Launch of Revolution Medicines MARKS NEW PHARMA MODEL

Trending now: Natural products for serious infections and non-infectious diseases is focus of new healthcare company.

REVOLUTION MEDICINES INC., with an infusion of $45 million in Series A financing, is looking to discover and develop new therapies derived from natural products. The company's approach is to reconfigure complex chemicals of life into best-in-class medicines. Veteran industry leader Mark Goldsmith, M.D., Ph.D., is the founding president and CEO. Dr. Goldsmith brings more than 25 years of experience as an academic scientist and senior executive in the biotechnology industry.


Mark Goldsmith

The company is built upon the vision of its founder and scientific advisory board chairman, Martin Burke, M.D., Ph.D., professor of chemistry, University of Illinois at Urbana-Champaign, and Early Career Scientist of the Howard Hughes Medical Institute. Dr. Burke invented a transformative method for synthesizing original compounds that are pharmaceutically optimized analogues of complex natural products. The company has entered into an exclusive license agreement with the University of Illinois to practice and expand this technology and is pursuing a rapid clinical development path with its lead antifungal program that originated in Dr. Burke's laboratory.

"With this major advance in chemical synthesis, we now have the opportunity to unlock the full medical benefits of natural products that have been selected through a billion years of evolutionary pressure," Dr. Goldsmith says. "Our strategy should produce high-impact treatments for serious infections and non-infectious diseases, among them our lead product candidates for patients with life-threatening fungal infections."

Revolution Medicines' first drug candidates 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.

OptiKira, a New Biotech, Launched

BioMotiv, a drug development accelerator associated with The Harrington Project, the University of California San Francisco (UCSF), and University of Washington, Seattle, have formed OptiKira, a platform company that will develop small molecule therapeutics that prevent cell death in pathologies caused by misfolded or unfolded proteins.

The project was initiated at UCSF and the University of Washington by scientific founders Scott Oakes, M.D., associate professor of pathology at UCSF, Feroz Papa, M.D., Ph.D., associate professor of medicine at UCSF, Bradley Backes, Ph.D., associate professor of medicine at UCSF, and Dustin Maly, Ph.D., associate professor in chemistry at University of Washington.

Extensive research by the founders has helped define the biological pathway leading to progressive cell death, which characterizes diseases such as retinitis pigmentosa, diabetes, and amyotrophic lateral sclerosis (ALS).

They have found that the unfolded protein response (UPR), a mechanism by which the cell deals with functionally abnormal proteins, has an important housekeeping role in cell metabolism. However when overloaded, the "terminal UPR" results in the accumulation of excessive unfolded proteins and cellular death.

The team has synthesized inhibitors of IRE1a to prevent the activation of the terminal UPR, while not disrupting the housekeeping role of the enzyme.

They have demonstrated that inhibitors of IRE1a, which they have named kinase-inhibiting RNase attenuators (KIRAs), protect cells from degeneration in preclinical models of retinitis pigmentosa and diabetes.

"Our collaborative efforts on targeting premature cell death have produced this unique opportunity to address an unmet clinical need," Dr. Papa says. PV

Going Global...

ICON, a global provider of outsourced development services to the pharmaceutical, biotechnology, and medical device industries, has acquired MediMedia Pharma Solutions. The acquisition strengthens Icon's expertise in scientific communications and market access.

MERCK has agreed to the repatriation of all responsibility for its diabetes and thyroid brands in Russia back to the company. The move transfers all activities for these brands from Merck's marketing partner Takeda Pharmaceutical Company Limited back to Merck in Russia.

PHARMACEUTICAL PRODUCT DEVELOPMENT (PPD) and Shin Nippon Biomedical Laboratories have entered into a joint-venture — PPD-SNBL — that provides clinical development services in Japan, including Phase I-IV clinical trial monitoring, project management, site intelligence and activation, biostatistics, data management, medical writing, pharmacovigilance, regulatory, and FSP services.

Under the terms of the agreement, PPD-SNBL is majority owned by PPD. Ryoichi Nagata M.D., Ph.D., chairman and president of SNBL, serves as the president of the joint venture.