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Arch Therapeutics Reports Positive Preclinical Data from Study of AC5 Surgical Hemostatic Device(TM) in Animals Treated with Brilinta(R) (ticagrelor)

AC5(TM) Quickly Stopped Bleeding in Animals Prescribed Platelet Aggregation Inhibitor

WELLESLEY, MA -- (Marketwired) -- 11/18/14 -- Arch Therapeutics, Inc. (OTCQB: ARTH) ("Arch" or the "Company"), developer of the AC5 Surgical Hemostat Device™, announced that an independent third party has obtained positive data from a preclinical study assessing the use of AC5™ in animals that had been treated with orally administered therapeutic doses of the blood thinner ticagrelor, which is currently marketed under the brand name Brilinta®. The results of the study are consistent with separate data obtained from two recently completed preclinical studies in which AC5 quickly stopped bleeding from surgical wounds created in rats following treatment with clinically relevant doses of the anticoagulant medication heparin; and another preclinical study which reported similar results with respect to the antiplatelet medications Plavix® (clopidogrel) and aspirin when used individually and in combination. Anticoagulant and antiplatelet medications are commonly referred to as "blood thinners."

The study group intends to submit the data for publication. The research was led by Rudolf Urbanics, MD, PhD, and Domokos Csukas, DVM at Semmelweis University Faculty of Medicine in Budapest, Hungary within the Department of Surgical Research and Techniques. The research was sponsored by Arch. Also part of the research team was Dr. Rutledge Ellis-Behnke, Director of the Nanomedicine Translational Think Tank in the Department of Ophthalmology at the Medical Faculty Mannheim of the University of Heidelberg in Germany. Dr. Ellis-Behnke is also affiliated with three U.S. academic institutions, and he is an advisor to and co-founder of Arch.

In the present study, performance of AC5 was assessed as the time to hemostasis (TTH), or time to cessation of bleeding, from surgical wounds created in the livers of rats. The average TTH of a group of rats that had been pre-treated with clinically relevant doses of ticagrelor was compared to the TTH of rats that were not pre-treated. The anticoagulation effect of doses of ticagrelor was confirmed by measurements of platelet function. Importantly, after AC5 was applied to the bleeding liver wound, the TTH among the groups was comparable, regardless of whether they were pre-treated with the antiplatelet drug.

In comparison, animals not pre-treated with ticagrelor and in which a saline control was used to stop bleeding took more than nine times as long to achieve hemostasis. Furthermore, animals that were administered ticagrelor and in which a saline control was used in lieu of AC5 to stop bleeding took more than 20 times as long to achieve hemostasis versus those treated with AC5, highlighting that antiplatelet medications do increase the baseline time to hemostasis.

Russell J. Andrews, MD, a neurosurgeon in Silicon Valley and San Jose, CA, and an unpaid advisor to the NASA Ames Nanotechnology and Smart Systems groups since 1998, said, "There is a tremendous need for improved products to stop bleeding and seal leaks, regardless of whether a patient is taking blood thinners. In particular, some of the newer antiplatelet medications, while being potentially more efficacious, also may increase the risk of bleeding even further. Products that prove to be safe and efficacious in animals and humans on these antiplatelet medications and other anticoagulants should be in great demand in the clinical marketplace. As a neurosurgeon, I would find such a universal topical hemostatic agent extremely useful in both elective and emergency neurosurgical procedures, from vascular disorders such as cerebral aneurysms and intracerebral hemorrhages to brain tumors to complex spine procedures, as well as nervous system trauma. My colleagues in general surgery, orthopedic surgery and trauma surgery should also find such a product indispensable."

Terrence W. Norchi, MD, President and CEO of Arch Therapeutics, said, "This study provides further evidence that AC5 can stop bleeding in living animals treated with commonly used and prescribed blood thinners, including the relatively newer antiplatelet medication Brilinta[®], which is widely prescribed for prevention of thrombotic events in patients with acute coronary syndrome or myocardial infarction. This additional research represents an exciting feature of AC5 that should differentiate it from many existing hemostatic solutions currently on the market. If AC5 is approved for commercialization, it could offer a potential solution to many of the patients on this medication who might be at risk for excessive bleeding during surgery."

About Arch Therapeutics, Inc.

Arch Therapeutics, Inc. is a medical device company developing a novel approach to stop bleeding (hemostasis) and control leaking (sealant) during surgery and trauma care. Arch is developing products based on an innovative self-assembling peptide technology platform to make surgery and interventional care faster and safer for patients. Arch's flagship development stage product candidate, known as the AC5 Surgical Hemostatic Device [™], is being designed to achieve hemostasis in minimally invasive and open surgical procedures.

Notice Regarding Forward-Looking Statements

This news release contains "forward-looking statements" as that term is defined in Section 27(a) of the Securities Act of 1933, as amended, and Section 21(e) of the Securities Exchange Act of 1934, as amended. Statements in this press release that are not purely historical are forward-looking statements and include any statements regarding beliefs, plans, expectations or intentions regarding the future. Such forward-looking statements include, among other things, references to novel technologies and methods, our business and product development plans and projections, or market information. Actual results could

differ from those projected in any forward-looking statements due to numerous factors. Such factors include, among others, the inherent uncertainties associated with developing new products or technologies and operating as a development stage company, our ability to retain important members of our management team and attract other qualified personnel, our ability to raise the additional funding we will need to continue to pursue our business and product development plans, our ability to develop and commercialize products based on our technology platform, and market conditions. These forward-looking statements are made as of the date of this news release, and we assume no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements. Although we believe that any beliefs, plans, expectations and intentions contained in this press release are reasonable, there can be no assurance that any such beliefs, plans, expectations or intentions will prove to be accurate. Investors should consult all of the information set forth herein and should also refer to the risk factors disclosure outlined in the reports and other documents we file with the SEC, available at www.sec.gov.

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