-inspection that may be required regarding ImmunityBio's third party contract manufacturing organizations or otherwise, (vii) whether the FDA accepts the data and results as included in the BLA resubmission at levels consistent with the published results, or at all, (viii) the ability of ImmunityBio to execute a partnering relationship with a large biopharmaceutical company for commercialization of N-803 plus BCG for intravesical administration on acceptable terms, if at all, (ix) the ability of ImmunityBio to continue its planned preclinical and clinical development of its development programs, and the timing and success of any such continued preclinical and clinical development and planned regulatory submissions, (x) ImmunityBio's ability to retain and hire key personnel, (xi) ImmunityBio's ability to obtain additional financing to fund its operations and complete the development and commercialization of its various product candidates, (xii) ImmunityBio's ability to successfully commercialize its product candidates and uncertainties around regulatory reviews and approvals, (xiii) ImmunityBio's ability to scale its manufacturing and commercial supply operations for its product candidates and future approved products, and (xiv) ImmunityBio's ability to obtain, maintain, protect and enforce patent protection and other proprietary rights for its product candidates and technologies. More details about these and other risks that may impact ImmunityBio's business are described under the heading "Risk Factors" in the Company's Form 10-K filed with the U.S. Securities and Exchange Commission ("SEC") on March 1, 2023 and the Company's Form 10-Q filed with the SEC on August 8, 2023, and in subsequent filings made by ImmunityBio with the SEC, which are available on the SEC's website at www.sec.gov. ImmunityBio cautions you not to place undue reliance on any forward-looking statements, which speak only as of the date hereof. ImmunityBio does not undertake any duty to update any forward-looking statement or other information in this press release, except to the extent required by law.

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