



Welcome to Pulse Biosciences Analyst & Investor Event

Saturday, April 25

12:45 pm CT Event Start

Prepared Remarks followed by Q&A



Today's Speakers:

Speaker:



Dr. David Kenigsberg

Chief Medical Officer, Electrophysiology at Pulse Biosciences

*Medical Director of Cardiac Electrophysiology at HCA
Westside Hospital*

Presenting: Clinical Data and IDE Overview

Joining for Q&A:



Paul LaViolette

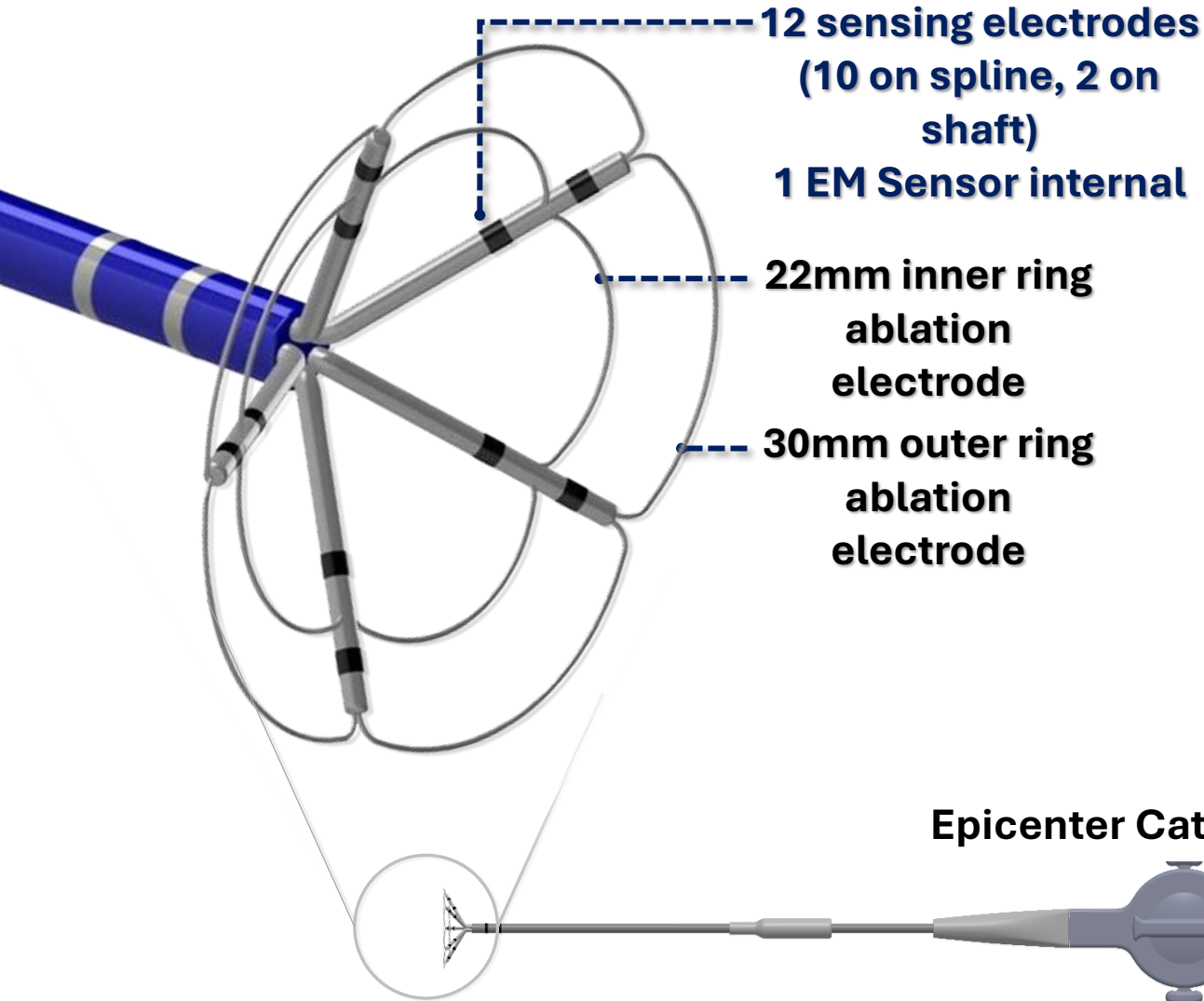
*Chief Executive Officer
Co-Chairman of the Board*



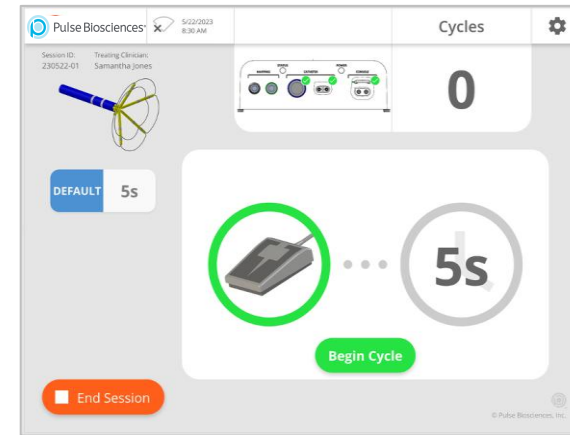
Darrin Uecker

*Chief Technology Officer
Director*

Nanosecond PFA System Characteristics



Graphical User Interface

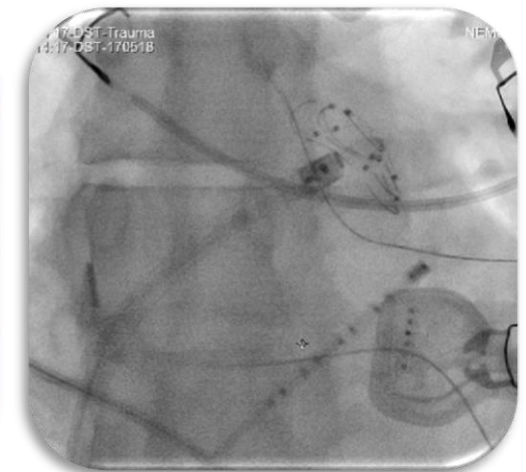
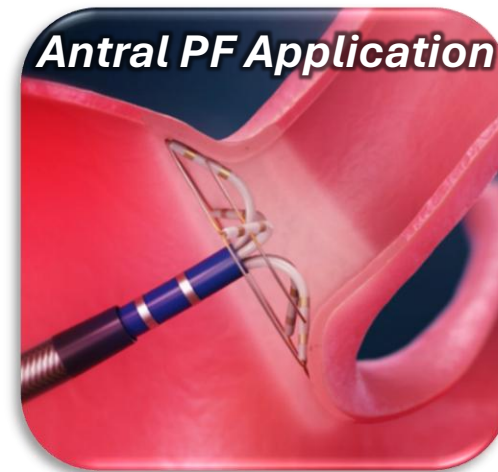
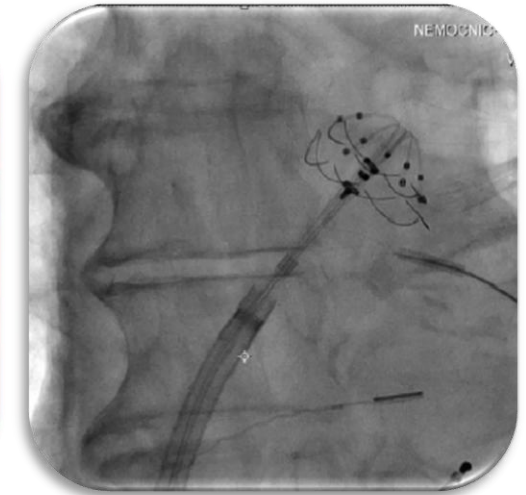
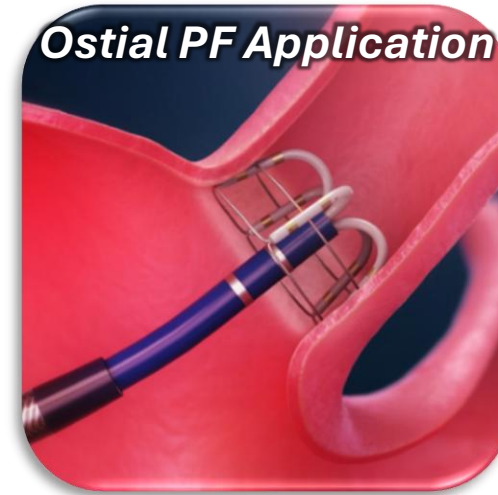


nPulse Console



nsPFA Catheter Pulmonary Vein Isolation Workflow

- **Two Applications per Pulmonary Vein**
 - Single ostial application
 - Single antral application
- **Depending on Anatomy**
 - Single anterior carina applications on each side
 - Potential additional right-sided lesions on the Pulmonary Vein anterior aspect



nsPFA FIH Trial Study Overview

Study Objective:

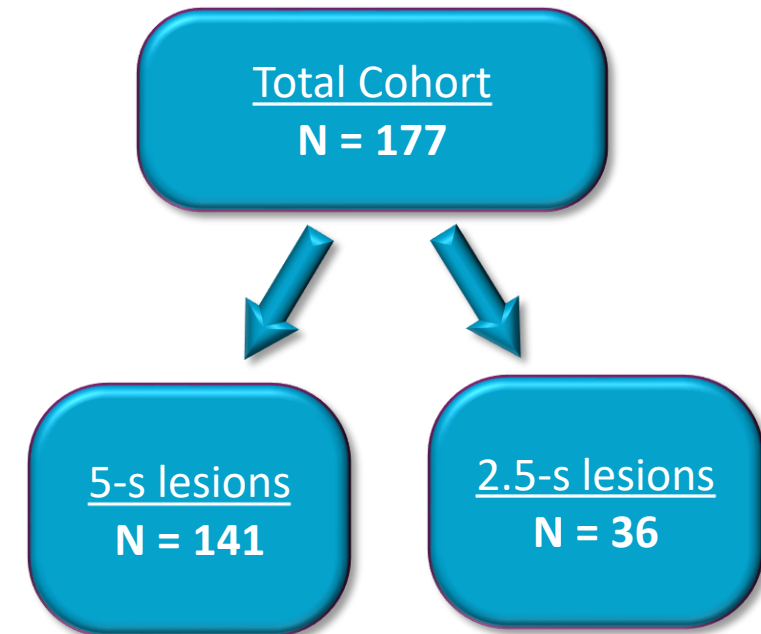
- To assess initial **safety** (rate of acute adverse events within 30 days post-ablation) and **effectiveness** (acute procedural success at 6 and 12 months) the Epicenter Catheter System.

Study Population:

- Adult patients who have **failed or poorly tolerated at least one AAD** with **paroxysmal atrial fibrillation** who are clinically indicated for catheter ablation.

Study Design:

- Prospective, non-randomized, open-label, single-arm feasibility study to evaluate initial clinical safety and device performance of nsPFA to treat AF
 - 3 Centers (Homolka – P.Neuzil; Jessa/Belgium – J.Vijgen; Rome – A.Natale)
 - Total number of operators = 7



nsPFA FIH Trial Patient Demographics

Characteristic	Total Population (n=177)	5 Sec. Cohort (n=141)
Age, yr	60.6 ± 9.7	60.4 ± 9.9
Female, %	36%	37%
BMI	28	28
LV Ejection Fraction, %	61.0	60.6
LA diameter (mm)	41	40
CHA ₂ DS ₂ -VASc score, %		
0 - 1	47	47
≥2	53	53
PAF Duration (Median, yr)	2.1	2.2
Antiarrhythmic and Rate Control Medications, (%)		
Class I AAD	54	53
Class III AAD	6	1

Characteristic	Total Population (n=177)	5 Sec. Cohort (n=141)
Hypertension, %	56	56
Heart failure, %	2	2
Coronary Artery Disease, %	7	8
Diabetes, %	14	15
Stroke, %	7	3
Peripheral arterial disease, %	8	6
Prior Cardioversion, %	24	20

Procedure Time and %Success

Characteristic	Total Population (n=177)	5 Sec. Cohort (n=141)
# of Subjects	177	141
Procedure Time, mins	61.1 ± 27.2	60.2 ± 27.7
LA Dwell Time, mins	19.4 ± 13.3	18.6 ± 13.0
Fluoroscopy Time, mins	8.7 ± 5.5	9.4 ± 5.9
# of PV applications / subject	12.6 ± 2.7	12.3 ± 2.6
Acute PVI Success, %	100	100
6M Procedure Success by Holter, %	98.4% (127/129)	100.0% (95/95)
12M Procedure Success by Holter, %	95.1% (78/82)	96.2% (51/53)

nsPFA FIH Trial Primary Safety Endpoint

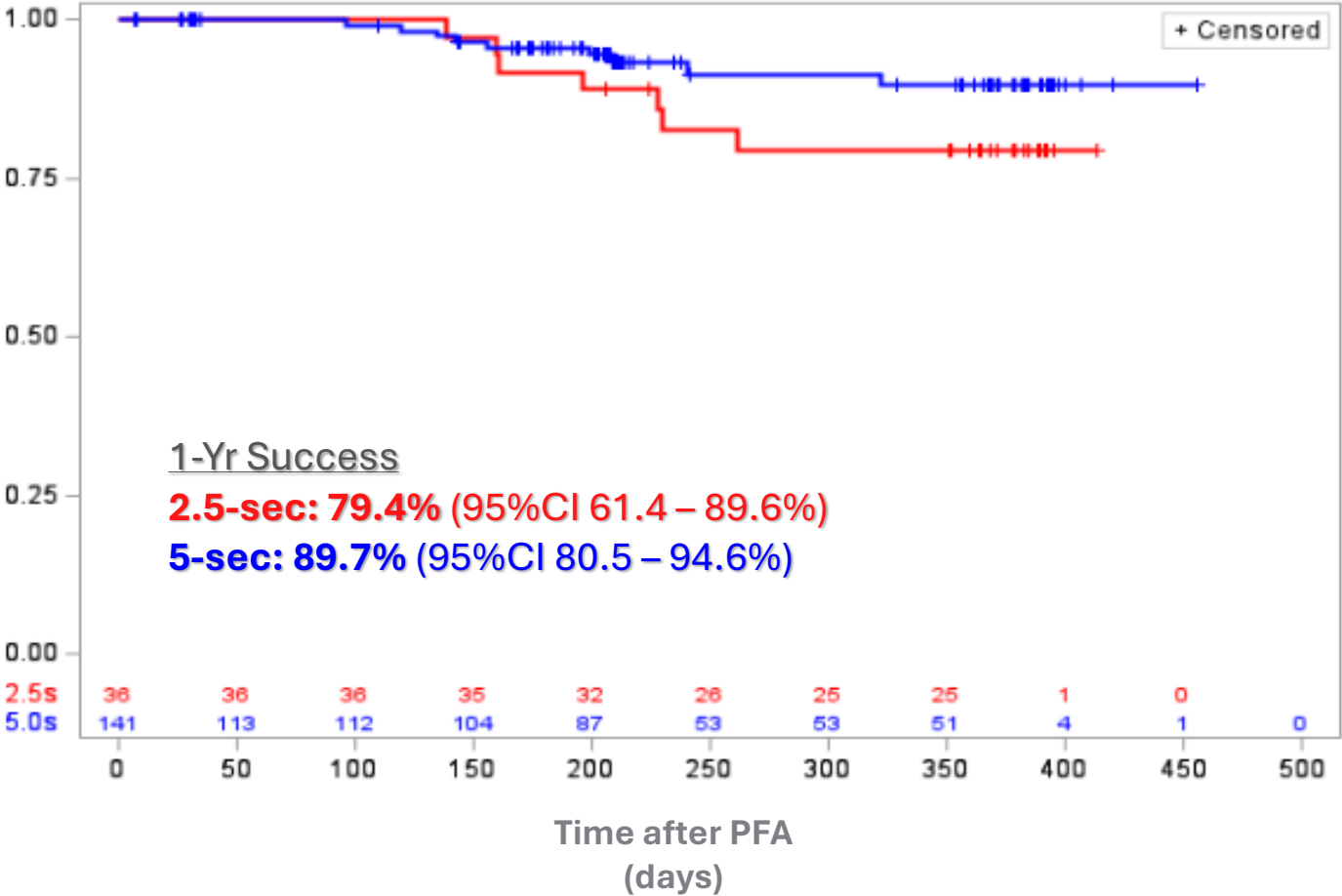
	Total Population N=177	5.0-Sec Cohort N=141
Asymptomatic Cerebral Embolism	--	--
Atrio-esophageal Fistula	--	--
Bleeding Requiring Transfusion	--	--
Cardiac Perforation/Tamponade *	1	1
Death	--	--
Esophageal Injury Resulting in Perforation	--	--
Myocardial Infarction	--	--
Pericarditis Requiring Intervention or Hospitalization	--	--
Phrenic Nerve Injury/Diaphragmatic Paralysis	--	--
Pulmonary Edema/Respiratory Insufficiency	--	--
Pulmonary Vein Stenosis ($\geq 70\%$ diameter reduction)	--	--
Stroke or Transient Ischemic Attack †	1	1
Vagal Nerve Injury Resulting in Esophageal Dysmotility or Gastroparesis	--	--
Vascular Access Complication Requiring Intervention	--	--
Hemolysis Resulting in Kidney Injury	1	1
Total	3 / 177 (1.7%)	3 / 141 (2.1%)

* Effusion developed over course of 5 days; during pericardiocentesis, pericardial bleeding → successful surgical repair.

† Stroke – mild neurological deficit (NIHSS 4) of left arm hemiparesis, hypoesthesia, leg drift (brain MRI lesions observed).

nsPFA FIH Trial Freedom from AF/AFL/AT

Freedom from Atrial Arrhythmias by Cohort (5.0s vs 2.5s)

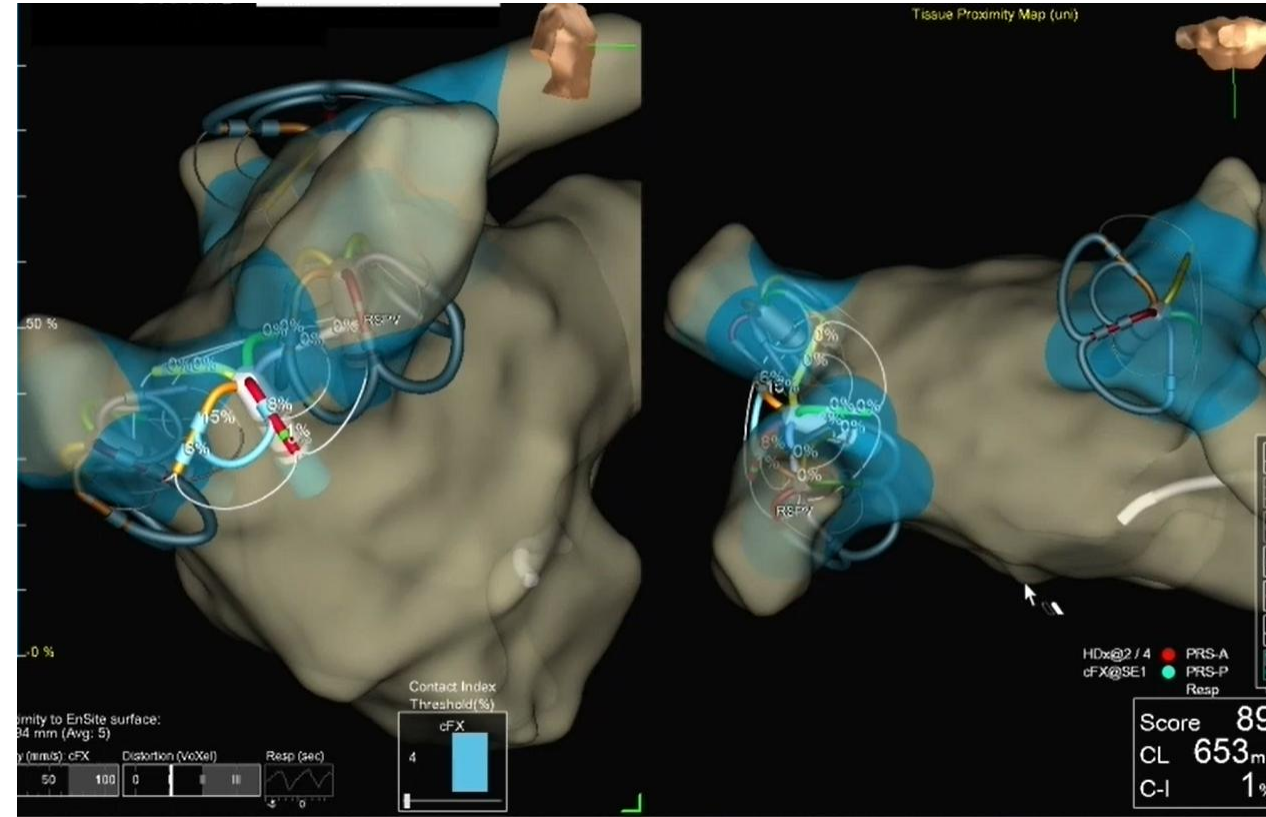


Data Summary

Metric	April 2026 5s Cohort
PATIENT & PROCEDURE OVERVIEW	
# of Subjects	141
Procedure Time (mins)	60.2 ± 27.7
LA Dwell Time (mins)	18.6 ± 13.0
Fluoroscopy Time (mins)	9.4 ± 5.9
Avg # Applications	12.3 ± 2.6*
6M & 12M HOLTER MONITORING	
6M Procedure Success by Holter, %	100% (95/95)
12M Procedure Success by Holter, %	96.2% (51/53)
12M Freedom from AF / AFL / AT	90%
<small>* PV ablations only EAM = Electroanatomic Mapping PVI = Pulmonary Vein Isolation PWI = Posterior Wall Isolation AF = Atrial Fibrillation AFL = Atrial Flutter AT = Atrial Tachycardia</small>	

nsPFA FIH Trial Conclusions

- Nanosecond PFA is:
 - Efficient
 - Average No. of applications for PVI/pt = 12.3 ± 2.6
 - Left atrial dwell time = 18.6 ± 13.0 min
 - Safe
 - Durable
 - Excellent clinical outcomes
- Limitations:
 - Intermittent monitoring follow-up
 - Most cases performed with minimal EAM support → now integrated



NANOPULSE-AF IDE Pivotal Study

Study Overview

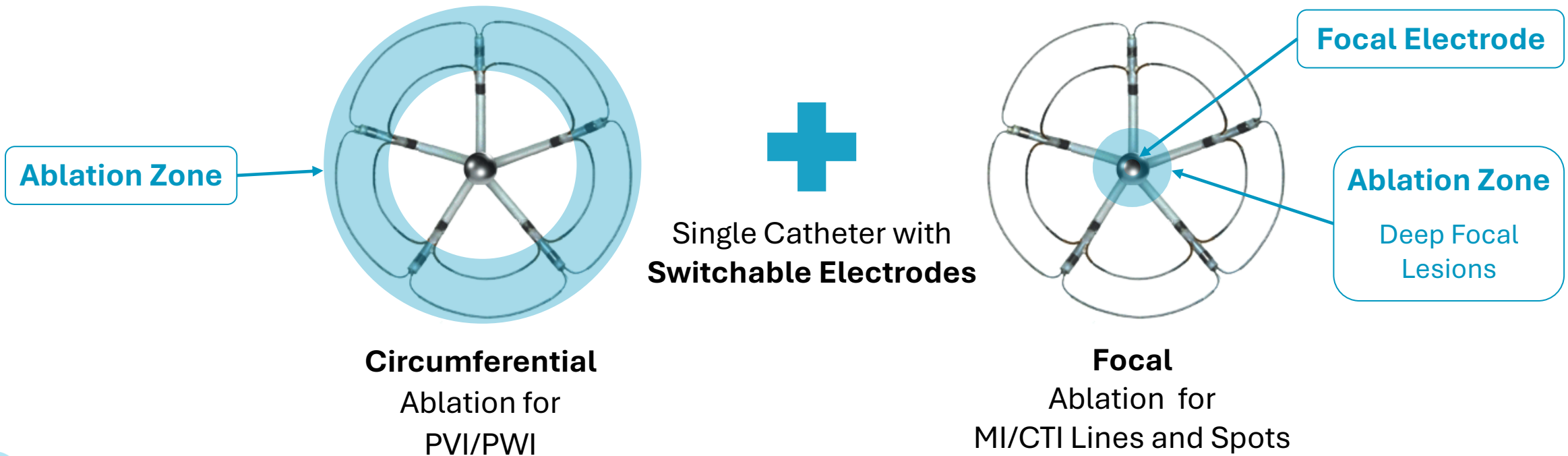
Target enrollment	~215 patients
Clinical sites	Up to 30
First patients enrolled	2Q26
Enrollment target	FY 2026
Primary endpoints	6- and 12-months post-ablation procedural success and safety outcomes



Status: initial patients treated –
7 in one day from a single, first-time-user operator

Next Gen nPulse Cardiac Catheter – Continuous Market Expansion

- Enables Single Catheter Workflow: building on the platform to enable Pulmonary Vein Isolation / Posterior Wall Isolation and Mitral Isthmus / Cavotricuspid Isthmus lines with switchable electrodes
- Pre-clinical focal data presented in poster at HRS '26



Questions