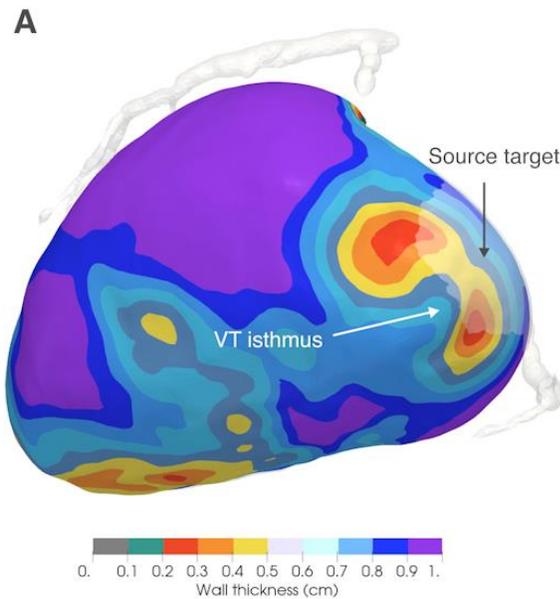


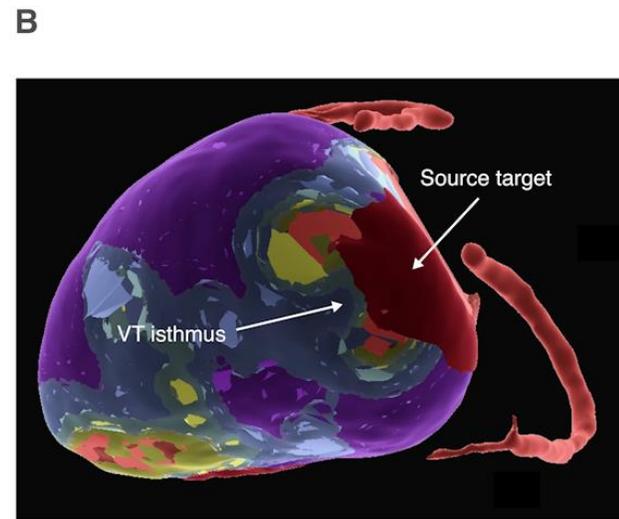
# Integration of Cloud-enabled AI Analyses of Ventricular Tachycardia Isthmuses with Electroanatomic Mapping Systems

## Feasibility study during VT ablation procedure

Fused source + substrate model

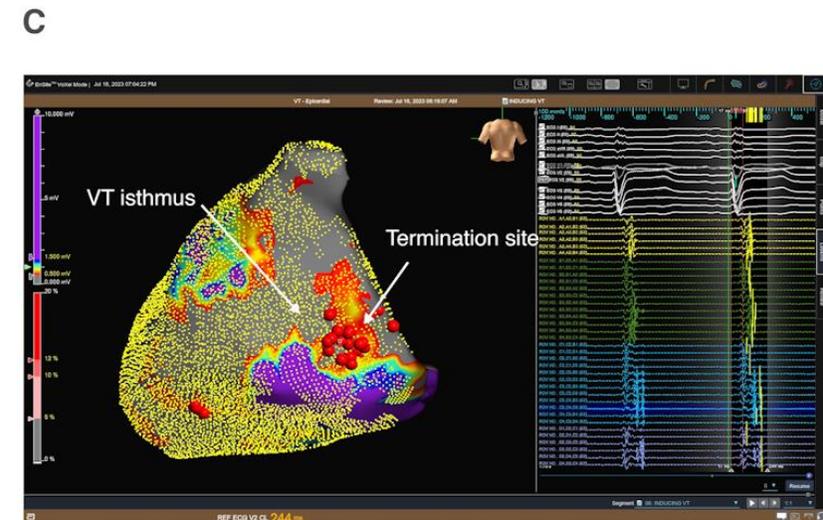


Integrated into catheter mapping system



Integrated fused model

Confirmed VT critical isthmus at predicted site



Catheter voltage map

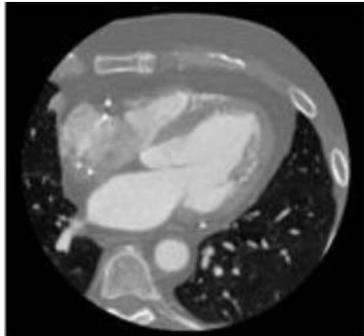
# Validation of a Deep Learning Ventricular Tachycardia Substrate Model

## Results

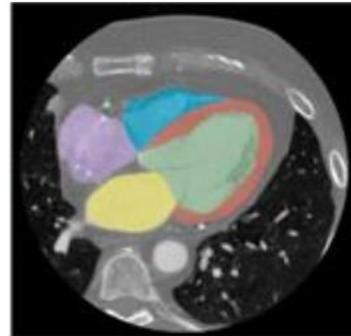
vMap



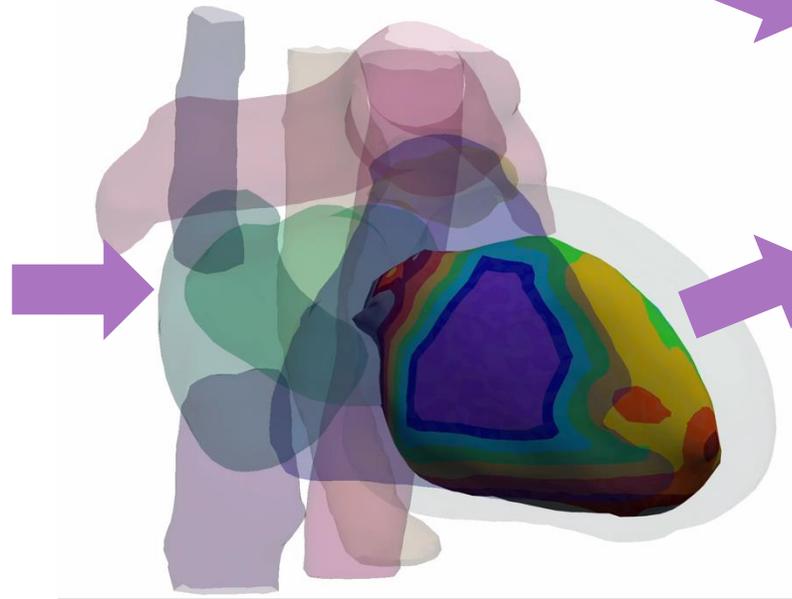
Raw CT



Segmented CT

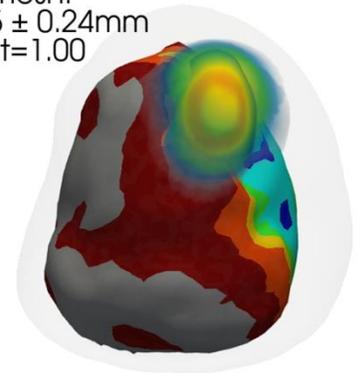


3D Mesh



3D Mesh + vMap Hotspot

Merged CT & vMap mesh.  
MIO @ hotspot =  $2.05 \pm 0.24$  mm  
Dice score @ hotspot = 1.00



Model ensemble:

- DeeplabV3
- UnetPlusPlus
- Unet (Pretrained)
- ...