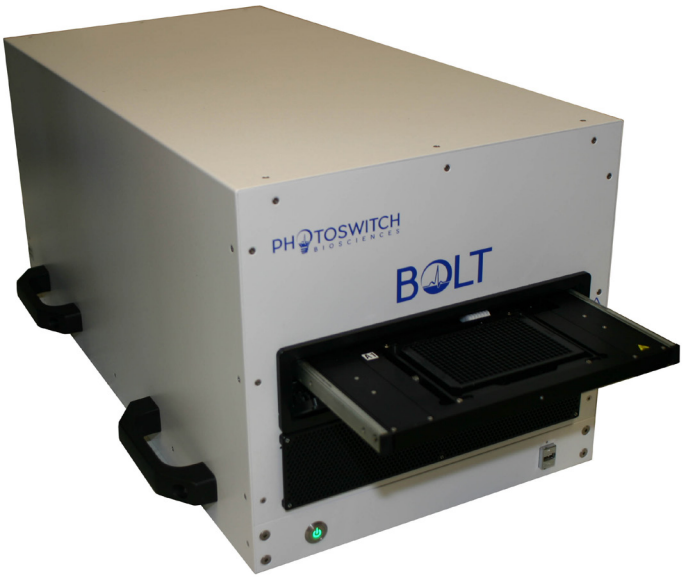
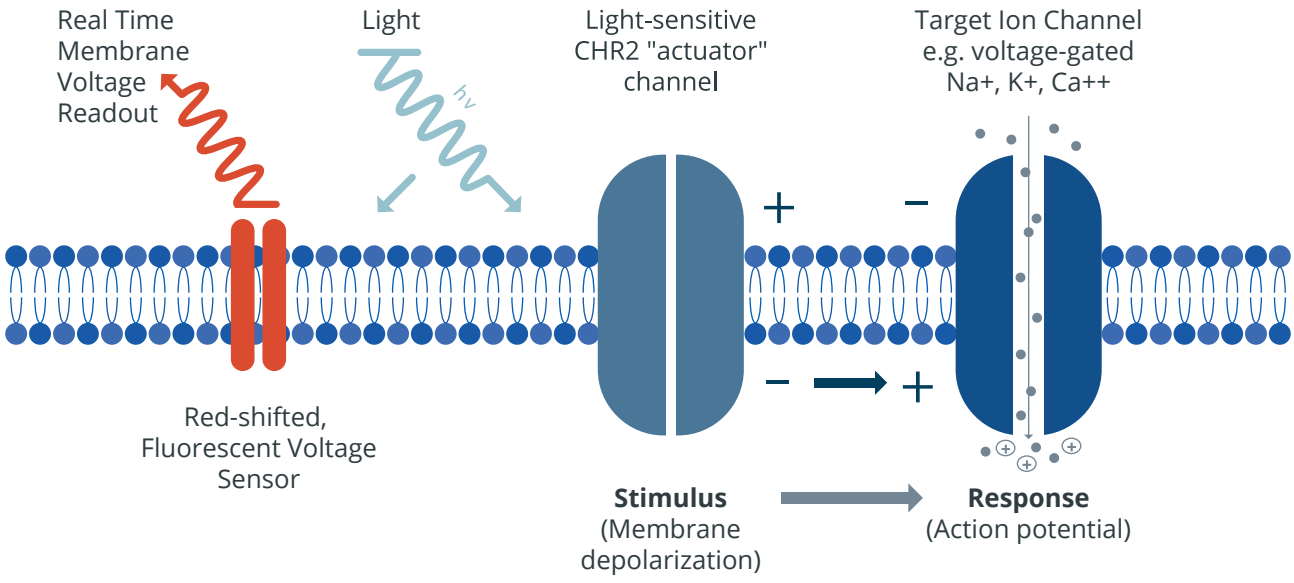
PHOTOSWITCH BIOSCIENCES

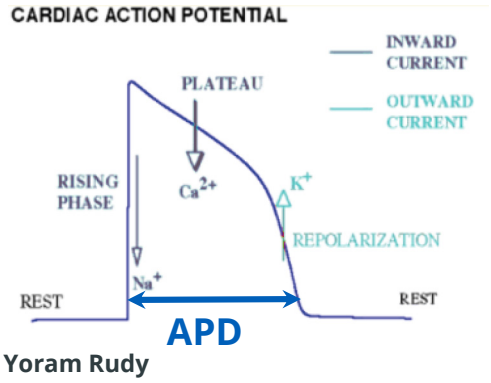
# BOLT: High-Throughput Optical Electrophysiology




- Fast **(10 kHz)** sampling of the most advanced voltage probe responses
- **Ultra-bright illumination** sources for fast optical voltage control and extraordinary S/N
- **Simultaneous 96-channel acquisition** for uniform exposures and high throughput
- Compatible with standard **96 or 384** well microtiter plates
- Temperature control from **ambient to +40°C**



# iPSC Cardiomyocytes




Yoram Rudy

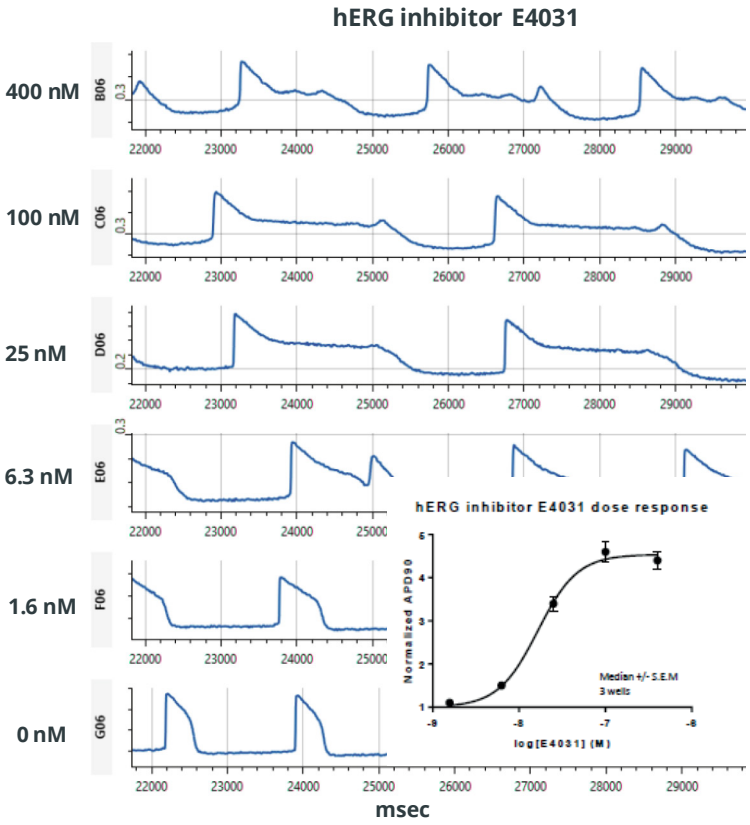
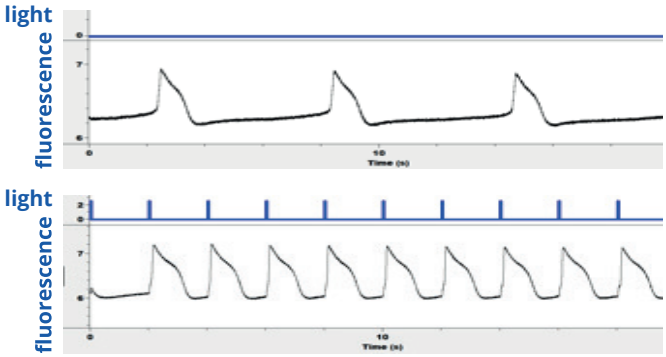
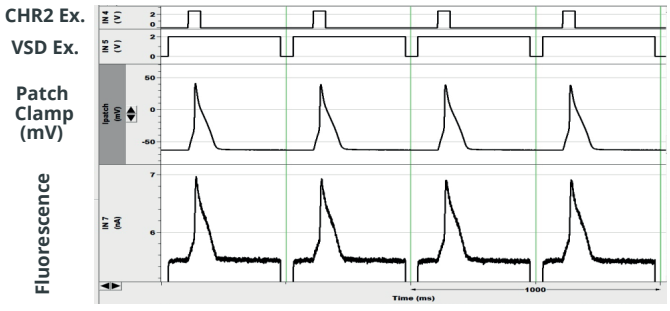



Plate reader simplicity combined with a direct measure of the Action Potential results in a significant cost reduction, both in dollars spent as well as time at the bench and the computer.



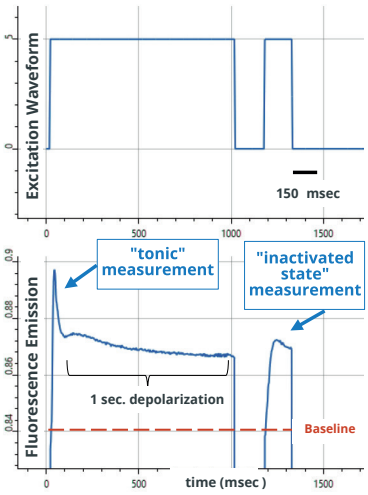

Introduction of the light-activated Channelrhodopsin-2 makes it possible to pace the iPSC cardiomyocytes with 460nm light.

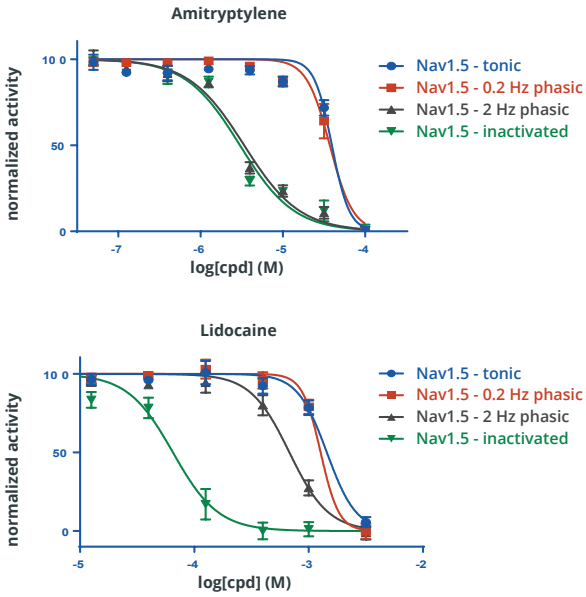
The Photoswitch BOLT system uses a fast, red-shifted voltage sensor, PhoS, that responds instantaneously to membrane potential changes.



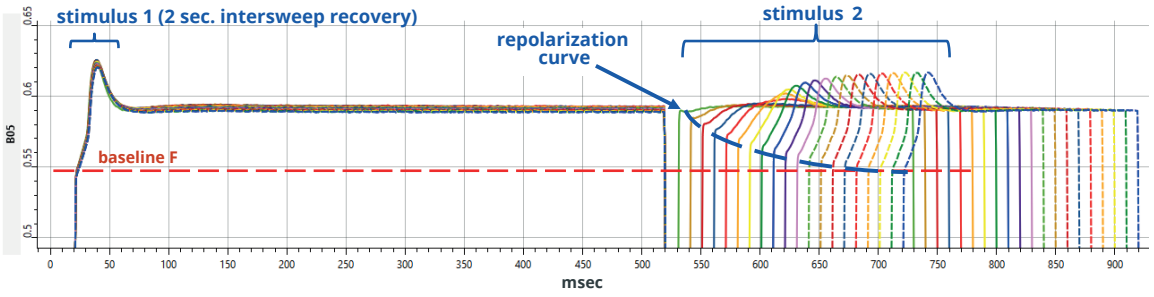
# Ion Channel Screening

## Precise optical voltage control supports detailed pharmacologic characterization. State-depedent dose response shifts for Nav1.5




## Measurement of repolarization or recovery kinetics




## Measurement of slow inactivated state