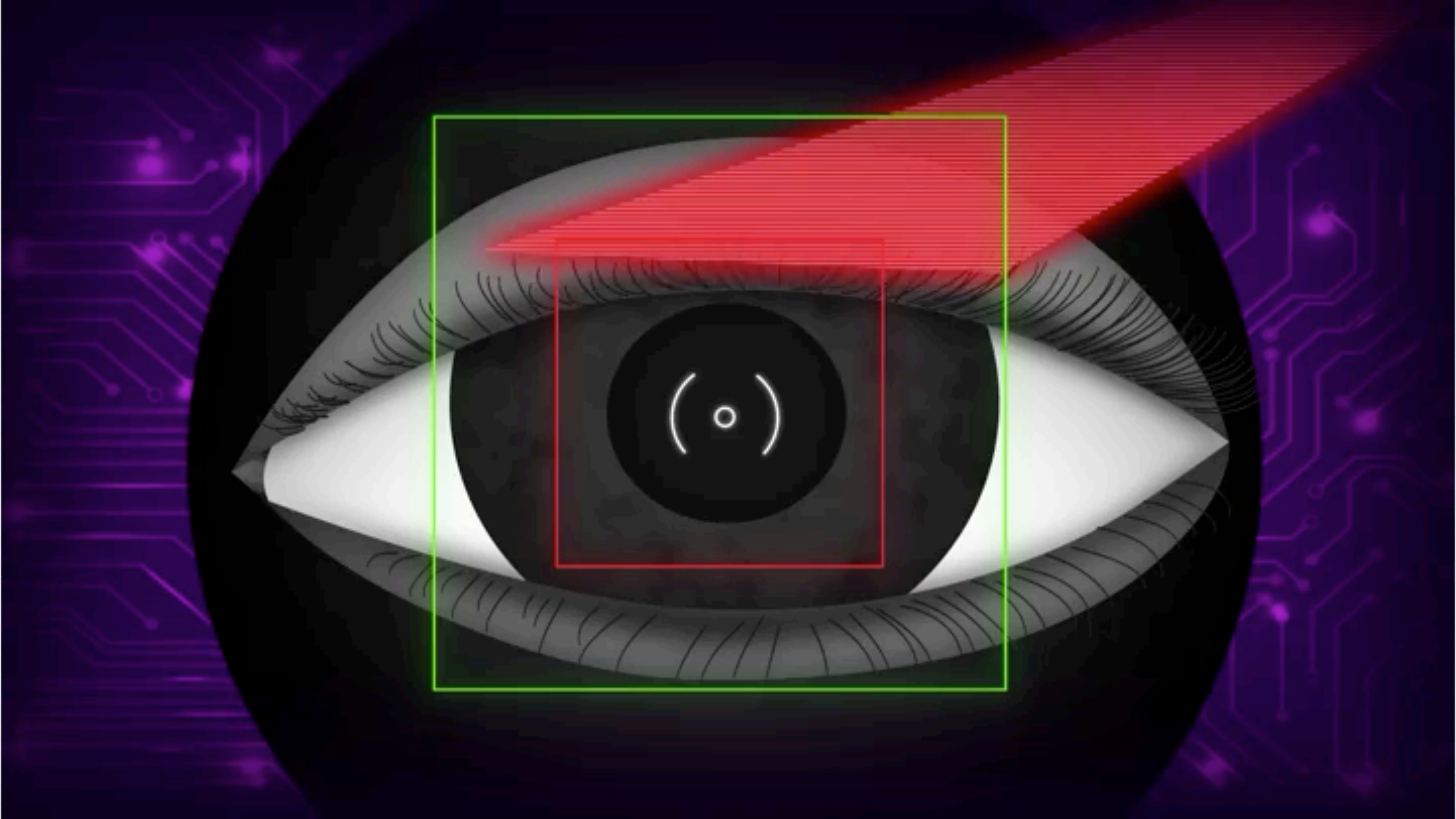


# AI CAN SEE THROUGH YOUR EYES WHAT DOCTORS CAN'T

by Léon van der Lee



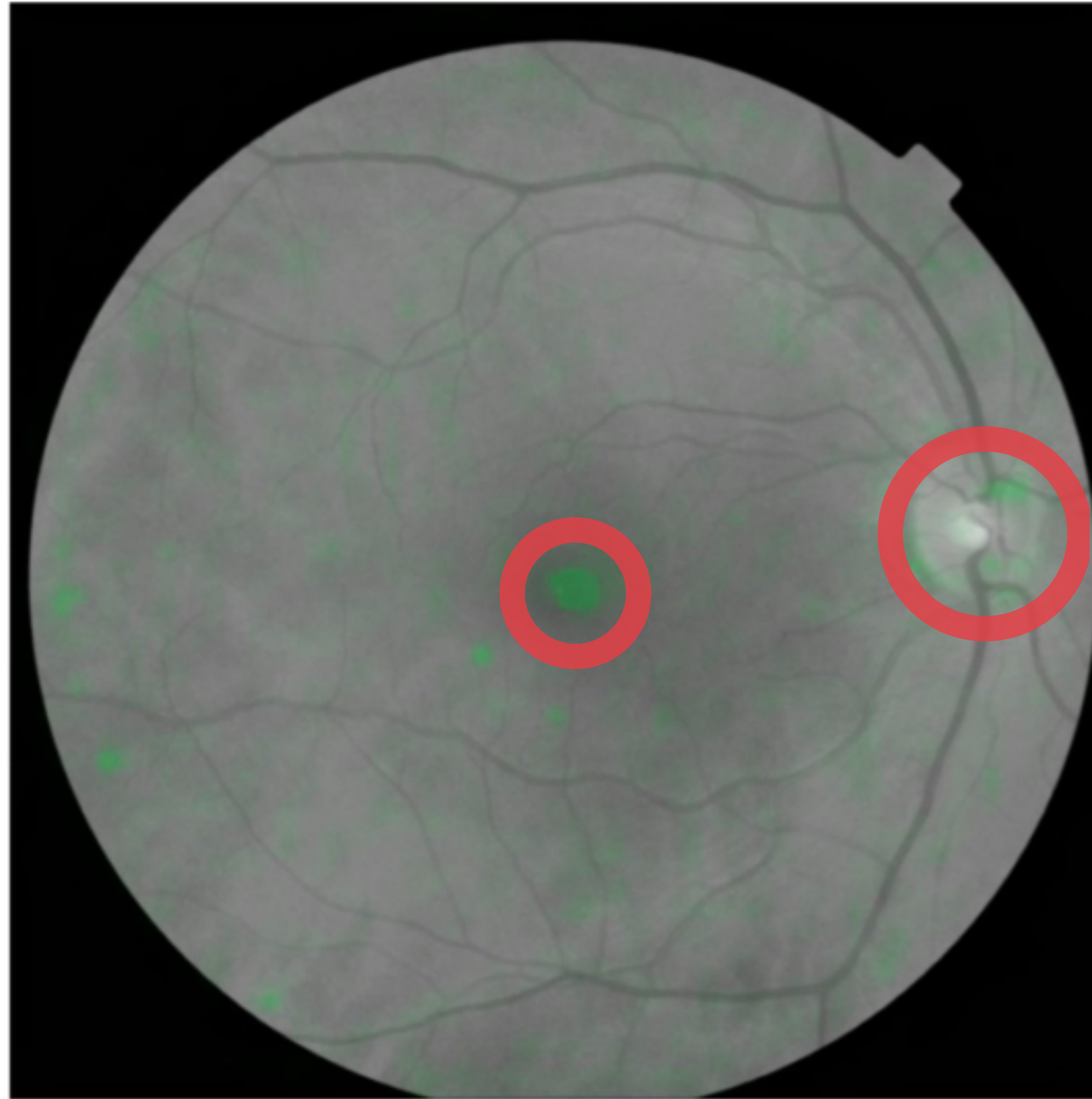




- Google DeepMind
- Anatomical regions
- Heat maps
- 97% accuracy



**Gender**



Actual: Female  
Predicted: Female

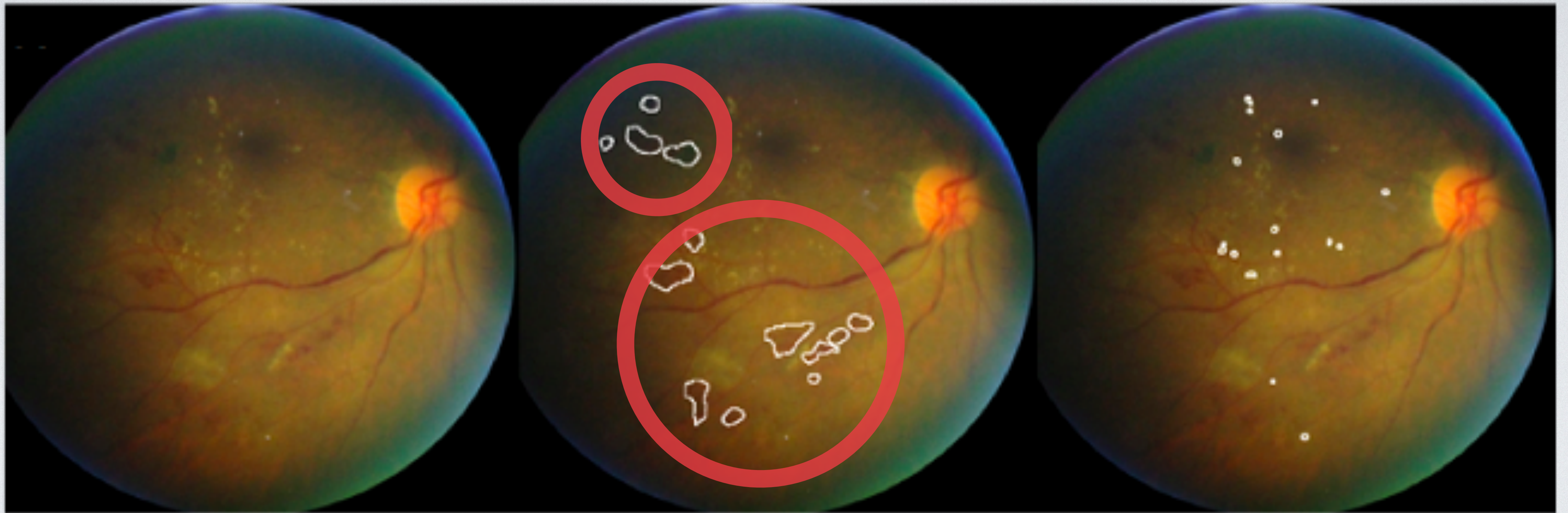


- 50 different eye diseases
- Convolutional neural network
- Training Data Set: 128175
- Random sample of 9963



# Lesion localization

Robust lesion localization achieved using multi-scale pixel and lesion-level descriptors



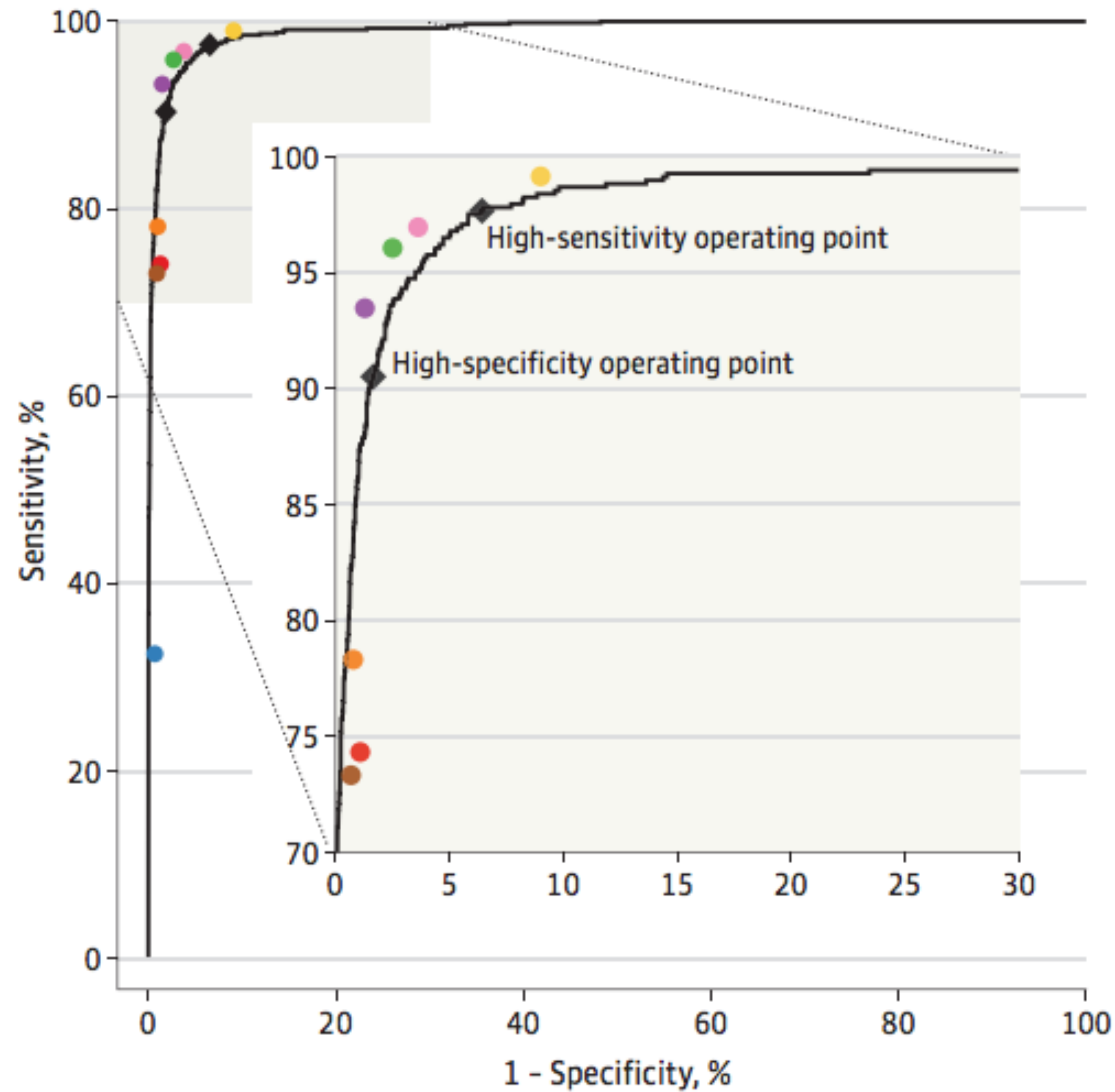
Original Image

Red lesion detected

Bright lesions detected



**A** EyePACS-1: AUC, 99.1%; 95% CI, 98.8%-99.3%

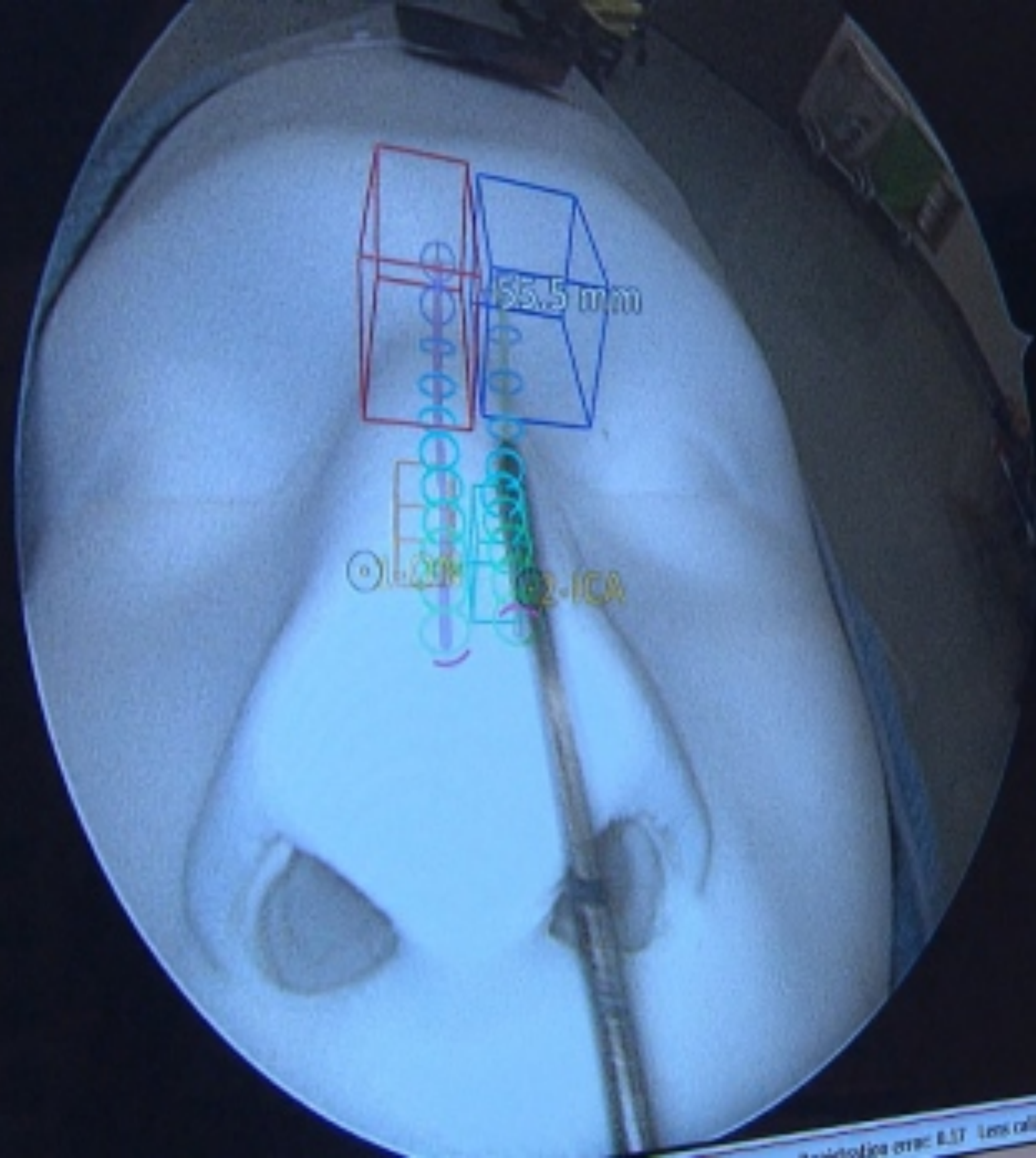




# FUTURE OF SURGERY

- Warn surgeons during surgery
- Faster identifying complications
- Reducing waiting times





Registration error: 0.17 Lens calibration error: 0.29



# WHY AI?

- Cost vs Quality
- Computers are stupid
- But fast
- So now it's the time to make them smart



THANK YOU FOR YOUR TIME