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CENERX BIOPHARMA COMPLETES $4.85 MILLION FINANCING

—Funds to Support Completion of Phase II Trial of TriRima™ in Treatment Resistant Depression—
—Reports Good Progress in TriRima Phase II Trial and FDA Approval of IND to Assess CXB909 as Potential Treatment for Alzheimer's Disease—

RESEARCH TRIANGLE PARK, NC, December 9, 2011 -- CeNeRx BioPharma, Inc., a clinical stage company developing and commercializing innovative treatments for diseases of the central nervous system (CNS), today announced completion of a $4.85 million financing. Existing investors Perseus Soros Biopharmaceutical Fund, L Capital Partners, Pappas Ventures and Omega Funds all participated in the financing. CeNeRx plans to use the proceeds to complete its ongoing Phase II trial of the improved formulation of its novel antidepressant *TriRima*™ as monotherapy in treatment resistant depression, as well as to support advancement of its pipeline of promising agents for a variety of CNS disorders.

"Our Phase II trial of *TriRima* in treatment resistant depression is proceeding very well and these funds will primarily be used to help complete the study," said Barry Brand, Chief Executive Officer of CeNeRx. "The pace of enrollment has been excellent – we have enrolled almost 80% of the 360 patients targeted for this trial and hope to complete the study and report headline data by mid-2012."

Treatment resistant depression represents a large and serious problem, with between 30-50% of depressed patients not responding to traditional antidepressant therapy. The only FDA-approved medications for treatment resistant depression are atypical antipsychotics, which are associated with significant safety concerns such as tardive dyskinesia, metabolic syndrome, hypoglycemia and diabetes. *TriRima* has the opportunity to fill this therapeutic gap and to be the first monotherapy for treatment resistant depression that avoids the safety issues of the atypical antipsychotics.

Mr. Brand continued, "As expected, thus far in this Phase II trial we have seen no signs of the food-associated hypertensive effects of conventional MAO inhibitors. In addition, blinded assays of the subjects in the trial reveal regimen compliance rates of greater that 90%, with patients exhibiting therapeutic drug levels at all measured time points. We look forward to reporting data from this *TriRima* Phase II trial during 2012."

Depression has long been associated with reductions in key neurotransmitters (serotonin, norepinephrine and dopamine), but only recently have researchers come to understand what causes their depletion. New neuroimaging techniques have shown that these neurotransmitters are depleted due to the over-expression of monoamine oxidase A (MAO-A). *TriRima* is the first and only medication that specifically blocks MAO-A, thereby allowing neurotransmitter levels to normalize. This approach differs from traditional antidepressants, which seek to overcome low neurotransmitter levels primarily by concentrating the existing neurotransmitters in the gap between the neurons (the synaptic cleft), leaving the neurons themselves with a neurotransmitter deficit. By blocking MAO-A and allowing the neurotransmitters to return to normal levels, *TriRima* acts to correct the neurotransmitter deficit both within the neuron and within the synaptic cleft. *TriRima's* target is accordingly differentiated and upstream to the approach of most traditional classes of antidepressants, with the potential for improved efficacy.

TriRima is a selective and reversible member of a novel class of drugs known as RIMAs, or reversible inhibitors of monoamine oxidase A. *TriRima* acts to normalize the levels of three key neurotransmitters that positively affect mood and anxiety, and the selectivity and reversibility of *TriRima* are expected to eliminate or reduce the risk of food-associated cardiovascular effects of conventional MAO inhibitors.

Separately, CeNeRx announced that it has successfully filed an IND to assess CXB909 as a potential treatment for Alzheimer's disease. CXB909, which is a small molecule, orally active agent that enhances the effects of nerve growth factor, may have utility in the prevention and treatment of neurodegenerative disorders such as Alzheimer's disease, and in neuropathic conditions such as chemotherapy-induced peripheral neuropathy.

About CeNeRx BioPharma

CeNeRx is a privately held clinical-stage biopharmaceutical company developing and commercializing innovative treatments for diseases of the central nervous system. CeNeRx's most advanced compound, a reversible inhibitor of monoamine oxidase, or RIMA, is in Phase II development for treatment resistant depression. RIMAs may have efficacy advantages over current agents for depression and are expected to have a good safety profile. The company's CNS pipeline also includes clinical-stage hypothalamic-pituitary adrenal (HPA) axis modulators for the treatment of a variety of CNS disorders including anxiety and depression; a small molecule, orally active agent for the prevention and treatment of neuropathies and neurodegenerative disorders; and a series of selective cannabinoid compounds that have successfully completed preclinical proof-of-concept studies for the treatment of pain, glaucoma and spasticity. The company's investors include Perseus Soros Biopharmaceutical Fund, L Capital Partners, Pappas Ventures and Omega Funds. For more information, visit www.cenerx.com.