

CeNeRx BioPharma Finalizes Plans to Initiate Phase II Trials for Its Novel Antidepressant Agent *Tyrima*[™] Using Innovative Brain Imaging Study

State-of-the-Art PET Study Confirms *Tyrima* Exhibits Excellent Drug-Like Properties. --Results Support Initiation of Phase II Clinical Trials--

RESEARCH TRIANGLE PARK, NC, July 22, 2008 -- CeNeRx BioPharma, Inc., a clinical stage company developing and commercializing innovative treatments for diseases of the central nervous system, today announced plans to advance its lead candidate *Tyrima*[™] into Phase II trials for the treatment of depression and anxiety. This milestone is based on the positive results of the *Tyrima* Phase I program reported earlier this year and the recent completion of PET brain imaging studies showing that *Tyrima* penetrates the CNS and exhibits excellent pharmacokinetic and pharmacodynamic properties. *Tyrima* is a selective and reversible member of a novel class of drugs known as RIMAs, or reversible inhibitors of monoamine oxidase A (MAO-A).

"*Tyrima* has the potential to be the first triple-action antidepressant with a safety profile capable of treating a broad patient population, and we are very pleased with the promising properties *Tyrima* exhibited in these PET imaging studies," said Barry Brand, Chief Executive Officer of CeNeRx. "These encouraging results support our plans to initiate Phase II *Tyrima* trials in patients with major depression later this year."

"This innovative study used state-of-the-art PET imaging technology to demonstrate that *Tyrima* is penetrating and being eliminated from the brain in a consistent, predictable fashion," said Dr. Daniel Burch, Executive Vice President of R&D and Chief Medical Officer of CeNeRx. "Furthermore, the study has shown that plasma levels of *Tyrima* correlate extremely well with the action of *Tyrima* on MAO-A in the brain. This excellent pharmacokinetic/pharmacodynamic correlation has further increased our level of confidence in dose selection and the ability to demonstrate clinical efficacy as we move *Tyrima* into Phase II trials."

Like conventional MAOI agents, the triple-action mechanism of *Tyrima* elevates the levels of three key neurotransmitters (serotonin, norepinephrine and dopamine) that positively affect mood and anxiety. In contrast, most current antidepressant drugs affect only a single neurotransmitter. However, unlike these older MAOIs, the selectivity and reversibility of *Tyrima* should enable patients to benefit from the efficacy advantages of the class while avoiding the food-associated cardiovascular side effects of conventional MAOIs that have greatly restricted their use.

In January 2008, CeNeRx reported the successful completion of its Phase I program for *Tyrima* that included acute dose, repeat dose and fed-fasted studies. The Phase I studies showed that *Tyrima* was safe and well tolerated and exhibited good pharmacokinetic properties.

"This study is an excellent example of how PET imaging is both revolutionizing our ability to understand key CNS pathways and facilitating drug development," said Dr. Joanna Fowler, Director of the Center for Translational Neuroimaging at the U.S. Department of Energy's Brookhaven National Laboratory and Principal Investigator of the *Tyrima* PET imaging study. "Rather than relying on extrapolations from indirect measures, PET studies enable researchers to view exactly what happens when drugs are administered, enabling us to determine if the drug is doing what is intended and to identify optimal dosing levels. Results from this study confirm that *Tyrima* acts in the CNS as researchers had hypothesized and also gives greater assurance that the Phase II trial design will provide an accurate assessment of *Tyrima*'s potential as a novel antidepressant."

The first *Tyrima* Phase II trial is a double-blind, placebo-controlled, multi-center study expected to enroll over 270 patients with major depressive disorder. The study is expected to start before the end of this quarter.

“*Tyrima* is an investigational drug with promising antidepressant properties and CeNeRx has collaborated with leading PET imaging experts at Brookhaven National Laboratory to produce comprehensive data on how plasma levels of *Tyrima* affect pathways in the brain,” said K. Ranga Krishnan, MD, Professor and Chairman, Department of Psychiatry and Behavioral Sciences at Duke University Medical Center, and CeNeRx SAB member. “An agent such as *Tyrima* with proven MAOI activity in the CNS and a good tolerability profile could be a valuable new therapy for patients affected by depression. Successful completion of this PET imaging study, coupled with the positive results from the Phase I program, support progression of *Tyrima* into Phase II trials.”

PET, or positron emission tomography, is a nuclear imaging technology that produces three-dimensional depictions of metabolic states in the human body, allowing researchers to view the path and amount of drug accumulation in study participants. The PET imaging study showed that *Tyrima* entered into and left the brain, achieved high plasma concentrations and exhibited a favorable pharmacokinetic half-life. Further results will be submitted for presentation at a future scientific meeting or for inclusion in a peer-reviewed medical publication.

CeNeRx has worldwide rights to develop and commercialize *Tyrima*. This compound, which could be the first RIMA antidepressant available in the U.S. market, has patent protection beyond 2027.

About CeNeRx BioPharma

CeNeRx (SEN-er-ex) is a privately held clinical stage biopharmaceutical company developing and commercializing innovative treatments for diseases of the central nervous system. CeNeRx's most advanced compounds, reversible inhibitors of monoamine oxidase, or RIMAs, are in late preclinical and Phase I development for the treatment of major depressive disorder. RIMAs may have efficacy advantages over current agents for depression and are expected to have a good safety profile. The company is also developing its preclinical pipeline of selective cannabinoid compounds for the treatment of pain, glaucoma and obesity. More information about CeNeRx BioPharma can be found at www.cenerx.com.