Major Advances in Synthetic Chemistry Reported in Science by Founding Scientist of REVOLUTION Medicines

March 12, 2015

Broadly Applicable and Automated Technology Powers Company's Product Engine for Redesigning Evolution's Products as New Medicines

REDWOOD CITY, Calif.--(BUSINESS WIRE)--REVOLUTION Medicines, Inc., a company focused on the discovery and development of innovative drugs derived from natural compounds, today announced the publication of new research by the company's scientific founder and scientific advisory board chairman, Martin D. Burke, M.D., Ph.D., professor of chemistry, University of Illinois at Urbana-Champaign, and Early Career Scientist of the Howard Hughes Medical Institute. The paper in the journal *Science*, titled "Synthesis of many different types of small molecules using one automated process," demonstrates the automation and robust application of a unified "building blocks" approach for synthesizing multiple classes of complex natural chemicals that could be valuable backbones for new medicines.

REVOLUTION Medicines, which announced its launch in February 2015, is building its industrial-scale REVBLOCKS™ drug discovery platform based on these methods under an exclusive license from the University of Illinois encompassing an extensive patent estate. Results announced today and featured on the cover of *Science* build on data previously reported by Dr. Burke and his research team regarding the successful manual application of this synthesis process to polyene compounds. The new results demonstrate that the approach can be automated and used to produce a broad range of molecules, including those containing diverse types of chemical bonds, as well as highly complex cyclic and polycyclic structures.

The REVBLOCKS™ platform enables REVOLUTION Medicines to produce a pipeline of drug candidates with best-in-class properties based on the complex structures found in natural products. The company's first drug candidates, also exclusively licensed from the University of Illinois, leverage and improve upon the biological activity of amphotericin B, a powerful, broad-spectrum antifungal compound found in nature that is used to treat patients with life-threatening fungal infections. The building block synthesis technology was essential to the genesis of these drug candidates in Dr. Burke's laboratory. In addition to the REVBLOCKS system for enabling advanced medicinal chemistry on complex compounds, the company is developing its REVEAL™ informatics platform to draw structural and functional lessons from evolution to enrich for preferred natural scaffolds as chemical leads against disease targets.

"REVOLUTION Medicines' mission is to bring to patients the full therapeutic power of natural products that have been selected by evolution for their exceptional biological activities," said Mark A. Goldsmith, M.D., Ph.D., president and chief executive officer of REVOLUTION Medicines. "The powerful technology described authoritatively today by Dr. Burke provides our drug discovery team with unprecedented chemical access to a broad range of these complex small molecules. Our growing team is committed to leveraging our integrated product engine fully to transform evolution's rich starting points into a pipeline of compelling medicines for patients."

The *Science* paper titled "Synthesis of many different types of small molecules using one automated process" will be published in the March 13 issue and can be viewed online at http://www.sciencemag.org/magazine.

About REVOLUTION Medicines

The mission of REVOLUTION Medicines is redesigning evolution's products to treat serious diseases. The company discovers and develops new drugs by reconfiguring natural substances that are inherently rich with biological function as a result of natural selection. REVOLUTION Medicines' innovative product engine is based on the REVEAL™ platform, which uses evolution's lessons to inform selection of chemical scaffolds, and the REVBLOCKS™ technology, a rapid, standardized and transformative synthesis process for assembling simple chemical "building blocks" into refined natural product-like structures with optimized pharmacologic and pharmaceutical properties. The company's first drug candidates are innovative small molecules that exploit and improve upon the properties of amphotericin B, a powerful, broad-spectrum antifungal compound found in nature that has avoided generating significant drug resistance in 50 years of clinical use. Headquartered in Redwood City, Calif. at the intersection of Silicon Valley and the birthplace of biotechnology, REVOLUTION Medicines is a private company financed by top-tier investor Third Rock Ventures. For more information, please visit www.revolutionmedicines.com.

Contacts

Pure Communications, Inc.
Katie Engleman, 910-509-3977
Katie@purecommunicationsinc.com