



Cloud Pharmaceuticals Announces the Design of Six New Drugs In-Silico as Part of Strategic Relationship

Novel inhibitors discovered using Inverse Design software running on Windows Azure

RESEARCH TRIANGLE PARK, N.C. (June 14, 2012)...Cloud Pharmaceuticals, Inc., announced today the identification of the first six biological targets for which the company is designing new drug candidates. This development follows the formation of a strategic relationship Cloud Pharmaceuticals has established with Microsoft Corp. Microsoft is providing support and cloud computing time on [Windows Azure](#) that Cloud Pharmaceuticals is applying to identify inhibitors of 25 top biological targets. The first six targets, which are now undergoing computer modeling, are HDAC8, JAK3, JAK2, PGP, HSP90, and the thioredoxin/glutathione reductase protein from the Schistosoma parasite.

“We are developing a JAK3 kinase inhibitor that is selective against JAK1 and JAK2 enzymes and is indicated for rheumatoid arthritis treatment. We are also developing inhibitors for proteins with oncology indications, all of which are screened by sophisticated software for potential toxicology problems” says Ed Addison, CEO of Cloud Pharmaceuticals.

One of Cloud Pharmaceuticals top inhibitors is for the thioredoxin/glutathione reductase protein associated with Schistosomiasis, also known as bilharzias. This is an orphan disease caused by parasitic worms that currently affects over 200 million people worldwide, mostly in developing countries. The newly described X-ray structure of the Schistosoma ssp. parasite will allow the design of much needed small molecule inhibitors to combat this disease.

Cloud Pharmaceuticals uses its Inverse Design software that runs computational models to quickly scan virtual chemical libraries to find the strongest inhibitors of a specific biological target. The process identifies novel drug candidates that feature good clinical trial properties and demonstrate low probability of toxic side effects. Designing new drugs that bind to a specified protein target requires finding the best molecule in a vast chemical space. Cloud Pharmaceuticals’ approach searches this space much more efficiently and cost-effectively than traditional methods.

Companies can license molecules designed by Cloud Pharmaceuticals, or they can contract for services using Inverse Design running on Windows Azure to design, discover, or optimize new small molecule or peptide drugs for their targets. Cloud Pharmaceuticals also provides drug discovery and preclinical development services for companies seeking outside assistance.

Cloud Pharmaceuticals will be presenting Inverse Design in the North Carolina Pavilion (booth 2935) at the [2012 BIO International Convention](#) taking place June 18 to 21, 2012, in Boston. CEO Ed Addison will be delivering a 30-minute presentation on Inverse Design in the pavilion on Wednesday, June 20 at 2:30pm.

About Cloud Pharmaceuticals, Inc.

Cloud Pharmaceuticals is a drug discovery company located in Research Triangle Park, North Carolina. The company's Inverse Design software enables a paradigm shift to dramatically accelerate traditional drug discovery, simultaneously resulting in completely novel molecules. This proprietary software combined with cloud computing enables the rapid and accurate discovery of novel drug candidates to serve as a catalyst for improved health and well-being. Visit www.CloudPharmaceuticals.com or contact Ed Addison at eaddison@CloudPharmaceuticals.com or (910) 398-1200.

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