

Xcede Technologies, Inc. Dynasil Corporation of America Annual Meeting of Stockholders

Dynasil

Peter Sulick, Chairman, President and CEO

February 26, 2015

# **Forward-Looking Statements**

The statements made in this presentation which are not statements of historical fact are forward looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements involve known and unknown risks, uncertainties and other factors. The words "potential," "develop," "promising," "believe," "will," "would," "expect," "anticipate," "intend," "estimate," "plan," "may," "likely," "could," and other expressions which are predictions of or indicate future events and trends and which do not constitute historical matters identify forward-looking statements, including without limitation management's discussion of the company's strategic plans. Future results of operations, projections, and expectations, which may relate to this release, involve certain risks and uncertainties that could cause actual results to differ materially from the forward-looking statements. Factors that would cause or contribute to such differences include, but are not limited to, our ability to develop and commercialize the Xcede patch, including obtaining regulatory approvals, the size and growth of the potential markets for our products and our ability to serve those markets, the rate and degree of market acceptance of any of our products, our ability to obtain and maintain intellectual property protection for our products, competition, the loss of key management and technical personnel, the availability of financing sources, as well as the factors detailed in the Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as well as in the Company's other Securities and Exchange Commission filings.



## **Xcede Technologies Introduction**

Xcede Technologies has developed a **game changing** hemostat sealant patch which differentiates itself due to its adhesive capability and ability to be used on high pressure arterial bleeding.





# Xcede Technologies' Value Proposition

•Superior technology

•Large and growing market-\$5.5 Billion

- •Extremely low manufacturing costs
- •Alone in its ability to be used on very high pressure bleeding
- •Predictable and known development pathway
- •Partnership with Mayo Clinic

Industry with acquisition momentum



# **Our Solution: The Xcede Patch**

Significant research and development has resulted in multiple formations of the patch (version 1.0 and version 2.0) resulting in its present configuration of a preformed 4"x4" two layer patch consisting of a fibrin mesh with proprietary adhesive backing.

# Version 2.0

- Hemostat + sealant in one
- High burst strength
- Fast-acting (hold times as short as 15 seconds)
- Resorbable





## Current Xcede Technologies' Team

### Management

### Dave Talen - CEO

- 20 years of marketing, sales and general management experience in the Medical Device Industry.
- Management positions at Scimed Life Systems, Integ, Urologix, Spinetech and Timm Medical

### Dr. Daniel Ericson, Ph.D. - CTO

- Inventor, entrepreneur, developed and transferred 7 medical technologies to AveCor, BSC, and Medtronic
- 40+ patents

### Kyle Brandy – Senior Scientist

- Biochemistry and engineering background
- 8 years in early stage technology development

### Shareholders

#### **Dynasil Biomedical**

#### Mayo Foundation for Education and Research

Board of Directors Vic Schmitt Peter Sulick Sarah Combs Thomas Leonard Dr. Michael Joyner

### **Advisory Board**

### Dr. Sam Asirvatham

Invasive Cardiology, Mayo Clinic

### Dr. Steve Cassivi

Thoracic Surgery, Mayo Clinic

### Dr. Gianrico Farrugia

- Gastroenterology, Mayo Clinic
- CEO of Mayo Clinic Jacksonville campus



# Strategy

- Launch the Xcede patch first in Europe and then in the US with initial indication for General Surgery in mild to moderate bleeding.
  - First in human clinical trial and pilot data
  - FDA pivotal trials
  - Partner with large, established company for distribution outside the US
  - In house direct sales team for sales inside the US
- Development of products for secondary indications and completion of associated clinical trials.
  - Look to expand indicated use through post market studies



# Hemostat/Sealant Markets are Large and Growing

- Broad indication creates robust opportunity to capture both the hemostats and the fibrin and other sealants markets
- \$5.5 billion global combined market in 2015
- CAGR 8.69% 2010 2017



### Global Hemostats, Fibrin & Other Sealants

Sources: MedMarket Dilagence, LLC 2012, Worldwide Surgical Sealants Markets 2010-1017



### Problem: Every Sealant Out There Has Limitations

There are more than 30 companies worldwide with hemostats or sealants, driving a global market of \$5.5 billion. Yet none of the current products are optimal, as they do not address complex high pressure bleeding, are difficult to prepare or take a long time to reach hemostasis



# And For Some Procedures There is Nothing



# The Xcede Patch Works Better Everywhere ....



# And Outperforms the Competition

Characteristic	Xcede Patch	Evarrest™	Tachosil™
Surgeon hold time	15 seconds	3 minutes	3 minutes
Stops severe arterial bleeding	XX		
No Thrombin	XX		
Flexible to fit complex wounds	X		
Long shelf life at room temp	X	x	X
Effective on junctional wounds	X		X
High burst resistance	XXX		X
Not dependent on patient coagulation	ххх		
No animal-derived components	X		
High adhesion to tissue	6x	1x	1x
Preparation time	None	None	<1 min



# Video

https://youtu.be/4VeuOOKGD9g



# Xcede Patch Pre-Clinical Work to Date

### **Animal Studies**

- 65 acute animals;
- 18 survival animals: vascular sealing, intramuscular and subcutaneous implant

Preclinical studies have shown superior performance in many applications:

- Spleen and liver hemostasis
- Partial nephrectomy hemostasis
- Lung sealing
- Intestinal sealing
- Vascular sealing
- Cancellous bone hemostasis
- Topical skin application
- Skin flap anchoring (two-sided patch)



# Intellectual Property Portfolio – Protection from Competition

Patent name	Summary	Status	Filing date
Tissue Patch	Composition – components of patch and primer	Allowed	10/4/2012
Systems and Methods for the fabrication of tissue patches	Engineering – steps to make patch and primer	Published	10/4/2012
Systems and kits for the fabrication of tissue patches	Kit - commercial concept of putting elements needed to make patch bedside into a kit	Published	10/4/2012
Tissue patches and associated systems, kits and methods	PCT International filing combining above 3 claim sets	Published	2/1/2013
Adhesive compositions and patches, and associated systems, kits and methods	Patch 2.0 - composition	Provisional	8/8/2014
Minimally Invasive surgery, including vascular closure and associated sealants	Vascular access use	Published	1/31/2014 US and PCT



# An Industry with Momentum-Hemostat/Sealant Market is Flush with Acquisition Activity

Company/Product	Partner	Date	Status at acquisition	Acquisition Amount
RecoThrom	The Medicines Company	2012/ 2014	FDA approved	\$105 million collaboration fee, \$10 million option with purchase price based on Net Revenue
Tenaxis Medical	The Medicines Company	2014	FDA approved but not launched, No sales	\$58 upfront (up to \$112 more upon milestones)
Medafor, Arista	Davol	2013	FDA approval Established sales	<ul><li>\$200 million at closing,</li><li>(\$80 million more upon milestones)</li></ul>
Coviden Duraseal	Integra	2013	FDA approval	\$235 million at closing (\$30 million more upon milestones)
Profibrix, Fibrocaps	The Medicines Company	2013	Pre-CE mark	\$90 million (\$140 million upon milestones)
Neomend, Progel	Davol	2012	FDA approval No sales	\$140 million at closing (\$25 million more upon milestones)
Nerities Corp	Kensey Nash	2011	Patent Only	\$20 million for patent
Synovis Life Tech	Baxter Health Care	2011	Synovis reported \$82.4M in sales for 2011	\$325 Million (note: 3 technologies including Veritias Collagen sealant)
Omrix (renamed Evarrest)	7&1	2009	Not FDA approved at time of acquisition. Approved in 2012	\$438 million.



# Xcede Technologies' Funding History





# Dynasil's Strategic Objectives for Xcede

•Attract long-term biotech investors to Xcede to fund its future.

•Preserve Dynasil's equity position/investment in Xcede, so that Dynasil's stockholders share in the upside.

•De-consolidate Xcede from Dynasil so Xcede's losses are no longer on Dynasil's financial statements

•Minimize any adverse tax consequences to Dynasil and its shareholders



# Summary

- Xcede has game changing technology with unique hemostatic and sealant properties
- Superb team and partners
  - Partnership with Mayo Clinic
  - Experienced management
- Large and growing market
- Robust IP position
- Active acquisition landscape in Hemostat and Sealant market





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