May 17, 2017

ArQule to Present Clinical Data at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting

Data will be presented from the Phase 1/2 trial of ARQ 087 in intrahepatic cholangiocarcinoma

BURLINGTON, Mass.--(BUSINESS WIRE)-- ArQule, Inc. (Nasdaq: ARQL) today announced that data from the phase 1/2 trial in intrahepatic cholangiocarcinoma (iCCA) with fibroblast growth factor receptor (FGFR) inhibitor, ARQ 087, will be presented on June 3, 2017 at the 2017 ASCO Annual Meeting in Chicago, Illinois. The presentation will include an analysis of iCCA patients with FGFR2 fusions. ARQ 087 is a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor (FGFR) family.

A registrational phase 3 trial with ARQ 087 in second-line iCCA FGFR2 fusion positive patients is planned to begin in the third quarter of 2017. The company has been granted orphan drug designation by the U.S. Food and Drug Administration and European Medicines Agency for ARQ 087 in this indication.

The company will also present at ASCO final data from the completed Tivantinib METIV-HCC phase 3 trial for hepatocellular carcinoma.

Data will also be presented for the company sponsored ARQ 092 phase 1b trial in combination with carboplatin plus paclitaxel for oncology, and for the University of Texas Southwest sponsored ARQ 761 phase 1 trial cancer for cell necrosis.

Presentation Details

Saturday, June 3, 2017: Gastrointestinal (Noncolorectal) Cancer

ARQ 087
Abstract 4017/Poster Board: #9
ARQ 087, an oral pan-Fibroblast Growth Factor Receptor (FGFR) inhibitor, in patients (pts) with advanced intrahepatic cholangiocarcinoma (iCCA) with FGFR2 genetic aberrations.
Poster Session
Location: Hall A, 8:00 AM - 11:30 AM CT
Poster Discussion Session
Location: Hall D2, 4:45 PM - 6:00 PM CT

Sunday, June 4, 2017: Gastrointestinal (Noncolorectal) Cancer

Tivantinib (ARQ 197)
Abstract 4000
Second-line tivantinib (ARQ 197) vs placebo in patients (Pts) with MET-high hepatocellular carcinoma (HCC): Results of the METIV-HCC phase III trial.
Oral Abstract Session
Location: Hall D2, 8:00 AM - 8:12 AM CT

Monday, June 5, 2017: Developmental Therapeutics - Clinical Pharmacology and Experimental Therapeutics

ARQ 092
Abstract 2524/Poster Board #16
Results of a phase Ib study of ARQ 092 in combination with carboplatin (C) plus paclitaxel (P), or with P in patients (pts) with solid tumors.
Poster Session
Location: Hall A, 8:00 AM - 11:30 AM CT

ARQ 761
Abstract 2517/ Poster Board #9
Phase 1 study of ARQ 761, a β-lapachone analog that promotes NQO1-mediated programmed cancer cell necrosis.

Poster Session
Location: Hall A, 8:00 AM - 11:30 AM CT
Poster Discussion Session
Location: Arie Crown Theater, 11:30 AM - 12:45 PM CT

About Intrahepatic Cholangiocarcinoma

Cholangiocarcinoma (CCA) is the most common biliary malignancy and the second most common hepatic malignancy after hepatocellular carcinoma (HCC)[1]. Depending on the anatomic location, CCA is classified as intrahepatic (iCCA), perihilar (pCCA), and extrahepatic (eCCA). iCCA originates from the intrahepatic biliary ductal system and forms an intrahepatic mass. The average age adjusted incidence rate for iCCA is approximately one in 100,000 per year in the United States and Europe[2,3].

About FGFR and ARQ 087

ARQ 087 is a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor ("FGFR") family with demonstrated efficacy in FGFR2 genetic alterations. The FGFR pathway is disrupted in several ways in human cancer, thus providing numerous therapeutic targets for an inhibitor of this pathway. ARQ 087 has demonstrated *in vivo* inhibition of tumor growth and downstream signaling in tumors whose growth is driven by FGFR targets.

Signals of single agent activity with this drug were observed in phase 1a testing. Phase 1b expansion cohorts with ARQ 087 include patients with cholangiocarcinoma and adrenocortical tumors, as well as those with FGFR translocations, amplifications and mutations. Clinical development of ARQ 087 advanced into phase 2 for intrahepatic cholangiocarcinoma (iCCA) in patients with FGFR2 fusions following the observation of two confirmed responses in this patient population in the phase 1 portion of the program, and a phase 3 registrational trial is planned to begin in the third quarter of 2017 in this same patient population.

About the AKT Pathway and ARQ 092

ARQ 092 is an orally bioavailable, selective small molecule inhibitor of the AKT kinases. The AKT pathway when abnormally activated is implicated in multiple oncogenic processes such as cell proliferation and apoptosis. This pathway has emerged as a target of potential therapeutic relevance for compounds that inhibit its activity, which has been linked to a variety of cancers as well as to select non-oncology indications.

Dysregulation of AKT is also a driver of certain rare proliferative disorders. For example, the E17K mutation of AKT1 causes Proteus syndrome, a rare non-cancerous segmental overgrowth disorder, and the analogous PIK3CA-Related Overgrowth Spectrum (PROS) is caused by genetic alterations in the PI3K pathway. ARQ 092 has been shown preclinically and clinically to inhibit AKT and PI3K cell signaling and therefore may provide the potential for much-needed treatment options for patients with these diseases.

ARQ 092, the lead compound in ArQule's AKT program, has completed phase 1a clinical testing and has advanced into phase 1b expansion testing in cohorts of patients with endometrial cancer, lymphomas and tumors harboring either AKT or PI3K mutations. A company sponsored phase 1/2 trial is being conducted in the U.S. and E.U. for Overgrowth Diseases, including PROS and Proteus syndrome. ARQ 092 is also in a phase 1 trial being conducted by the NIH for Proteus syndrome. Collaborators are exploring in preclinical testing other indications for ARQ 092, including sickle cell disease.

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 four 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 proprietary pipeline includes: ARQ 087, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor (FGFR) family, in phase 2 for iCCA and in phase 1b for multiple oncology indications; ARQ 092, a selective inhibitor of the AKT serine/threonine kinase, in phase 1/2 company sponsored study for Overgrowth Diseases, in phase 1 for ultra-rare Proteus syndrome conducted by the National Institutes of Health (NIH), as well as in multiple oncology indications; ARQ 751, a next generation AKT inhibitor, in phase 1 for patients with AKT1 and PI3K mutations; and ARQ 761, a β-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. In addition, we have advanced ARQ 531, an investigational, orally bioavailable, potent and reversible inhibitor of both wild type and C481S-mutant BTK, through toxicology testing and plan to initiate a phase 1 trial by the third quarter of 2017. ArQule's current discovery efforts are focused on the identification and development of novel

kinase inhibitors, leveraging the Company's proprietary library of compounds. You can follow us on Twitter and LinkedIn.

Forward Looking Statements

This press release contains forward-looking statements regarding the Company's clinical trials with ARQ 087 and ARQ 092. 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 pre-clinical and early stage clinical trial results does not ensure that later stage or larger scale clinical trials will be successful. For example, ARQ 087 and ARQ 092 may not demonstrate promising therapeutic effect; in addition, these drugs may not demonstrate appropriate safety profiles in current 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 these compounds 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 plan to develop and use a companion diagnostic to identify patients with FGFR2 and possibly other fusions for our future ARQ 087 clinical trials. We intend to outsource the development of such companion diagnostics to one or more third party collaborators. There can be no assurance that we will successfully enter into an agreement or agreements with any such collaborators; in addition, any such collaborator may encounter difficulties in developing and obtaining approval for such companion diagnostic, including issues relating to selectivity/specificity, analytical validation, reproducibility, concordance or clinical validation. Any delay or failure to develop or obtain regulatory approval of such companion diagnostic could delay or prevent approval of ARQ 087. Drug development involves a high degree of risk. Only a small number of research and development programs result in the commercialization of a product. Furthermore, ArQule may not have the financial or human resources to successfully pursue drug discovery in the future. 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.

[1] Welzel TM, et al. Impact of classification of hilar cholangiocarcinomas (Klatskin tumors) on the incidence of intra- and extrahepatic cholangiocarcinoma in the United States. *J Natl Cancer Inst.* **2006**; *98*(12),873-875.

[2] National Cancer Institute: Surveillance, Epidemiology, and End Results

[3] rarecarenet.eu

View source version on businesswire.com: http://www.businesswire.com/news/home/20170517005130/en/

ArQule, Inc.
Dawn Schottlandt, 781-994-0300
Sr. Director, Investor Relations/
Corp. Communications
www.ArQule.com

Source: ArQule, Inc.