BioXcel Therapeutics Provides Update on Recent Developments for Late-Stage Clinical Programs and Expansion of IP Portfolio for IGALMI™ (dexmedetomidine) Sublingual Film

October 4, 2023

Meetings scheduled with FDA in October and November for TRANQUILITY and SERENITY III programs

Company strengthens IGALMI ™ market exclusivity through receipt of two Notices of Allowance

NEW HAVEN, Conn., Oct. 04, 2023 (GLOBE NEWSWIRE) -- BioXcel Therapeutics, Inc. (Nasdaq: BTAI), a biopharmaceutical company utilizing artificial intelligence approaches to develop transformative medicines in neuroscience, today provided an update on recent developments with its late-stage clinical programs as well as its patent portfolio for IGALMI ™ (dexmedetomidine) sublingual film. These developments include meetings scheduled with the U.S. Food and Drug Administration (FDA) to discuss the TRANQUILITY and SERENITY III clinical programs and the receipt of two Notices of Allowance (NOAs) from the U.S. Patent and Trademark Office to extend method of use patent protection for sublingual dexmedetomidine.

"We believe that we have a substantial body of clinical, non-clinical, and pharmacokinetic (PK) data to discuss with the FDA with the goal of gaining alignment on a potential package required for supplemental new drug application (sNDA) submissions," said Vimal Mehta, Ph.D., CEO of BioXcel Therapeutics. "The meetings with the FDA are critical components of our business strategy. We plan to seek alignment on a path for the potential approval to expand the market for BXCL501 for the at-home and assisted living facility treatment of mild to moderate agitation associated with dementia due to Alzheimer's disease, and for the at-home acute treatment of agitation associated with bipolar I and II disorders and schizophrenia. Expanding BXCL501 into these large, underserved markets, while advancing IGALMI™ commercialization, are our top priorities."

Late-Stage Clinical Programs: TRANQUILITY and SERENITY III

Agitation Associated with Mild to Moderate Dementia due to Probable Alzheimer's Disease (AAD):
Type B/Breakthrough Meeting on October 11
The Company plans to review its TRANQUILITY clinical trial program with the FDA and to discuss the data package required to support submission of an sNDA for the approval of BXC501 for the acute treatment of agitation in mild to moderate dementia patients with probable Alzheimer's disease in assisted living facilities and at-home settings.

The briefing book submitted to FDA for the meeting includes results from 11 double-blind, placebo-controlled Phase 2 and 3 clinical trials evaluating the safety and efficacy of BXCL501. Trials with BXCL501 have enrolled more than 1,100 patients across multiple neuropsychiatric conditions and in healthy volunteers, and have shown no unexpected safety signals, no reports of serious adverse events or falls related to the study drug, and no drug-related deaths, which is all consistent with the known pharmacological effects of BXCL501.

Of the subjects who received various doses of BXCL501, 273 were over 60 years of age, and 204 were over 65 years of age. The TRANQUILITY I and TRANQUILITY II trials were placebo-controlled, showed statistically significant separation from placebo in Positive and Negative Syndrome Scale-Excitatory Component (PEC) total score at two hours with the 60 mcg dose (primary endpoint), and had no unexpected safety findings. Data from TRANQUILITY I led the FDA to grant BXCL501 Breakthrough Therapy designation for the acute treatment of agitation associated with dementia. Additionally, the efficacy results seen in TRANQUILITY II after 12 weeks for all treated episodes was comparable to those observed after the first dose. Moreover, the adverse events (AEs) observed after the first dose were similar to the AEs observed after all doses in TRANQUILITY II (443 episodes treated) and comparable to the AEs observed in the single-dose TRANQUILITY I trial (100 episodes treated).

The Company is continuing its previously disclosed investigation into protocol adherence and data integrity at a principal investigator's trial site in connection with the TRANQUILITY II trial, and an independent third party is auditing the data collected at that site. For additional information regarding the TRANQUILITY II Phase 3 trial and related investigation and audit, see the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission today October 4, 2023, which should be read in conjunction with this press release.

At-Home Setting in Agitation Associated with Bipolar Disorders I and II and Schizophrenia:
Type C Meeting on November 8
The Company will review its SERENITY III program with the FDA on November 8, 2023 and plans to discuss the data package required to support submission of an sNDA seeking approval of BXCL501 for the acute treatment of agitation associated with bipolar disorders I and II and schizophrenia in the at-home setting. In addition, the Company plans to discuss the evaluation of the 80 mcg dose of BXCL501 and several potential protocol amendments to the SERENITY III Part 2 trial. The Company identified the 80 mcg dose as more favorable for further development based on pharmacokinetic-pharmacodynamic (PK-PD) modeling anchored by extensive data from studies that evaluated the 60 mcg dose of BXCL501 (half of the lower approved IGALMI™ dose) as well as studies that evaluated the 120 mcg and 180 mcg approved doses of IGALMI™.

The primary objective of Part 2 of SERENITY III is to assess safety (the incidence of treatment-emergent adverse events), and the secondary objectives include various efficacy assessments.

IGALMI™ Market Exclusivity Strengthened: Two Notices of Allowance (NOAs) Received
BioXcel Therapeutics recently received two NOAs[1] from the U.S. Patent and Trademark Office (USPTO) for patent applications related to the method of use of sublingual dexmedetomidine for the treatment of agitation associated with bipolar disorders and schizophrenia. When these patents are granted, the Company plans to list them in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (commonly known as the Orange Book) for IGALMI™. The Company now has four U.S. patents claiming formulations of dexmedetomidine with exclusivity until 2039 currently listed in the Orange Book. The Company expects that these two new patents will expire no earlier than Dec. 29, 2037, subject to the patent term

adjustment, patent term extension, and terminal disclaimers. These patents further broaden the scope of intellectual property estate for IGALMI™ and for future potential indications.

About IGALMI™(dexmedetomidine) sublingual film

INDICATION

IGALMI™ (dexmedetomidine) sublingual film is a prescription medicine, administered under the supervision of a health care provider, that is placed under the tongue or behind the lower lip and is used for the acute treatment of agitation associated with schizophrenia and bipolar disorder I or II in adults. The safety and effectiveness of IGALMI has not been studied beyond 24 hours from the first dose. It is not known if IGALMI is safe and effective in children.

IMPORTANT SAFETY INFORMATION

IGALMI can cause serious side effects, including:

- **Decreased blood pressure, low blood pressure upon standing, and slower than normal heart rate, which may be more likely in patients with low** blood volume, diabetes, chronic high blood pressure, and older patients. IGALMI is taken under the supervision of a healthcare provider who will monitor vital signs (like blood pressure and heart rate) and alertness after IGALMI is administered to help prevent falling or fainting. Patients should be adequately hydrated and sit or lie down after taking IGALMI and instructed to tell their healthcare provider if they feel dizzy, lightheaded, or faint.
- **Heart rhythm changes (QT interval prolongation)**. IGALMI should not be given to patients with an abnormal heart rhythm, a history of an irregular heartbeat, slow heart rate, low potassium, low magnesium, or taking other drugs that could affect heart rhythm. Taking IGALMI with a history of abnormal heart rhythm can increase the risk of torsades de pointes and sudden death. Patients should be instructed to tell their healthcare provider immediately if they feel faint or have heart palpitations.
- **Sleepiness/drowsiness**. Patients should not perform activities requiring mental alertness, such as driving or operating hazardous machinery, for at least 8 hours after taking IGALMI.
- **Withdrawal reactions, tolerance, and decreased response/efficacy**. IGALMI was not studied for longer than 24 hours after the first dose. Physical dependence, withdrawal symptoms (e.g., nausea, vomiting, agitation), and decreased response to IGALMI may occur if IGALMI is used longer than 24 hours.

The most common side effects of IGALMI in clinical studies were sleepiness or drowsiness, a prickling or tingling sensation or numbness of the mouth, dizziness, dry mouth, low blood pressure, and low blood pressure upon standing.

These are not all the possible side effects of IGALMI. Patients should speak with their healthcare provider for medical advice about side effects.

Patients should tell their healthcare provider about their medical history, including if they suffer from any known heart problems, low potassium, low magnesium, low blood pressure, low heart rate, diabetes, high blood pressure, history of fainting, or liver impairment. They should also tell their healthcare provider if they are pregnant or breastfeeding or take any medicines, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Patients should especially tell their healthcare provider if they take any drugs that lower blood pressure, change heart rate, or take anesthetics, sedatives, hypnotics, and opioids.

Everyone is encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088. You can also contact BioXcel Therapeutics, Inc. at 1-833-201- 1088 or medinfo@bioxceltherapeutics.com.

Please see full Prescribing Information at igalmi.com.

About BioXcel Therapeutics, Inc.
BioXcel Therapeutics, Inc. (Nasdaq: BTAI) is a biopharmaceutical company utilizing artificial intelligence to develop transformative medicines in neuroscience. The Company's drug re-innovation approach leverages existing approved drugs and/or clinically validated product candidates together with big data and proprietary machine learning algorithms to identify new therapeutic indications.

The Company's commercial product, IGALMI™ (dexmedetomidine) sublingual film (developed as BXCL501), is approved for the acute treatment of agitation associated with schizophrenia or bipolar I or II disorder in adults. The safety and effectiveness of IGALMI have not been established beyond 24 hours from the first dose. For more information, please visit igalmi.com and also see the IGALMI full Prescribing Information.

BXCL501 is under evaluation for at-home use for the acute treatment of agitation associated with Alzheimer's dementia and for the acute treatment of agitation associated with bipolar disorders or schizophrenia. The safety and efficacy of BXCL501 for these uses have not been established. The Company is also developing BXCL502 as a potential therapy for chronic agitation in dementia. The safety and efficacy of BXCL502 have not been established in any indication. For more information, please visit bioxceltherapeutics.com.

Forward-Looking Statements
This press release includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements contained in this press release other than statements of historical fact should be considered forward-looking statements, including, without limitation, statements regarding: the Company's expected timing and outcome of discussions with FDA; the potential outcomes of the Company's investigation and third-party audit of a principal investigator's site; the Company's advancement of its product candidates for regulatory approval; and the potential for the results from the Company's completed, ongoing and proposed clinical trials to support regulatory approvals for its product candidates, including the results from the TRANQUILITY II and SERENITY III clinical trials. The words "anticipate," "believe," "can," "continue," "could," "designed," "estimate," "expect," "forecast," "goal," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "target," "will," "would" and

similar expressions are intended to identify forward-looking statements, though not all forward-looking statements use these words or expressions. In addition, any statements or information that refer to expectations, beliefs, plans, projections, objectives, performance or other characterizations of future events or circumstances, including any underlying assumptions, are forward- looking. All forward-looking statements are based upon the Company's current expectations and various assumptions. The Company believes there is a reasonable basis for its expectations and beliefs, but they are inherently uncertain. The Company may not realize its expectations, and its beliefs may not prove correct. Actual results could differ materially from those described or implied by such forward-looking statements as a result of various important factors, including, without limitation, its limited operating history; its incurrence of significant losses; its need for substantial additional funding and ability to raise capital when needed; its ability to successfully negotiate amended terms under the financing agreements to be able to access funding and to obtain relief under financial covenants; its significant indebtedness and potential payment obligations related to such indebtedness and other contractual obligations; risks associated with the strategic reprioritization; its limited experience in drug discovery and drug development; risks related to the TRANQUILITY II Phase 3 trial and related audit; its dependence on the success and commercialization of IGALMI™, BXCL501, BXCL502 BXCL701 and BXCL702 and other product candidates; its lack of experience in marketing and selling drug products; the risk that IGALMI or the Company's product candidates may not be accepted by physicians or the medical community in general; the failure of preliminary data from its clinical studies to predict final study results; failure of its early clinical studies or preclinical studies to predict future clinical studies; its ability to receive regulatory approval for its product candidates; its ability to enroll patients in its clinical trials; undesirable side effects caused by the Company's product candidates; its novel approach to the discovery and development of product candidates based on EvolverAI; the significant influence of and dependence on BioXcel LLC; its exposure to patent infringement lawsuits; its reliance on third parties; its ability to comply with the extensive regulations applicable to it; impacts from data breaches or cyber-attacks, if any; impacts from the COVID-19 pandemic; risks associated with the increased scrutiny relating to environmental, social and governance (ESG) matters; its ability to commercialize its product candidates; and the other important factors discussed under the caption "Risk Factors" in its Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023, which are accessible on the SEC's website at www.sec.gov. These and other important factors could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management's estimates as of the date of this press release. While the Company may elect to update such forward-looking statements at some point in the future, except as required by law, it disclaims any obligation to do so, even if subsequent events cause our views to change. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this press release.

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