Zynerba Pharmaceuticals Announces Completion of Enrollment in Phase 2 Trial of Zygel™ in 22q11.2 Deletion Syndrome

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Topline data from Phase 2 INSPIRE trial expected mid-year 2022

DEVON, Pa., Feb. 28, 2022 (GLOBE NEWSWIRE) -- Zynerba Pharmaceuticals, Inc. (Nasdaq: ZYNE), the leader in innovative pharmaceutically-produced transdermal cannabinoid therapies for rare and near-rare neuropsychiatric disorders, today announced the completion of enrollment for the 14-week Phase 2 INSPIRE (Assessing the **I**mpact of Zygel [Tra**ns**dermal CBD Gel] on **P**ediatr**i**c Behavio**r**al and **E**motional Symptoms of 22q11.2 Deletion Syndrome) trial of Zygel in the treatment of behavioral symptoms of 22q11.2 deletion syndrome (22q) in children and adolescents. The Company continues to expect topline data from this trial mid-year 2022. The Company has previously received orphan drug designation for Zygel in 22q from the FDA.

"The completion of enrollment in our INSPIRE trial is an important step forward in advancing Zygel as a potential new treatment option for patients suffering from 22q," said Armando Anido, Chairman and Chief Executive Officer of Zynerba. "Pending results from the INSPIRE trial and subsequent discussion with the FDA on the regulatory path forward, we plan to advance our clinical development program in 22q with Zygel. We are thankful for the combined efforts of our researchers, investigators and the patient and caregiver community."

The 14-week INSPIRE trial is an open-label, multi-dose, Phase 2 clinical trial designed to evaluate the efficacy and safety of Zygel in children and adolescents (ages six through 17) with genetically-confirmed 22q. Enrolled patients receive weight-based doses of 250 mg daily or 500 mg daily of Zygel. The efficacy assessments include the Aberrant Behavior Checklist-Community (ABC-C), the Anxiety, Depression and Mood Scale (ADAMS), the Qualitative Caregiver Reported Behavioral Problem Survey, and Clinical Global Impression – Severity and Improvement. A total of 20 patients have been enrolled in the INSPIRE trial.

About Zygel™

Zygel is the first and only pharmaceutically-manufactured cannabidiol formulated as a patent-protected permeation-enhanced clear gel, designed to provide controlled drug delivery into the bloodstream transdermally (i.e. through the skin). Recent studies suggest that cannabidiol may modulate the endocannabinoid system and improve certain behavioral symptoms associated with neuropsychiatric conditions. Zygel is an investigational drug product in development for the potential treatment of behavioral symptoms associated with Fragile X syndrome (FXS), autism spectrum disorder (ASD), and 22q11.2 deletion syndrome (22q). Zygel has been granted orphan drug designation by the FDA in the treatment of FXS and 22q. Additionally, the FDA has designated Zygel a Fast Track development program for treatment of behavioral symptoms of FXS.

About 22q11.2 Deletion Syndrome (22q)

As the second most common chromosomal disorder after Down syndrome, 22q is caused by a small missing piece of the 22nd chromosome. The deletion occurs near the middle of the chromosome at a location designated q11.2. It is considered a mid-line condition, with physical symptoms including characteristic palate abnormalities, heart defects, immune dysfunction, and esophageal/GI issues, as well as debilitating neuropsychiatric and behavioral challenges. Anxiety is among the most common neuropsychiatric symptoms of 22q and researchers have found that for children with 22q, anxiety is linked to poorer adaptive behaviors such as self-care and communication skills that affect daily life. Children with 22q also experience withdrawn behavior, ADHD, cognitive impairment, and autism spectrum disorder that affect communication and social interaction. Later in life, they are at an increased risk of developing mental illnesses such as schizophrenia. It is estimated that 22q has a prevalence rate of approximately one in 4,000 people in the U.S.[1,2], suggesting that there are approximately 83,000 people living with 22q in the U.S.

[1] *The 22q Family Foundation*
[2] *The International 22q11.2 Foundation*

About Zynerba Pharmaceuticals, Inc.

Zynerba Pharmaceuticals is the leader in innovative pharmaceutically-produced transdermal cannabinoid therapies for rare and near-rare neuropsychiatric disorders. We are committed to improving the lives of patients and their families living with severe, chronic health conditions including Fragile X syndrome, autism spectrum disorder, and 22q11.2 deletion syndrome. Learn more at www.zynerba.com and follow us on Twitter at @ZynerbaPharma.

Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. We may, in some cases, use terms such as "predicts," "believes," "potential," "proposed," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially from the Company's current expectations. Management's expectations and, therefore, any forward-looking statements in this press release could also be affected by risks and uncertainties relating to a number of other factors, including the following: the Company's cash and cash equivalents may not be sufficient to support its operating plan for as long as anticipated; the Company's expectations, projections and estimates regarding expenses, future revenue, capital requirements, incentive and other tax credit eligibility, collectability and timing, and availability of and the need for additional financing; the Company's ability to obtain additional funding to support its clinical development programs; the results, cost and timing of the Company's clinical

development programs, including any delays to such clinical trials relating to enrollment or site initiation; clinical results for the Company's product candidates may not be replicated or continue to occur in additional trials and may not otherwise support further development in a specified indication or at all; actions or advice of the U.S. Food and Drug Administration and foreign regulatory agencies may affect the design, initiation, timing, continuation and/or progress of clinical trials or result in the need for additional clinical trials; the Company's ability to obtain and maintain regulatory approval for its product candidates, and the labeling under any such approval; the Company's reliance on third parties to assist in conducting pre-clinical and clinical trials for its product candidates; delays, interruptions or failures in the manufacture and supply of the Company's product candidates the Company's ability to commercialize its product candidates; the size and growth potential of the markets for the Company's product candidates, and the Company's ability to service those markets; the Company's ability to develop sales and marketing capabilities, whether alone or with potential future collaborators; the rate and degree of market acceptance of the Company's product candidates; the Company's expectations regarding its ability to obtain and adequately maintain sufficient intellectual property protection for its product candidates; and the extent to which health epidemics and other outbreaks of communicable diseases, including COVID-19, could disrupt our operations or adversely affect our business and financial conditions. This list is not exhaustive and these and other risks are described in the Company's periodic reports, including the annual report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, filed with or furnished to the Securities and Exchange Commission and available at www.sec.gov. Any forward-looking statements that the Company makes in this press release speak only as of the date of this press release. The Company assumes no obligation to update 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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