# ArQule Presents Recent Data on ARQ 751 at the 2019 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics

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*Data from a phase 1 clinical trial suggest that circulating tumor DNA (ctDNA) may serve as a reliable biomarker of tumor mutational status and could be used to predict treatment response*

*Preclinical work demonstrates treatment with ARQ 751 in combination with a variety of therapeutic agents enhances anti-proliferative and anti-tumor activity*

BURLINGTON, Mass.--(BUSINESS WIRE)--Oct. 29, 2019-- ArQule, Inc. (Nasdaq: ARQL), today announced new clinical and preclinical data demonstrating the potential of the company's AKT inhibitor ARQ 751 in treating solid tumors characterized by mutations in the PI3K/AKT/mTOR pathway. The findings were detailed in two poster presentations at the 2019 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics.

"Traditional tumor biopsies used to identify tumor mutational status can be burdensome for patients; therefore, using biomarkers such as ctDNA from standard blood sampling would be an improved method of identifying mutations and predicting disease response," said Dr. Brian Schwartz, Chief Medical Officer of ArQule.

A poster entitled "*The use of biomarkers and ctDNA in a phase 1 trial of ARQ 751*" detailed the molecular profiling of a subgroup of patients in the phase 1 clinical trial of ARQ 751 in solid tumor indications characterized by AKT, PIK3CA or PTEN mutations. Key findings suggest that ctDNA could be a valuable measure of patient response to ARQ 751. Specific highlights include:

- There is a high concordance (76%) between the pre-study mutation and the mutation as measured using ctDNA profiling
- Though patient data are limited, analysis of the correlation between ctDNA mutational status and patient response suggest that PIK3CA H1047R has prognostic value
- ARQ 751 exposure correlates with glucose and insulin levels and indicates on-target engagement

A poster entitled "*In vitro and in vivo combination of ARQ 751 with PARP inhibitors, CDK4/6 inhibitors, Fulvestrant and Paclitaxel"* details preclinical findings from studies of ARQ 751 treatment in combination with a variety of therapeutic agents, in experimental breast cancer models. Overall, data show that the addition of any of the evaluated agents enhances the activity of ARQ 751 *in vivo* and *in vitro* and support the therapeutic potential of ARQ 751. Specific highlights include:

- The combination of ARQ 751 with an ER antagonist (fulvestrant) or a CDK4/6 inhibitor (palbociclib) or with both agents showed enhanced anti-tumor activity in comparison to the single agents and enhanced pathway inhibition *in vivo*. A combination of ARQ 751 with both agents showed tumor regression *in vivo*
- The combination of ARQ 751 with chemotherapy (paclitaxel) showed enhanced anti-tumor activity in comparison to single agents *in vivo*
- The combination of ARQ 751 with PARP inhibitors (olaparib, talazoparib, rucaparib) showed enhanced anti-proliferative activity *in vitro*

A phase 1b clinical study of ARQ 751 in a molecularly defined patient population as single agent or in combination with fulvestrant or paclitaxel is ongoing (NCT02761694).

**About ARQ 751**
ARQ 751 is orally bioavailable, selective small molecule inhibitor of the AKT serine/threonine kinase. 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.

**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 pipeline includes: ARQ 531, an orally bioavailable, potent and reversible dual inhibitor of both wild type and C481S-mutant BTK, in phase 1/2 for patients with B-cell malignancies refractory to other therapeutic options; miransertib (ARQ 092), a potent and selective inhibitor of the AKT serine/threonine kinase, in a registrational trial with cohorts in Proteus syndrome and PROS; ARQ 751, a next generation highly potent and selective AKT inhibitor, in phase 1 for patients with solid tumors with AKT1 and PI3K mutations; and derazantinib, a multi-kinase inhibitor designed to preferentially inhibit the fibroblast growth factor receptor (FGFR) family, in a registrational trial for iCCA in collaboration with Basilea and Sinovant. 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, including without limitation those regarding the preclinical and clinical studies of ARQ 751. 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 from those set forth in this press release. Positive information about preclinical or early stage clinical trial results does not ensure that later stage or larger scale clinical trials will be successful. For example, ARQ 751 may not demonstrate adequate therapeutic effect; in addition, it may not demonstrate an appropriate safety profile 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 current or later stage trials may not be sufficient to meet applicable regulatory standards or to justify further development. Problems or delays may arise prior to the initiation of planned clinical trials, during clinical trials or in the course of developing, testing or manufacturing 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 data or require additional data or information or additional studies. In addition, the planned timing of completion of clinical trials is subject to the ability of the Company to enroll patients, enter into agreements with clinical trial sites and investigators, and overcome technical hurdles and other issues related to the conduct of the trials for which each of them is responsible. There is a risk that these issues may not be successfully resolved. Only a small number of research and development programs result in the commercialization of a product. Furthermore, the Company 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, financial condition 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.*

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