



Regenerating Confidence

A NEW PATHWAY FORWARD



FEBRUARY 2018

Regenerating Confidence | A New Pathway Forward

A STREAMLINED STRUCTURE



- Reduced expense burn
- Prioritized programs and resources
- Renewed direction and streamlined organization
- The right teams at that right time

NEW! FINANCING AND MARKET EXPANSION: CHINESE SUBSIDIARY



- Long-term investment horizon with resources
- Establishing a presence in the largest market for esophageal cancer
- Working together, leveraging resources

SCIENTIFICALLY SOUND AND NOVEL TECHNOLOGY



- Expanded SAB guiding development priorities
- Growing body of data on consistent regeneration
- Novel and new category: bioengineered organ implants with removable scaffold
- New data on mechanisms of action

THE RIGHT INDICATIONS FOR THE RIGHT CLINICAL AND BUSINESS REASONS



- Learning from experience
- Pediatric Esophageal Atresia (US/China)
- Esophageal Cancer (US/China)
- INDs targeted for filing in 2019

2018 Roadmap | Pragmatic Progress

Q1 | 18

First things first;
re-start operations;
secure final reports on
all animal studies;
IND gap analysis

Expand SAB; actively
use the SAB to guide
development (piglet
studies at CCMC in
collaboration with
Dr. Finck

Q2 | 18

Continue to validate
the science through
publications and
3rd party review

Review status of
SBIR Grant:
non-dilutive financing
(extend financial
runway)

Q3 | 18

Broaden operations
with China subsidiary;
identify Chinese KOLs
and investigators;
update IP

Gain pediatric rare
disease designation
for atresia indication

Q4 | 18

Complete piglet
studies at CCMC;
continue to engage
with FDA on
requirements

Update clinical
protocols: primary and
secondary endpoints;
inclusion and
exclusion criteria

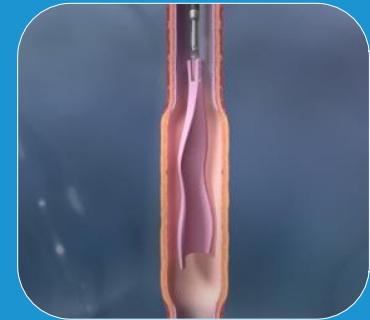
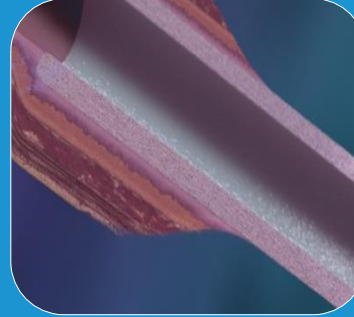
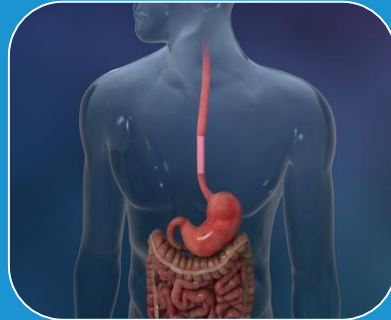


A Novel Approach | Regenerating Possibilities

Cellspan implant
is inserted after
esophageal resection

Rapid healing response
and initial regeneration
over the Cellspan Implant

Scaffold is
removed
at 21 days



DAY 21



DAY 361



Partnering for Progress | Biostage & Connecticut Children's Medical Center

Connecticut Children's Medical Center is serving as a pivotal site to advance the Biostage pediatric esophageal atresia program



Active collaboration with
Connecticut Children's Medical Center

Lead by Christine Finck, MD
Scientific Advisory Board Member

EVP and Surgeon-in-Chief
Connecticut Children's Medical Center

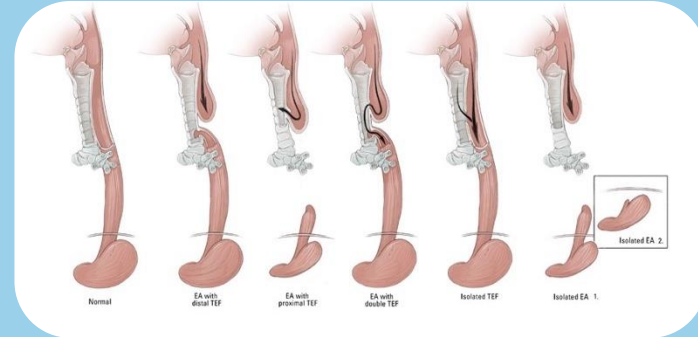
Associate Professor of Pediatrics and Surgery
UCONN Health

Pediatric Esophageal Atresia | Life-Threatening and Urgent Need

Approximately 1 in 2,500 infants in the US is born with esophageal atresia

Biostage currently has orphan designation in EA

With long-gap esophageal atresia, on average, infants spend 120 days in the ICU with a cost of \$576k per patient



Infant is born with a gap between the upper and lower esophagus

Esophageal atresia requires immediate surgical intervention

In some cases, the gap is too lengthy to bring the two ends together; this condition is known as long-gap esophageal atresia (LGEA)

With long-gap esophageal atresia there is no consensus on how to correct the defect

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DRIVEN BY THE
PATIENTS WHO DESERVE
A BETTER STANDARD
OF CARE AND THE
OPPORTUNITY TO
ACHIEVE BIOSTAGE'S
FULL POTENTIAL

