ULTROMICS®

Heart Failure Uncovered

Proven. Scalable.

Ultromics' Clinical Science:

EchoGo® Heart Failure
EchoGo® Amyloidosis

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About Ultromics

Ultromics is redefining cardiovascular care with FDA-cleared, AI-powered tools that advance routine echocardiographic diagnosis. We support clinicians in detecting complex heart diseases by identifying subtle features and patterns through advanced AI, delivering insights within minutes to support clinical decision-making.

Ultromics is committed to addressing the critical challenge of undiagnosed cardiovascular disease. Our mission is to support earlier detection and intervention to ultimately improve patient outcomes.

Our technology is supported by reimbursement pathways and validated by a growing portfolio of peer-reviewed publications, demonstrating significant improvements in detecting conditions such as Heart Failure with Preserved Ejection Fraction (HFpEF) and Cardiac Amyloidosis.

We work closely with leading institutions — including Mayo Clinic, University of Chicago Medicine, Northwestern Medicine, Harvard Medical School, and the University of Oxford, and other world-leading institutions — and with global partners such as the Foundation for the National Institutes of Health (FNIH), Pfizer, and Johnson & Johnson Innovative Medicine. These partnerships have been instrumental in training, testing, and validating our tools.

This brochure provides an overview of the key publications and clinical science behind EchoGo® Heart Failure and EchoGo® Amyloidosis.

Clinical Science

HFpEF is often underdiagnosed due to subtle and variable symptoms, and traditional diagnostic methods are limited by discordant or indeterminate clinical and echocardiographic findings.

EchoGo® Heart Failure is an FDA-cleared diagnostic aid that uses AI to analyze a single apical 4-chamber echocardiographic view to support the detection of HFpEF.

~50% of heart failure patients have HFpEF,[1] yet up to 64% of cases may remain undiagnosed.[2]

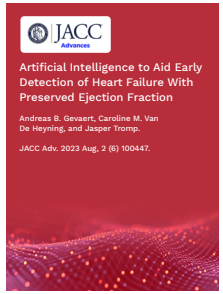
EchoGo® Heart Failure

2023

Automated Echocardiographic Detection of Heart Failure With Preserved Ejection Fraction Using Artificial Intelligence

JACC: Advances. 2023 Aug; 2(6): 100452. https://doi.org/10.1016/j.jacadv.2023.100452

MAYO CLINIC



2024

Unmasking HFpEF With Artificial Intelligence: A Disruptive Opportunity for Disease Detection

Journal of Cardiac Failure. 2024 Mar; 00(00): 1-2. https://doi.org/10.1016/j.cardfail.2024.02.010

Northwestern Medicine

2024

Automated Echocardiographic Detection of HFpEF Using Artificial Intelligence is Associated with Cardiac Mortality and Heart Failure Hospitalization

Journal of the American Society of Echocardiography. 2024 Jul; 00(00): 1-3. https://doi.org/10.1016/j.echo.2024.06.016

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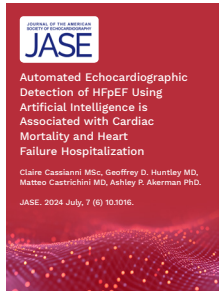


3. Pfeff er MA et al, Circ Res. 2019;124(11):1598-617. **4.** Borlaug BA et al, J Am Coll Cardiol. 2023;81:1810–1834.

EchoGo® Heart Failure

2025

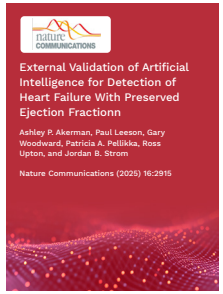
External Validation of Artificial Intelligence for Detection of Heart Failure With Preserved Ejection Fraction

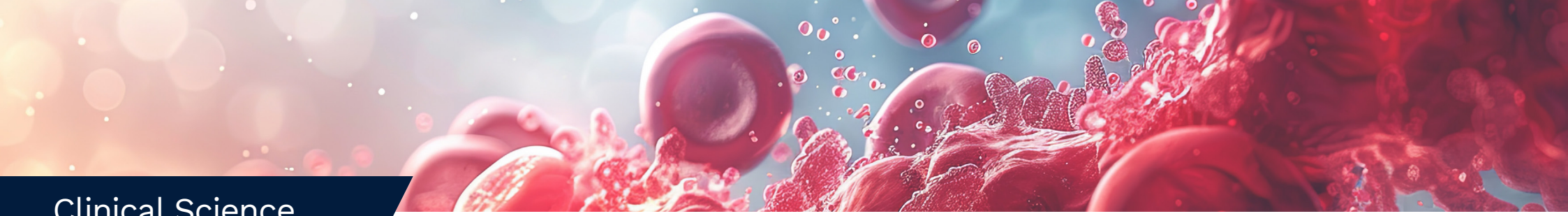
Nature Communications. 2025 Mar; 16:2915. https://doi.org/10.1038/s41467-025-58283-7

Beth Israel Lahey Health
Beth Israel Deaconess Medical Center

HARVARD MEDICAL SCHOOL

MAYO CLINIC





Clinical Science

Identifying Cardiac Amyloidosis is challenging with current clinical and echocardiographic methods. Patients are often identified at advanced stages when treatment options are limited.

EchoGo® Amyloidosis is an FDA-cleared screening tool that uses AI to analyze a single echocardiographic video clip, helping identify patients who may be at risk and should be referred for further investigation.

An estimated 15% of HFpEF patients may have amyloidosis.[3] Up to two-thirds of amyloidosis patients may be missed clinically.[4-6]

EchoGo® Amyloidosis

2025

Cardiac Amyloidosis Detection From a Single Echocardiographic Video Clip: A Novel Artificial Intelligence-Based Screening Tool

Eur Heart J. 2025 Jul; ehaf387.
https://doi.org/10.1093/eurheartj/ehaf387

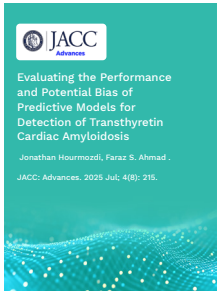
MAYO CLINIC

AT THE FOREFRONT UChicago Medicine

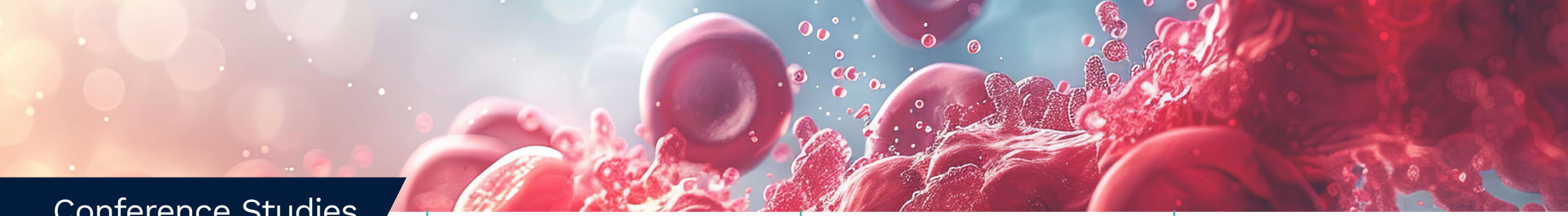
2025

Evaluating the Performance and Potential Bias of Predictive Models for Detection of Transthyretin Cardiac Amyloidosis

JACC: Advances. 2025 Jul; 04(08): 215.
https://doi.org/10.1016/j.jacadv.2025.101901



3. Hahn VS et al, JACC Heart Fail. 2020;8:712–724. **4.** González-López E, et al., Eur Heart J. 2015;36:2585–94.
5. Hahn VS, et al., JACC Heart Fail. 2020;8:712–24. **6.** AbouEzzeddine OF, et al., JAMA Cardiol. 2021;6:1267–74.



Conference Studies

2024

- AI-based Echocardiographic Assessment Is Associated With HF Hospitalization And Cardiac Mortality In HFpEF.

  HFSA 2024

- Echocardiographic Screening for Cardiac Amyloidosis Using Artificial Intelligence: A Multi-Site Study for Algorithm Training and External Validation.

  ESC Congress 2024 (Late-breaker)

- PROTEUS Study Results: A Prospective Randomised Controlled Trial Evaluating The Use Of AI in Stress Echocardiography.

  ESC Congress 2024 (Hot Line Session)

- Performance of an Automated Echocardiographic AI Model. To Detect Subclinical HFpEF in Community-Dwelling Older Adults.

  ESC Congress 2024

- Diagnostic and Prognostic Evaluation of an Echocardiography-based AI Algorithm for Detecting HFpEF: A Case-Control Analysis.

  ESC Congress 2024

- Association of a Novel, Non-invasive AI Model to Automate Echocardiographic Detection of Heart Failure with Preserved Ejection Fraction (HFpEF) with Invasive Hemodynamics.

  THT 2024

- BackMix: Mitigating Shortcut Learning in Echocardiography with Minimal Supervision.

  MICCAI 2024

- EchoNet-Synthetic: Privacy-preserving Video Generation for Safe Medical Data Sharing.

  MICCAI 2024

- Multi-Site Class-Incremental Learning with Weighted Experts in Echocardiography.

  MICCAI 2024

2023

- Automated Echocardiographic Detection of Heart Failure With Preserved Ejection Fraction Using Artificial Intelligence.

  ASE 2023

- Novel Deep Learning Model for the Detection of Cardiac Amyloidosis: A Pilot Reader Study.

  ASE 2023

- Comparison of Clinical Algorithms and AI Applied to an Echocardiogram to Categorize Risk of HFpEF.

  ACC 2023

- Automated Echocardiographic Detection of Heart Failure With Preserved Ejection Fraction Using Artificial Intelligence.

  HFSA 2023

2022

- Quantification of Left Ventricular Regional Wall Motion: Novel Imaging Features to Predict Coronary Artery Disease.

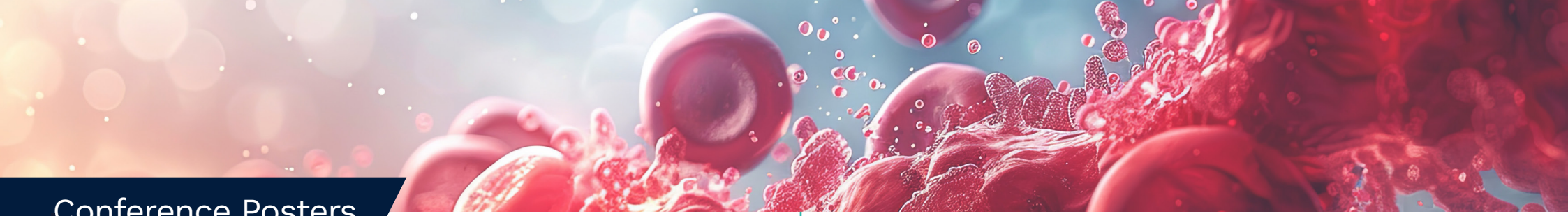
  ASE 2022

- Fully Automated Strain Analysis at Rest and Peak Stress During Standard and Contrast Enhanced Stress Echocardiography.

  ASE 2022

- Can Deep Learning Diagnostic Networks Be Used to Better Understand Morphologic Diagnostic Patterns in Cardiac Amyloidosis?

  ASE 2022



Conference Posters

- Can Left Ventricular Rotational Function Compensate for Marked Impairment in Longitudinal Strain in Early Cardiac Amyloidosis?

  ASE 2022

- Automated Analysis of Segmental Longitudinal Strain in Ischemic Heart Disease.

  ASE 2022

- Coronary Artery Disease Prediction From Resting Echocardiograms Using Novel Imaging Biomarkers.

  ASE 2022

2021

- AI Enabled Global Longitudinal Strain Quantification in Hospitalized COVID-19 Patients With Myocardial Injury.

  ASE 2021

- Basal Oriented Disks in Simpson's Rule Improves Precision in Volume Estimations.

  ASE 2021

- Estimating Heart Rate in Echocardiography Patients Where ECG Monitoring Was Not Performed.

  ACC 2021

- Fully Automated Left Ventricular Ejection Fraction and Global Longitudinal Strain Predicts Obstructive Coronary Artery Disease in Patients Undergoing Stress Echocardiography: A Multi-Centre Study.

  ESC Congress 2021

- Fully Automated Quantification of LV Regional Wall Motion From Echocardiograms to Detect Myocardial Infarction.

  EuroEcho 2021

- Automated Contouring of Non-Contrast Enhanced Echocardiograms Result in Similar Estimates of Left Ventricular Function to Manually Contoured Contrast Enhanced Images in Chemotherapy Patients.

  EuroEcho 2021

- Ultrasound Video Transformers for Cardiac Ejection Fraction Estimation.

  MICCAI 2021

- Contrastive Learning for View Classification of Echocardiograms.

  MICCAI 2021

2020

- Fully Automated Strain Analysis at Rest and Peak Stress During Standard and Contrast Enhanced Stress Echocardiography.

  ASE 2020

- Coronary Artery Disease Prediction From Resting Echocardiograms Using Novel Imaging Biomarkers.

  ASE 2020

- Fully Automated Quantification of Contrast and Non-Contrast Echocardiograms Eliminates Inter-Operator Variability.

  ASE 2020

- Quantification of Left Ventricular Regional Wall Motion: Novel Imaging Features to Predict Coronary Artery Disease.

  ASE 2020