

Nuvaira Overview

May 17, 2019

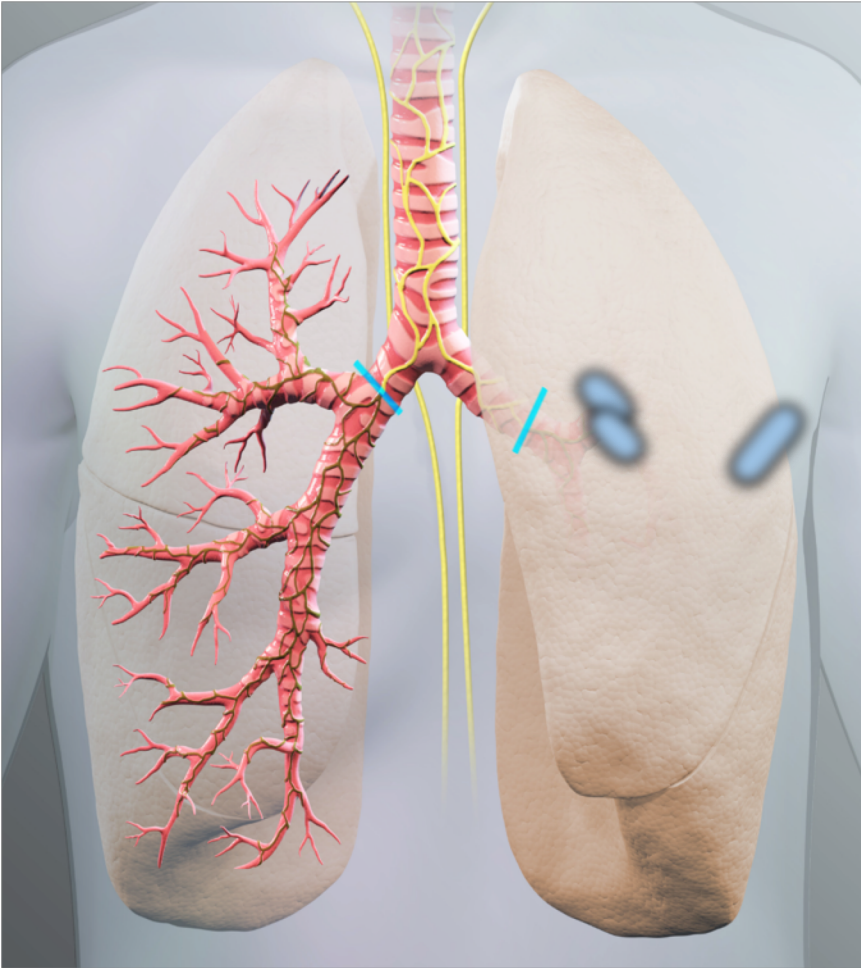


Groundbreaking Treatment for COPD and Asthma

- Addresses major unmet clinical needs, has potential to improve outcomes, reduce healthcare costs
 - COPD is the #3 cause of death in the US, #4 worldwide (expected to be #3 WW by 2020)
 - Asthma is the #14 cause of DALYs lost WW in patients age ≤ 45
- Novel concept with exceptional intellectual property position, but targeting well-known pathophysiological pathway



Targeted Lung Denervation (TLD)



Denervation

- Interrupts vagus nerve signaling to and from the lung to decrease release of acetylcholine

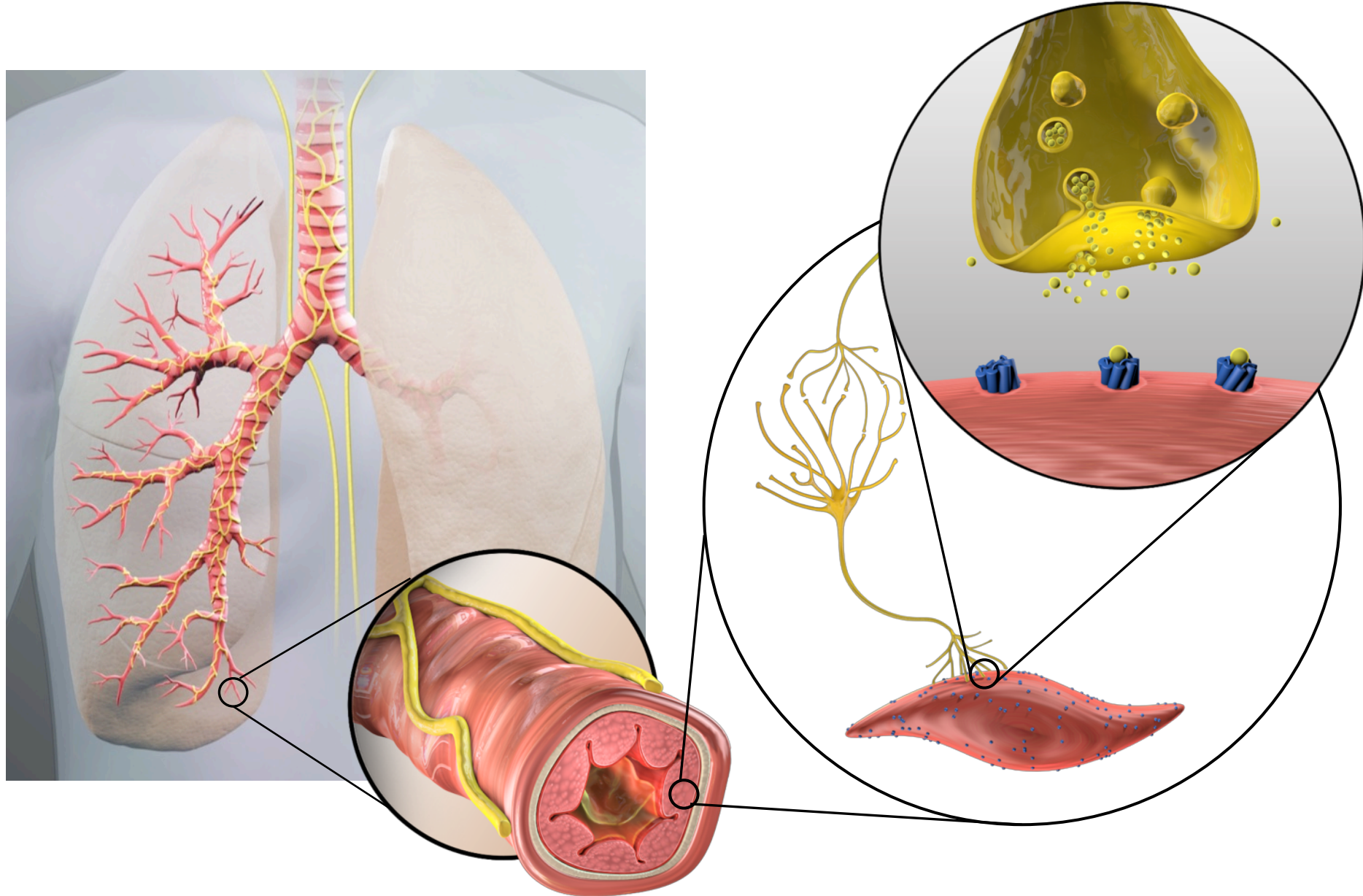
Lung

- Attenuates basal parasympathetic tone
 - decrease airway smooth muscle tone decrease of mucus production
- Blunts pulmonary nerve reflexes
 - decrease airway hyper-responsiveness decrease exacerbations

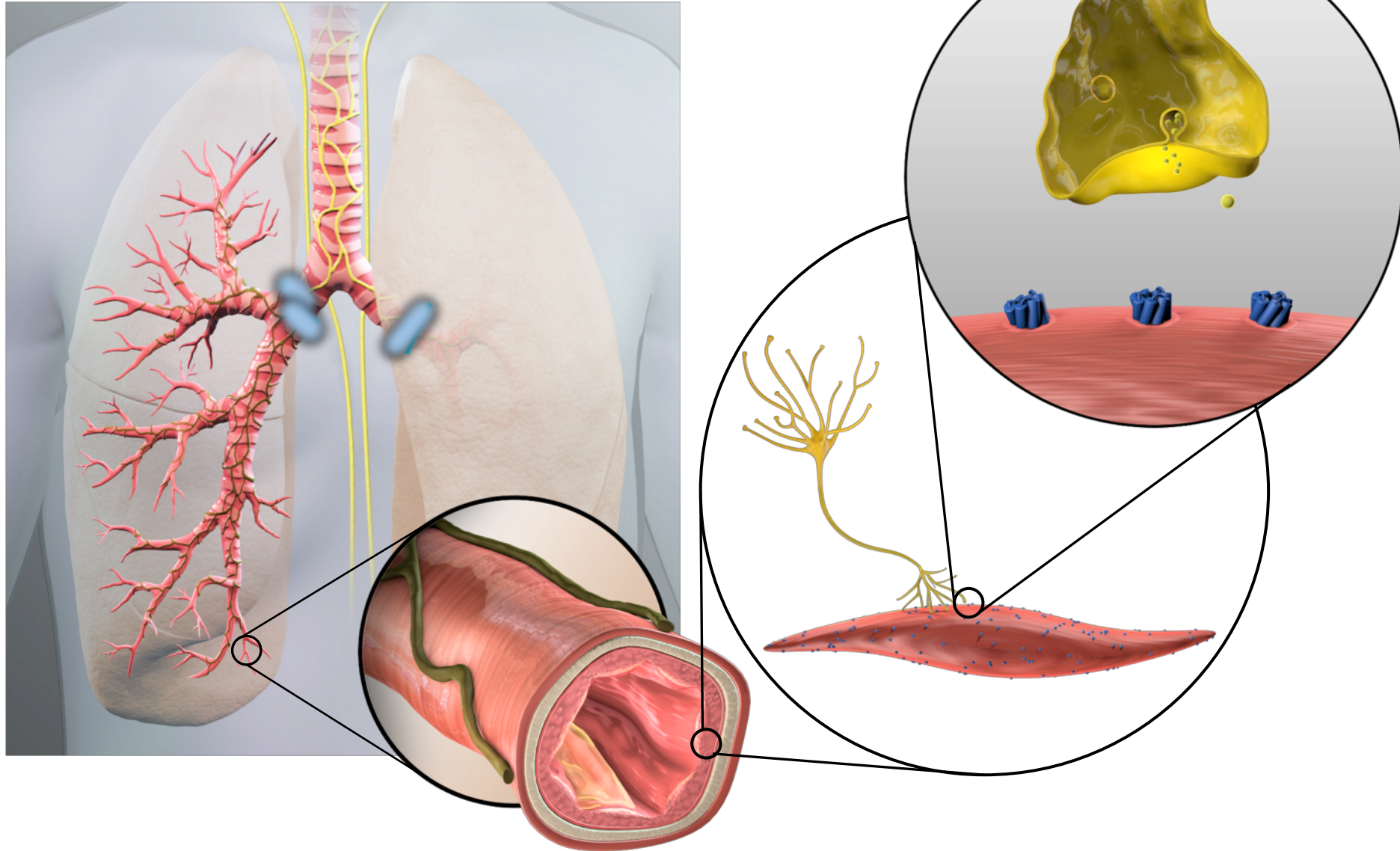
Targeted

- Anatomically to only the lung
- To the depth of the pulmonary nerves

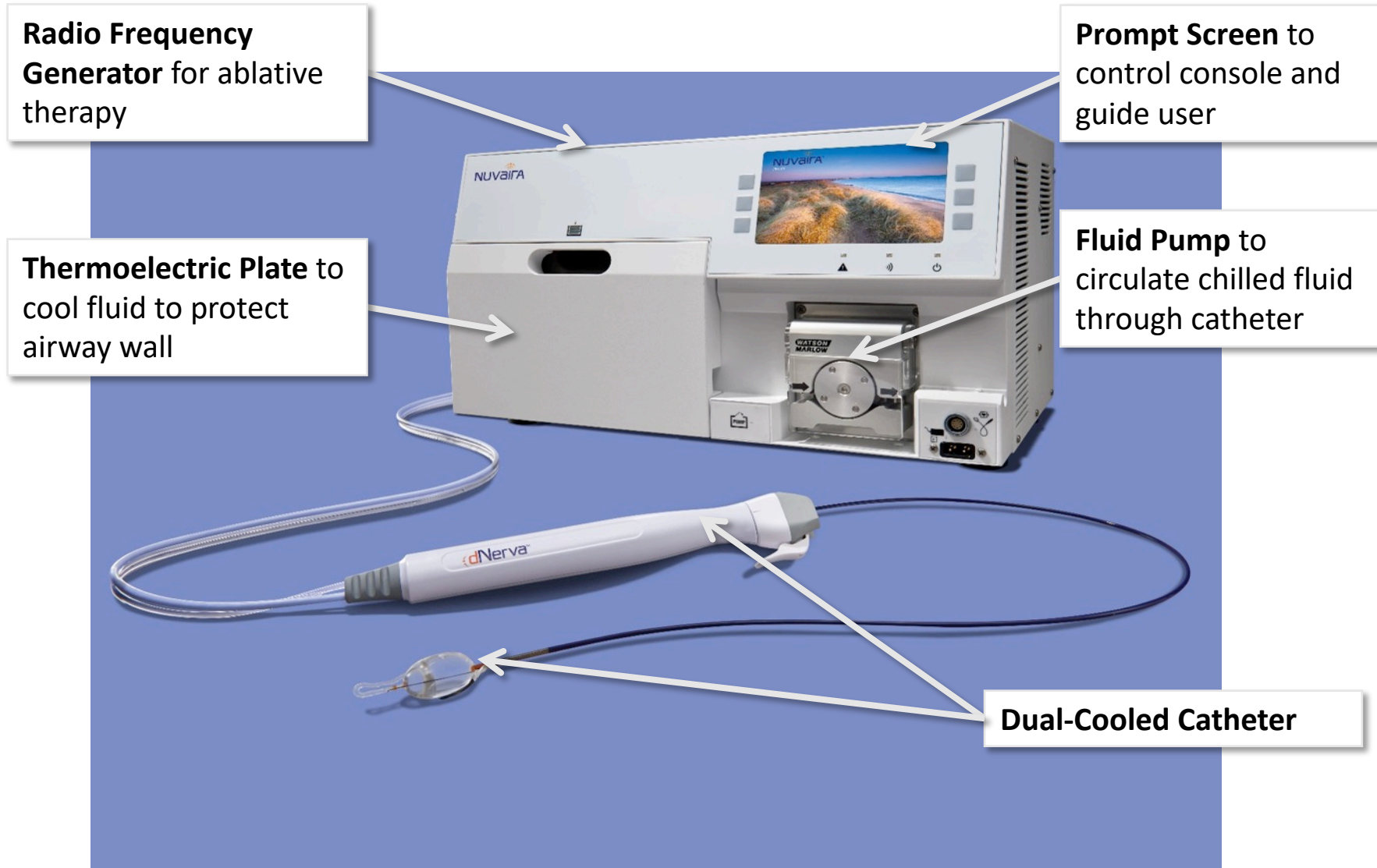
Chronic Obstructive Pulmonary Disease (COPD) Before-TLD



COPD After-TLD



Lung Denervation System

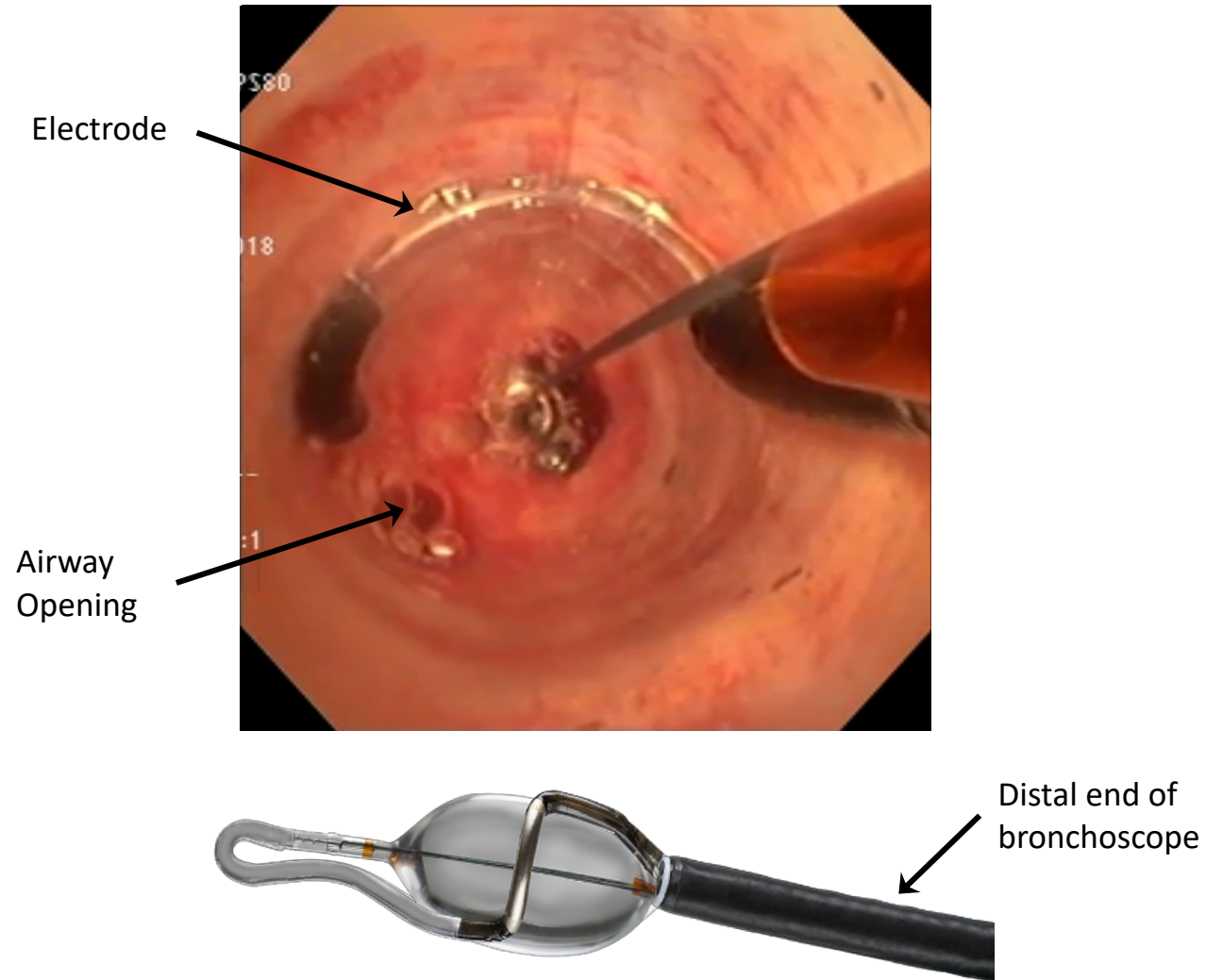


dNerva[®] Dual-Cooled Radio Frequency Catheter

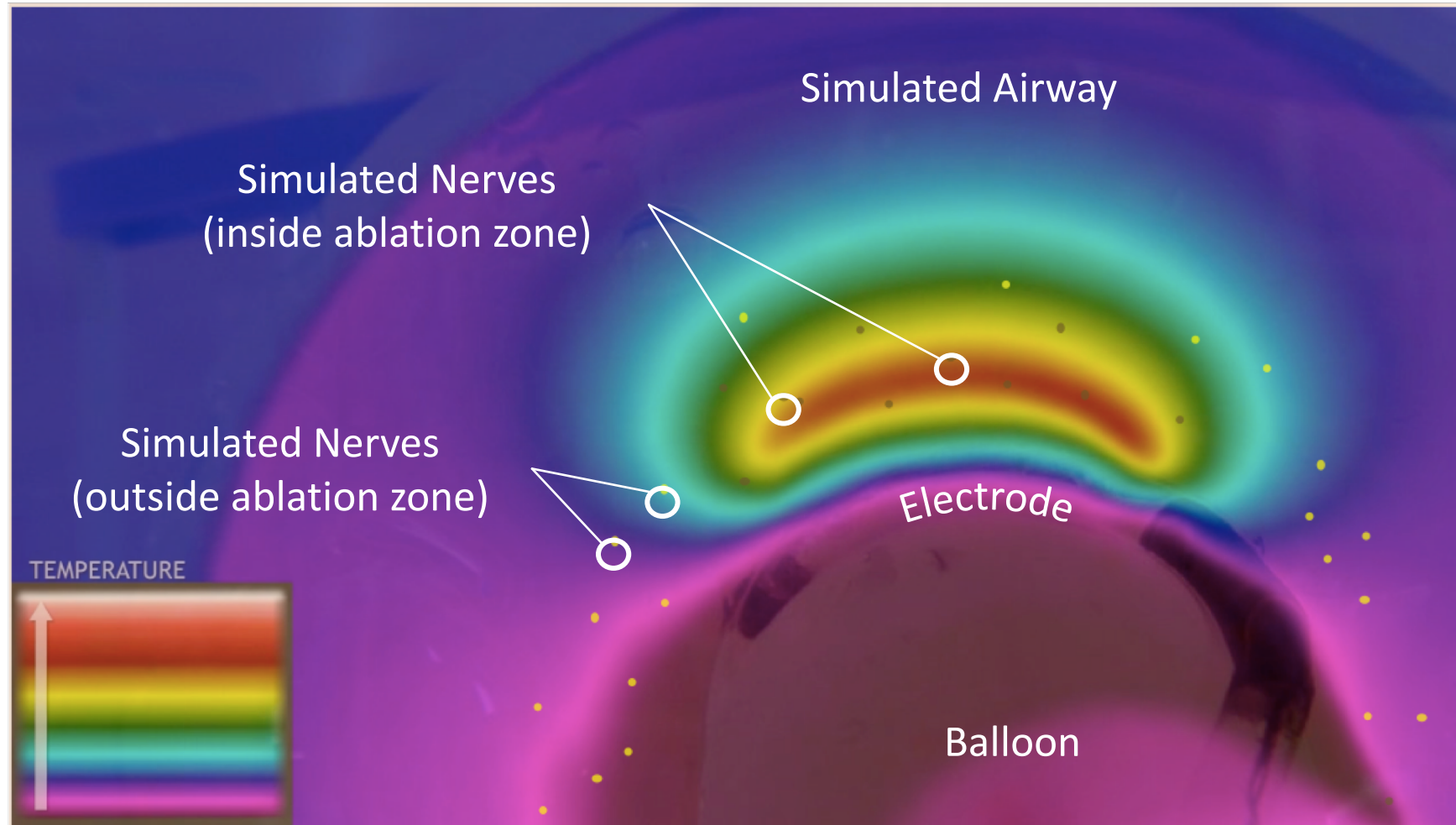


- Chilled fluid from the console flows through the electrode and balloon (indicated by the blue arrows)
 - Inflates the balloon and provides constant apposition of the electrode with the airway wall
 - Cools the inner surface of the airway and protects it while focusing heating effect to depth





Continuous, Real-Time Electrode Visualization

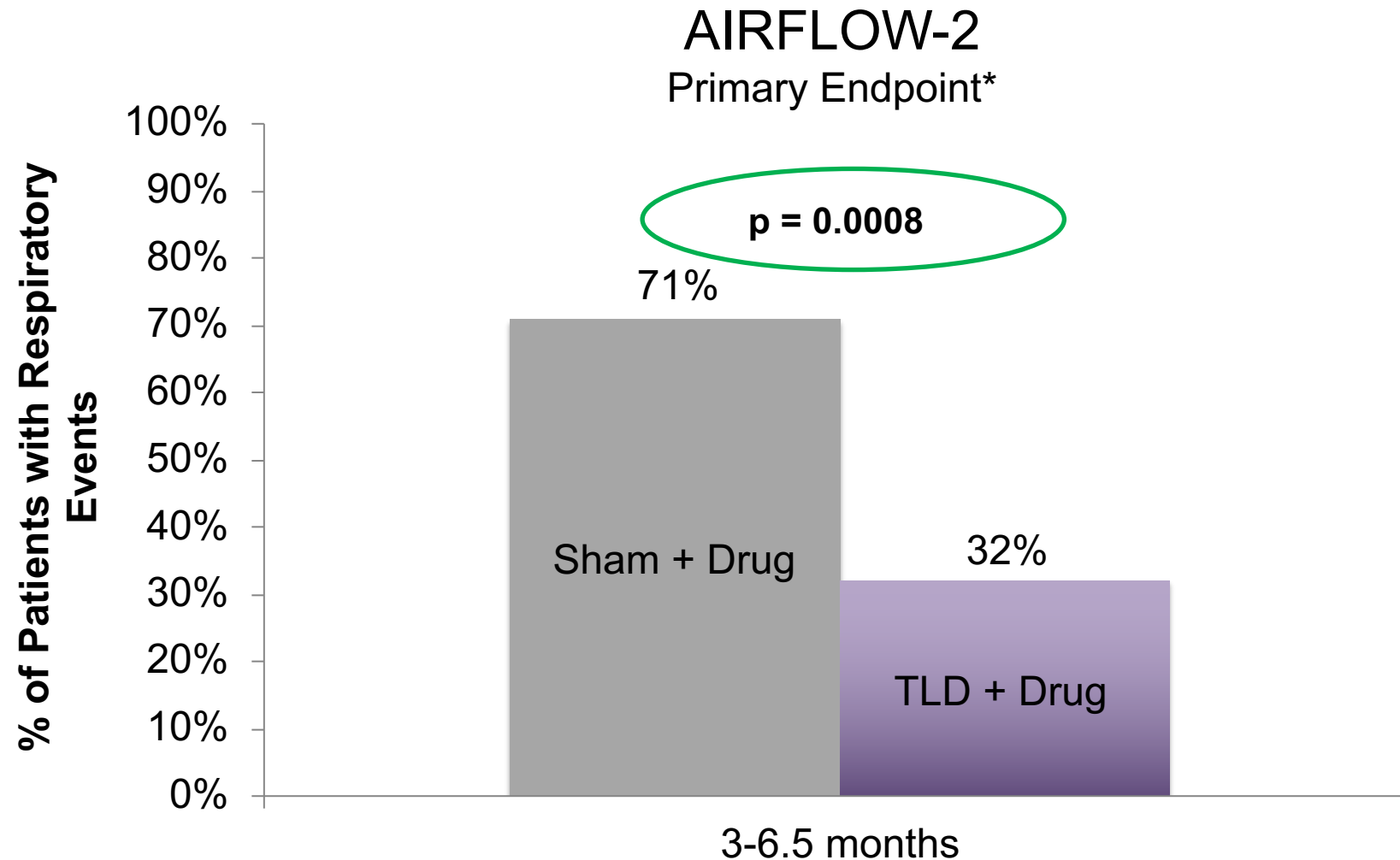


Cooling Protects Airway Wall while Targeting at Depth



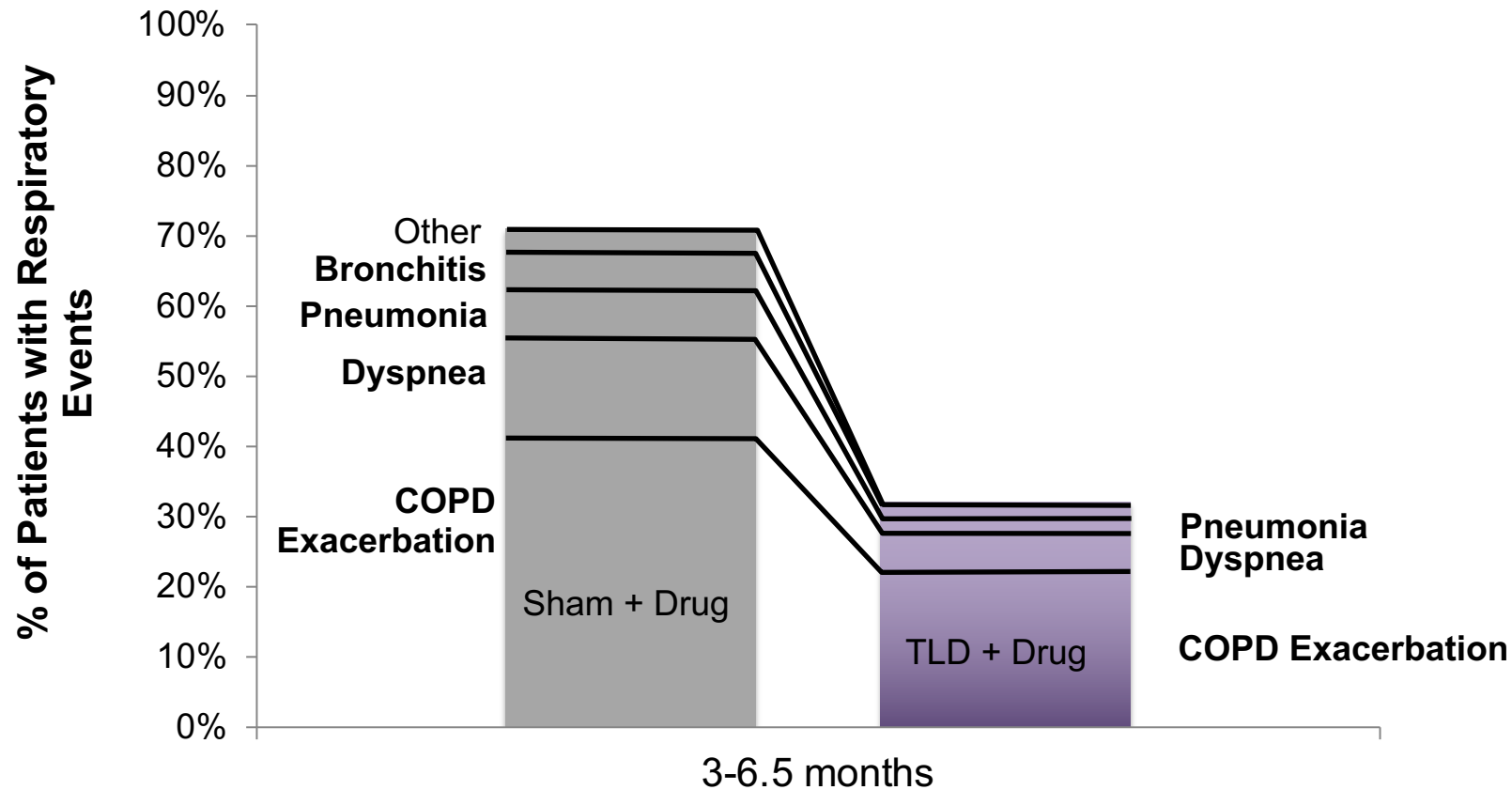
Nuvaira COPD Clinical Program

	 I/II			
Phase	Phase I+	Phase IIA	Phase IIB	Phase III
System	Gen1	Gen2	Gen2-SML	Gen2 3.0
Design	Registry (Dosage)	Randomized (Dosage) + Registry	Randomized (Sham Controlled)	Randomized (Sham Controlled)
Size	37	46	82	400
Goals				
Feasibility				
Procedure				
Dose				
Safety				
Efficacy				
Economics				
Status	1-yr Data Published	1-yr Data Accepted for Publication	1-yr Data Submitted for Publication	IDE

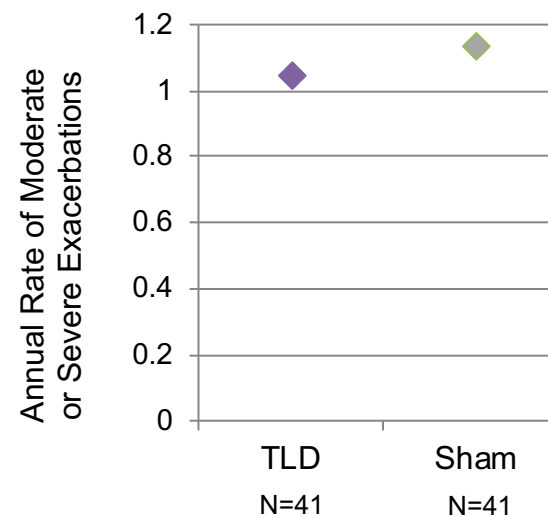
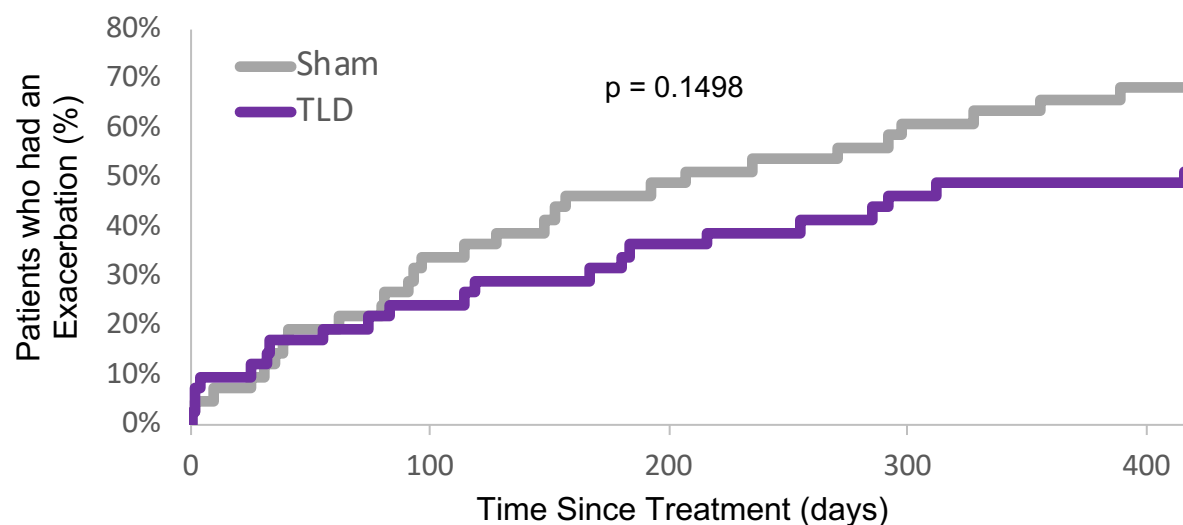


* Lower respiratory tract complaints defined by the investigator including: respiratory failure; pneumonia; COPD exacerbation; influenza; respiratory infection; worsening bronchitis; worsening dyspnea; tachypnea; wheezing; or discovered airway effects that require a therapeutic intervention

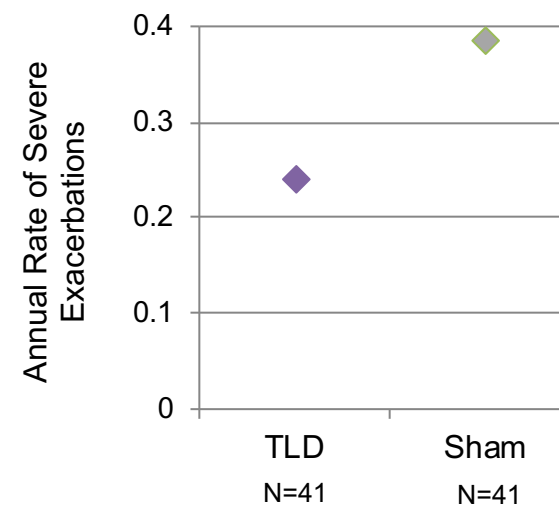
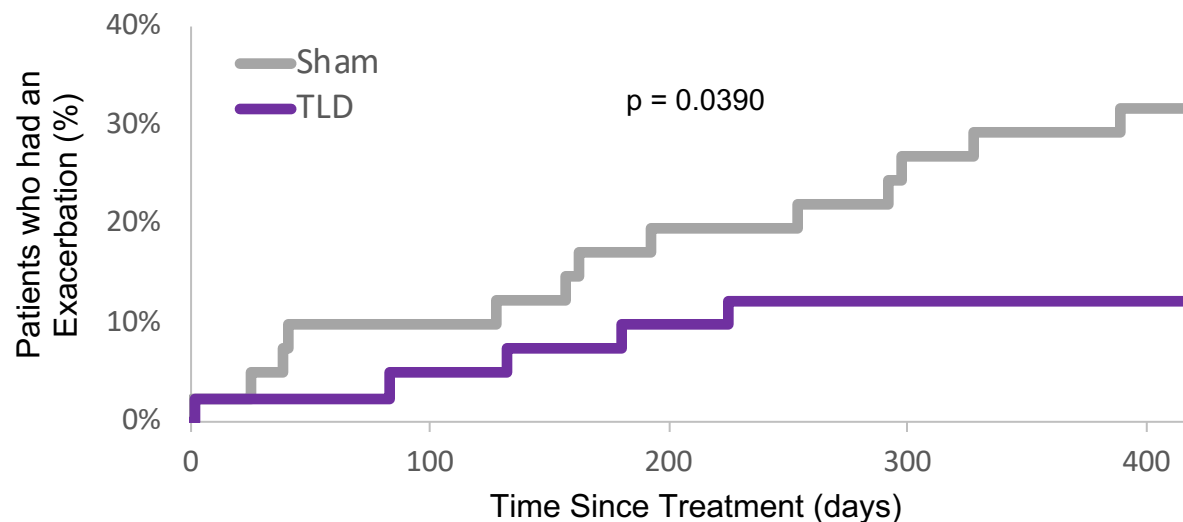
Lower Rate of Respiratory Events with TLD driven by reduction in COPD Exacerbations and Dyspnea



Moderate or Severe COPD Exacerbations



Severe COPD Exacerbations



- AIRFLOW-2: 82 patients (randomized, double-blind, sham controlled)
 - Technical feasibility and safety of optimized procedure confirmed
 - Efficacy demonstrated by a reduction in exacerbations compared to the control arm of patients on optimal medical therapy
 - This data has lead to fast-track national reimbursement in France (Forfait Innovation Program)
- AIRFLOW-3: 400 patients (randomized, double-blind, sham controlled)
 - This global pivotal trial has been initiated
 - Primary endpoint: exacerbations