

# AIBODY Introduces Revolutionary Cardiology-centric 3D Digital Twinning Solution

*Nova Heart creates a dynamic, 3D digital twin of a patient's heart using 2D transthoracic echocardiogram data.*

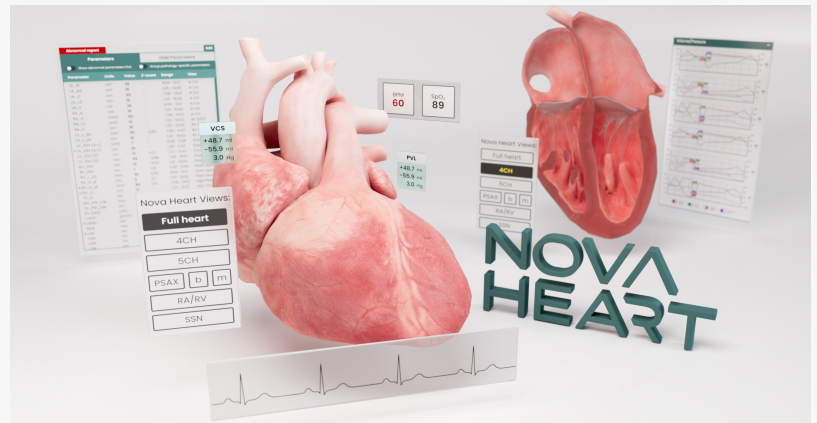
LONDON, UNITED KINGDOM, November 1, 2023 /EINPresswire.com/ -- [AIBODY](#), a leader in digital physiology solutions for healthcare, recently announced the release of [Nova Heart](#), its first commercial product developed in collaboration with the [German Heart Centre at Charité \(DHZC\)](#), a leading medical research institute specializing in cardiovascular disease.

Nova Heart is a first-of-its-kind, cardiology-centric solution that creates a dynamic, 3D digital twin of a patient's heart using 2D transthoracic echocardiogram data. It combines an anatomically precise 3D model with a sophisticated intracardiac hemodynamics model that computes heart chamber volumes, pressures and cardiac output in real time and in accordance with specific patient parameters.

"Nova Heart greatly enhances 2D echocardiogram visualization and lightens physicians' workload as it combines essential echocardiographic parameters into easy-to-follow patient reports, ensuring immediate access to the most clinically pertinent information and displaying anomalies and important trends in the data," said Dr. Aaron Smith, AIBODY's Chief Medical Officer.

Nova Heart's applications also extend beyond clinical uses to serve as an immersive learning platform for medical professionals and students. It enables users to interact with virtual patients by simulating cardiac pathologies, allowing them to modify physiological parameters and observe immediate impacts. Nova Heart's advanced 3D visualization and ability to manipulate parameters and data in real time offer opportunities for customization and collaboration that are unavailable with current, conventional, learning methods.

# AIBODY



Nova Heart

AIBODY is working with leading global institutions to provide scientific authentication for Nova Heart's proprietary hemodynamics models. "This highly promising technology has the potential to greatly enhance patient care and monitoring methods for structural heart diseases," said Prof. Dr. Stanislav Ovroutski, of DHZC. He added, "The next step is for Nova Heart to become a source of reliable information that, today, is only available through more expensive and invasive diagnostic modalities."

Kiril Tasseff, AIBODY's Chief Executive Officer, said, "What makes Nova Heart possible – and unique – is our modeling approach that begins with digitally recreating biochemical and biomechanical transformations within individual cells. Our models incorporate over 132,000 distinct parameters that interact to recreate simultaneous biophysical, physiological and biochemical processes occurring within a human body".

"Ultimately, we envision Nova Heart as a cost-effective, universally accessible and practical digital twinning tool that will seamlessly integrate into clinical workflows and dramatically advance the practice of personalized medicine," added Tasseff.

#### About AIBODY

AIBODY, a leader in digital physiology solutions for healthcare, develops clinical-grade digital twinning products for a broad range of human organs and systems, with applications in medicine, research, clinical trials, and medical education and training. For further information, please visit [www.aibody.io](http://www.aibody.io).

#### About German Heart Centre at Charité

The German Heart Centre at Charité (Deutsches Herzzentrum der Charité) is an internationally renowned medical research center specializing in the treatment of cardiovascular diseases. For further information, please visit [www.dhzb.de](http://www.dhzb.de).

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