Smart FeedT

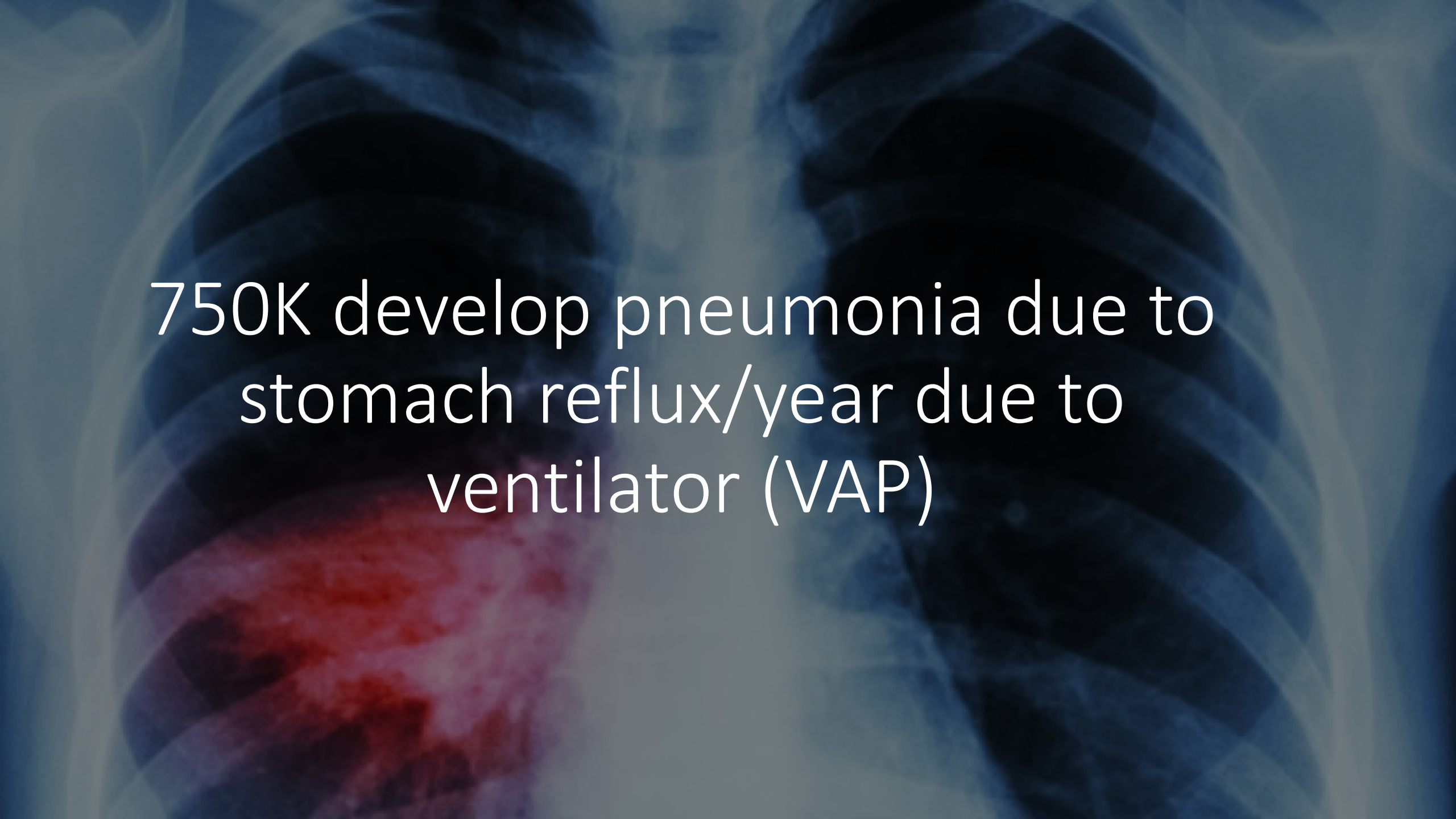
Pramod Bonde MD

Founder

R2TPS LLC


5 million ICU admissions

2.5 million on ventilators


750K develop pneumonia due to stomach reflux/year due to ventilator (VAP)


187,500 die due to VAP every year

Cost of pneumonia (VAP)

48 K per patient

7 days of extended hospital stay

Problem (VAP)

- Hospital Acquired Infections (HAI):
- Eat into Hospital margin
- Not covered by payers
- Monitored by Medicare

Problem (VAP)

- Lying flat
- Sedation- breathing tube
- Muscle relaxant- help breathe with ventilator
- Reflux of acid in esophagus and then into lungs to trigger pneumonia
- Current feeding tubes don’t restore normal emptying of esophagus and stomach

Solution

Smart FeedT

- Every intubated patient needs a feeding tube
- Restores esophageal and stomach motion: bioelectric stimulation
- Detects & Clears saliva that pools at the back of throat that enters the lungs
- Using resonant EM distribution

FDA Approval Process

- 510K process
- Class II device
- Plastic & single use
- Approval 3-6 months

Savings

750 K cases of pneumonia

36 billion USD/year

5.25 million hospital days saved

Hospital (Market size)

1 million feeding tubes in ICU patients

1.5 Million in hospitalized patients

2.5 to 5.0 million feeding tubes used (1-2 tubes per patient) (unit)/year

Community (Market size)

0.5 million long-term feeding tubes

Tube changed every 6 weeks

10 tubes/year per patient

5 million feeding tubes (unit)

Reimbursement

In hospital: Medicare part A

Community: Medicare part B

Existing billing code(s)

Revenue (ICU only)

- 1 million get feeding tube
- Unit cost : $50
- 50 million per year (100% penetration)
- 25 million per year (50% penetration)
- 5 million per year (10% penetration)

Founder & CEO

- Entrepreneur, physician and scientist
- Business & investment advisor: JSimple LLC
- Team: Greg Semenza: Nobel prize, 2019
- NIH: excellence award

Founder

- Thoracic surgeon-25 years
- Expert in reflux injury
- Pioneer in resonant EM transmission
- Bonde Innovations LLC (CoRISMA): 27 million for 22.2% stake
- FDA panel

Team (Engineering and R/D)

Jin Park

VP, Research and development

Daniel Olsen

Director, Quality assurance & production

Egemen Tuzun

Preclinical FDA Regulatory affairs

More than 20 years experience in pre-FDA GLP studies.

Investment and legal

John Visconti,
Visconti and Associates

Corporate legal team:

Khanna LLP

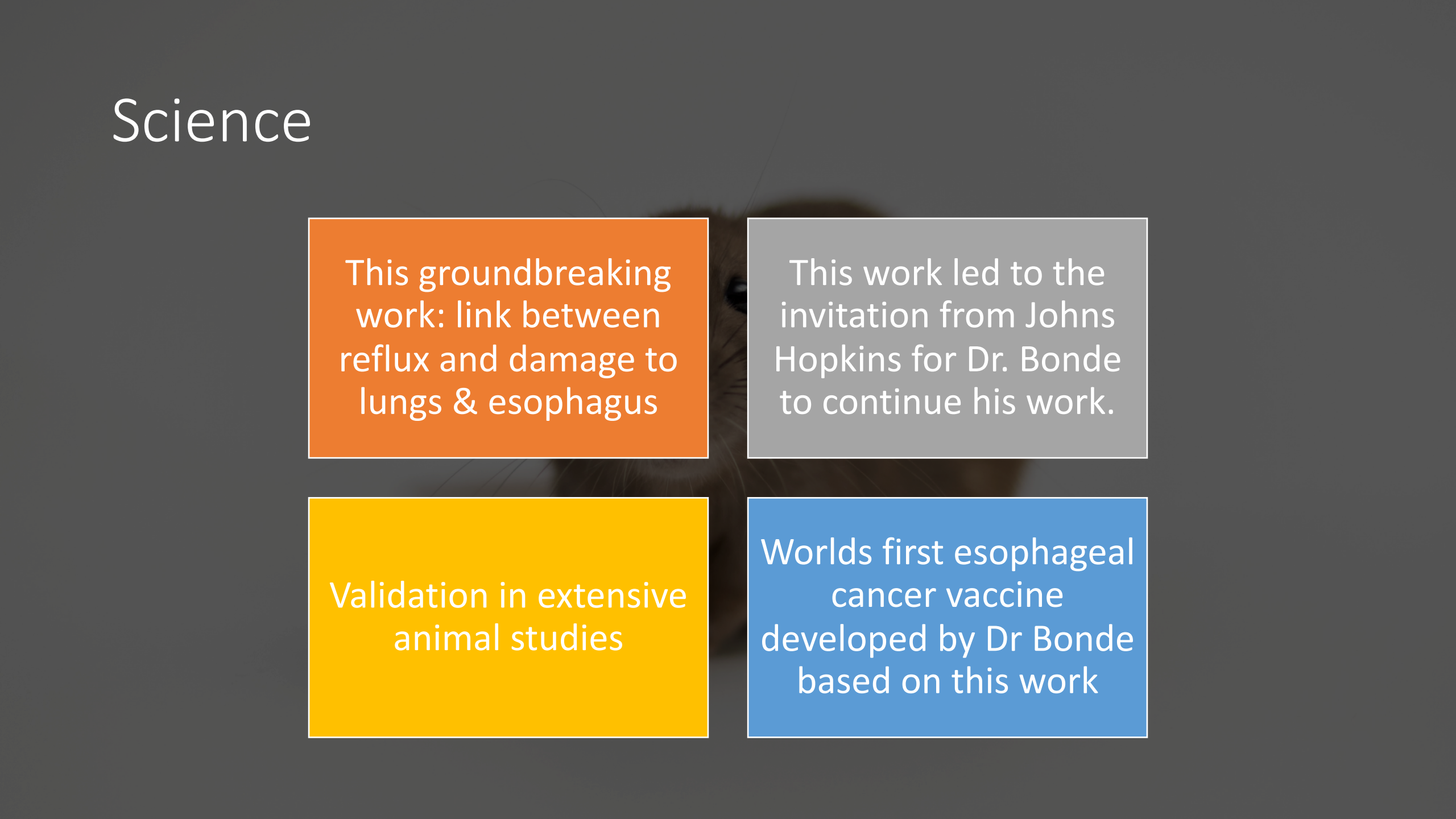
Regulatory experts

Jennifer Tomassello: Senior policy advisor, FDA and congressional contact

CardioMed device consultants, Edgewater, MD

MCRA: reimbursement experts, Manchester, CT

Science



This groundbreaking work: link between reflux and damage to lungs & esophagus

This work led to the invitation from Johns Hopkins for Dr. Bonde to continue his work.

Validation in extensive animal studies

Worlds first esophageal cancer vaccine developed by Dr Bonde based on this work

National Institutes of Health

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF GLASGOW

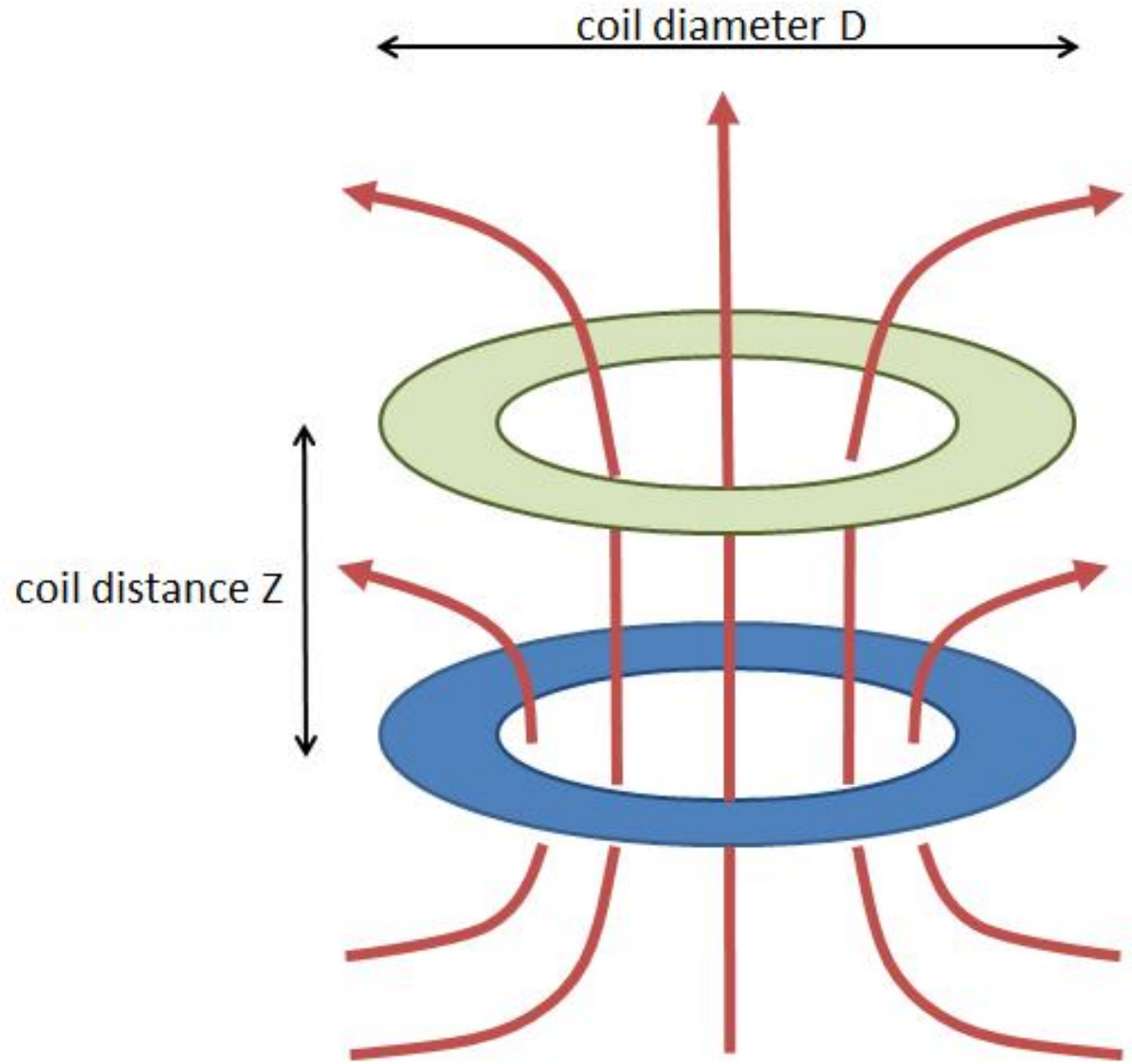
THE DOWAGER COUNTESS ELEANOR PEEL TRUST

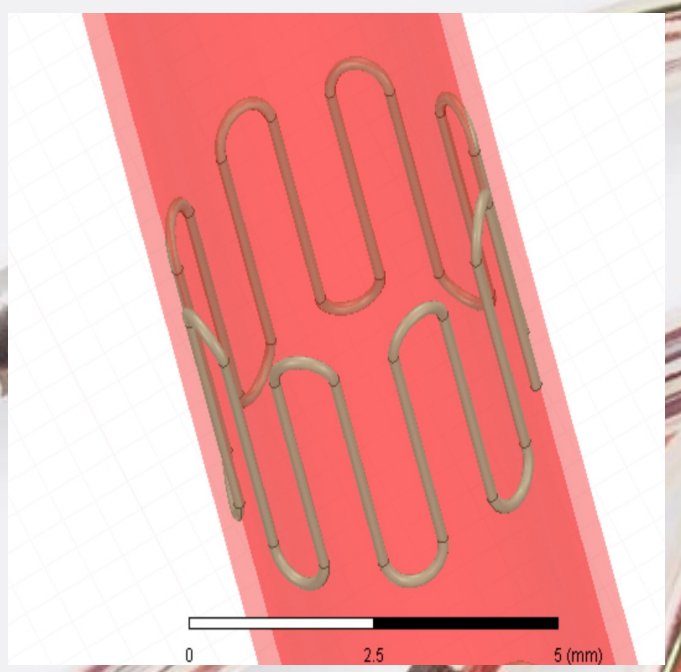
JOHNS HOPKINS UNIVERSITY

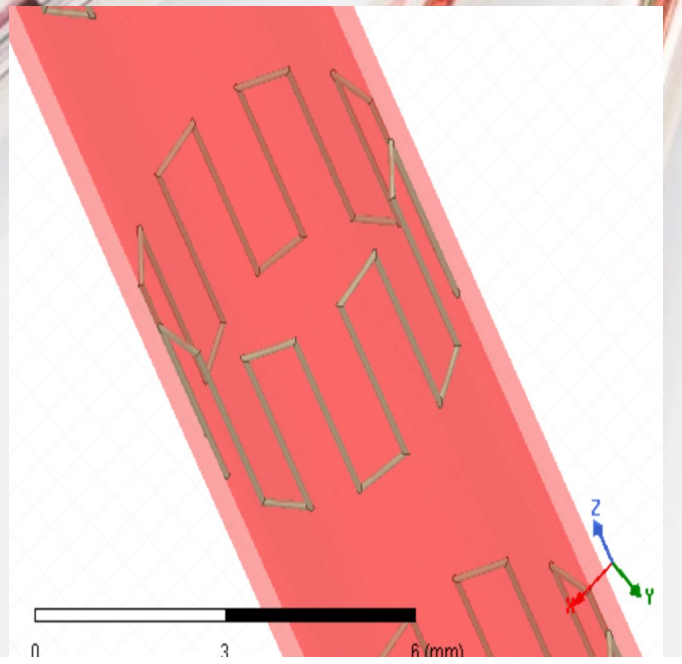
SCTS
Society for Cardiothoracic Surgery in Great Britain and Ireland

Funding and grants

Resonant EM transfer




0
2.5
5 (mm)


Z
Y
0
3
6 (mm)

IP portfolio (six identified and four in works)

- Foundational patents X 3
- Patent on design
- Patent on unclogging component
- Patent on AI backed monitoring
- Design of smart controller
- Telemetry unit design

Market (expansion)

Dysphagia (Impaired Swallowing) with frequent aspiration	Narrowing in the esophagus or digestive tract (stricture)	Inability to take oral feedings due to head or neck trauma	Gastrointestinal cancer	Gastrointestinal complications due to trauma	Intestinal failure
Bowel Obstruction	Crohn's Disease(in severe cases)	Microscopic Colitis	Short bowel syndrome	Ulcerative Colitis	Prolonged anorexia
Bulimia	Severe protein-energy malnutrition	Coma or depressed sensorium	Liver failure	Critical illnesses (e.g., burns) causing metabolic stress	Dementia
		Neuro-Muscular Disorders	Pediatric Indications		

KOL (over 100 from top 15 institutions)

Gastroenterology specialist

Thoracic surgeons-

- esophagus, stomach & lung specialists

ICU specialists-

- Intensivists

Pulmonologists-

- lung specialists

ICU nurse managers

ICU nurses

Hospital administrators

Billing and coding specialist

Reimbursement specialists

Current therapy for prevention of VAP

Elevate head of bed-	Motility drugs-	Anti-acid drugs	Suction saliva-
• doesn't happen 24/7: procedures, change of sheets, turning	• takes days to work	• Not effective in reducing volume	• only done when nurse hears "gurgling"--- patient drowning in own secretions!

KOL- pressure points

Administrators:	Intensive care specialists:	ICU nurses:	Surgeons/physicians:
• Hospital acquired infections- major drain on hospital margin	• Mortality and extended ICU stay clogs system	• Not easy to timely suction, assess and avoid reflux	• Disappointing to see successful procedure only to have patients succumb to pneumonia

KOL- major ask

Restore natural motility	Help empty stomach	Prevent reflux	Measure reflux • Time to intervene
Self propelled tube	Help position tube within body	Help with identifying and de-clogging tube	Automatic suction of saliva and throat

Current feeding tubes

01

Passive conduit for carrying liquid food

02

Positioning within wrong structure a problem

03

De-clogging a problem-often needing change out

04

Actually exacerbates reflux due to mechanical presence across the valve

Comparison

Current feeding tubes	Smart FeedT
Passive tubes to feed	Active: able to feed
Does not restore function	Restores normal function
Does not prevent reflex of acid	No reflux of acid
Does not prevent pooling of saliva	No saliva pooling
Takes >24 -48hrs for accurate positioning	Accurate positioning
	Self propulsion
USD 30	USD 50

Silicon Valley Bank Exit Data

Smart FeedT is FDA Class II Device

	FDA Class II Devices
Median Exit	$350 Million
Median Time to Exit	3.5 Years
Stage at Exit	41% Development Stage
	50% CE Mark only
	9% FDA Approved

Source: Silicon Valley Bank mid-year Report Healthcare Exits 2015-2018

Disrupt Existing Market	Reflux a common problem afflicting >2.5 million hospitalized patients
Expand Existing Market:	Nursing homes, post chemo patients, stroke patients account for 1.5 million
Expand Indications	Patients after gut operation or major operation who need nutrition
Expand Patient Eligibility	Hasten normal functioning of the esophagus and stomach with motility problems, “not just feed but treat”
Access Expanded Infrastructure	Skills, expertise already exists which can be leveraged

Opportunity

- Major Market Opportunity
- Multiple Disruptive Features
- Proven & Experienced Management
- Strong Investment Fundamentals

"What you have is truly transformative"
Leading Thoracic Surgeon,
Johns Hopkins School of Medicine

"HAI market is ripe for disruption"
Former VP Clinical Affairs Abbott Labs

"Major effect on hospital margin"
Leading Administrator, New York Presbyterian Hospital

"This transformative device market is a fertile ground"
Former Chief Medical Officer Medtronic

"Everybody will want to buy this company"
Former Chief Editor, MDDI

Funding and Milestones

Current Status

Seeking Seed Funding

- $1M
- $300k raised/pledged
- System Testing/IP
- 12 Months

Anticipated Future Funding

Series A

- $10M
- Verification
- 510 (K) application
- 20 Months

Series B

- $15M
- Clinical introduction
- Revenue neutral
- 38 months

Target Exit Window

Seed Terms (Convertible Debt):

Conversion Cap:	$5M
Interest:	8%
Series A Discount:	20%

Current Device Market Size

Projected market growth

2021-2028 :

$450 Billion - $650 Billion

CAGR: 5.4%


Don’t just feed but treat!