ARCA BIOPHARMA ANNOUNCES GENCARO ATRIAL FIBRILLATION CLINICAL DATA SELECTED FOR PRESENTATION AT HFSA 2019 SCIENTIFIC MEETING

Westminster, CO, September 11, 2019 – ARCA biopharma, Inc. (Nasdaq: ABIO), a biopharmaceutical company applying a precision medicine approach to developing genetically-targeted therapies for cardiovascular diseases, today announced that Gencaro atrial fibrillation clinical data from the GENETIC-AF Phase 2B trial have been selected for presentation at the Heart Failure Society of America (HFSA) 2019 Annual Scientific Meeting being held September 13-16 in Philadelphia. William T. Abraham, MD, FACP, FACC, College of Medicine Distinguished Professor, Division of Cardiovascular Medicine at The Ohio State University Wexner Medical Center, will present the data.

"Bucindolol response appears to be greater in heart failure patients with less severe left ventricular dysfunction, a patient population with few therapeutic options for AF prevention or heart failure", commented Dr. Abraham, "These data provide additional support for pharmacogenetic guided therapy with bucindolol for the prevention of atrial fibrillation in patients with heart failure We look forward to confirming these important findings in the upcoming Phase 3 PRECISION-AF trial."

Abstract Number and Title: 1641, "Pharmacogenetic Guided Beta-blocker Therapy with Bucindolol for the Prevention of Atrial Fibrillation/flutter in Heart Failure: Relationship of Left Ventricular Ejection Fraction to Treatment Effect"

Opening Reception and Poster Reception I: Friday, September 13, 2019; 6:00 – 7:30 p.m. ET
Poster Reception II: Saturday, September 14, 2019; 6:00 – 7:30p.m. ET

About ARCA biopharma
ARCA biopharma is dedicated to developing genetically-targeted therapies for cardiovascular diseases through a precision medicine approach to drug development. ARCA's lead product candidate, Gencaro™ (bucindolol hydrochloride), is an investigational, pharmacologically unique beta-blocker and mild vasodilator being developed for the potential treatment of atrial fibrillation in heart failure patients. ARCA has identified common genetic variations that it believes predict individual patient response to Gencaro, giving it the potential to be the first genetically-targeted AF prevention treatment. The Gencaro development program has been granted Fast Track designation by FDA. ARCA is also developing AB171, a thiol-substituted isosorbide mononitrate, as a potential genetically-targeted treatment for heart failure and peripheral arterial disease (PAD). For more information, please visit www.arcabio.com or follow the Company on LinkedIn.

Safe Harbor Statement

This press release contains "forward-looking statements" for purposes of the safe harbor provided

by the Private Securities Litigation Reform Act of 1995. These statements include, but are not limited to, statements regarding the ability of ARCA's financial resources to support its operations through the end of the first quarter of 2020, potential future development plans for Gencaro, the expected features and characteristics of Gencaro or AB171, including the potential for genetic variations to predict individual patient response to Gencaro, Gencaro's potential to treat AF, AB171's potential to treat HF or PAD, future treatment options for patients with AF, and the potential for Gencaro to be the first genetically-targeted AF prevention treatment. Such statements are based on management's current expectations and involve risks and uncertainties. Actual results and performance could differ materially from those projected in the forward-looking statements as a result of many factors, including, without limitation, the risks and uncertainties associated with: ARCA's financial resources and whether they will be sufficient to meet its business objectives and operational requirements; ARCA may not be able to raise sufficient capital on acceptable terms, or at all, to continue development of Gencaro or to otherwise continue operations in the future; results of earlier clinical trials may not be confirmed in future trials; the protection and market exclusivity provided by ARCA's intellectual property; risks related to the drug discovery and the regulatory approval process; and, the impact of competitive products and technological changes. These and other factors are identified and described in more detail in ARCA's filings with the Securities and Exchange Commission, including without limitation ARCA's annual report on Form 10-K for the year ended December 31, 2018, and subsequent filings. ARCA disclaims any intent or obligation to update these forward-looking statements.

Investor & Media Contact:
Derek Cole
720.940.2163
derek.cole@arcabio.com

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