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NZ targets right atrium to fix irregularly beating hearts

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With the help of 3D heart-specific computer models and AI

A team of researchers at the University of Auckland, New Zealand (NZ) is advancing the treatment of Atrial Fibrillation (AF) by using computational modelling and artificial intelligence (AI) to target the right atrium, the chamber of the heart which has been neglected in heart research.

The team of ten at the Auckland Bioengineering Institute (ABI) recently received over $1 million in funding from the Health Research Council for their research into AF.

AF is a heart rhythm disorder (arrhythmia) that currently affects 60,000 people in New Zealand and is a major cause of heart failure and stroke.

Recent collaboration has made it possible for the research team to study the hearts of people with a history of AF. Their research will use computer modelling and artificial intelligence, to better define the cardiac muscular fibre networks that cause AF in the right atrium, and how they might contribute to treatment failure.

They are also using 3D heart-specific computer models to effectively test potential therapies. “This allows us to experiment with different ablation strategies, without putting a real patient at risk”, said the researchers.