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# **Nanomedicine: Nanotechnology, Biology, and Medicine Publishes Preclinical Data on Arch Therapeutics' AC5 Surgical Hemostatic Device(TM)**

## **Independent Peer-Reviewed Study Concludes That AC5(TM) Quickly Stops Bleeding in Animals Treated With the Anticoagulant, Heparin**

WELLESLEY, MA -- (Marketwired) -- 02/19/15 -- Positive data from an independent third-party research group study sponsored by Arch Therapeutics, Inc. (OTCQB: ARTH) ("Arch" or the "Company"), developer of the AC5 Surgical Hemostatic Device™, was published in the peer-reviewed journal *Nanomedicine: Nanotechnology, Biology, and Medicine*. The results in the manuscript, titled "AC5 Surgical Hemostat™ as an Effective Hemostatic Agent in an Anticoagulated Rat Liver Punch Biopsy Model," show that AC5™ is agnostic to the presence of the anticoagulant heparin in animals. The abstract can be accessed online here: [http://www.nanomedjournal.com/article/S1549-9634\(15\)00011-8/abstract](http://www.nanomedjournal.com/article/S1549-9634(15)00011-8/abstract).

The authors show that in surgically created wounds penetrating the full thickness of rat livers, which are highly vascularized parenchymal organs, administration of AC5 resulted in rapid cessation of bleeding within a similar time period whether or not the animals were previously treated with therapeutic amounts of heparin. Furthermore, in animals treated with heparin, the use of AC5 to control bleeding resulted in an average reduction in bleeding time of approximately 98% when compared to a control. It was also reported that a microscopic analysis of the AC5-treated wound site demonstrated that AC5 completely filled the wound without causing identifiable negative effects on the tissues or blood cells with which it came into direct contact. The authors note that the utility of AC5 in the presence of anticoagulants may lead to a safer option to perform surgical procedures without having to discontinue the anticoagulant, and AC5 may facilitate the speed of surgery while safely and rapidly stopping bleeding.

The authors of the study are Domokos Csukas, DVM; Rudolf Urbanics, MD, PhD; Annie Moritz, BSci and Rutledge Ellis-Behnke, PhD. Dr. Csukas is a veterinary doctor and Assistant Lecturer in the Department of Surgical Research and Techniques at the Faculty of Medicine of Semmelweis University, where he is also a PhD candidate. Dr. Urbanics is Head of the *in vivo* laboratory of SeroScience Ltd and of the Nanomedicine Research and Education Center at Semmelweis University. Dr. Ellis-Behnke is 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 an advisor to and co-founder of Arch Therapeutics.

Terrence W. Norchi, MD, President and CEO of Arch Therapeutics, said, "According to a 2013 report by the Centers for Disease Control and Prevention and the National Center for Health Statistics, approximately 18% of Americans over the age of 65 take anticoagulant medications, commonly called blood thinners, to prevent potentially life-threatening problems, such as strokes, heart attacks and pulmonary emboli. That represents over 7 million Americans. When these patients require surgery or even a minor procedure, the surgeon often must decide whether or not to continue the drug, deciding for the patient which risk is better to take: excess bleeding versus a stroke or other event that the medication was intended to prevent. We believe that if AC5 is made available for commercialization, it could provide an option to stop bleeding without necessarily having to stop the anticoagulant."

### ***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 AC5 Surgical Hemostatic Device™, is being designed to achieve hemostasis in minimally invasive and open surgical procedures.

Find out more at [www.archtherapeutics.com](http://www.archtherapeutics.com).

### ***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](http://www.sec.gov).

On Behalf of the Board,  
Terrence W. Norchi, MD

Arch Therapeutics, Inc.

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