Reviva Pharmaceuticals to Host Key Opinion Leader Event on Brilaroxazine (RP5063) in Phase 3 Clinical Trials for Schizophrenia

Virtual event on Tuesday, May 2, 2023 at 11:00am ET will feature key opinion leader (KOL) Larry Ereshefsky, PharmD, BCPP, FCCP, Chief Scientific Officer, Follow the Molecule

CUPERTINO, Calif., April 25, 2023 — Reviva Pharmaceuticals Holdings, Inc. (NASDAQ: RVPH) ("Reviva" or the "Company"), a clinical-stage pharmaceutical company developing therapies that seek to address unmet medical needs in the areas of central nervous system (CNS), respiratory and metabolic diseases, today announced it will host a KOL webinar on brilaroxazine (RP5063), a serotonin-dopamine modulator in late-stage development for schizophrenia, on May 2nd at 11:00am ET.

The event will feature expert Larry Ereshefsky, PharmD, BCPP, FCCP (Chief Scientific Officer, Follow the Molecule: CNS Consulting and Clinical Sciences by CenExel Research) who will briefly discuss the unmet medical need and current treatment landscape for patients suffering from acute and the more chronic symptoms of schizophrenia. He will look at brilaroxazine, a next-generation serotonin-dopamine modulator, and its potential as a treatment solution for schizophrenia.

The Reviva leadership team will provide an overview of the efficacy and safety data generated in the clinical trials completed to date and an update on ongoing RECOVER Phase 3 trial evaluating brilaroxazine in patients with acute schizophrenia. Brilaroxazine is a new chemical entity with broad therapeutic potential in neuropsychiatric and inflammatory conditions arising from underlying dysfunction in serotonin and dopamine signaling.

A live question and answer session will follow the formal presentations. To register, please click **here**.

Larry Ereshefsky, PharmD, BCPP, FCCP, over the 45 years of his career applies his experience as a clinician, scientist, and investigator, to develop treatments and innovate clinical methodologies to make a difference in the lives of patients with Neurodegenerative and Psychiatric Disorders. He has contributed significantly to several drug approvals spanning neurology and psychiatry, including drug development planning, PK/PD evaluation, and methodological innovation for Schizophrenia, Depression, Bipolar Disorder, Parkinson's (PD), Alzheimer's Diseases (AD), and pain indications. He has designed, implemented, supervised, and conducted more than 100 CNS clinical trials ranging from first into patient through to proof of concept, implements Asian Bridging strategies, and has overseen large global Phase III registration trials. He is a leader in the use of signal detection strategies to minimize placebo response. Larry has a proven track record as an investigator, translational CNS scientist, and clinical advisor in designing and performing Phase I/IIA and clinical pharmacology studies.

He is a retired Regents Professor of Pharmacy, Psychiatry, and Pharmacology from The University of Texas/UT Health Science Center (UT). Subsequently, he was the CSO (Chief Scientific Officer) and Exec VP for California Clinical Trials, acquired by PAREXEL International where his role was VP, Principal Pharmacologist and Therapeutic Area Leader for CNS Early Phase with Global responsibilities. Currently, he is the owner of Follow the Molecule: CNS Consulting, providing services to pharma, CROs, technology vendors, and minority owner in ProScience Research Group. He also served as Chief Science Officer for APEX Innovative Sciences (minority owner) including their 2 x 80 bed early phase research units (CNS Network, CA and Hassman Research Institute, NJ). APEX was recently bought by CenExel Research providing 18 clinical research sites designing, conducting, and supporting drug development from the earliest (FIH) to late-stage drug development across a variety of indications.

As a leader in the application of translational drug development tools including measuring neurocircuitry/biomarker/inflammatory signal via MRS, fMRI, full electro physiological suite, PET, CSF and PBMCs, pain models including capsaicin, UV burn, NGF, allodynia evaluations, and cognitive and behavioral paradigms, he helps de-risk drug development. As co-head of The Advanced Pharmacology and Evaluation Lab at UT, his team made pioneering contributions to understand the relationship of pharmacogenetics, drug interactions, and the environment upon the PK/PD of drugs. Dr. Ereshefsky's unique perspective as a clinical scientist (clinical psychiatric pharmacist and psychopharmacologist) helps to guide drug development from preclinical to late Phase. He served twice on the FDA Psychopharmacological Drugs Advisory Committee. His PharmD and Residency in Psychopharmacology and Clinical Pharmacy were at the University of Southern California and LA County Medical Center and is Board Certified in Clinical Psychopharmacy.

About Reviva's Lead Drug Candidate Brilaroxazine

Brilaroxazine is a new chemical entity with potent affinity and selectivity against key serotonin and dopamine receptors implicated in schizophrenia and its comorbid symptoms. In a multinational, multicenter, double-blind Phase 2 study in 234 patients with acute schizophrenia or schizoaffective disorder, brilaroxazine met its primary endpoint, reducing Positive and Negative Syndrome Scale (PANSS) total score and demonstrating statistically significant improvement of overall drug treatment outcomes using Clinical Global Impression (CGI) scale and for secondary endpoints evaluating social functioning, and positive and negative symptoms, and directional improvements for depression and cognition. In this completed Phase 2 study, brilaroxazine met all safety endpoints with no weight gain, no increase in blood sugar and lipids, and no cardiac or endocrine adverse effects compared to placebo. Positive data from a clinical drug-drug interaction (DDI) study investigating the potential effect of CYP3A4 enzyme on brilaroxazine in healthy subjects supports no clinically significant interaction when combined with a CYP3A4 inhibitor. A full battery of regulatory compliant toxicology and safety pharmacology studies has been completed for brilaroxazine. The U.S. Food and Drug Administration (FDA) has agreed to consider a potential superior

safety label claim if there is a positive outcome on a relevant endpoint in a pivotal Phase 3 study in patients with schizophrenia. Reviva intends to develop brilaroxazine for other neuropsychiatric indications including bipolar disorder, major depressive disorder (MDD) and attention-deficit/hyperactivity disorder (ADHD).

Additionally, brilaroxazine has shown promising efficacy for pulmonary arterial hypertension (PAH) and idiopathic pulmonary fibrosis (IPF) with mitigation of lung fibrosis and inflammation in translational animal models. Reviva believes brilaroxazine has the potential to delay disease progression in PAH and IPF and intends to develop brilaroxazine for these pulmonary indications. Brilaroxazine has already received Orphan Drug Designation by the U.S. FDA for the treatment of these conditions.

To learn more about the clinical and preclinical data available for brilaroxazine, please visit revivapharma.com/publications.

About Reviva

Reviva is a clinical-stage biopharmaceutical company that discovers, develops, and seeks to commercialize next-generation therapeutics for diseases representing unmet medical needs and burdens to society, patients, and their families. Reviva's current pipeline focuses on the central nervous system, respiratory and metabolic diseases. Reviva's pipeline currently includes two drug candidates, brilaroxazine and RP1208. Both are new chemical entities discovered in-house. Reviva has been granted composition of matter patents for both brilaroxazine and RP1208 in the United States (U.S.), Europe, and several other countries.

Forward-Looking Statements

This press release contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act, as amended, including those relating to the timing of data and other information related to the Company's RECOVER Phase 3 trial, cash runway, product development, clinical and regulatory timelines and expenses, market opportunity, ability to raise sufficient funding, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities and other statements that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current beliefs and assumptions.

These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential, "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance

or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the Securities and Exchange Commission. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this press release. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

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