

# XVIVO Perfusion

Nobody should have to die  
waiting for a new organ

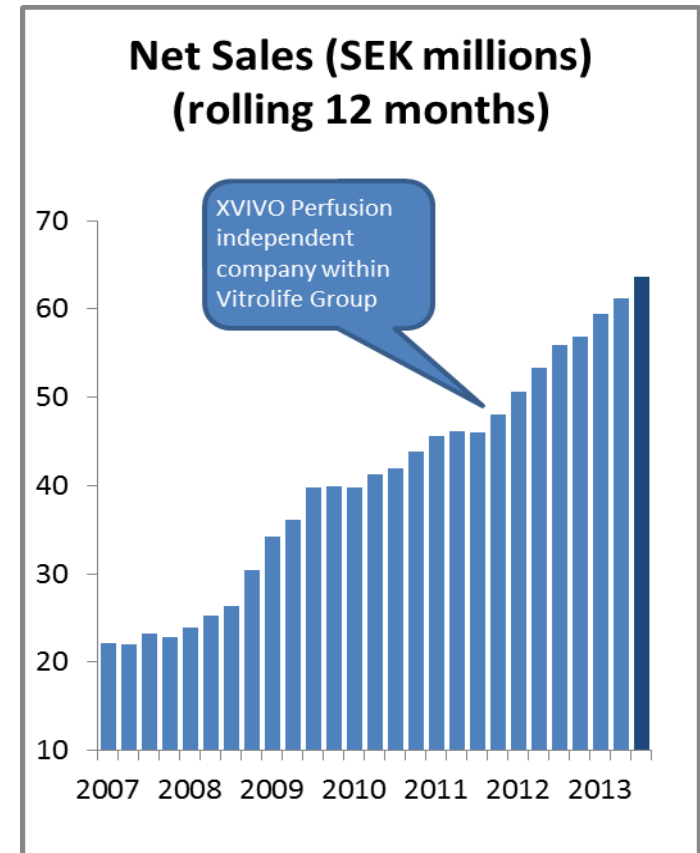
28 November 2013

Magnus Nilsson, CEO



# XVIVO Perfusion

- **Founded in 1998**
- **Profitable since 2002**
- **Experienced organization with Dr. Joel Cooper\* as Medical Advisor**
- **Perfadex®**  
→ 90% market share in cold lung perfusion
- **STEEN Solution™ and XPS™**  
→ Patented solution and machine for warm organ perfusion

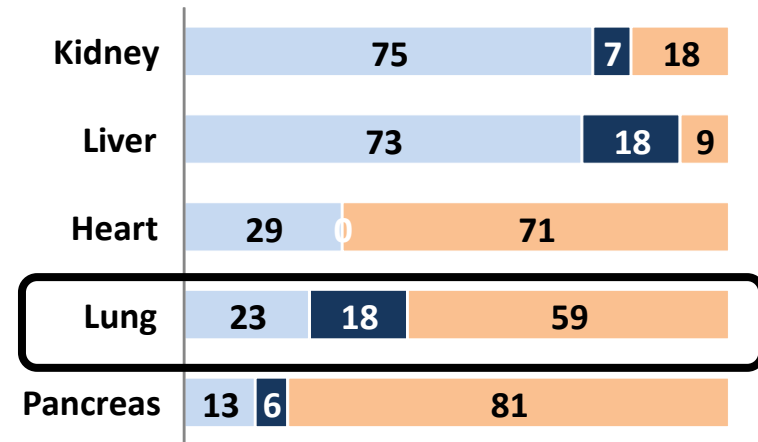


\* First surgeon in the world to perform a lung transplant

# The Problem - shortage of lungs

- COPD is the 4th leading cause for death in the US ~120,000 deaths per year\*
  - Few donated lungs
  - Only ~20% of donated lungs are used
- High mortality on the waiting list ~20%

Donation vs. Transplantation 2011 in the US  
in percentage of total donation



■ Transplanted  
■ Recovered, not used  
■ Not recovered

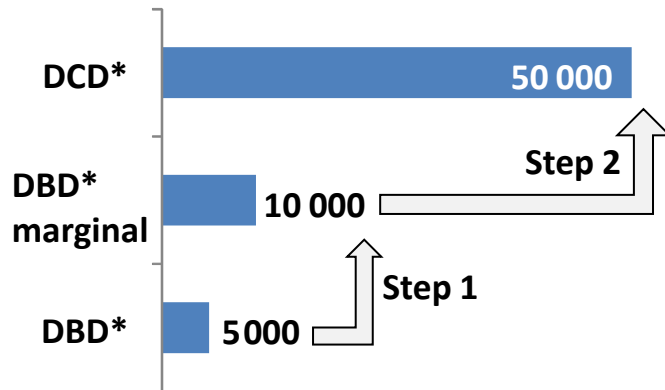
Source: OPTN

\*cdc.gov

# The Solution - Reconditioning of lungs with STEEN Solution™ and XPS™

- Step 1 Recondition marginal lungs for transplantation (x2)
- Step 2 Recondition DCD\* lungs (x10)

Number of possible lung transplants per donor group today



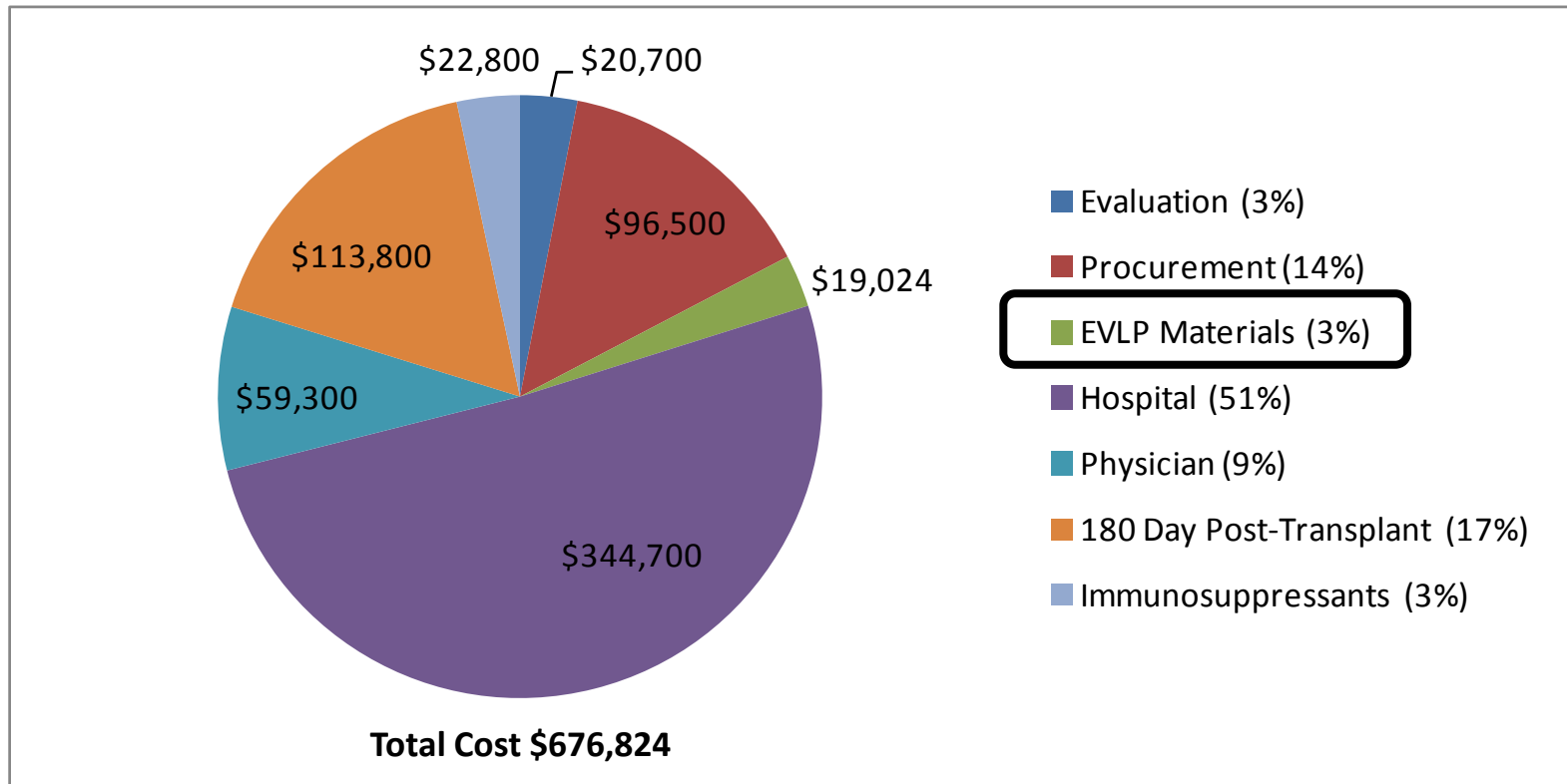
\* DBD = Donation after Brain Death

DCD = Donation after Circulatory (or Cardiac) Death



# The Solution is cost effective

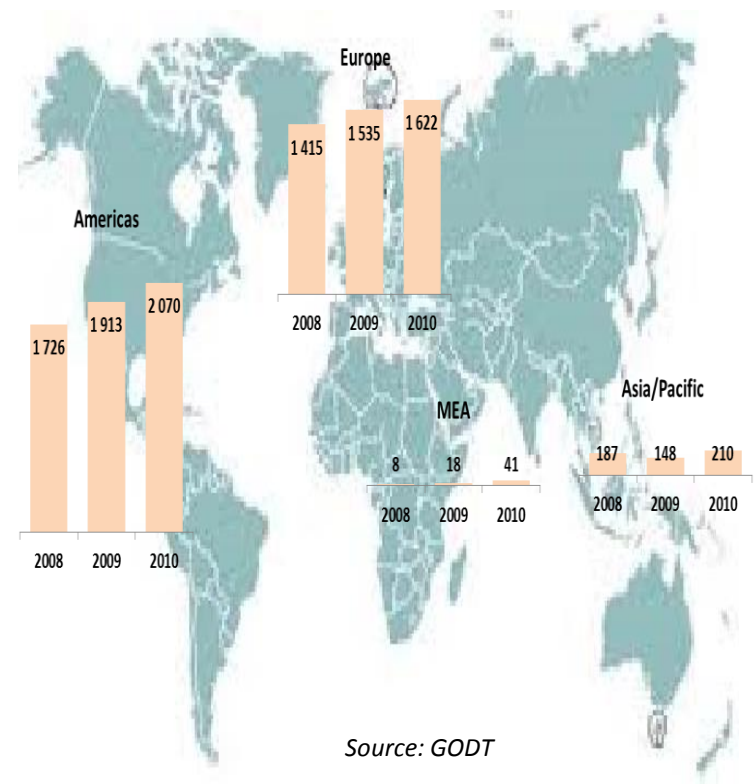
- To increase the amount of lungs for transplantation 10x will only cost 3% extra per transplant



# The lung transplant market today

- ~5000 lung transplants 2013
- Growth rate ~10% in no. of LTx
- Cold perfusion with Perfadex® is Gold standard (90% market share)
- STEEN Solution™ approved in all major markets outside the US

**The Lung transplant market 2008-2010**  
in number of lung transplants per year



# The lung transplant market tomorrow

## - STEEN Solution™ and XPS™

	<u>Today</u>	<u>Next step (step 1)</u>	<u>The future (step2)</u>
Gold standard	Perfadex®	STEEN Solution™ and XPS™	STEEN Solution™ and XPS™
Possible usage of lungs	20% of DBD* lungs	40% of DBD* lungs	40% of DBD* and DCD* lungs
Market in no. of lung transplants	5'000	10'000	50'000
Sales per lung transplant	10'000 SEK	130'000 SEK	130'000 SEK
Market potential lungs	50 MSEK	>1'000 MSEK	>5'000 MSEK

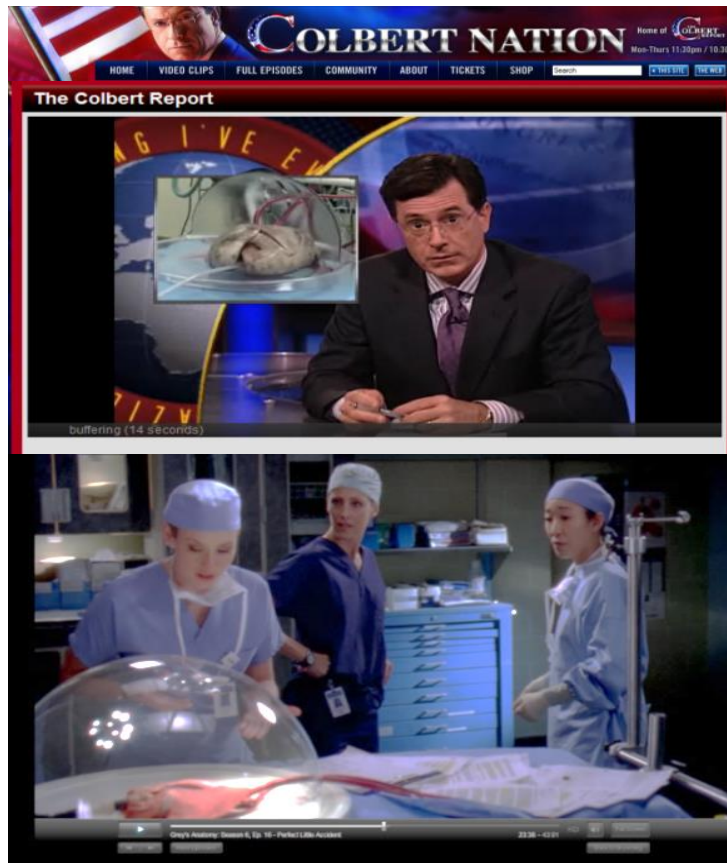
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# Warm Perfusion with STEEN Solution™



# STEEN Solution™ and XPS™ in the news



**TEDMED2011**

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THE GLOBE AND MAIL 🍁

THE WALL STREET JOURNAL.

**GREY'S  
ANATOMY** abc

**H O U S E** M. D.

**CNN**

**NBC**

**B | B | C**

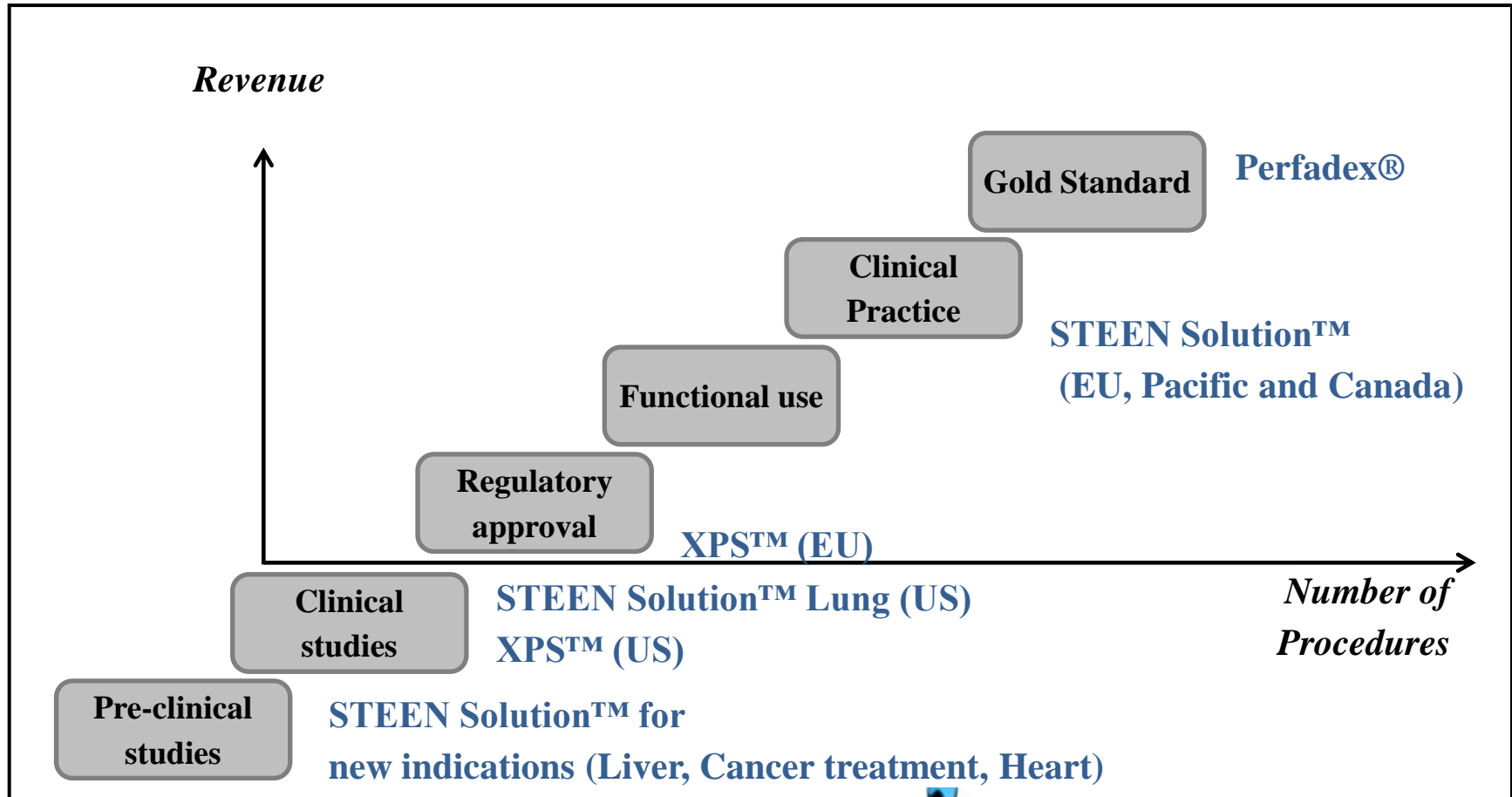
**C O T V**

**AFTONBLADET**

**SCIENTIFIC  
AMERICAN**

**xvivo**  
PERFUSION

# Market penetration



# Focus next 12 months in mature markets

- ❑ **USA: FDA approval process STEEN Solution™ and XPS™**
  - Advisory panel meeting to be held in quarter 1, 2014
  - Before FDA approval - Accumulate clinical experience
  - After FDA approval - Launch STEEN Solution™ and XPS™
  
- ❑ **Europe, Canada and Pacific: Establishing the STEEN Solution™ method**
  - XPS™ launch in Europe
  - Spread the STEEN Solution™ method to new centers
  - Increased use of STEEN Solution™ method at established centers

# Focus next 12 months to build new markets

## ❑ **Geographical - Build Asian market with STEEN Solution™**

- Asian market small today but is estimated to grow faster than the rest of the world
- Chinese market will open up in 2014 due to new resolution to stop using organs from executed prisoners
- First EVLP with STEEN Solution™ in Asia in October 2013

## ❑ **Indication - STEEN Solution™ method for other organs.**

- Go to clinical phase in liver perfusion

## ❑ **Application - STEEN Solution™ method for cancer patients.**

- Pre-clinical stage: Use STEEN Solution™ as a drug delivery system for cancer drugs

