CoNCERT Pharmaceuticals Inc.™

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Concert Pharmaceuticals and Fast Forward Announce Collaboration to Advance Novel Treatment for Spasticity and Pain in Multiple Sclerosis

Lexington, MA and New York, NY – Concert Pharmaceuticals, Inc. and Fast Forward, LLC, the National Multiple Sclerosis Society's subsidiary devoted to bridging the gap between research and drug development, today announced a new collaboration to fund the preclinical advancement of C-21191, a deuterium-modified subtype-selective $GABA_A$ modulator developed by Concert with the therapeutic potential of treating spasticity and pain in multiple sclerosis (MS). Fast Forward will commit funding to support the program for prospective clinical stage development.

"We are pleased to partner with Concert on this new approach with the potential to treat spasticity and pain, which are so challenging to large numbers of people living with MS," said Dr. Timothy Coetzee, Chief Research Officer at the National MS Society and Fast Forward. "This collaboration demonstrates Fast Forward's commitment to pursue and fund innovative medicines that can address unmet needs and improve the quality of life for people living with this disease."

"This collaboration with Fast Forward enables us to accelerate development of C-21191 and will provide our team with valuable insight into the management of symptoms associated with multiple sclerosis," said Roger Tung, Ph.D., President and CEO of Concert Pharmaceuticals. "It further validates our novel deuterated chemical entity platform as a highly efficient approach to creating innovative compounds like C-21191 by leveraging previous industry R&D investment."

C-21191, a subtype-selective $GABA_A$ receptor modulator under development by Concert, is a deuterium-modified analog of L-838417. L-838417 was discovered by Merck & Co. and extensively profiled in preclinical testing by Merck and in numerous academic laboratories. L-838417 possesses an attractive pharmacological profile including minimal sedation and ataxia, but has a poor pharmacokinetic profile, which prevented its progression to clinical evaluation. C-21191 has demonstrated significantly improved pharmacokinetic characteristics in preclinical studies compared to L-838417, while maintaining its desired biochemical profile. In side-by-side studies, C-21191 demonstrated a three to four-fold increase in exposure compared to L-838417 in several preclinical species. This superior pharmacokinetic profile resulted in a prolongation of exposure and a corresponding extension of pharmacodynamic effects. C-21191 also demonstrated equivalent efficacy to gabapentin in a neuropathic pain model, with a superior duration of effect, at doses which did not cause sedation or ataxia as assessed by a rotarod model.

About Spasticity and Pain

Spasticity is a debilitating symptom associated with multiple neurological disorders including multiple sclerosis, stroke, spinal cord injury and cerebral palsy. Existing therapies for spasticity can have limited efficacy for some patients and may be associated with dose-limiting side effects. Because MS symptoms and the needs of MS patients can be so different from person to person, developing new and more effective treatment options to manage those symptoms is essential.

The prevalence of pain can be high in patients with multiple sclerosis stemming from both spasticity and from the disease itself. Studies indicate that pain is a symptom of MS in as many as 50-75% of people during the course of the disease. Treatment for pain alone accounts for 30% of the total use of medications for the management of all MS-related symptoms (Brichetto, 2003).

About Fast Forward, LLC

Fast Forward, LLC, established by the National Multiple Sclerosis Society as part of a comprehensive approach to MS research and treatment, focuses on speeding promising research discoveries towards commercial drug development. Fast Forward accelerates the development of treatments for MS by connecting university-based MS research with private-sector drug development and by funding small biotechnology/pharmaceutical companies to develop innovative new MS therapies and repurpose FDA-approved drugs as new treatments for MS. For more information, please visit www.fastforward.org.

About MS and the National Multiple Sclerosis Society

MS is a chronic, unpredictable neurological disease that affects the central nervous system. It is thought to be an autoimmune disorder, meaning the immune system incorrectly attacks healthy tissue. Symptoms may be mild, such as numbness in the limbs, or severe, such as paralysis or loss of vision. These problems may be permanent or may come and go. The National MS Society addresses the challenges of each person affected by MS by funding cutting-edge research, driving change through advocacy, facilitating professional education, collaborating with MS organizations around the world, and providing programs

and services designed to help people with MS and their families move their lives forward. The Society is dedicated to achieving a world free of MS. Join the movement at www.nationalMSsociety.org.

About Concert Pharmaceuticals

Concert Pharmaceuticals is a clinical stage biotechnology company focused on applying the company's DCE Platform™ (deuterated chemical entity platform) to create novel and differentiated small molecule drugs. Concert's approach leverages decades of pharmaceutical and clinical experience to reduce the time, risk and expense needed to create important new medicines. The company has a broad research pipeline encompassing many therapeutic areas including antiviral disease, renal disease, and CNS disorders, among others. Founded in 2006, Concert has raised more than $110 million of venture and institutional capital. For more information on Concert Pharmaceuticals, please visit www.concertpharma.com.

About Deuterium Modification

Concert Pharmaceuticals specializes in the use of precision deuterium chemistry to create new chemical entities (NCEs) with unique properties based on known, pharmacologically active compounds. By selectively replacing one or more hydrogen atoms with deuterium, a stable and non-radioactive isotope of hydrogen, the company has been able to effect significant changes to the absorption, distribution, metabolism, or excretion (ADME) profile of a number of compounds with the potential for improvements in safety, tolerability, and/or efficacy.