



**Cloud Pharmaceuticals and the University of Florida Department of Medicine
Collaborate on the Rapid Design of Novel Cancer Inhibitors**

Breakthrough computer-based drug discovery process enabled drug design of MTH1 inhibitors

RESEARCH TRIANGLE PARK, NC (March 17, 2015)...Cloud Pharmaceuticals, a therapeutics company focused on cloud-based drug design and development, and the University of Florida Department of Medicine have announced an academic collaboration that will help rapidly design and develop novel drugs to inhibit the reproduction of cancer cells.

The collaboration, which will allow the two organizations to share intellectual property and jointly fund 10 research projects, has already resulted in the design of multiple novel inhibitors of the MTH1 protein, an enzyme required for cancer cell proliferation. These new compounds will target a broad range of cancers, including ovarian, breast, colon, and pancreatic cancers.

“We are thrilled about possibilities of this collaboration because each party is contributing unique skills and research capabilities,” says Dr. Robert Hromas, chair of the department of medicine in the UF College of Medicine, part of UF Health. “The excellent progress made on our first project is exciting and opens up many new possibilities.”

Cloud Pharmaceuticals used its computer-based drug design process, Quantum Molecular Design, to rapidly generate potential inhibitors with strong drug-like properties for the MTH1 protein. MTH1 has been identified as a target for anticancer strategies, because inhibition of MTH1 in cancerous cells eventually results in DNA damage and cell death. MTH1 is less essential for normal cells, so blocking it does not cause the same kinds of side effects seen in many cancer therapies. This makes it an excellent target for therapeutic inhibitors. Combining MTH1 inhibitors with other chemotherapeutic agents could result in far greater efficacy in cancer treatment than chemotherapy alone.

The UF Department of Medicine is further developing the MTH1 inhibitors, including synthesis, assays and preclinical research. Together, Cloud Pharmaceuticals and the UF Department of Medicine will seek an oncology drug developer for late-stage preclinical research and clinical trials upon its success.

“Designing new drugs that bind to a specified protein target requires finding the best molecule in a vast virtual chemical space. Our approach searches this space much more efficiently and cost-effectively than traditional methods,” says Ed Addison, CEO of Cloud Pharmaceuticals. “The process results in the ability to identify novel drug candidates that exhibit low probability of toxic side effects, high freedom to operate, and high probability of success.”

About the University of Florida Department of Medicine

The UF Department of Medicine has a long-standing tradition of excellence in compassionate patient care, innovative research and distinguished education, founded on the twin principles of caring and investigation. The department has more than 300 faculty and 190 physicians in training, with over \$40 million per year in external research support. For information visit medicine.ufl.edu.

About Cloud Pharmaceuticals, Inc.

Cloud Pharmaceuticals is a leader in the computational design of new drugs and subsequent rapid, information-driven drug development. The company accelerates the drug discovery and design process in a way that delivers tangible results and true value for its partners. For information visit cloudpharmaceuticals.com.

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