

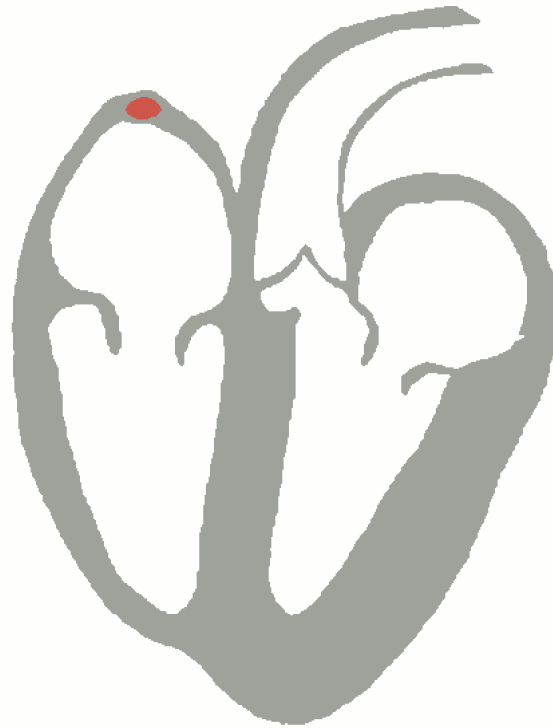
Using computers to replace animal testing

Beth McMillan
PhD student
University of Oxford

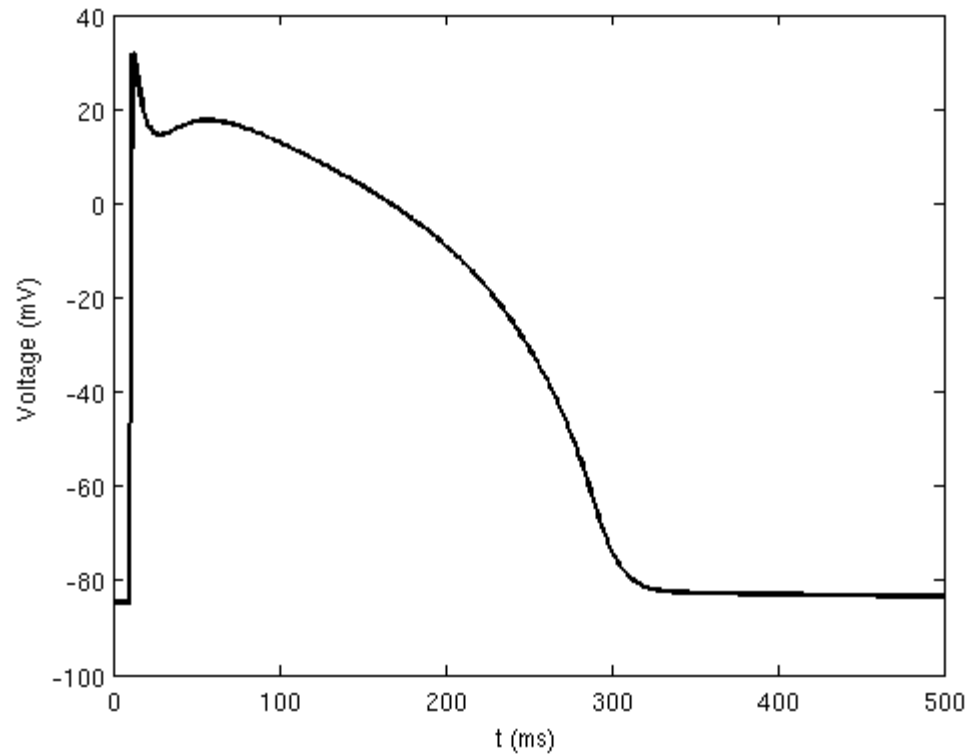


email@bethmcmillan.com

Heartbeat is electrical



Single cells are important



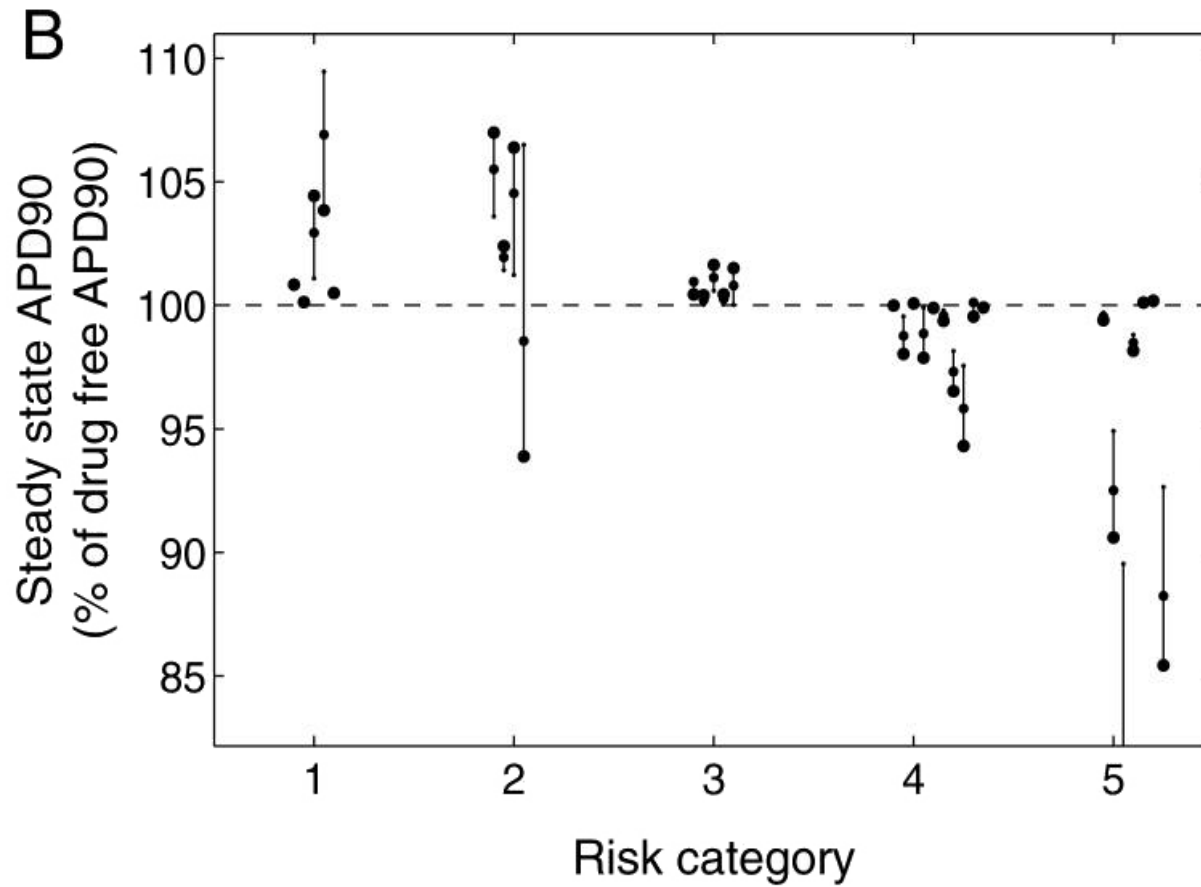
email@bethmcmillan.com

The heart can be simulated

$$\frac{dV}{dt} = \frac{\sum I}{C_m}$$



Can we predict drug effects?



Thanks for listening

Further reading:

Mirams & Noble (2011) - Is it time for in silico simulation of drug cardiac side effects? - Annals of the New York Academy of Sciences 1245 1749-6632

Slides available at:

bethmcmillan.com/heart

Contact:

email@bethmcmillan.com

