Atrium Therapeutics

February 2026

www.atriumtherapeutics.com

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Forward Looking Statements

FORWARD LOOKING STATEMENTS AND OTHER INFORMATION: Certain statements in this Presentation may constitute "forward-looking statements" for purposes of the federal securities laws. Our forward-looking statements include, but are not limited to, statements regarding our future results of operations and financial position, business strategies and plans, the planned completion and timing of the proposed acquisition of Avidity Biosciences, Inc. ("Avidity") by Novartis AG and Avidity's related spin-off of the Company, research and development plans, the anticipated timing, costs, design and conduct of our ongoing and planned preclinical studies and clinical trials for our product candidates, the timing and likelihood of regulatory filings and approvals for our product candidates, the timing and likelihood of success, plans and objectives of management for future operations and future results of anticipated product development efforts, and inflationary pressures on our business, are forward-looking statements. The forward-looking statements contained in this Presentation are based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. There can be no guarantee that the conditions to the closing of the Transactions will be satisfied on the expected timetable or at all or that the expected benefits or synergies from the Transactions will be achieved in the expected timeframe, or at all. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements including, but not limited to: the initiation, timing, progress, potential registrational quality, and results of our research and development programs, preclinical studies, any clinical trials, Investigational New Drug Application, and other regulatory submissions; the beneficial characteristics, including potential safety, efficacy and therapeutic effects of our product candidates and the potential advantages of our product candidates compared to alternative therapies; the success and capabilities of the RNA delivery platform; the prevalence of certain diseases and conditions we intend to treat and our estimates of the potential market opportunity for our product candidates; the number of patients that we will enroll in our clinical trials; the timing of and costs involved in obtaining and maintaining regulatory approval of our current product candidates and any future product candidates that we may identify or develop; our ability to meet future regulatory standards with respect to our product candidates, if approved; our plans relating to the further development and manufacturing of our product candidates, including for additional indications that we may pursue; the rate and degree of market acceptance and therapeutic benefits of our product candidates, if approved; our ability to develop or partner and progress our current and future product candidates; the implementation of our strategic plans for our business, product candidates, research programs and technologies; the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates; anticipated developments related to our competitors and our industry; our competitive position and the success of competing therapies that are or may become available; our ability to maintain our current license agreements and collaborations and identify and enter into future license agreements and collaborations; the expected potential benefits of strategic collaborations with third parties and our ability to attract collaborators with development, regulatory, manufacturing or commercialization expertise; our reliance on third parties to conduct preclinical studies and clinical trials of our product candidates; our ability to efficiently and cost-effectively conduct our current and future clinical trials; our reliance on third parties for the manufacture of our product candidates; our plans relating to sales strategy, manufacturing and commercializing our product candidates, if approved; anticipated regulatory developments in the United States and foreign countries in which we may seek regulatory approval for our product candidates in the future; the timing and likelihood of the achievement of milestones pursuant to our existing collaboration agreements; our ability to attract and retain key scientific and management personnel; the costs of operating as a public company; the accuracy of our estimates regarding future expenses, future revenue, capital requirements and the need for additional financing; the period over which we estimate our existing cash and cash equivalents will be sufficient to fund our future operating expenses and capital expenditure requirements; our ability to obtain funding for our operations necessary to complete further development and commercialization of our current and future product candidates; our anticipated use of our existing resources, estimates of our expenses, capital requirements and needs for additional financing; and other factors specified in the Company's Registration Statement on Form 10, initially publicly filed by the Company with the Securities and Exchange Commission (the "SEC") on December 10, 2025 and in other filings and furnishings made by the Company with the SEC from time to time. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. The Company is currently a wholly owned subsidiary of Avidity and the description of its business contained in this Presentation assumes that the Transactions have been consummated.

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MARKET AND INDUSTRY DATA: This Presentation also contains information regarding our market and our industry that is derived from third-party research and publications. That information may rely upon a number of assumptions and limitations, and we have not independently verified its accuracy or completeness. This data is subject to change. No representation is made as to the reasonableness of the assumptions made within or the accuracy or completeness of any projections or modeling or any other information contained herein. Any data based on past performance or modeling contained herein is not an indication as to future performance.

Our vision:

To pioneer precision RNA medicines for the heart and profoundly improve the lives of people impacted by cardiac diseases

Unlocking precision cardiology for genetically driven cardiomyopathies

Targeted RNA Delivery Platform

Designed at Avidity Biosciences

Focused Pipeline

Two lead programs (PRKAG2 & PLN) with near term catalysts

Clear Medical Need

Limited targeted therapies in genetic cardiomyopathies[1]

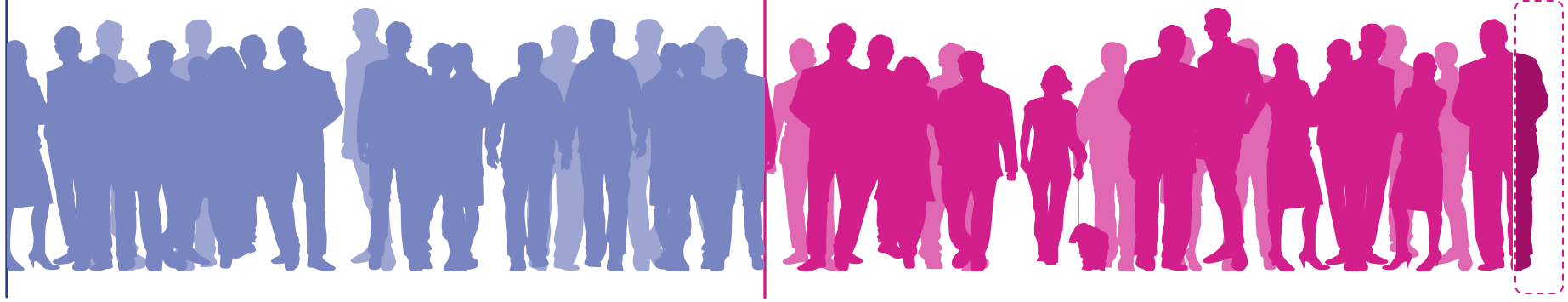
[1] *Aro, A. et al*, "Population Burden of Sudden Death Associated With Hypertrophic Cardiomyopathy" *Circulation vol 136 (2017)*

Millions of people with genetic cardiomyopathies lack disease-modifying treatments

~2 Million
diagnosed in the US[1]

50%
have underlying genetic driver of disease[2,3]

Most managed through symptom control[4]



Limited
targeted or etiology-specific therapies today[5]

Opportunity for RNA-based precision therapies

[1] *Kramer, C. Et al, "Hypertrophic Cardiomyopathy Registry: The rationale and design of an international, observational study of hypertrophic cardiomyopathy. Am Heart J. 2015 Aug;170(2):223-30 and Ababio, Yaa et al, "Prevalence and Clinical Burden of Idiopathic Dilated Cardiomyopathy in the United States". Am J of Medicine Open Volume 10, 2023.*
[2] *Ho, CY. "Genotype and lifetime burden of disease in hyptertrophic cardiomyopathy*
[3] Cheng, Z,. et al, "Hypertrophic Cardiomyopathy: From Phenotype and Pathogenesis to Treatment". *Frontiers in Cardiovascular Medicine vol. 8 (2021).* DOI=10.3389/fcvm.2021.722340
[4] *Hutt, E, et al, "Medical Treatment Strategies for Hypertrophic Cardiomyopathy." American Journal of Cardiology vol 212, S33-41*
[5] *Aro, A. et al,* "Population Burden of Sudden Death Associated With Hypertrophic Cardiomyopathy". *Circulation vol 136 (2017)*

Genetic cardiomyopathy is at an inflection point[1,2] and primed for precision therapies

Science & Technology Convergence:

- Precise clinical development
- Rapid disease growth
- Genetic testing adoption
- RNA therapies
- Novel regulatory approaches
- Increasing target validation
- RWE and registry data

UNLOCKING PRECISION CARDIO

Atrium Platform in Rare Genetic Cardiomyopathies

OPTIMIZATION IN CARDIAC DISEASE

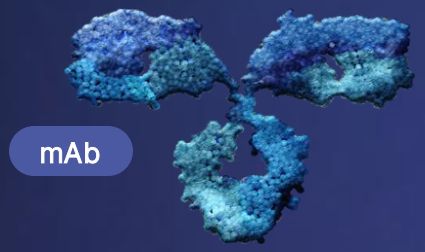
Future Scaling of Platform to Address Broad Cardiac Disease

[1] Javad, S, and Halliday, B. "Precision therapy in dilated cardiomyopathy: Pipedream or paradigm shift?." *Cambridge prisms. Precision medicine* vol. 1 e34. 20 Nov. 2023, doi:10.1017/pcm.2023.24

[2] Nomuro, S, Ono M. "Precision and genomic medicine for dilated and hypertrophic cardiomyopathy". Frontiers in Cardiovascular Medicine vol 10 (2023) DOI=10.3389/fcvm.2023.1137498

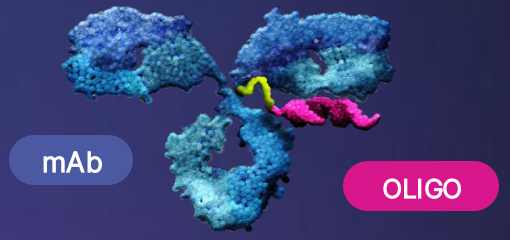
A precision RNA platform primed for genetic cardiomyopathies

Monoclonal Antibodies



Oligonucleotide Therapies

Antibody Oligonucleotide Conjugate (AOC)



Targeted Delivery

- ✓ RNA delivery technology designed to efficiently reach heart tissue
- ✓ Built on technology developed at Avidity

Genetic Precision

- ✓ Designed to directly target pathogenic RNA
- ✓ Potential to modify disease progression

Scalable Platform

- ✓ AOCs applicable across multiple genetically-defined cardiomyopathies
- ✓ Efficient expansion potential to additional indications

Robust pipeline supported by strong capital position

PROGRAM/INDICATION	TARGET	RESEARCH	IND-ENABLING	CLINICAL: PHASE 1	CLINICAL: PHASE 2	CLINICAL: PHASE 3	ANTICIPATED UPCOMING MILESTONES
PRKAG2 syndrome	PRKAG2	ATR 1072					IND filing in 2H '26
PLN cardiomyopathy	PLN	ATR 1086					IND filing in 2027

$270M
Cash and cash equivalents[1]

Strong balance sheet
runway through clinical proof-of-concept

$1.5B
potential R&D milestone payments from existing collaborations with BMS and LLY[2]

[1] Reflects amount of cash to be contributed to the Company by Avidity Biosciences in connection with the Separation and Distribution
[2] Receipt of such milestone payments are subject to the terms and conditions of the collaboration agreements with BMS and LLY, respectively, which will be assigned to the Company in connection with the Separation and Distribution

ATR1072

PRKAG2 Syndrome

PRKAG2 Syndrome

A rare, progressive disease that can lead to sudden cardiac death

- Autosomal dominant disease caused by gene mutations in PRKAG2 that leads to AMPK overactivity resulting in glycogen accumulation in heart muscle
- Contributes to cardiomyopathy due to thickened heart muscles, electrical conduction problems and arrhythmias
- Causes heart failure and sudden cardiac death
- Current treatment limited to symptom management for arrhythmias and myocardial hypertrophy
- No therapy targeting root cause of disease
- Typically emerges during adolescence and early adulthood[1]

0
Approved therapies

1,000-2,000
People with PRKAG2 in the U.S.[2]

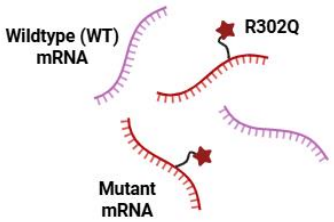
Up to 100%
of people inheriting the mutation will develop symptoms[3]

[1] van der Steld, L et al. "PRKAG2 syndrome, a rare hypertrophic cardiomyopathy: a Brazilian long-term follow-up with extracardiac disorders." *Einstein (Sao Paulo, Brazil)* vol. 22 eAO0549. 26 Jul. 2024, doi:10.31744/einstein_journal/2024AO0549
[2] Murphy, R, et al. "Adenosine Monophosphate-Activated Protein Kinase Disease Mimicks Hypertrophic Cardiomyopathy and Wolff-Parkinson-White Syndrome." Journal of the American College of Cardiology vol 45 (2005). doi:10.1016/j.jacc.2004.11.053
[3] Porto, A, et al. "Clinical Spectrum of PRKAG2 Syndrome." Circ Arrhythm Electrophysiol. Jan 2016.

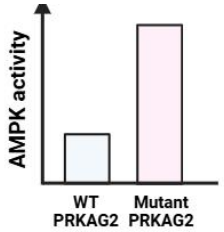
ATR 1072 designed to silence mutant PRKAG2 to normalize AMPK activity

Mechanism of Disease

PRKAG2 is the regulatory component of AMPK



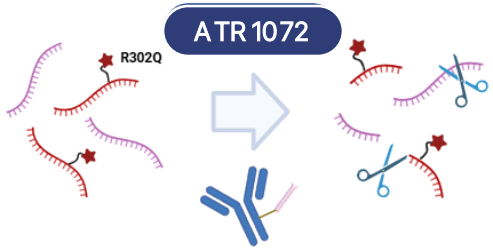
Mutant PRKAG2 leads to overactivation of AMPK



Hypertrophic cardiomyopathy (HCM) characterized by glycogen accumulation and arrhythmia

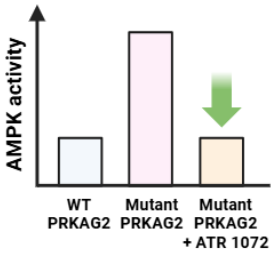
Therapeutic Approach

ATR 1072-mediated degradation of cardiac PRKAG2 mRNA

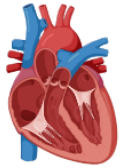


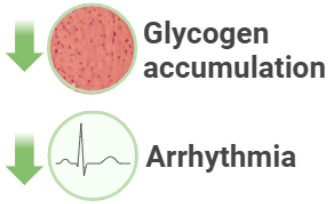
= Targeted siRNA-mediated RNA degradation

Reduced mutant PRKAG2 leads to normalization of AMPK activity



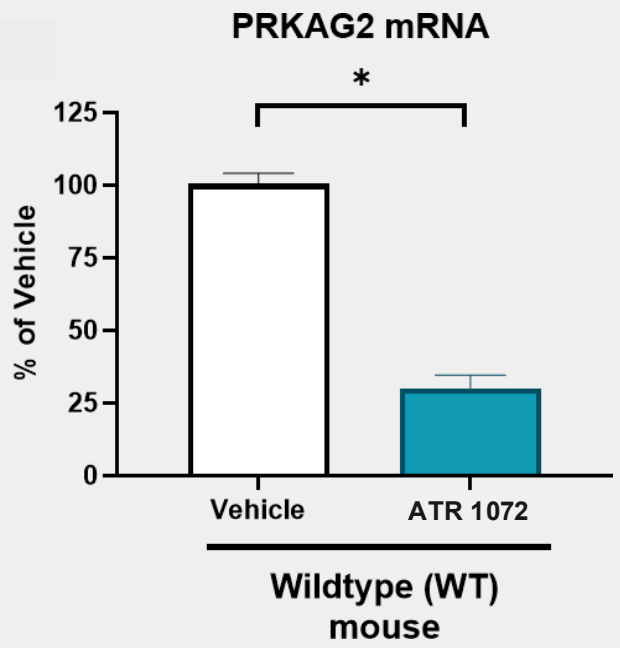
Attenuates HCM disease progression



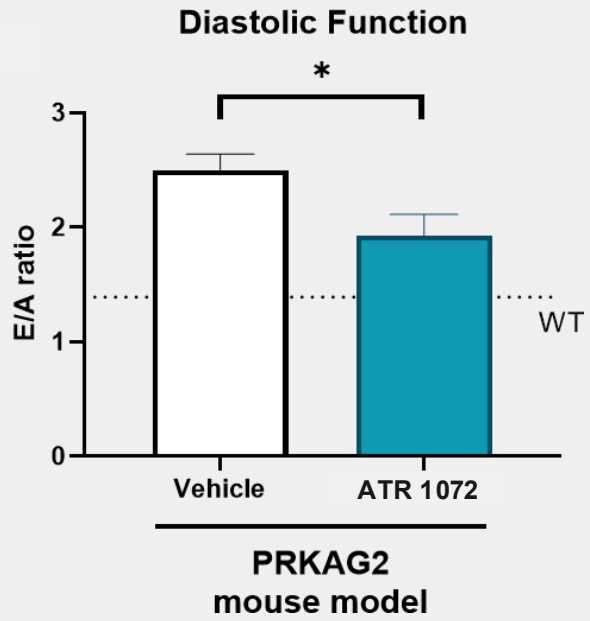


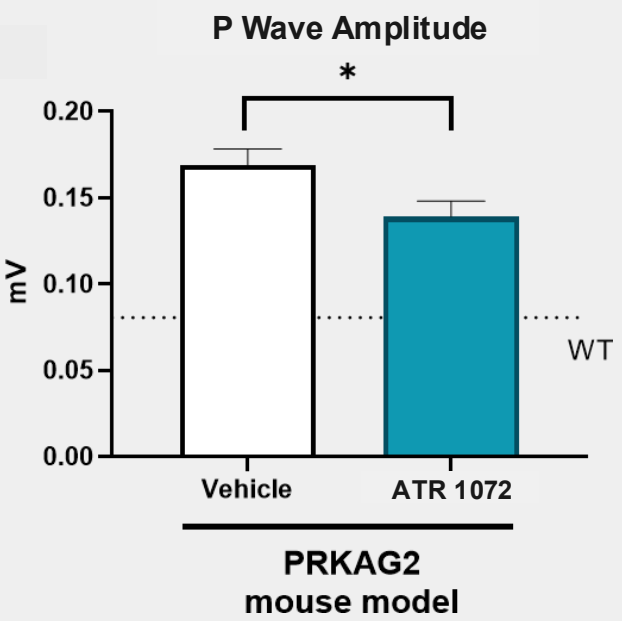
ATR 1072 normalizes key cardiac functional measures in pre-clinical studies[1]

Reduction of PRKAG2 at Day 28 following single dose of ATR 1072 (3mg/kg)



Improvements in Cardiac Relaxation and Atrial Signaling at 24 weeks following 3 doses of ATR 1072 (3 mg/kg, q12w)





E/A ratio: Ratio of the E wave peak velocity to the A wave peak velocity. Data are presented as mean ± SEM. Student's t-test. * $p < 0.05$.

[1] Based on preclinical studies conducted by Avidity

ATR 1072: Clear path to clinical proof-of-concept

Achievements

- ☑ Pre-clinical proof-of-concept
- ☑ GMP manufacturing
- ☑ Successful pre-IND meeting

Upcoming Milestones

- ☐ Complete IND-enabling studies
- ☐ IND filing planned 2H 2026
- ☐ Phase 1 trial study initiation[1]
- ☐ Phase 1 proof-of-concept in PRKAG2 syndrome

[1] Subject to successful completion of IND filing and regulatory clearances

ATR1086

PLN Cardiomyopathy

PLN Cardiomyopathy

Is a rare progressive disease with frequent family history

- PLN-R14del is the most common disease-relevant PLN mutation
- Mutant PLN-R14del forms aggregates and impairs cardiomyocyte function
- Characterized by dilated, arrhythmogenic or hypertrophic cardiomyopathy
- Notable for frequent family history of premature sudden cardiac death and progressive cardiac failure
- High incidence of sudden cardiac death, ventricular arrhythmias and cardiac transplantation
- Current treatment focuses on symptom management[1]
- No therapy to target root cause of disease

0
Approved therapies

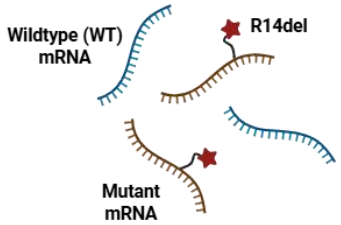
2,000-4,000
People with pathogenic PLN variants in the U.S.[2]

[1] Vafiadaki E, et al. "Phospholamban R14del disease: The past, the present and the future." Frontiers in Cardiovascular Medicine vol 10 (2023). doi:10.3389/fcvm.2023.1162205
[2] Internal sources based on discussions with genetic testing providers

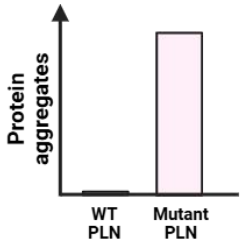
ATR 1086: Designed to silence mutant PLN to prevent protein aggregates and target root cause of disease[1]

Mechanism of Disease

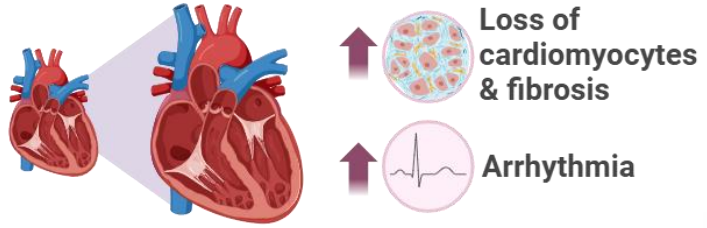
Phospholamban (PLN) regulates Ca2+ handling in cardiomyocytes



R14del mutation on PLN causes PLN to form protein aggregates

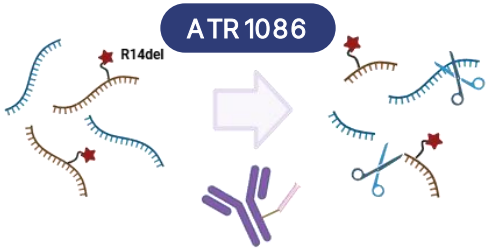


Dilated and Arrhythmogenic cardiomyopathy (DCM & ACM)

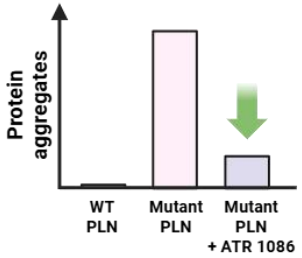


Therapeutic Approach

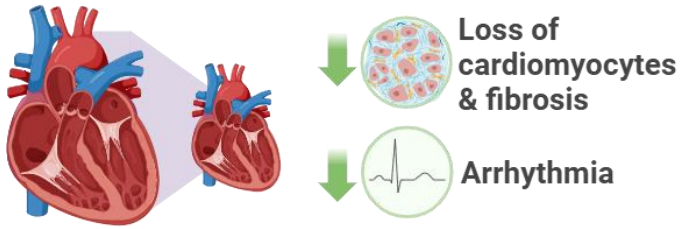
ATR 1086 mediated degradation of cardiac PLN mRNA



Reduced mutant PLN prevents protein aggregate formation



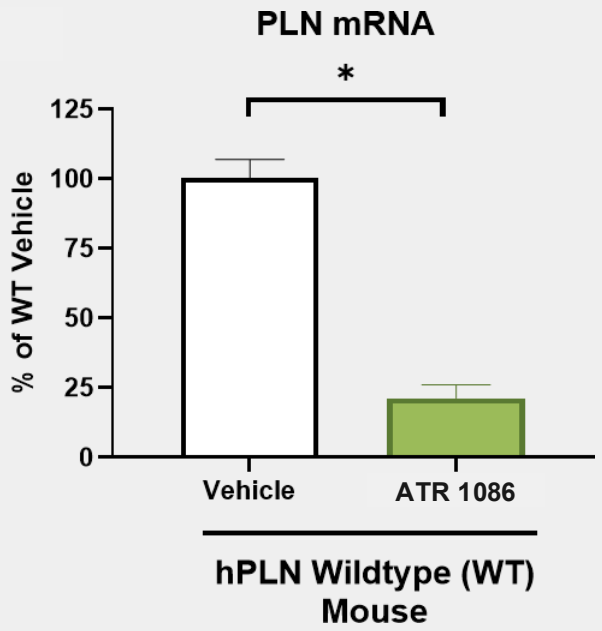
Attenuates DCM & ACM disease progression



[1] Based on preclinical studies conducted by Avidity

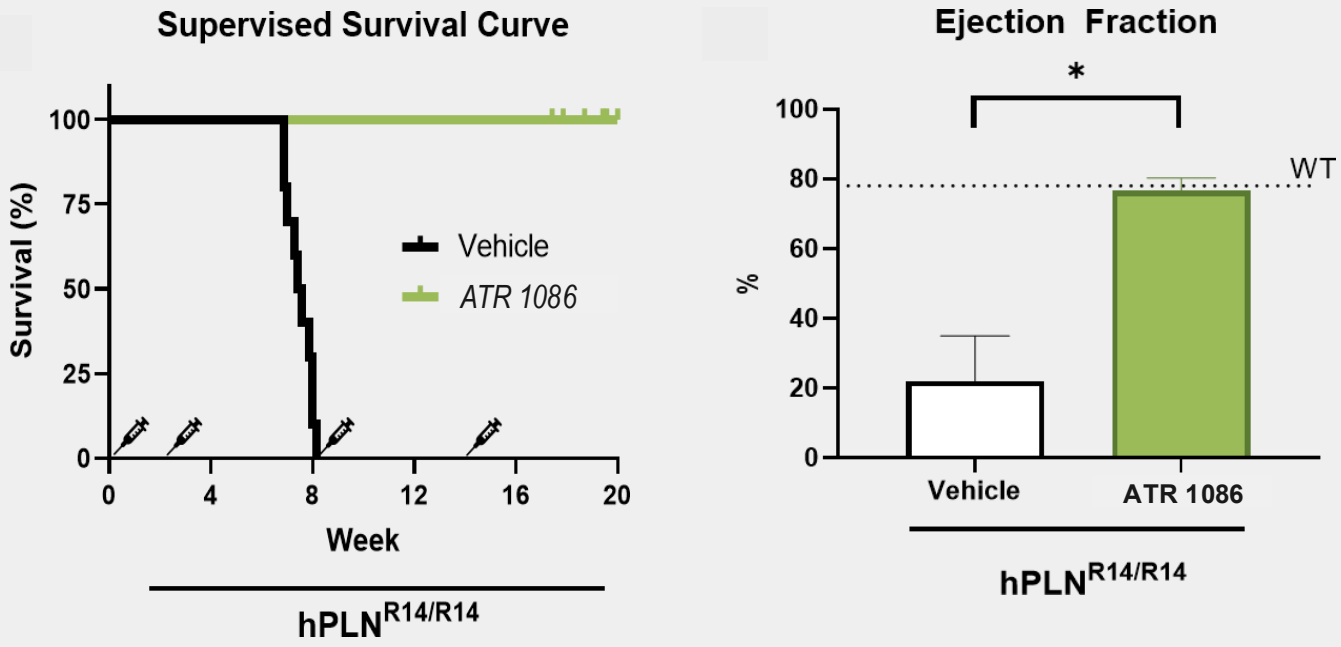
ATR 1086 demonstrates functional improvement and survival in preclinical model of disease[1]

Reduction of human PLN expression in the heart following treatment with ATR 1086 (6 mg/kg)



PLN mRNA levels were measured in cardiac tissue in transgenic mice expressing hPLN WT.

Improved survival (Kaplan-Meier survival curve) and ejection fraction following repeated ATR 1086 treatment (6 mg/kg) in a humanized mouse model of hPLNR14/R14



Ejection fraction measured at 6-weeks of treatment. Dotted lines indicate WT levels. Data are presented as mean ± SEM. Student's t-test, * $p < 0.05$.

[1] Based on preclinical studies conducted by Avidity

ATR 1086: Building clinical-stage pipeline

Achievements

- [x] Identified ATR 1086 as lead candidate
- [x] Pre-clinical proof-of-concept
- [x] GMP manufacturing

Upcoming Milestones

- [ ] IND-enabling studies planned to initiate in 2026
- [ ] Anticipate IND filing in 2027

Leadership team expertise in rare disease and RNA

Kath Gallagher | *Chief Executive Officer and Board Member*

20+ years in the biopharmaceutical industry leading portfolio strategy, program management, investor relations, and corporate affairs in preclinical to commercial stage companies

AVIDITY, AKCEA, MERRIMACK PHARMA

Rocio Martin | *Chief Strategy Officer*

20+ years in various senior strategy, management and commercial roles in clinical and commercial organizations

AVIDITY, KRONOS, AUDENTES, ULTRAGENYX, CELGENE

Steve Hughes, MD | *Chief Medical Officer*

25+ years in biopharmaceutical industry contributing to 50+ clinical trials and multiple product filings and launches in rare disease, cardiovascular and neurology therapy areas

AVIDITY, IONIS, BIOGEN, CSL BEHRING, SANOFI

Brendan Winslow | *Chief Financial Officer*

15+ years financial leadership experience in biotech and diversified healthcare, including global operations, commercialization, and strategic transformations

AVIDITY, ACADIA, BAXTER

Stephanie Kenney | *Chief Corporate Affairs Officer*

25+ years in biopharmaceutical industry leading corporate affairs, investor relations and marketing at preclinical to commercial stage companies in autoimmune, cardiovascular and renal therapy areas

AVIDITY, HANSA, ASTRAZENECA

Husam Younis, PhD, PharmD | *Chief Scientific Officer*

20+ years in drug discovery and development, including rare disease, and SVP of development science at Avidity

AVIDITY, NGM, IONIS, PFIZER

Atrium Board Members[1]

Sarah Boyce (Chair)

AVIDITY BIOSCIENCES · AKCEA THERAPEUTICS · IONIS

Carsten Boess

KINIKSA · ALEXION AstraZeneca Rare Disease

W. Michael Flanagan, Ph.D.

AVIDITY BIOSCIENCES · G · GILEAD

Kath Gallagher

AVIDITY BIOSCIENCES · AKCEA THERAPEUTICS · merrimack

Simona Skerjenac

Roche · The Medicines Company · Lilly

Troy Wilson

KURA ONCOLOGY · intellikine · wellspring biosciences

[1] *Atrium's Board of Directors will be divided into three classes and will have 6 members. Sarah Boyce is the Chair of the Board of Directors. Atrium will establish two standing committees—Audit and Human Capital Management—each of which will operate under a charter that will be approved by the Board of Directors.*

Leverage proprietary RNA delivery platform for precision cardiology

Focused pipeline with growth potential

Strong balance sheet and experienced leadership

IR Contact

Stephanie Kenney, Chief Corporate Affairs Officer
investors@atrium-tx.com

ATRIUM THERAPEUTICS™