NEJM Evidence Publishes Results for ImmunityBio's QUILT 3.032 Registrational Trial of IL-15 Superagonist N-803 Plus BCG in Patients with Bladder Cancer

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- Primary endpoint met in high-risk carcinoma in situ (CIS) cohort with 71% complete response rate (CR) with a median duration of response of 26.6 months, a 53% CR rate at 24 months and a safety profile comparable to BCG alone
- This novel IL-15 superagonist N-803 – referred to as nogpendekin alfa inbakicept (NAI) in the manuscript - acts synergistically with BCG with a 90% probability of avoiding cystectomy over 24 months in responders
- Primary endpoint also met in papillary non-muscle invasive bladder cancer (NMIBC) cohort with 55% remaining disease free at 12 months
- The Food and Drug Administration (FDA) is currently reviewing the Biologics License Application (BLA) for N-803 plus BCG for the treatment of NMIBC CIS with a Prescription Drug User Fee Act (PDUFA) date of May 23, 2023

CULVER CITY, Calif.--(BUSINESS WIRE)--Nov. 10, 2022-- ImmunityBio, Inc. (NASDAQ: IBRX) -- *NEJM Evidence* has published results from the QUILT 3.032 trial studying N-803 plus BCG in adults with NMIBC CIS with or without Ta/T1 papillary disease. These positive data form the basis of ImmunityBio's BLA for BCG-unresponsive NMIBC CIS, which the FDA accepted for review in July 2022.

The published results demonstrate that in patients with BCG-unresponsive NMIBC CIS and papillary disease, BCG plus N-803 (referred to as NAI) CRs were achieved with a persistence of effect with 90% probability of avoiding cystectomies in responders, a life-changing procedure of removing the bladder, and 100% bladder cancer-specific survival at 24 months. This investigational therapy represents an important clinical benefit addressing an unmet need of avoiding a cystectomy in this high-risk bladder cancer population.

"The peer review and publication of data in *NEJM Evidence* highlights the significance of the positive results of the QUILT 3.032 trial in patients with BCG-unresponsive NMIBC," said Patrick Soon-Shiong, M.D., Executive Chairman and Global Chief Scientific and Medical Officer at ImmunityBio. "We're targeting the 10 th most commonly diagnosed cancer and the one with the highest lifetime treatment costs per patient as a result of the prolonged course of the disease and the need for repeated surgical and treatment intervention. These data further our understanding of N-803's unique role in potentially boosting the proliferation of natural killer and T cells while synergistically enhancing BCG efficacy."

Patients with intermediate or high-risk NMIBC typically receive a treatment of transurethral resection of the bladder tumor (TURBT) followed by BCG intravesical instillation. However, cancer will recur in 30% to 40% of patients with NMIBC despite adequate treatment with BCG. Moreover, even among those in whom a complete response is achieved with BCG, up to 50% see their cancer return.

Treatment options for BCG-unresponsive NMIBC patients are limited. Pembrolizumab was approved by the FDA for this indication in 2020, based on findings from the KEYNOTE-057 study in which the CR rate in NMIBC CIS patients was 41% with a median response duration of 16.2 months. The combination of N-803 plus BCG produced both a higher CR rate and more durable responses.

In patients who received intravesical N-803 plus BCG (cohort A), a CR was achieved in 58 (71%) of 82 patients (95% confidence interval [CI]=59.6 to 80.3; median follow-up, 23.9 months), with a median duration of 26.6 months 95% CI 59.9 months to [upper bound not reached]). At 24 months in patients with CR, the Kaplan–Meier–estimated probability of avoiding cystectomy and of disease-specific survival was 89.2% and 100%, respectively.

In patients with BCG-unresponsive high-grade Ta/T1 papillary NMIBC who received N-803 plus BCG (cohort B), the Kaplan–Meier–estimated disease-free survival (DFS) rate was 55.4% (95% CI=42.0% to 66.8%) at 12 months, with median DFS of 19.3 months (95% CI=7.4 months to [upper bound not reached]).

Most adverse events for patients receiving BCG plus NAI were grade 1 to 2 (86%) and comparable to adverse events associated with BCG alone.

About the QUILT 3.032 Trial

In this phase 2/3, open-label, multicenter study, patients with BCG-unresponsive bladder carcinoma in situ (CIS) with or without Ta/T1 papillary disease were treated with intravesical N-803 plus BCG (cohort A) or N-803 alone (cohort C). Patients with BCG-unresponsive high-grade Ta/T1 papillary NMIBC also received N-803 plus BCG (cohort B). The primary end point was the incidence of CR at the 3- or 6-month assessment visit for cohorts A and C, and the disease-free survival (DFS) rate at 12 months for cohort B. Durability, cystectomy avoidance, progression-free survival, disease-specific survival, and overall survival were secondary end points for cohort A.

The results of this phase 2/3 study are currently being reviewed by the FDA, and a decision from the FDA regarding approval for use of the biologics N-803 plus BCG in adults with BCG-unresponsive NMIBC CIS is expected on May 23, 2023.

ImmunityBio's IL-15 superagonist N-803

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 (generic name nogapendekin alfa inbakicept or NAI) is a novel IL-15 superagonist complex consisting of an IL-15 mutant (IL-15N72D) bound to an IL-15 receptor α/IgG1 Fc fusion protein. Its mechanism of action is direct specific stimulation of CD8+ T cells and NK cells through beta gamma T-cell receptor binding (not alpha) while avoiding T-reg stimulation. N-803 has improved pharmacokinetic properties, longer

persistence in lymphoid tissues and enhanced anti-tumor activity compared to native, non-complexed IL-15 in vivo.

N-803 has been studied in more than 700 patients in multiple phase 1 and 2 trials in both liquid and solid tumors. In addition to the study in NMIBC, it is currently being studied in trials for pancreatic cancer, non-small-cell lung cancer, non-Hodgkin's lymphoma, and HIV.

N-803 has received both *Breakthrough Therapy* and *Fast Track* designations by the FDA for the treatment of BCG-unresponsive NMIBC CIS, as well as *Fast Track* designation for BCG-unresponsive NMIBC papillary and BCG-naïve NMIBC CIS. However, it is important to note such designations may not lead to a faster development process or regulatory review and may not increase the likelihood that a product candidate will receive approval. Seminal patents covering intravesical administration of BCG and N-803 were issued (US 11,173,191 B2 and US 9,925,247 B2) providing term coverage until 2035.

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. 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.

ImmunityBio's clinical pipeline consists of 27 clinical trials—18 of which are in phase 2 or 3 development—across 13 indications in liquid and solid tumors (including bladder, pancreatic, and lung cancers) and infectious diseases (including SARS-CoV-2 and HIV). N-803 (Anktiva™), ImmunityBio's lead cytokine fusion protein, is a novel IL-15 superagonist complex and has received Breakthrough Therapy and Fast Track Designations from the U.S. Food and Drug Administration (FDA) for BCG-unresponsive CIS non-muscle invasive bladder cancer (NMIBC).

The company has established GMP manufacturing capacity at scale with cutting-edge cell therapy manufacturing expertise and ready-to-scale facilities, as well as extensive and seasoned R&D, clinical trial, and regulatory operations, and development teams. 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 data from the clinical trials for certain of ImmunityBio's product candidates, the regulatory review process and timing thereof, potential implications to be drawn from the QUILT 3.032 and other studies, whether the described mechanism of action contributes to response rate and duration, potential commercialization of ImmunityBio's product candidates, ImmunityBio's product candidates as compared to existing treatment options, intellectual property protection, and clinical trial advancements and data, among others. 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," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "indicate," "projects," "seeks," "should," "will," 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) whether the FDA will approve ImmunityBio's filed BLA and the risks and uncertainties associated with the regulatory approval process and timing thereof, (ii) 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, (iii) ImmunityBio's ability to retain and hire key personnel, (iv) ImmunityBio's ability to obtain additional financing to fund its operations and complete the development and commercialization of its various product candidates, (v) ImmunityBio's ability to successfully commercialize its product candidates and uncertainties around regulatory reviews and approvals, (vi) ImmunityBio's ability to scale its manufacturing and commercial supply operations for its product candidates and future approved products, (vii) ImmunityBio's ability to obtain, maintain, protect and enforce patent protection and other proprietary rights for its product candidates and technologies, and (viii) the unknown future impact of the COVID-19 pandemic on certain clinical trials or their milestones and/or ImmunityBio's business operations or operating expenses. 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, 2022 and the Company's Form 10-Q filed with the SEC on May 10, 2022, 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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