

THE NEW TRUE RED-EMITTING CALCIUM INDICATOR FOR HIGH-THROUGHPUT SCREENING



ICR-I

ION Calcium Red*

Excitation: 580 nm
Emission: 660 nm
K_d Ca²⁺: 480 nM

-  pH insensitive in the physiological range
-  No localization to mitochondria
-  Ideal for optogenetics & photopharmacology

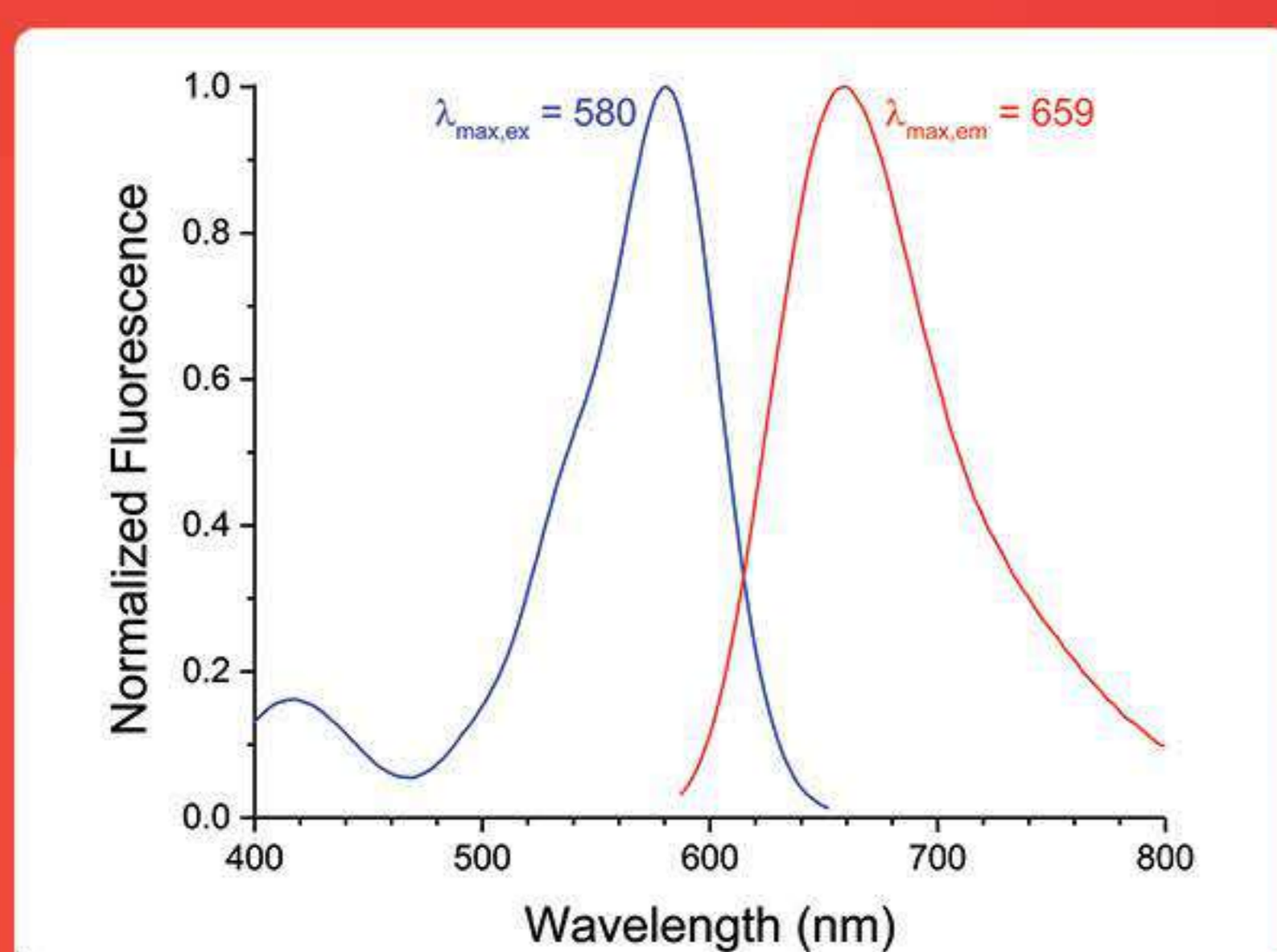
Live-cell fluorescence microscopy

Deeper tissue penetration
Minimize autofluorescence

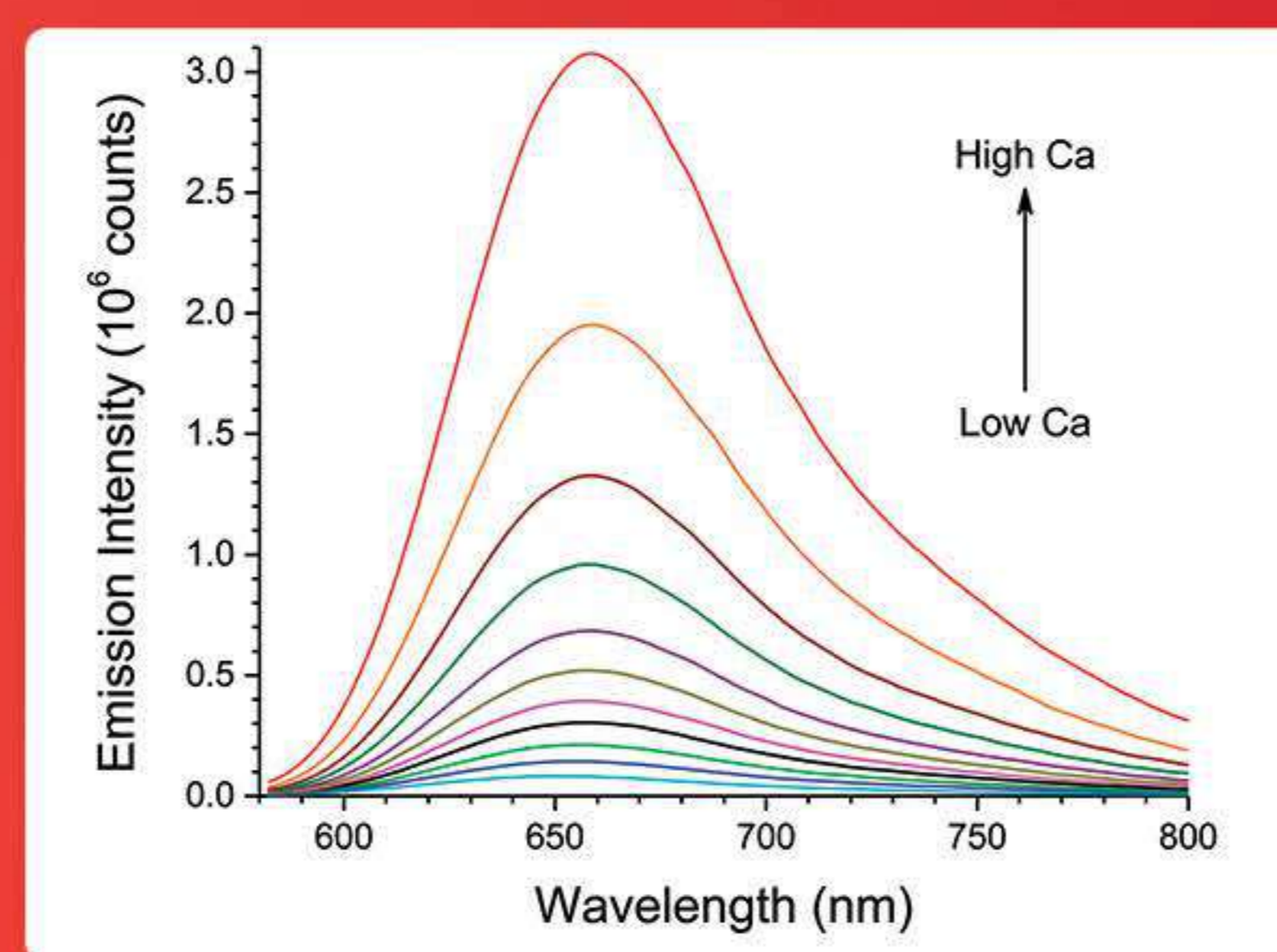
High-throughput screening:

Eliminate fluorescent compound artifacts

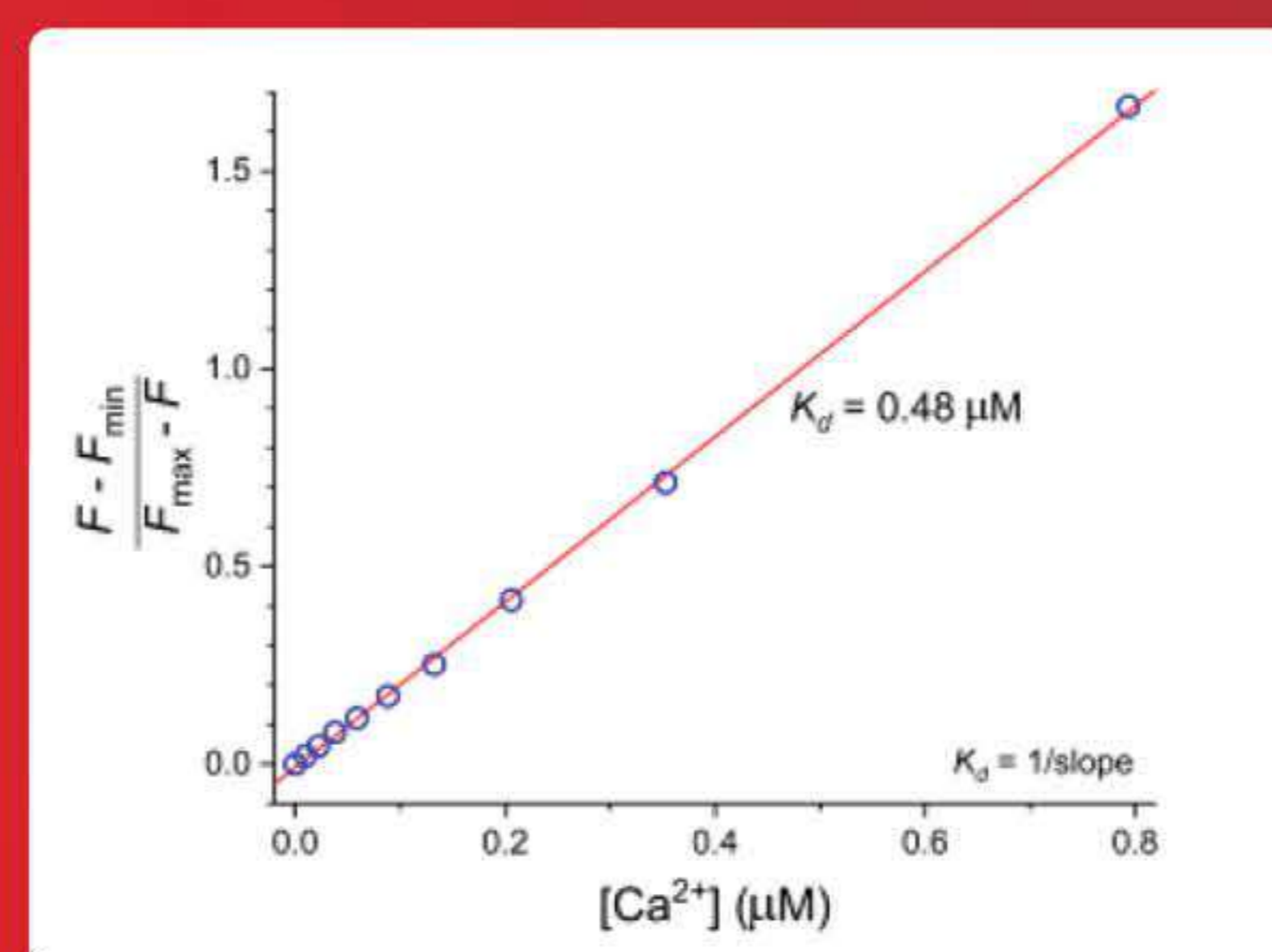
Enable multiplexed readouts



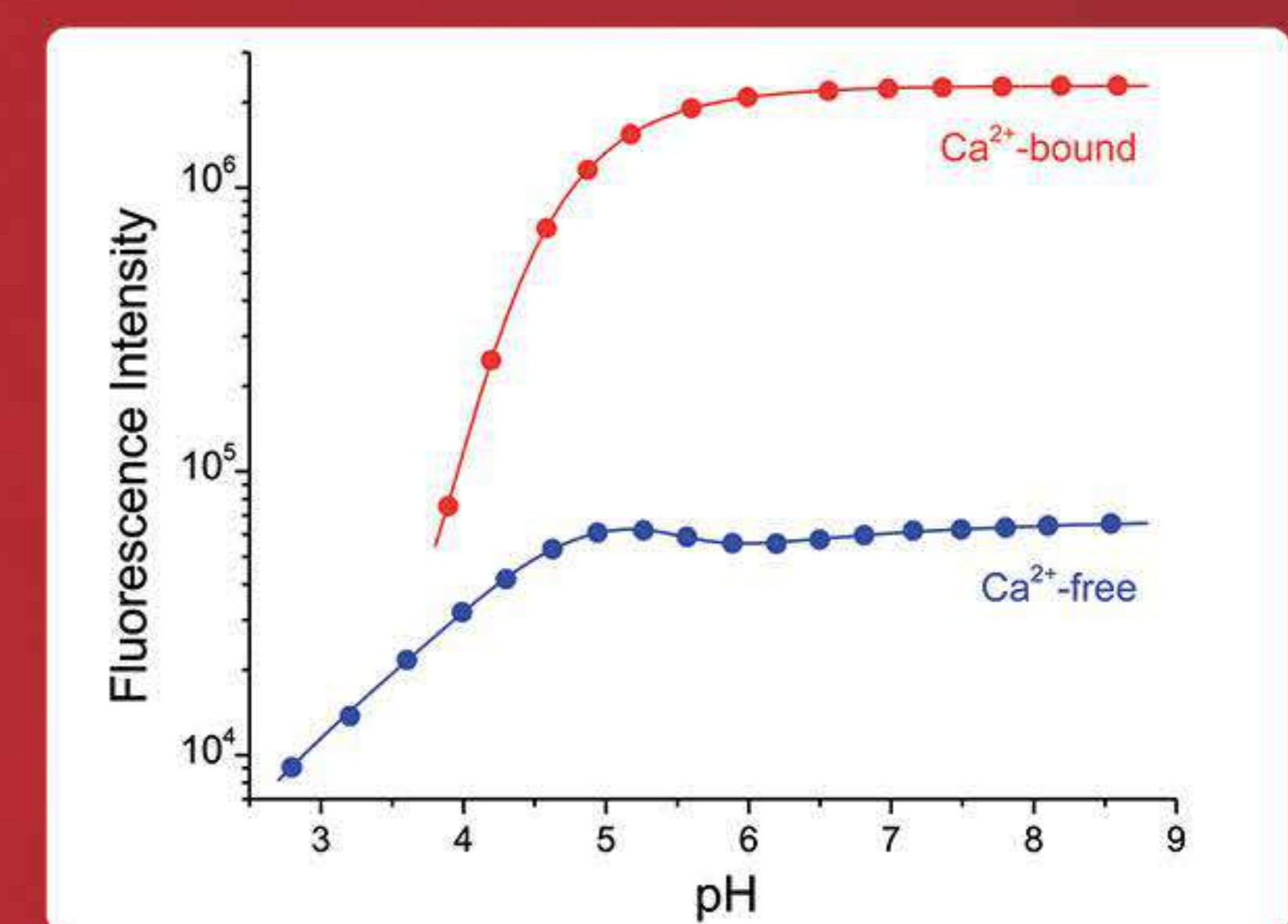
Excitation/Emission 580/659 nm
Stoke's Shift 80 nm



Calcium Titration



Dissociation Constant
K_d = 0.48 μM

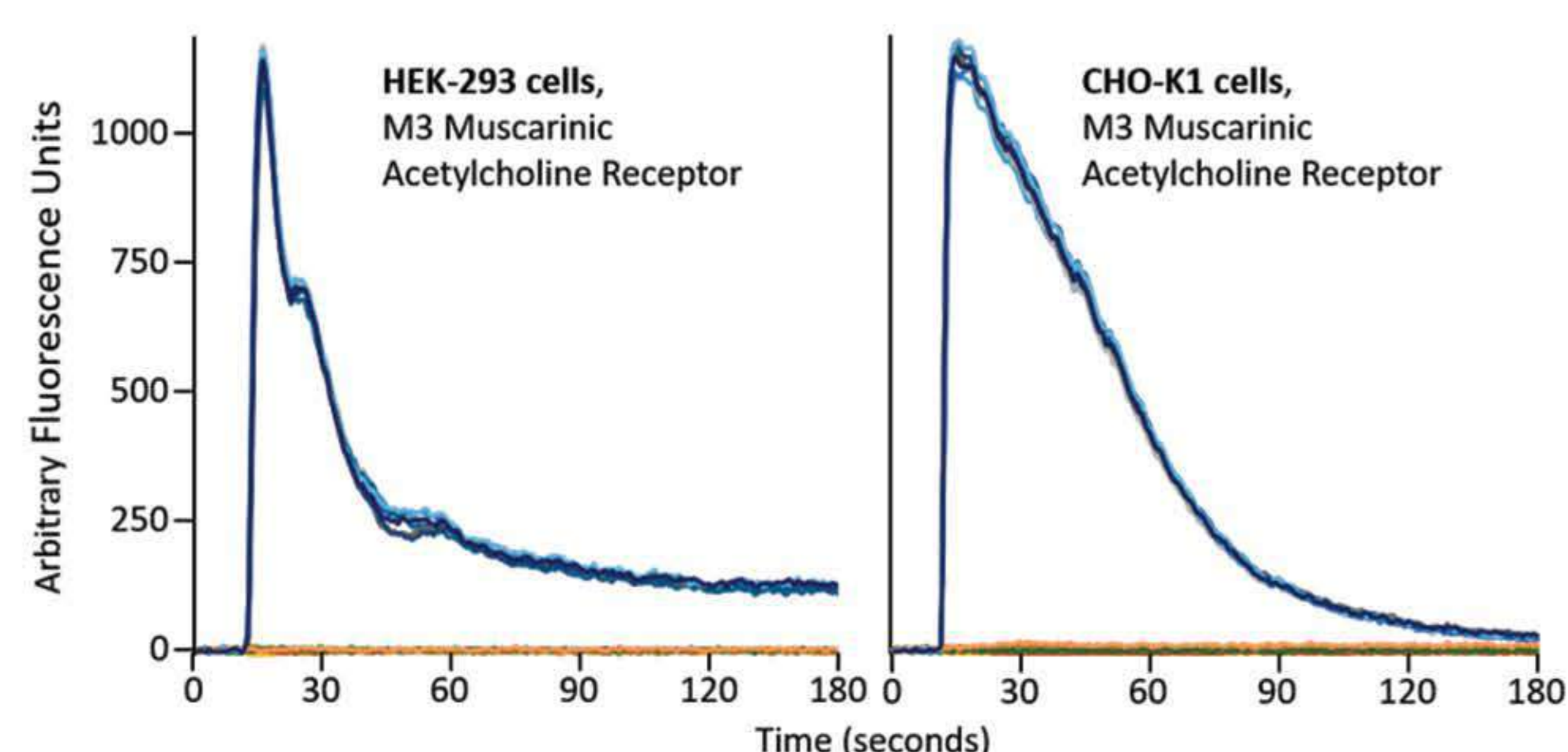


pK_a = 5

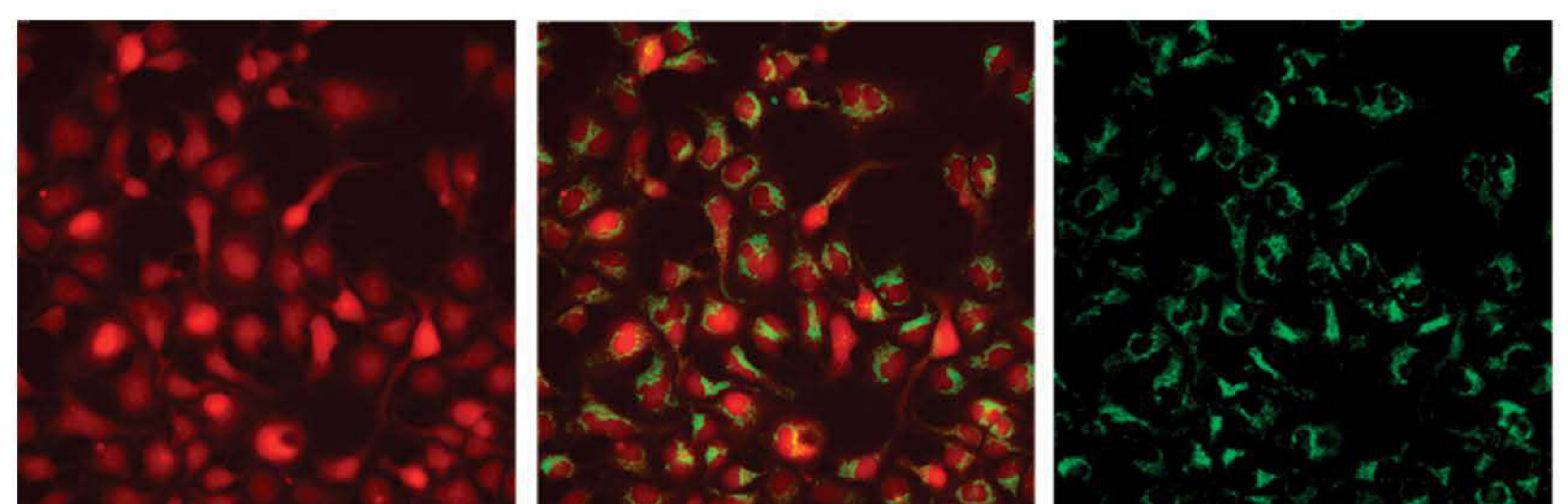
Figures and descriptions are courtesy of Professor Joe Kao of University of Maryland Medical School.

HEK-293 & CHO-K1 Cells

ICR™ (ION Calcium Red) is a true red-emitting, fluorescent, calcium indicator with ideal Ca²⁺ properties for numerous cell biology applications.



WaveFront Panoptic: 384-well plate, 575/25 nm excitation, 650/50 nm emission
Traces shown = 16 individual wells per condition ● 10 μM acetylcholine ● Assay Buffer



ICR-I

ICR-I + mitochondrial stain

mitochondrial stain

Molecular Devices ImageXpress: 40x objective, 628/40 nm excitation 692/40 nm emission