UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): **April 7, 2026**

Pulse Biosciences, Inc.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**001-37744**	**46-5696597**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

601 Brickell Key Drive, Suite 1080
Miami, Florida 33131
(Address of Principal Executive Offices) (Zip Code)

510-906-4600
(Registrant's Telephone Number, Including Area Code)

Not Applicable
(Former Name or Former Address, If Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common stock, $0.001 par value per share	PLSE	The Nasdaq Stock Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 8.01 Other Events.

On April 7, 2026, Pulse Biosciences, Inc. (the "Company") issued a press release announcing the first enrollment of patients in its NANOPULSE-AF clinical study, a prospective, multicenter, pivotal, clinical investigation currently evaluating the Company's nPulse™ Cardiac Catheter System for treating recurrent, drug-resistant, symptomatic paroxysmal atrial fibrillation (the "Study"). The first seven patients in the Study were treated at St. Bernards Medical Center in Jonesboro, Arkansas, by Devi Nair, MD, Principal Investigator of the Arrhythmia Research Group. The Company plans to enroll approximately 215 participants in the Study, across multiple clinical sites, and expects the primary endpoints will be assessed at 6 and 12 months post-ablation to measure procedural success and safety outcomes.

A copy of the press release related to the matters set forth herein is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	**Description**
99.1	Press Release issued by Pulse Biosciences, Inc. dated April 7, 2026 - Pulse Biosciences Enrolls First Patients in NANOPULSE-AF IDE Pivotal Clinical Study Evaluating nPulse™ Cardiac Catheter System for Atrial Fibrillation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PULSE BIOSCIENCES, INC.

Date: April 7, 2026

By: /s/ Paul A. LaViolette
Paul A. LaViolette
Chief Executive Officer
(Principal Executive Officer)

Exhibit 99.1

Pulse Biosciences Enrolls First Patients in NANOPULSE-AF IDE Pivotal Clinical Study Evaluating nPulse™ Cardiac Catheter System for Atrial Fibrillation

U.S. IDE Enrollment follows groundbreaking 96% procedural success at 12 months in European feasibility study

HAYWARD, California, April 7, 2026 – Pulse Biosciences, Inc. (Nasdaq: PLSE), developer of nPulse™ technology using proprietary nanosecond pulsed field ablation (nsPFA™) energy, today announced enrollment of the first patients in its NANOPULSE-AF study, a prospective, multicenter, IDE pivotal clinical investigation currently evaluating the nPulse™ Cardiac Catheter System for treating recurrent, drug-resistant, symptomatic paroxysmal atrial fibrillation (AF).

The first seven patients in this study were treated at St. Bernards Medical Center in Jonesboro, Arkansas, under the leadership of Devi Nair, MD, Principal Investigator of the Arrhythmia Research Group. "This is a promising technology, and our team is pleased to have enrolled and treated the first patients in this pivotal trial," said Dr. Nair. “The performance of the nPulse System, combined with integrated catheter mapping using the investigational EnSite X software from Abbott, provides a very user-friendly experience and supports an efficient, reproducible and streamlined workflow. This approach may potentially offer important advantages compared with existing technologies. I look forward to continued enrollment and further clinical evaluation of this strategy in atrial fibrillation ablation for the betterment of all involved.”

“Enrolling the first patients in this study marks an important milestone for the Company as we build on the encouraging results from our impressive feasibility experience,” said Darrin Uecker, CTO and Board Member. “With our nanosecond pulsed field ablation technology and the cardiac catheter’s novel design, we are advancing an entirely differentiated approach that we intend to significantly alter AF treatments. We’re thrilled by this strong start to the NANOPULSE-AF study and look forward to its rapid expansion.”

This milestone builds on Pulse Biosciences’ first-in-human feasibility study, which showed 96% procedural success at 12 months and 100% acute success, exceeding expectations in a field where 20-25% recurrence is typical. Outcomes were reproducible across operators and achieved without anti-arrhythmic drugs.

“I am excited to initiate our IDE study with Dr. Nair, a leader in the EP ablation space. This marks an important advancing next step in the clinical development of our nanosecond PFA platform,” said David Kenigsberg, MD, FACC, FHRS, Chief Medical Officer of Pulse Biosciences. “Building on encouraging first-in-human data demonstrating safety, procedural efficiency, durable pulmonary vein isolation, and ease of use, our catheter is now tightly integrated with the Abbott EnSite X 3D electroanatomical mapping system, enabling accurate catheter visualization, navigation and contact assessment to support optimal PFA delivery. We look forward to rigorously evaluating this technology in this larger, multicenter setting at up to 30 centers in the United States and Europe.”

Vivek Reddy, MD, Director of Cardiac Arrhythmia Services at the Mount Sinai Fuster Heart Hospital, NY is the Principal Investigator of the NANOPULSE-AF Study. “From the initial clinical experience, the nPulse™ system demonstrated meaningful potential in the treatment of atrial fibrillation,” said Dr. Reddy. “The NANOPULSE-AF pivotal trial represents an important step forward in evaluating this technology and its potential role in improving procedural outcomes for patients with atrial fibrillation.”

The nPulse Cardiac™ Catheter System delivers energy in billionths of a second — nanoseconds — compared with conventional, slower microsecond-based systems. This ultra-fast, non-thermal energy is designed to create precise, durable PVI while minimizing impact to surrounding cardiac structures.

Key design features of the System include:

- Precise Lesion Formation: Creates deep, circumferential lesions without stacking applications or rotating the catheter.
- Efficient Workflow: Isolates pulmonary veins with minimal applications and ultra-fast delivery (~5 seconds per application).
- Procedure Efficiency: Prior feasibility study showed median left atrial dwell time of 21 minutes and total procedure time of approximately 65 minutes.
- Enhanced Visualization: Integrated magnetic EP mapping with catheter-embedded sensors compatible with Abbott’s EnSite X system for real-time 3D electroanatomical visualization to provide a stable location reference, constructing anatomical shells, and standardizing electrophysiological maps to guide therapy.

About the NANOPULSE-AF Study

The NANOPULSE-AF Study is a prospective, multicenter, non-randomized IDE pivotal clinical investigation designed to evaluate the safety and effectiveness of the CellFX nsPFA Cardiac Catheter System in patients with drug-resistant, symptomatic, paroxysmal atrial fibrillation. The Study plans to enroll approximately 215 participants across multiple clinical sites, with the first patients treated at St. Bernards Medical Center in Jonesboro, Arkansas, under the leadership of Dr. Nair. Primary endpoints will be assessed at 6 and 12 months post-ablation to measure procedural success and safety outcomes, supporting the broader clinical development of the nPulse™ system.

About Pulse Biosciences®

Pulse Biosciences is a novel bioelectric medicine company committed to health innovation that has the intention as well as potential to improve the quality of life for patients. The Company’s proprietary nPulse™ technology delivers nanosecond pulses of electrical energy to non-thermally clear cells while sparing adjacent non-cellular tissue as well as initiating regulated cell death. The Company is actively pursuing the development of its nPulse technology for use in the treatment of atrial fibrillation and in a select few other markets where it could have a profound positive impact on healthcare for both patients and providers, such as surgical soft tissue ablation.

Forward-Looking Statements

All statements in this press release that are not historical are forward-looking statements, including, among other things, statements concerning early clinical successes and whether they are predictive of the safety and effectiveness of any medical device such as the nPulse™ Cardiac Catheter System,

Pulse Biosciences' expectations, whether stated or implied, about whether the Company's nsPFA technology will become either a disruptive treatment option or a superior option for treating atrial fibrillation or any other medical condition, statements about its expectations for the NANOPULSE-AF study such as any projections about enrollment, statements relating to the effectiveness of the Company's 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, such as advancement of its nPulse™ Cardiac Catheter to treat paroxysmal atrial fibrillation, statements concerning whether any clinical study will show that the Company's novel nsPFA mechanism of action and catheter design will deliver durable pulmonary vein isolation or fast and precise ablations in cardiac tissue and streamline workflow, statements concerning market opportunities, customer adoption and future use of the nPulse System to address a range of conditions such as atrial fibrillation, 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 Securities and Exchange Commission. Pulse Biosciences undertakes no obligation to revise or update information in this release to reflect events or circumstances in the future, even if new information becomes available.

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