



## Miransertib (ARQ 092) Granted Fast Track Designation for the Treatment of PIK3CA-Related Overgrowth Spectrum (PROS)

September 13, 2018

BURLINGTON, Mass.--(BUSINESS WIRE)--Sep. 13, 2018-- ArQule, Inc. (Nasdaq: ARQL) today announced that the U.S. Food and Drug Administration (FDA) has granted Fast Track Designation to miransertib (ARQ 092) for the treatment of PIK3CA-Related Overgrowth Spectrum (PROS), a group of related, ultra-rare genetic disorders characterized by excessive tissue growth in various parts of the body. The FDA's Fast Track program aims to expedite the development and review of drugs which treat serious or life-threatening conditions and have demonstrated the potential to address unmet clinical needs.

Miransertib has already been granted Rare Pediatric Disease Designation by the FDA and Orphan Designation by the FDA and European Medicines Agency in the rare overgrowth disease, Proteus syndrome. During the past three years, miransertib has been tested in a Phase 1 NIH/NHGRI-sponsored trial in Proteus Syndrome. More recently, we have been conducting a Phase 1/2 company-sponsored trial in PROS and a single patient use program with select physicians.

"We are very excited by this important regulatory milestone for miransertib and look forward to rapidly advancing this program for patients suffering from this devastating condition with no approved therapies," said ArQule's Chief Medical Officer, Dr. Brian Schwartz, M.D. "Fast Track Designation and its associated FDA interactions come at an ideal time for miransertib as we move forward in this genetically targeted population and define the optimal path to registration."

Dr. Andrea Bartuli, Director of the Genetic and Rare Disease Unit of Bambino Gesù Pediatric Hospital and the principal investigator of the PROS trial added, "PROS is a group of genetic diseases affecting mostly children that severely impacts the quality of life of patients and their families. I am committed to helping advance miransertib as the potential first effective therapeutic for patients with PROS, addressing the significant unmet need in this patient population."

### About Miransertib

Miransertib (ARQ 092) is an orally available, selective, pan-AKT (protein kinase B) inhibitor that potently inhibits AKT1, 2 and 3 isoforms. Dysregulation of AKT has been implicated in a variety of rare overgrowth diseases and cancers; however, there are currently no approved inhibitors of AKT. AKT inhibitors, either as single agent or combination therapy, show significant promise in molecularly defined patient populations. Miransertib is currently in a Phase 1/2 company-sponsored study for PIK3CA-Related Overgrowth Spectrum (PROS), a Phase 1 study for ultra-rare Proteus syndrome conducted by the National Institutes of Health (NIH/NHGRI), and a Phase 1b study in combination with the hormonal therapy, anastrozole, in patients with advanced endometrial cancer with AKT and PI3K mutations.

### About PROS

PROS is a term used to refer to a spectrum of rare diseases identified by somatic mutations in the PIK3CA gene, that result in excess growth in certain areas of the body. While the individual diseases that fall within the overgrowth spectrum have similar symptoms, each disease is defined by unique clinical characteristics. The implementation of genetic sequencing has led to the identification of the underlying genetic mutations that drive these overgrowth disorders, allowing for the development of medicines that target the specific causes of disease.

### About Proteus Syndrome

Proteus syndrome is an ultra-rare condition characterized by the aberrant overgrowth of multiple tissues of the body. Patients with Proteus syndrome experience changes in the shapes of certain body structures over time, including abnormal, often asymmetric, massive growth (overgrowth) of the skeleton, skin, adipose tissue and central nervous system out of proportion to the rest of the body. Although patients may have minimal or no manifestations at birth, the disease develops and becomes apparent in early childhood (6-18 months) and rapidly progresses with intense growth in the first 10 years of life. The worldwide incidence is believed to be approximately one in a million. There are currently no approved medicinal treatments for Proteus syndrome, leaving patients with minimal treatment options to manage the disease and a mortality of 25% by age 22.

### About ArQule

ArQule is a biopharmaceutical company engaged in the research and development of targeted therapeutics to treat cancers and rare diseases. ArQule's mission is to discover, develop and commercialize novel small molecule drugs in areas of high unmet need that will dramatically extend and improve the lives of our patients. Our clinical-stage pipeline consists of five drug candidates, all of which are in targeted, biomarker-defined patient populations, making ArQule a leader among companies our size in precision medicine. ArQule's pipeline includes: ARQ 531, an orally bioavailable, potent and reversible inhibitor of both wild type and C481S-mutant BTK, in Phase 1 for patients with B-cell malignancies refractory to other therapeutic options; Miransertib (ARQ 092), a selective inhibitor of the AKT serine/threonine kinase, in a Phase 1/2 company-sponsored study for Overgrowth Diseases, in a Phase 1 study for ultra-rare Proteus syndrome conducted by the National Institutes of Health (NIH), and in Phase 1b in combination with the hormonal therapy, anastrozole, in patients with advanced endometrial cancer; ARQ 751, a next generation AKT inhibitor, in Phase 1 for patients with AKT1 and PI3K mutations; Derazantinib, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor (FGFR) family, in a registrational trial for iCCA; and ARQ 761, a  $\beta$ -lapachone analog being evaluated as a promoter of NQO1-mediated programmed cancer cell necrosis, in Phase 1/2 in multiple oncology indications in partnership with the University of Texas Southwestern Medical Center. ArQule's current discovery efforts are focused on the identification and development of novel kinase inhibitors, leveraging the Company's proprietary library of compounds.

### Forward Looking Statements

*This press release contains forward-looking statements regarding the planned clinical development of miransertib, including a statement regarding its*

*rapid advancement in PROS. These statements are based on the Company's current beliefs and expectations and are subject to risks and uncertainties that could cause actual results to differ materially. Positive information about early clinical results does not ensure that later-stage clinical trials will be successful. For example, miransertib may not demonstrate promising therapeutic effect in man; in addition, it may not exhibit an adequate safety profile in planned or later stage or larger scale clinical trials as a result of known or as yet unanticipated side effects. The results achieved in later stage trials may not be sufficient to meet applicable regulatory standards or to justify further development. Problems or delays may arise during clinical trials or in the course of developing, testing or manufacturing miransertib that could lead the Company to discontinue development. Even if later stage clinical trials are successful, unexpected concerns may arise from subsequent analysis of data or from additional data. Obstacles may arise or issues may be identified in connection with review of clinical data with regulatory authorities. Regulatory authorities may disagree with the Company's view of the data or require additional data or information or additional studies. In addition, we are utilizing diagnostic tests to identify patients in the Phase 1/2 trial with miransertib in PROS diseases and expect to utilize diagnostic tests in other clinical trials with miransertib. We or our collaborators may need to develop and register these or other diagnostic tests as companion diagnostics with the FDA. We or our collaborators may encounter difficulties in developing and obtaining regulatory approval for companion diagnostics, including issues relating to access to certain technologies, selectivity/specificity, analytical validation, reproducibility, or clinical validation. Any delay or failure by our collaborators or us to develop or obtain regulatory approval of companion diagnostics could delay or prevent approval of our product candidates. Drug development involves a high degree of risk. Only a small number of research and development programs result in the commercialization of a product. For more detailed information on the risks and uncertainties associated with the Company's drug development and other activities, see the Company's periodic reports filed with the Securities and Exchange Commission. The Company does not undertake any obligation to publicly update any forward-looking statements.*

View source version on businesswire.com: <https://www.businesswire.com/news/home/20180913005253/en/>

Source: ArQule, Inc.

**Corporate Contact:**

ArQule, Inc.

Marc Schegerin, M.D.

Senior Vice President, Head of Strategy, Finance and Communication

[ir@arqule.com](mailto:ir@arqule.com)

[www.ArQule.com](http://www.ArQule.com)

or

**Media Contact:**

LifeSci Public Relations

Allison Blum, Ph.D., 646-627-8383

[Allison@lifescipublicrelations.com](mailto:Allison@lifescipublicrelations.com)