Reviva Pharmaceuticals Reports RP5063 Positive Efficacy Results for Memory Deficits

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SANTA CLARA, Calif.--(BUSINESS WIRE)--Reviva Pharmaceuticals, Inc., a privately held drug discovery and development company, today presented new positive preclinical efficacy data for memory deficits at the Society for Neuroscience annual meeting in Chicago. RP5063 reverses and prevents subchronic phencyclidine-induced declarative memory deficits and increases cortical dopamine efflux in C57BL/6J mice. These results indicate that RP5063, via multi-receptor mechanisms, ameliorates subchronic declarative memory impairment. The potential of RP5063 to delay or prevent the emergence of cognitive impairment is suggested by the prevention paradigm. Increasing cortical DA efflux, in the prefrontal cortex one of the regions implicated in declarative memory, may contribute to the beneficial effect of RP5063 in cognition. These cognition results of RP5063 are in line with the promising efficacy signals reported in the phase 1B clinical trial in stable schizophrenia patients and the phase 2 trial in acute schizophrenia. RP5063 Phase 3 trials in schizophrenia measuring cognition outcome are in preparation.

“Cognitive impairment in schizophrenia is a major unmet medical need,” said the senior author Herbert Meltzer, M.D., Ph.D., Department of Psychiatry and Behavioral Sciences, Feinberg School of Medicine, Northwestern University. “RP5063 increases dopamine but not acetylcholine or glutamate in either prefrontal cortex or striatum areas. This action is unique: RP5063 has a novel mechanism of action and more selective effect on cognition.”

“This preclinical cognition data reaffirm the efficacy signals for cognition already seen in the phase 1B and phase 2 clinical trials in schizophrenia patients and also the unique mechanism of action of RP5063,” said Laxminarayan Bhat PhD, President and Chief Executive Officer of Reviva Pharmaceuticals. “We are optimistic that the Phase 3 clinical trials will further establish RP5063 cognition benefit for treating schizophrenia.”

About Schizophrenia

Schizophrenia is a serious, lifelong mental disease whose symptoms are generally divided into three categories - Positive, Negative, and Cognitive. Cognitive symptoms are across multiple domains including inattention and poor memory. Many schizophrenia patients also suffer from depression, mood swings and some even with bipolar-like states such as schizoaffective disorder. Current antipsychotics may help relieve the positive symptoms of schizophrenia but their effectiveness for treating negative and cognitive symptoms tends to be poor. Approved treatments also have serious

dose limiting side effects, including troublesome actions on motor function (movement), weight gain, and metabolic symptoms (diabetes and hyperlipidemia), diminished sexual function, and sedation with many patients failing to take their prescribed medications because of these side effects. As a consequence, few patients are able to regain their normal psychosocial function with these currently available pharmacological and rehabilitation treatments. Hence, there is still a major unmet medical and public health need for safer and more effective alternative treatments of schizophrenia.

About RP5063

RP5063 is a novel atypical antipsychotic drug (APD) with relatively unique pharmacology. Its principal action is potent dopamine-serotonin stabilization, the result of partial agonist properties at dopamine (DA) D_2, D_3, and D_4 receptors, serotonin (5-HT) 5-HT_{1A} and 5-HT_{2A}, and antagonist activity at 5-HT_{2B}, 5-HT_6 and 5-HT_7 receptors. The multi-receptor profile of RP5063 includes a number of mechanisms which have the potential to improve cognitive impairments in neuropsychiatric and neurological diseases, particularly partial agonism 5-HT_{1A} and 5-HT_7 receptor antagonism, and possibly D_4 partial agonism. RP5063 is an orally active new chemical entity (NCE) having effective patent life until September 2030 with possibility of patent term extension up to additional 5 years.

RP5063 global phase 2 clinical trial results showed a robust remission level efficacy for acute schizophrenia in addition to promising efficacy signals for comorbid conditions cognition impairment and mood disorders. RP5063 showed a very good safety and tolerability profile with no weight gain, metabolic, cardiac or movement side effects, leading to good acceptance and compliance with the treatment. RP5063 is also under development for the treatment of major depressive disorder, bipolar disorder, Tourette syndrome, attention-deficit/hyperactivity disorder (ADHD), agitation in autism, and psychosis in Alzheimer's and Parkinson's diseases. Cognitive impairment is a major unmet medical need in these neuropsychiatric and neurological diseases.

About Reviva Pharmaceuticals Inc

Reviva Pharmaceuticals Inc. (Reviva), located in Santa Clara, California, is a clinical stage pharmaceutical company focused on developing a portfolio of internally discovered next generation therapies that address unmet medical need in the areas of central nervous system (CNS) and metabolic diseases. Reviva has a strong patent portfolio and several products in the pipeline at various stages of development.

Reviva's leadership team has a strong background and a track record in successful rapid product development, regulatory approval and commercialization. Reviva was founded in 2006 and financed by angel investors including medical doctors, successful entrepreneurs, and professionals associated with the pharmaceutical and high-tech industries. For additional information, please visit our website at www.revivapharma.com.

Forward Looking Statements

This press release contains forward-looking statements made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements reflect management's current knowledge, assumptions, judgment and expectations regarding future performance or events, they give no assurance that such expectations will prove to be correct. Forward-looking statements are subject to a number of risks and uncertainties, but not limited to, our liability to obtain additional capital on acceptable terms, or at all, including additional capital which will be necessary to complete the clinical trials, the availability of top-line-data-delays in enrollment, delays

caused by institutional review boards or regulatory agencies, shortage of clinical trial supplies, dependence on clinical trial collaborators, loss of any executive officers or key personnel or consultants. Undue reliance should be placed on forward-looking statements, which speak only as of the date they are made, and the facts and assumptions underlying the forward-looking statements may change. Except as required by law, Reviva disclaims any obligation to update these forward-looking statements to reflect future information, events or circumstances.

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