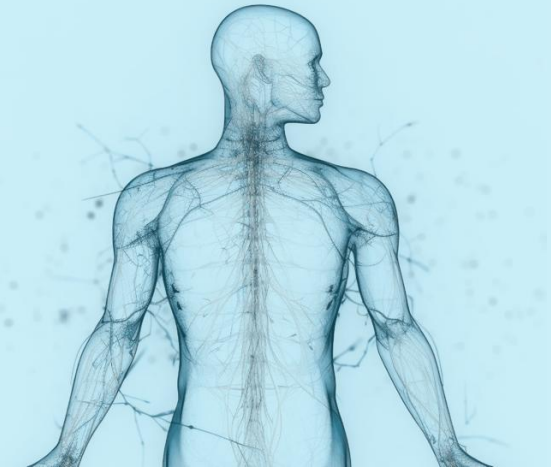
Pulse Biosciences®



Corporate Overview

August 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 **next generation therapeutic solutions** to improve and extend patients' lives. We do this with **nsPFA** and its novel mechanism, **regulated cell death**.

To solve the needs of patients, physicians, and healthcare providers by building, whenever possible, first-in-class and best-in-class technologies 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
Form a 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

Boston Scientific · SV Health Investors · BARD · gynesonics · computermotion · ImperativeCare · Teleflex · Abbott · ZIMMER BIOMET

Established Board of Directors

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

Dr. Mahkam Zanganeh

Manmeet S. Soni

Richard van den Broek

Maria Sainz

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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

Dr. Ralph Tufano
Scientific Advisor, Head and Neck
Sarasota Memorial Health Care System

Financial & Strategic Snapshot

Balance sheet as of 6/30/2026

- Cash and cash equivalents balance of $101.6mm
- No debt
- Cash burn: Strategic Capital to support significant clinical opportunities ($18.7mm of cash used in operating activities in 2Q26)
- Raised a total $57.5mm in net proceeds through ATM program as of July 2026, raising ~$13mm from insiders and the remaining $44.5mm from outside investors

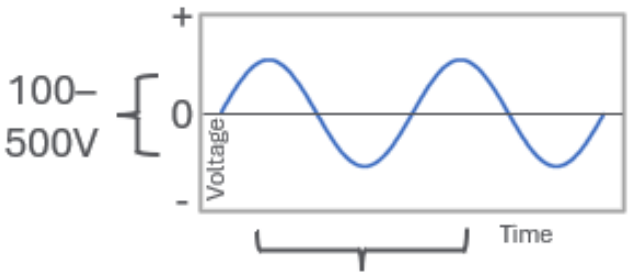
Strategy

- Focused on EP ablation catheter clinical development and accelerating pivotal trial enrollment timeline, following unprecedented best-in-class clinical outcomes data
- Continued commitment to EP partnership strategy

The Nanosecond PFA Advantage – Novel Mechanism, Deeper Ablation

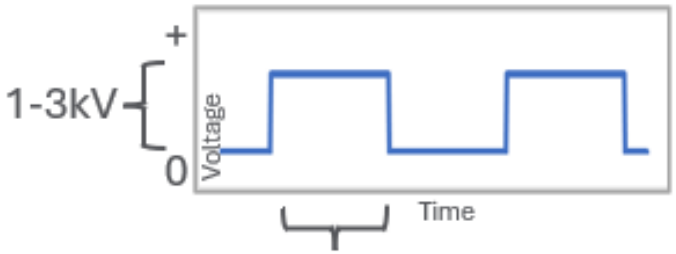
A more energy-efficient ablation mechanism, enabling larger, deeper, faster, and safer ablations

Thermal



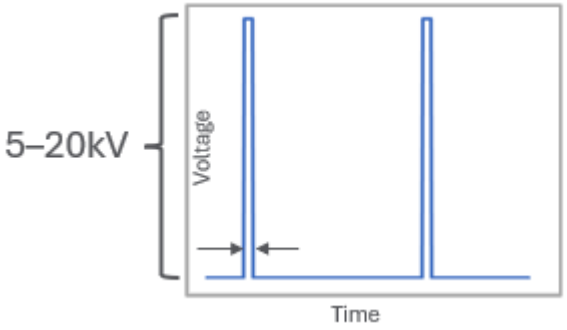
- High Thermal Energy
- Point-to-point ablation
- Destroys all tissues
- Thermal spread risk

First Gen Microsecond PFA



- Long-duration weak pulses physically destroy cell membranes
- Thermal risk mitigated with small electrodes, irrigation
- Thermal risk produces shallow lesions, requires tissue cooling, lesion stacking and catheter rotations.
- First-Gen; clear limitations

nsPFA



- nsPFA pulses are dramatically shorter than microsecond PFA
- Voltage is significantly more powerful, creating circumferential, deep ablations
- Overall energy delivery is lower, reducing thermal risk and eliminating stacking
- New era in PFA

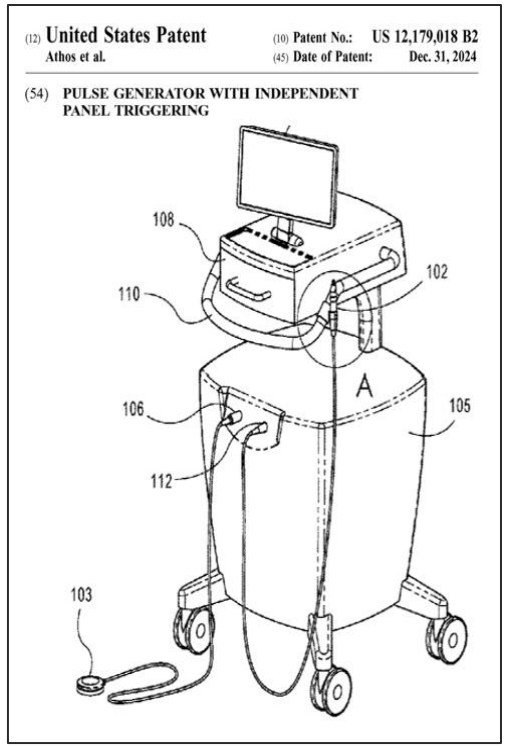
Pulse Biosciences®

Pioneering nPulse™ Technology

Building comprehensive IP to own the nanosecond PFA space

250+ patents covering the complete system from generator to electrodes

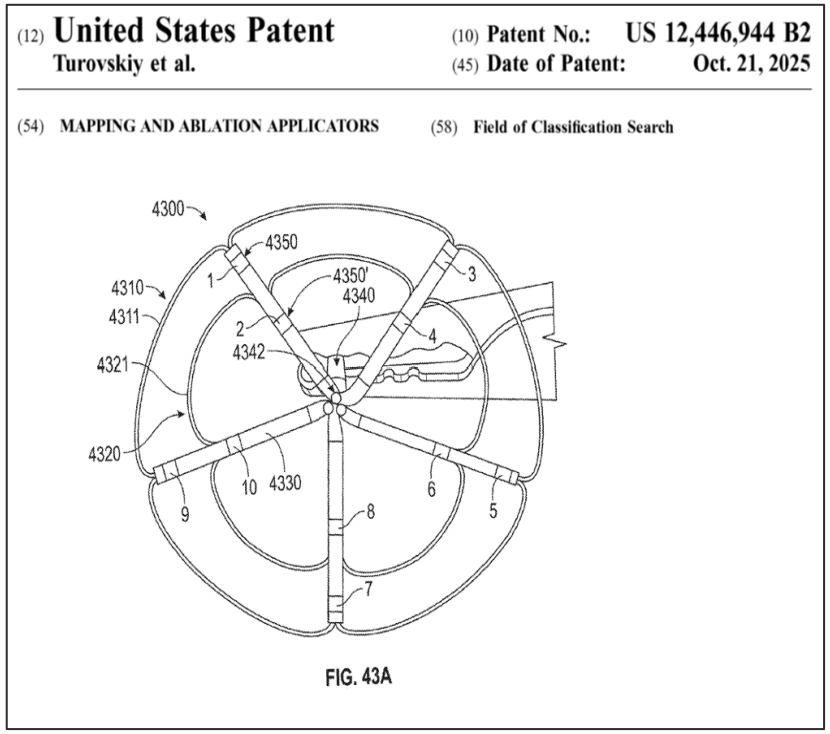
- **Generator and System Configuration**
- **Methods Across Disease and Conditions**
- **Applicators and End Effectors (Disposable Devices)**
- **System Accessories**



(12) United States Patent
Athos et al.

(10) Patent No.: US 12,179,018 B2
(45) Date of Patent: Dec. 31, 2024

(54) PULSE GENERATOR WITH INDEPENDENT PANEL TRIGGERING



(12) United States Patent
Turovskiy et al.

(10) Patent No.: US 12,446,944 B2
(45) Date of Patent: Oct. 21, 2025

(54) MAPPING AND ABLATION APPLICATORS

(58) Field of Classification Search

FIG. 43A

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EP Market Opportunity
AF Ablation #1 Strategic Priority

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

Drivers of the EP AF Ablation Market

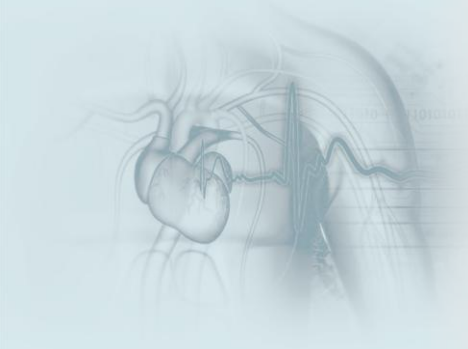
- Drop-in workflow replacement
- Speed + efficiency over all prior PFA devices
- Enhanced lesion quality
- Elevated safety
- Exceptional scale with sustained rapid growth

Market growing at **10–15% CAGR**[1]

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

Front line clearance and adoption would add significantly

~1.9M U.S. patients diagnosed with AF annually [3]



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

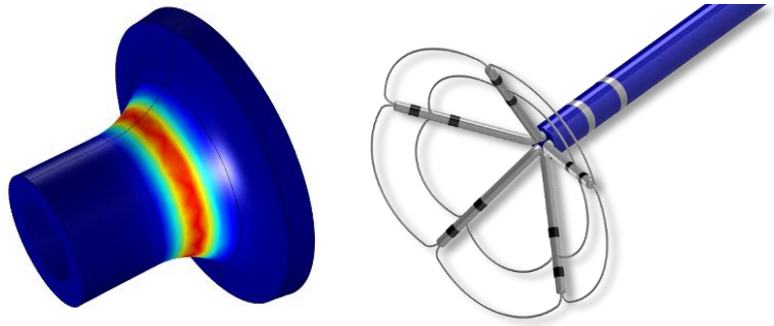
WORKFLOW

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

EFFICACY

Durability

- 6-month
- 12-month
- more



Expect to fully enroll IDE in **Early Q4 2026**

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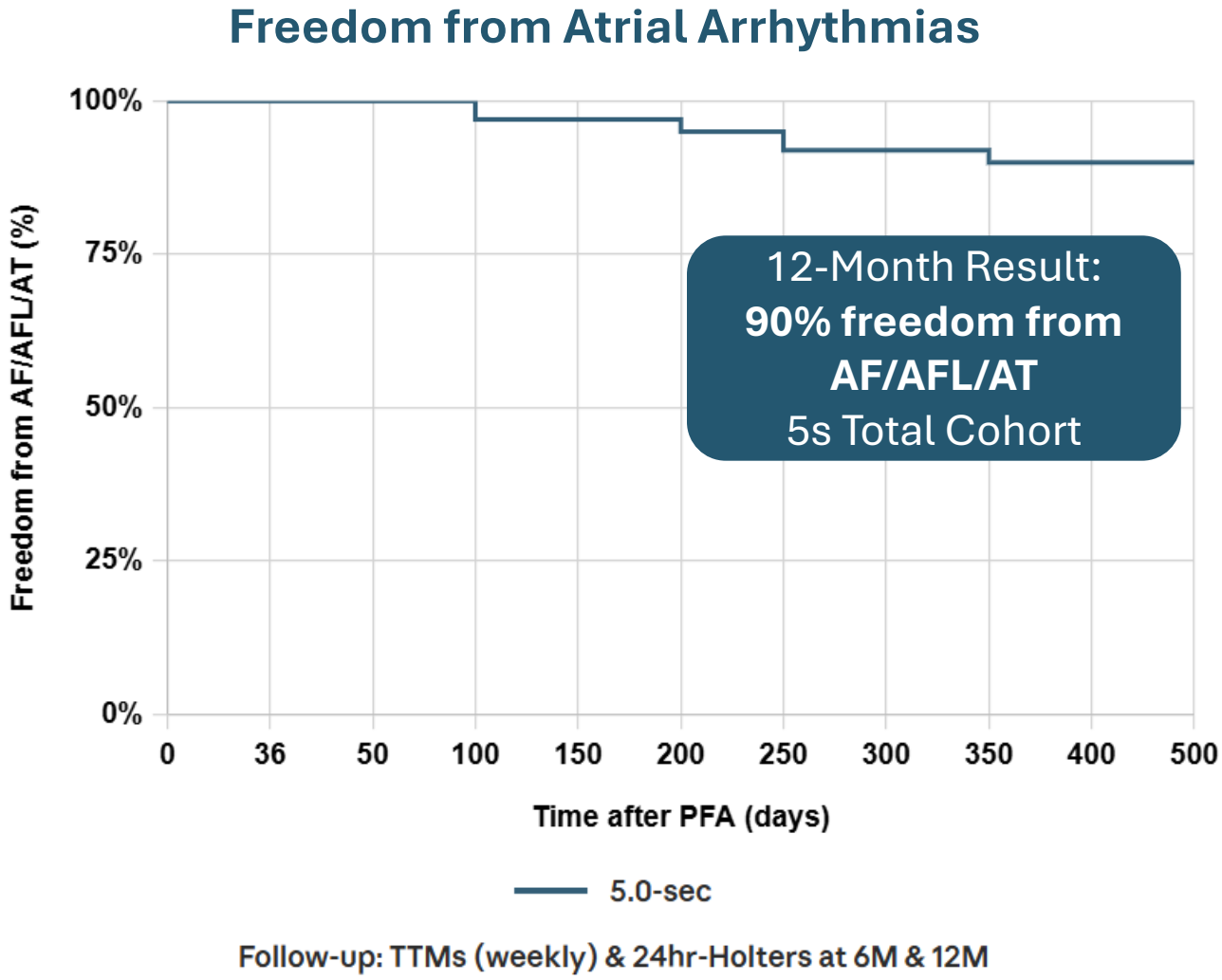
nsPFA FIH Trial: Procedure Time and Freedom AF/AFL/AT Success Rate

HRS late-breaking data

Parameter	April 2026
PATIENT & PROCEDURE OVERVIEW	**5S COHORT**
# 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%**

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



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NANOPULSE-AF IDE Pivotal Study

Study Overview	
Target evaluable enrollment	164 patients
Clinical sites	Up to 30
First patients enrolled	2Q26
Enrollment target	Early Q4 2026
Primary endpoints	6- and 12-months post-ablation procedural success and safety outcomes

- Midpoint of enrollment reached with amended protocol, now inclusive of patients that have failed any of the 4 classes of AADs
- Enrollment timeline accelerated to Early Q4 2026
- Strong physician enthusiasm driving momentum

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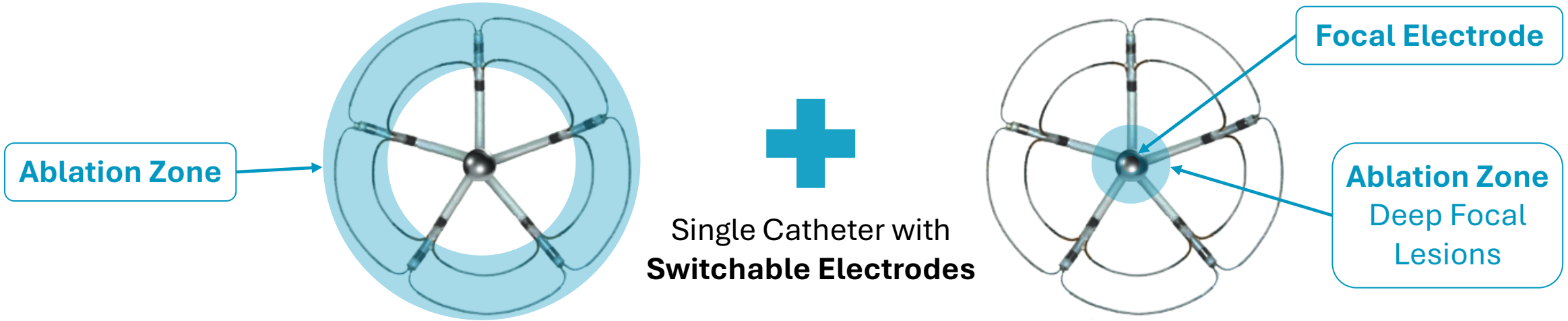
Next Gen nPulse Cardiac Catheter – Development Stage

- 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
- Pre-clinical focal data presented in poster at HRS ‘26



Circumferential
Ablation for
PVI/PWI

Single Catheter with
Switchable Electrodes

Focal
Ablation for
MI/CTI Lines and Spots

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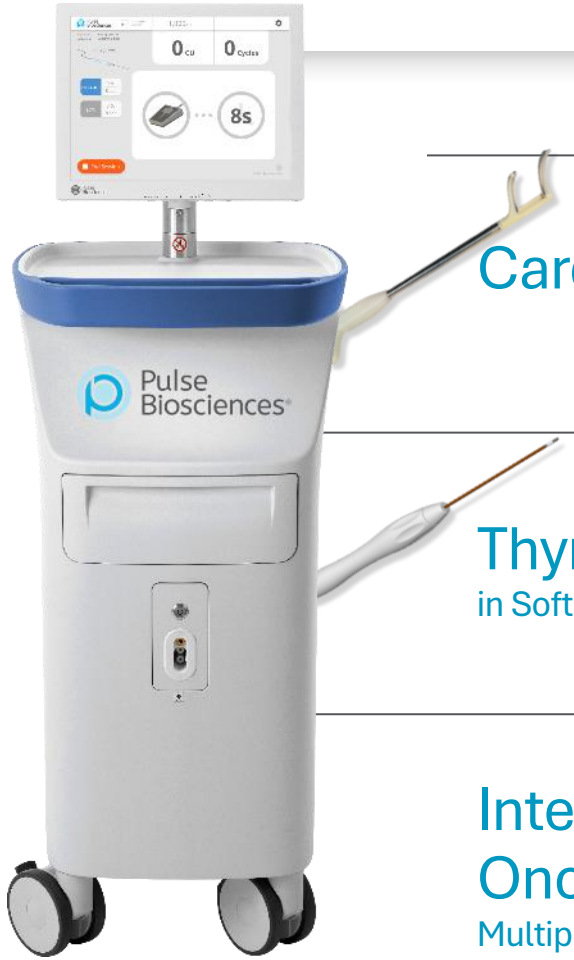
Pulse Biosciences' nPulse™ Platform

Multiple High Impact Opportunities Beyond EP



	Status	U.S. Procedure Potential		
Cardiac Surgery	• Clinical Validation • NANOCLAMP-AF Pivotal Study Enrolling	**24,000** Open Heart Pre-Op AF Treated with RF Ablation [4,5]	**80,000** Total Open Heart Pre-Op AF [4,5]	**Prophylactic AF** Additional Market Expansion
Thyroid Application in Soft Tissue Ablation	• Focused Market Development • PRECISE-BTN Study Enrolling	**150,000** Thyroidectomies for BTN Diagnosis [6,7,8,9,10]	**100,000** BTN Diagnosis Entering "Watchful Waiting" [6,7,8,9,10]	
Interventional Oncology & MIS Multiple pipeline applications	• MD Anderson Thyroid Cancer Studies	**To Be Determined**		

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Summary and 2026 Priorities

Novel nPulse™ Energy

- Unique Mechanism of Action
- Patent protected
- Nonthermal

IP 250 and growing Owned or Licensed Patents

- We believe 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 Markets

- +$3B U.S. annual addressable market in EP, doubled by 2035
- Additional opportunities with +$1B markets
- Persistent + Paroxysmal

Portfolio of future indications

- Cardiac Surgery, Soft Tissue Ablation, MIS and Interventional Oncology

U.S. clinical studies

- 2 pivotal IDE studies underway
- Measurable milestones

Balance sheet

- Cash balance of $101.6mm as of 6/30/2026
- $57.5mm net proceeds raised through ATM as of July 2026

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
6) Data on file. Thyroidectomy WW Procedure Data provided by iData
7) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8215427/
8) Fine-Needle Aspiration of the Thyroid Gland https://www.ncbi.nlm.nih.gov/books/NBK285544/
9) CMS - https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=38968&ver=4
10) CDC - https://seer.cancer.gov/statfacts/html/thyro.html

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