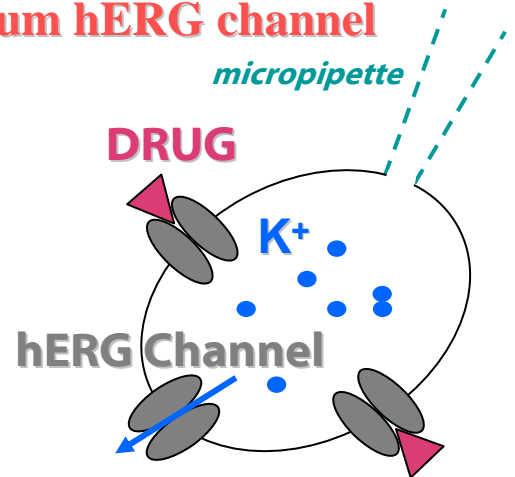


Most drugs well known to cause QT prolongation act by direct blockade of the cardiac potassium hERG channel

To determine drug-related cardiac toxicity



Acute inhibition of the hERG channel by pharmacological blockade detected by patch clamp studies on stably transfected cells (HEK-293)



WE DEVELOPED A NEW MODEL REPORTING A COMPLETELY DIFFERENT MECHANISM ASSOCIATED TO QT PROLONGATION AND TdP:

BLOCK of hERG TRAFFICKING



HEK-293 long term exposure (24h) to the drug may have an indirect effect through inhibition of hERG protein trafficking from the endoplasmic reticulum to the cell surface

REDUCTION OF THE SURFACE EXPRESSION OF THE FUNCTIONAL CARDIAC POTASSIUM hERG CHANNEL

