

News Release

December 12, 2018

## **Endomedix, Inc. Announces Submission of Patent Application for Advanced Hemostat Technology**

### **First Biosurgery Product Targets Brain and Spinal Surgery Indications**

MONTCLAIR, NJ, December 12, 2018 - Endomedix, Inc., a developer of unique biosurgical products based on its natural biopolymer systems, today announced that it has submitted a comprehensive patent application to protect both its latest chemistry technology and also the design and function of the spray-on hydrogel hemostat that it is developing for brain and spine surgery indications. This patent application further expands and deepens the protection of its intellectual property provided by the eight issued patents that the Company has previously obtained.

The Endomedix technology uses two processed polysaccharide solutions that are simultaneously mixed and sprayed onto a bleeding surgical site, where a hydrogel hemostat forms in place. These polysaccharide starting materials have a long history of use in FDA regulated products. The hemostats are designed to be left in place and degrade enzymatically and are eliminated via the kidneys. Though the underlying technology allows inclusion of drugs in the product formulation, the hemostat does not include any drugs or chemicals. This novel technology can be designed to modify product performance and features to address different indications for use. For example, hemostats can be designed for use in both open and MIS procedures.

In addition to covering the chemical formulations, processing methods and purification techniques used to produce the hemostat, the patent – *Methods and Compositions for Achieving Hemostasis and Stable Blood Clot Formation* – protects the design and function of the hemostat device itself. The hemostat's action is due to the synergistic effect of 5 product features and mechanisms, four of which are protected by this patent, that collect, aggregate and concentrate platelets to produce fast hemostasis and stable clot formation. The device action is confirmed via *in vivo* studies using histology and scanning electron microscopy. Importantly, the hemostat does not swell in use, even when totally immersed in body fluids, due to a proprietary feature that is also protected by this patent.

Endomedix is targeting brain and spinal surgeries for its first product because the technology is particularly well suited for these indications, addressing serious unmet needs in these important surgeries due to its fast action and because it does not swell in use. The addressable market for Endomedix in this segment is large, 4 million cases annually in the countries of interest, for a potential of \$1 billion.

The Company expects that its hemostat will be the first specifically indicated by FDA for brain surgery, so it will be first in class. Absorbable hemostats are often used 4 – 7 times in craniotomy procedures. Hemostats currently used in most brain surgeries are slow acting, rated as being effective in 10 minutes for each use in a procedure. This slow action often unnecessarily prolongs these surgeries by 30 minutes or more. The length of a brain surgery is documented as an important predictor of major complications that require revision surgery or extended hospital stays. Also, hospital OR time often exceeds

\$100/minute in costs. *In vivo* trials indicate that the Endomedix technology is an effective hemostat in less than 30 seconds.

Also, the hemostats currently used in these surgeries swell in use as these absorb blood and body fluid, ranging from 20% to 45x their weight (~200%). Mandated warnings about this swelling phenomenon which can cause mass effects and compression of sensitive neural tissues leading to pain, paresis and paralysis are included in package inserts for these devices. An analysis of FDA databases indicates that about 30% of complaints about this class of products for these surgeries are related to mass effects. Uniquely, the Endomedix hemostat does not swell in use due to its proprietary technology; it gently contracts due to its patented action. This characteristic represents a major advance in safety for these surgeries.

#### **About Endomedix, Inc.**

Endomedix is a biological products company working with its patented platform technology to develop a series of hemostats for surgical, military and first responder uses. This platform technology will also be used to develop a set of tissue sealant, drug delivery and tissue engineering devices.

#### **Notice Regarding Forward Looking Statements**

This press release contains forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. We may, in some cases, use terms such as “predicts,” “believes,” “potential,” “proposed,” “continue,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “exploring,” “pursuing” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning our business, our research, etc. Forward-looking statements are not guarantees of future performance and our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this press release. Any forward-looking statements that we make in this press release speak only as of the date of this press release. We assume no obligation to update our forward-looking statements whether as a result of new information, future events or otherwise, after the date of this press release.

#### **Contact**

Endomedix, Inc. is a private firm located at 1 Normal Avenue, Center for Environmental and Life Sciences, Suite 404, Montclair, New Jersey 07043. Website: [www.Endomedix.com](http://www.Endomedix.com) For more information, contact Richard Russo, CEO; e-mail - [russo@endomedix.com](mailto:russo@endomedix.com) or call 848 248 1883.