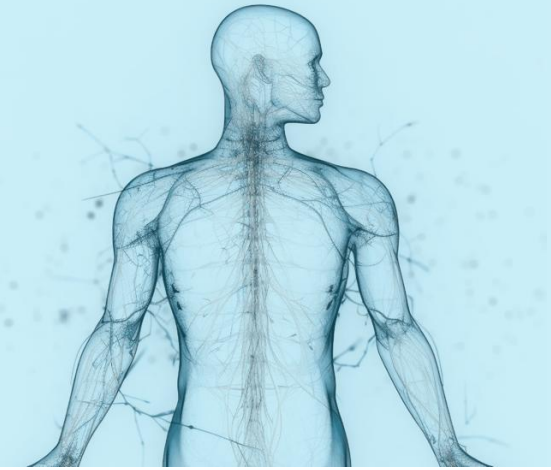
Pulse Biosciences®



Corporate Overview

April 2026

Forward Looking Statements

All statements in this presentation that are not historical are forward-looking statements, including, among other things, statements relating to the effectiveness of the Company's Nanosecond Pulsed Field Ablation (nsPFA) technology and nPulse™ System to non-thermally clear cells while sparing adjacent non-cellular tissue, statements concerning the Company's expected product development efforts and future clinical studies and regulatory submissions, whether with the U.S. FDA or otherwise, statements concerning whether any clinical study will show that the Company's novel nsPFA mechanism of action will deliver fast and precise ablations in cardiac tissue, statements concerning market opportunities, customer adoption and future use of any nsPFA technologies to address a range of conditions such as atrial fibrillation, statements concerning early clinical successes and whether they are predictive of the safety and efficacy of any medical device such as the nsPFA Cardiac Surgery System or the nsPFA Percutaneous Electrode System, Pulse Biosciences' expectations, whether stated or implied, regarding whether the Company's nsPFA technology will become a disruptive, superior and durable treatment option for treating benign thyroid nodules, atrial fibrillation or any other medical condition, and other future events. These statements are not historical facts but rather are based on Pulse Biosciences' current expectations, estimates, and projections regarding Pulse Biosciences' business, operations and other similar or related factors. Words such as "may," "will," "could," "would," "should," "anticipate," "predict," "potential," "continue," "expects," "intends," "plans," "projects," "believes," "estimates," and other similar or related expressions are used to identify these forward-looking statements, although not all forward-looking statements contain these words. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties, and assumptions that are difficult or impossible to predict and, in some cases, beyond Pulse Biosciences' control. Actual results may differ materially from those in the forward-looking statements as a result of a number of factors, including those described in Pulse Biosciences' filings with the U.S. Securities and Exchange Commission. Pulse Biosciences undertakes no obligation to revise or update information in this presentation to reflect events or circumstances in the future, even if new information becomes available.

This presentation and any documents incorporated by reference may contain market data that we obtain from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that our industry sources are reliable, we do not independently verify the information. The market data may also include projections that are based on other projections. While we believe these assumptions and projections are reasonable and sound, as of the date hereof, actual results may differ from these projections.

Our Mission

To build a viable Company that designs, produces, and commercializes nano-pulse technology to improve and extend the lives of patients.

To solve the needs of patients, physicians, and healthcare providers with high quality and high reliability products and services, developed in accordance with rigorous scientific, engineering, and clinical standards.

We exist to make a positive difference in the lives of patients, physicians, healthcare providers, shareholders, and our Pulse Biosciences team members.

Experienced Technologists, Operators and Clinicians
From Proven Leadership Team

Paul LaViolette
Chief Executive Officer
Co-Chairman of the Board

Darrin Uecker
Chief Technology Officer
Director

Jon Skinner
Chief Financial Officer

Liane Teplitsky
Chief Operating Officer

SV HEALTH INVESTORS · Boston Scientific · BARD · gynesonics · computermotion · ImperativeCare · Teleflex · Abbott · ZIMMER BIOMET

Renowned Scientific Expertise

Dr. David Kenigsberg
Chief Medical Officer,
Electrophysiology
HCA Florida Healthcare

Dr. Niv Ad
Chief Science Officer,
Cardiac Surgery
Adventist HealthCare White Oak Medical Center

Dr. Gan Dunnington
Chief Medical Officer,
Cardiac Surgery
AdventistHealth

Established Board of Directors

Robert (Bob) W. Duggan
Co-Chairman of the
Board of Directors

Dr. Mahkam "Maky" Zanganeh, MBA
Director

Manmeet S. Soni
Director

Richard van den Broek
Director

Maria Sainz
Director

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Financial & Strategic Snapshot

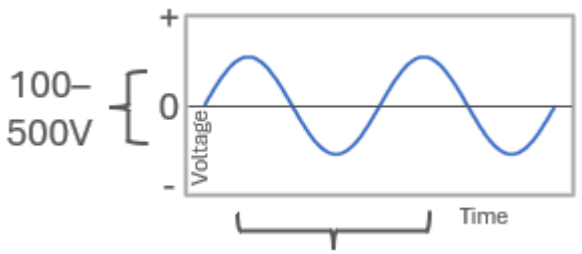
- **Balance sheet as of 12/31/2025**
  - Cash and cash equivalents balance of $80.7mm
  - No debt
  - Cash used in operating activities of $54.1mm in 2025
  - Cash burn increasing: Strategic Capital to support significant clinical opportunities ($14.8mm of cash used in operating activities in 4Q25)
  - 4Q25 revenue totaled $264k
- **Strengthen focus on EP cardio ablation product and clinical development following unprecedented clinical outcomes data in large EU feasibility study.**

~75% Insider Ownership

The Nanosecond PFA Advantage – Novel Mechanism, Deeper Ablation

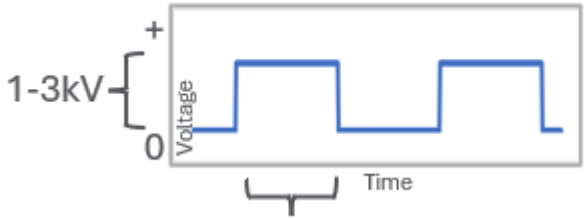
A more energy-efficient ablation mechanism, enabling larger, deeper, faster, and safer ablations

Thermal



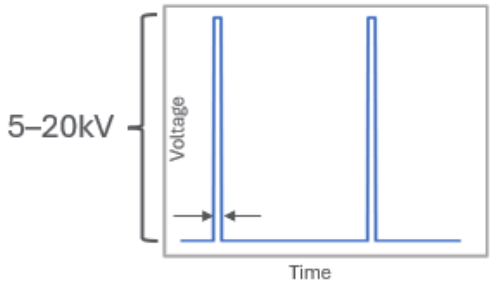
- High Thermal Energy
- Point to point ablation
- Destroys all tissue
- Thermal spread risk

First Gen PFA



- Long-duration weak pulses physically destroy cell membranes
- Thermal risk must be mitigated with small electrodes and irrigation
- Stacking and rotating techniques required due to thermal risk and shallow lesions and require cooling of treated tissue

nsPFA



- Ultrashort strong pulses can deeply penetrate cells triggering regulated cell death
- Large footprint electrodes create circumferential, deep ablations
- No stacking required due to no thermal risk

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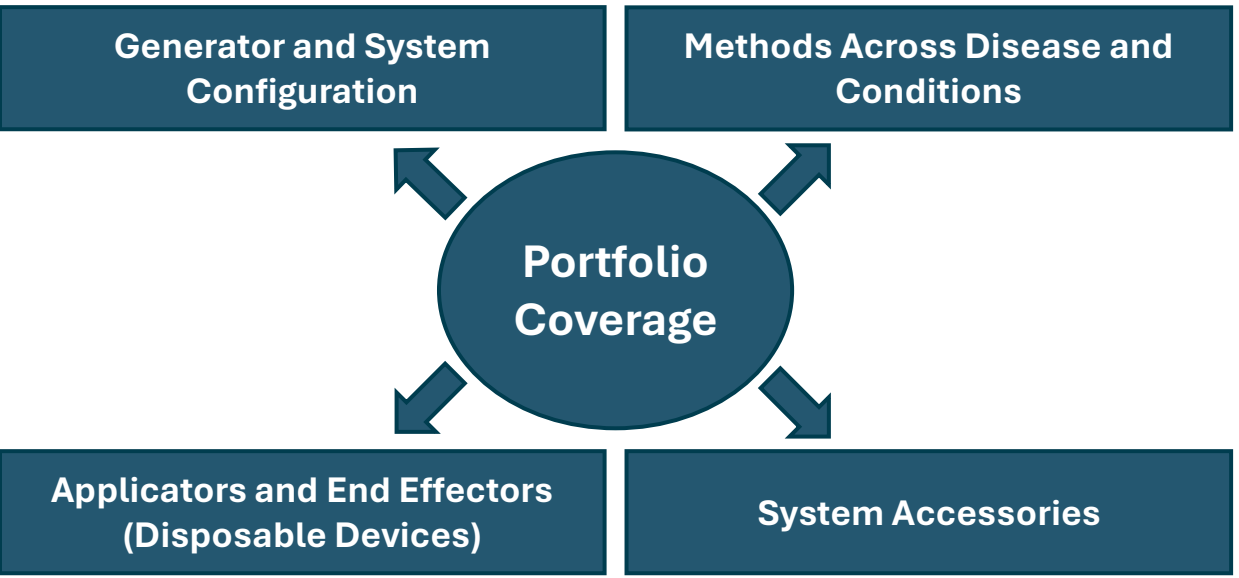
Pioneering nPulse™ Technology

PATENT PORTFOLIO

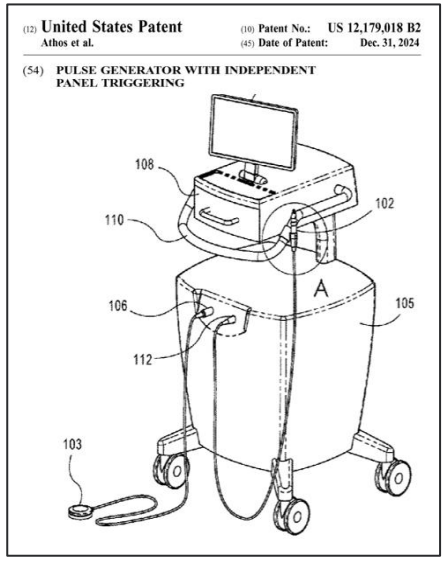
250+

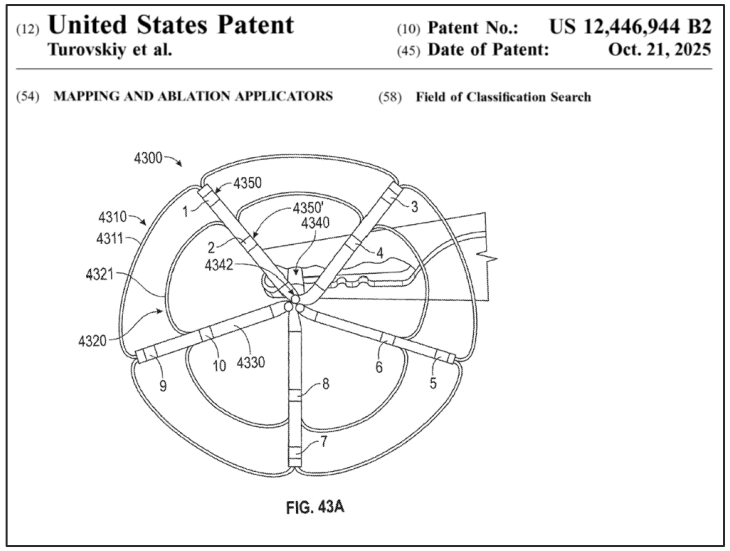
Globally owned or licensed



Creating broad and in-depth IP portfolio to effectively own the Nanosecond PFA space

Covering nPulse energy from end-to-end, from generator to electrodes, designed for ultra-short high-energy pulses





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EP Market Opportunity
AF Ablation

+$3.0B[1] **U.S. Addressable Annual Market**

Drivers for Pulse in the EP AF Ablation Market

- Drop-in workflow replacement
- Speed + efficiency over all prior PFA devices
- Enhanced lesion quality
- Elevated safety

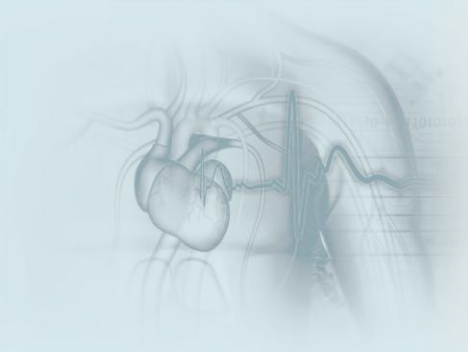
Market growing at **10–15% CAGR**[1]

Global Atrial Fibrillation (AF) Disease State: **>$8B**[2] Electrophysiology Market

Front line clearance and adoption would add significantly

~1.9M[3]

U.S. patients diagnosed with AF annually



nPulse™ technology upends the EP market with a differentiated energy and novel design with significant patent protection beyond 2040

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nsPFA Unlocks New Potential in EP

LESION QUALITY

- Single circumferential lesion – no rotation
- Lesion depth
- Transmurality
- True non-thermal MOA

SPEED

- Fewer, faster applications
- Total PVI speed unmatched
- Total procedure time reduced
- No ablation stacking required

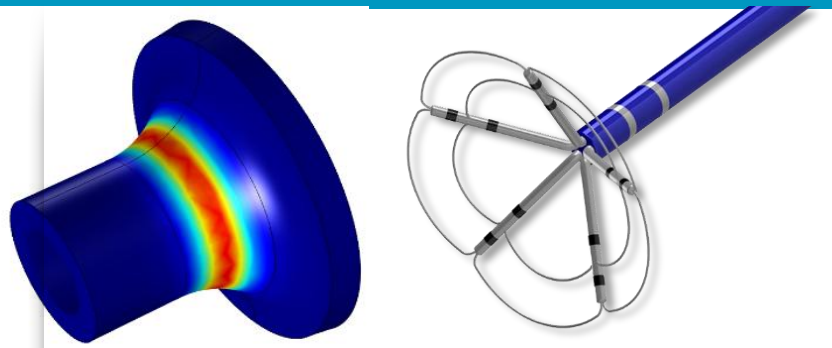
WORKFLOW

- Map and ablate – single catheter
- Conscious sedation potential; de minimis muscle stimulation
- ASC site-of-care

EFFICACY

Durability

- 6-month
- 12-month
- more



- **NANOPULSE-AF IDE approval**
- **Expect to fully enroll IDE in 2026**
- **165+ patient EU multi-center feasibility study**

Enrolled first patients in IDE in **Q2 2026**

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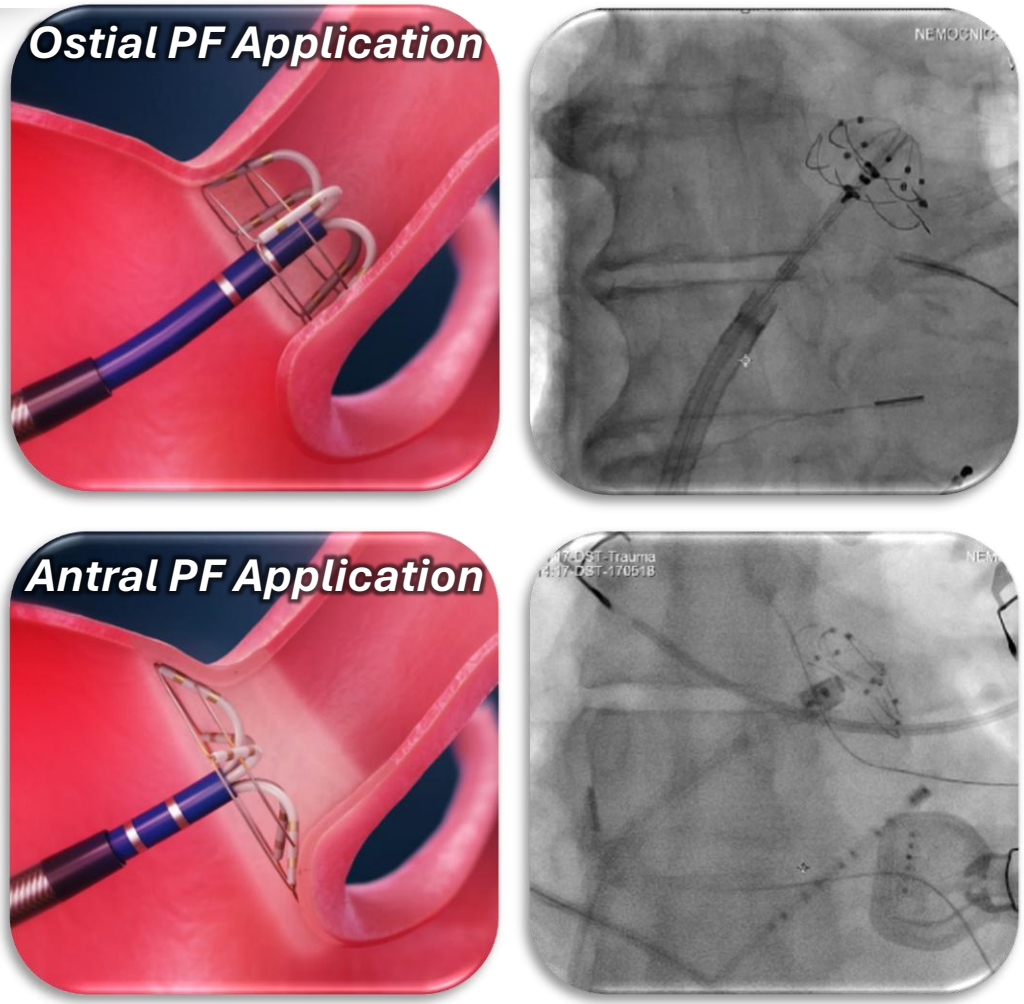
nsPFA Catheter
Pulmonary Vein Isolation Workflow

- **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



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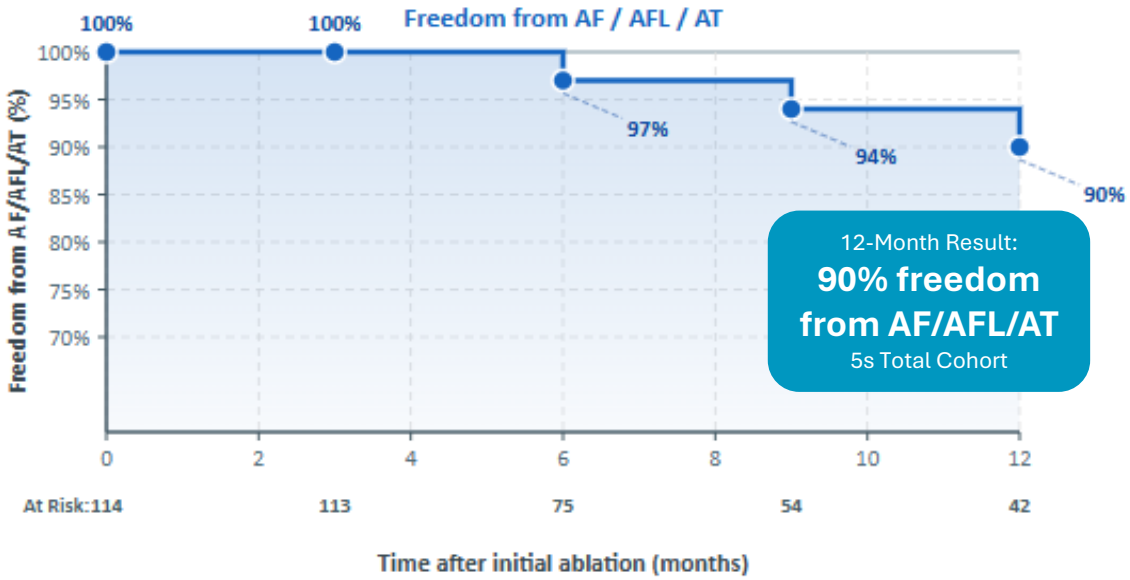
nsPFA FIH Trial: Procedure Time and Freedom AF/AFL/AT Success Rate

Metric	Total Population (n=150)	5s Total Cohort (n=114)	5s PVI + PWI (n=63)
PATIENT & PROCEDURE OVERVIEW			
# of Subjects	150	114	63
Procedure Time (mins)	65 ± 27	65 ± 28	55 ± 31
LA Dwell Time (mins)	21.3 ± 13.5	21.0 ± 13.3	20.8 ± 12.7
Fluoroscopy Time (mins)	8.9 ± 5.4	9.8 ± 5.8	11.6 ± 6.3
Avg # Applications	15.9 ± 4.9	16.1 ± 5.2 (12.8 ± 2.5)*	17.6 ± 3.5
ACUTE & 3-MONTH OUTCOMES			
Acute PVI Success, %	100%	100%	100%
# Subjects Completing EAM at 3M	135	99	43
3M PVI Success / Vein, %	89% (469/529)	92% (356/387)	94% (158/168)
3M PVI Success / Patient, %	80% (108/135)	87% (86/99)	88% (38/43)
6M & 12M HOLTER MONITORING			
6M Procedure Success by Holter, %	**98.1% (104/106)**	**100% (75/75)**	**100% (32/32)**
12M Procedure Success by Holter, %	**94.0% (63/67)**	**95.7% (45/47)**	**100% (23/23)**

** PV ablations only | EAM = Electroanatomic Mapping | PVI = Pulmonary Vein Isolation | PWI = Posterior Wall Isolation*
AF = Atrial Fibrillation | AFL = Atrial Flutter | AT = Atrial Tachycardia



Follow-up: TTMs (weekly) & 24hr-Holters at 6M & 12M

Clinical Roadmap

- Additional data - accepted as late breaking data trial presentation at Heart Rhythm Society 2026
- Expanding protocol - supplementing EU Feasibility Study

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Strategic Alignment to Accelerate Cardiac Catheter Program

European feasibility data demonstrates a clear potential to change clinical practice for millions of patients. Updated capital allocation plan assigns highest priority to EP with more concentrated R&D and clinical investment directed to the nPulse Cardiac Cather System.

Accelerate IDE Enrollment

Single arm study, comparable to the EU feasibility study protocol with already validated clinical outcomes, providing confidence for accelerated enrollment

Expand Clinical Evidence

Building on encouraging first-in human feasibility data exploring additional indications and system benefits

Expedite Next Gen Catheter Development

Accelerating R&D initiatives to advancing focal catheter development and EP pipeline

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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

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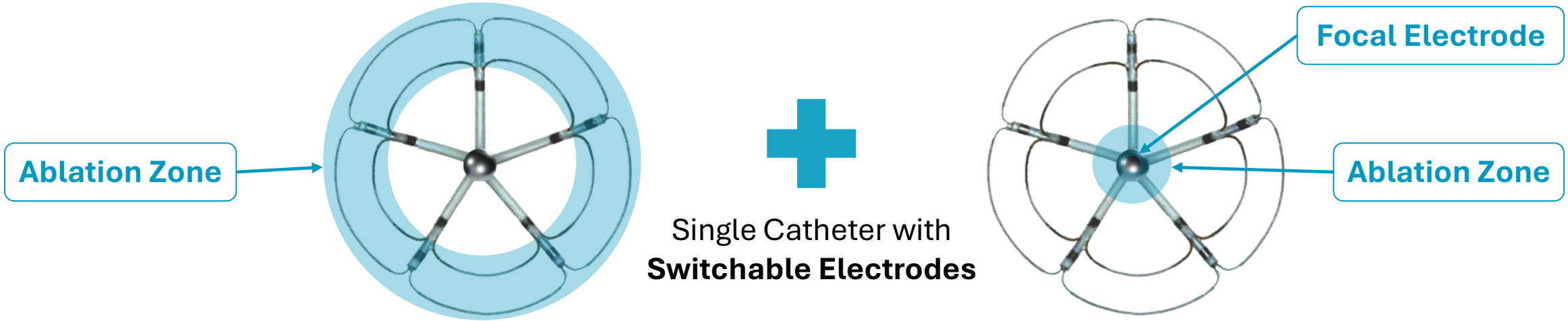
Next Gen nPulse Cardiac Catheter – Development Stage

- 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
- Combines the circumferential rings with a large focal electrode, either can be used through simple switching



Circumferential
Ablation for
PVI/PWI

Single Catheter with
Switchable Electrodes

Focal
Ablation for
MI/CTI Lines and Spots

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Pulse Biosciences' nPulse™ Platform

Multiple High Impact Opportunities Beyond EP

Opportunity for expansion into multiple markets with billion dollar plus TAMS

	Status	U.S. Addressable Annual Market	Global Potential Market
Cardiac Surgery	• Clinical Validation • NANOCLAMP-AF Pivotal Study Enrolling	**$1.8B**[4,5]	**$6.0B**[4,5]
Thyroid Application in Soft Tissue Ablation	• Market Development • PRECISE-BTN Study Enrolling • Limited Commercialization in Progress	**To Be Determined**	
Interventional Oncology and MIS Multiple pipeline applications	• MD Anderson Thyroid Cancer Studies	**Multiple Billion Dollar Markets**	

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2026 Plans

Electrophysiology

- Clear safety, speed, workflow, and durability evidence continues to expand
- Industry leading efficacy evidence continues to evolve
- Complete NANOPULSE AF IDE enrollment
- Continued release of clinical data (Heart Rhythm Society 2026)
- Progression of Next Generation Catheter program always in motion

Cardiac Surgery

- Clinical Validation:
  - Complete NANOCLAMP AF IDE enrollment
  - CE Mark submission
  - Continued release of clinical data supporting best in class and first in class

Soft Tissue Ablation

- Market Development:
  - Limited commercial release
  - Outcomes data, North American Society for Interventional Thyroidology in March 2026
  - Complete enrollment – PRECISE BTN (next few months) and thyroid cancer study

Summary

Novel nPulse™ Energy
- Unique Mechanism of Action
- Patent protected
- Nonthermal

IP 250+ Owned or Licensed Patents
- Pulse effectively owns the Nanosecond PFA Space

Clinical evidence
- Mounting and superior
- Paradigm shifting care

EP Durability Data
- 96% procedure success - 12 months
- 90% freedom from atrial arrythmias - 12 months

Target Market Values
- +$3B U.S. annual addressable market in EP
- Additional opportunities with +$1B markets

Portfolio of future indications
- Cardiac Surgery, Soft Tissue Ablation, MIS and Int. Oncology

U.S. clinical studies
- 2 pivotal IDE studies underway
- Measurable milestones

Balance sheet
- Cash balance of $80.7mm as of 12/31/2025

Citations

1) Clarivate – US EP Market Report. Data on File.
2) Company filings, BofA Global Research. Revenue is BofA estimate from BofA Global Research Market Report. Data on File.
3) Joglar et al J.A.C.C. V O L . 8 3 , N O . 1 , 2 0 2 42023 Guideline for the Diagnosis and Management of Atrial Fibrillation J A N U A R Y 2 / 9 , 2 0 2 4 : 1 0 9 – 2 7 9116 (Linear Interpolation)
4) Global Cardiac Surgical Volume and Gaps: Trends, Targets, and Way Forward. Annals of Thoracic Surgery. 2023, ISSN 2772-9931, https://doi.org/10.1016/j.atssr.2023.11.019.
5) Cardiac Surgery at Mayo Clinic—A 70th Anniversary Celebration - https://www.mayoclinicproceedings.org/article/S0025-6196(25)00560-9/fulltext