Acadia Pharmaceuticals Submits New Drug Application to the U.S. FDA for Trofinetide for the Treatment of Rett Syndrome

July 18, 2022

SAN DIEGO--(BUSINESS WIRE)--Jul. 18, 2022-- Acadia Pharmaceuticals Inc. (Nasdaq: ACAD) today announced that the company has submitted a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) for trofinetide for the treatment of Rett syndrome in adults and pediatric patients two years of age and older.

“This is an important step forward for members of the Rett community who face a devastating disease with no approved therapies,” said Steve Davis, Chief Executive Officer. “We are grateful to the patients, their families and the physicians who have participated in the trofinetide clinical studies, including our pivotal Phase 3 Lavender study. We look forward to working with the FDA as it evaluates the NDA.”

The NDA submission is supported by results from the pivotal Phase 3 Lavender ™ study evaluating the efficacy and safety of trofinetide versus placebo in 187 girls and young women aged 5-20 years with Rett syndrome. The study demonstrated a statistically significant improvement over placebo on the co-primary endpoints, the Rett Syndrome Behaviour Questionnaire (RSBQ) change from baseline to 12 weeks (p=0.0175; effect size=0.37) and the Clinical Global Impression-Improvement (CGI-I) scale score (p=0.0030; effect size=0.47) at 12 weeks. The RSBQ is a caregiver assessment of the core symptoms of Rett syndrome and the CGI-I is a global physician assessment of worsening or improving of Rett syndrome. In addition, the study also met its key secondary endpoint, the Communication and Symbolic Behavior Scales Developmental Profile ™ Infant-Toddler Checklist–Social composite score (CSBS-DP-IT–Social) change from baseline to week 12 (p=0.0064; effect size=0.43), a caregiver scale of the ability to communicate.

In 2018, Acadia entered into an exclusive license agreement with Neuren Pharmaceuticals Limited (ASX: NEU) for the development and commercialization of trofinetide for the treatment of Rett syndrome and other indications in North America. Trofinetide has been granted Fast Track Status and Orphan Drug Designation for the treatment of Rett syndrome in the United States. An NDA with Orphan Drug Designation is eligible for priority review. Trofinetide has also been granted Rare Pediatric Disease (RPD) designation by the FDA. With such designation, Acadia expects to be awarded a Priority Review Voucher if the NDA is approved.

About Lavender ™
The Lavender study was a Phase 3, 12-week, double-blind, randomized, placebo-controlled study of trofinetide in 187 girls and young women aged 5-20 years with Rett syndrome, designed to evaluate its efficacy and safety. The co-primary endpoints of Lavender included both a caregiver (Rett Syndrome Behaviour Questionnaire [RSBQ]) and physician (Clinical Global Impression–Improvement [CGI-I]) assessment. The key secondary endpoint was also a caregiver assessment designed to evaluate communication skills, the Communication and Symbolic Behavior Scales Developmental Profile™ Infant-Toddler Checklist – Social Composite Score (CSBS-DP-IT–Social).

About Rett Syndrome
Rett syndrome is a rare genetic neurodevelopmental disorder that occurs primarily in females following a near normal development in the first two years of life.[1,2] It is caused by mutations on the X chromosome on a gene called *MECP2*.[3] Occurring worldwide in approximately one of every 10,000 to 15,000 female births and in the United States impacts 6,000 to 9,000 patients.[4] Children with Rett syndrome experience a period of developmental regression between 18-30 months of age, which is typically followed by a plateau period lasting years to decades.[1,2,5] Rett syndrome is diagnosed based on clinical evaluation, typically by about three years of age.[2,6]

A complex and multisystem disorder, Rett syndrome causes profound impairment to central nervous system (CNS) function, including loss of communication skills, purposeful hand use, gait abnormalities, and stereotypic hand movements such as hand wringing/squeezing, clapping/tapping, mouthing and washing/rubbing automatisms.[2] People living with Rett syndrome may also experience a range of additional symptoms, such as gastrointestinal complications, skeletal abnormalities, neuroendocrine abnormalities, disruptive and anxiety-like behaviors, as well as mood dysregulation and sleep disturbances.[1] Currently, there are no FDA-approved medicines for the treatment of Rett syndrome.

About Trofinetide
Trofinetide is an investigational drug. It is a novel synthetic analog of the amino-terminal tripeptide of IGF-1 designed to treat the core symptoms of Rett syndrome by potentially reducing neuroinflammation and supporting synaptic function. Trofinetide is thought to stimulate synaptic maturation and overcome the synaptic and neuronal immaturities that are characteristic of Rett syndrome pathophysiology. In the central nervous system, IGF-1 is produced by both of the major types of brain cells – neurons and glia. IGF-1 in the brain is critical for both normal development and for response to injury and disease. Trofinetide has been granted Fast Track Status and Orphan Drug Designation for Rett syndrome and has also been granted Rare Pediatric Disease (RPD) designation by the FDA.

About Acadia Pharmaceuticals
Acadia is advancing breakthroughs in neuroscience to elevate life. For more than 25 years we have been working at the forefront of healthcare to bring vital solutions to people who need them most. We developed and commercialized the first and only approved therapy for hallucinations and delusions associated with Parkinson’s disease psychosis. Our late-stage development efforts are focused on treating psychosis in patients with dementia, the negative symptoms of schizophrenia and Rett syndrome. Our early-stage development efforts are focused on novel approaches to pain management, cognition and neuropsychiatric symptoms in central nervous system disorders. For more information, visit us at www.acadia.com and follow us on LinkedIn and Twitter.

Forward-Looking Statements
Statements in this press release that are not strictly historical in nature are forward-looking statements. These statements include but are not limited to statements regarding the timing of future events. These statements are only predictions based on current information and expectations and involve a

number of risks and uncertainties. Actual events or results may differ materially from those projected in any of such statements due to various factors, including the risks and uncertainties inherent in drug development, approval and commercialization. For a discussion of these and other factors, please refer to Acadia's annual report on Form 10-K for the year ended December 31, 2021 as well as Acadia's subsequent filings with the Securities and Exchange Commission. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All forward-looking statements are qualified in their entirety by this cautionary statement and Acadia undertakes no obligation to revise or update this press release to reflect events or circumstances after the date hereof, except as required by law.

References

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