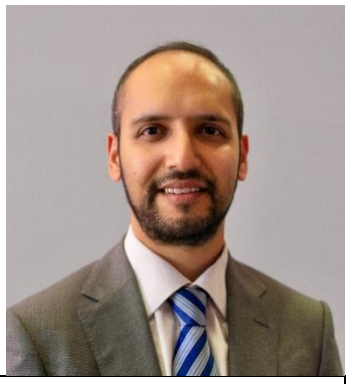
Cardiomyopathy UK
the heart muscle charity

Artificial intelligence for the prediction of risks in cardiomyopathy



Lead researcher	Dr Arunashis Sau
Location	Imperial College London
Start date	January 2026
Duration	17 months
Cost	£24,482
Project code	C2502
Research priority	3) Should treatment for cardiomyopathy be tailored to the individual, e.g. based on their specific gene variant, age or gender?

Cardiomyopathy can lead to serious problems including being admitted to hospital with heart failure, developing dangerous heart rhythms or even dying suddenly. Doctors currently use a range of methods including scans and risk scores to try to predict who is more likely to experience serious outcomes, but these aren't always accurate. This can mean some people miss out on treatments they need, while others receive unnecessary interventions.

This project is testing a new artificial intelligence (AI) tool which analyses routine heart recordings (ECGs) to predict risk more accurately. The researchers will study ECG recordings from around 7,000 people with hypertrophic, dilated and arrhythmogenic cardiomyopathy in the UK and the US. They plan to:

1) check how well the tool works,
2) fine-tune it for each condition,
3) compare it with existing methods and see if combining them gives better results.

If successful, this project could lead to larger studies that could eventually enable the AI tool to be used in everyday medical care. This would give people affected by cardiomyopathy and their clinical teams a more reliable way to understand their risk of serious heart problems. Helping them make better, more personalised decisions about their treatment.