



Montana Molecular

# Measuring dynamic and real-time cAMP levels using cADDIs2, a live-cell indicator for Gs and Gi signaling

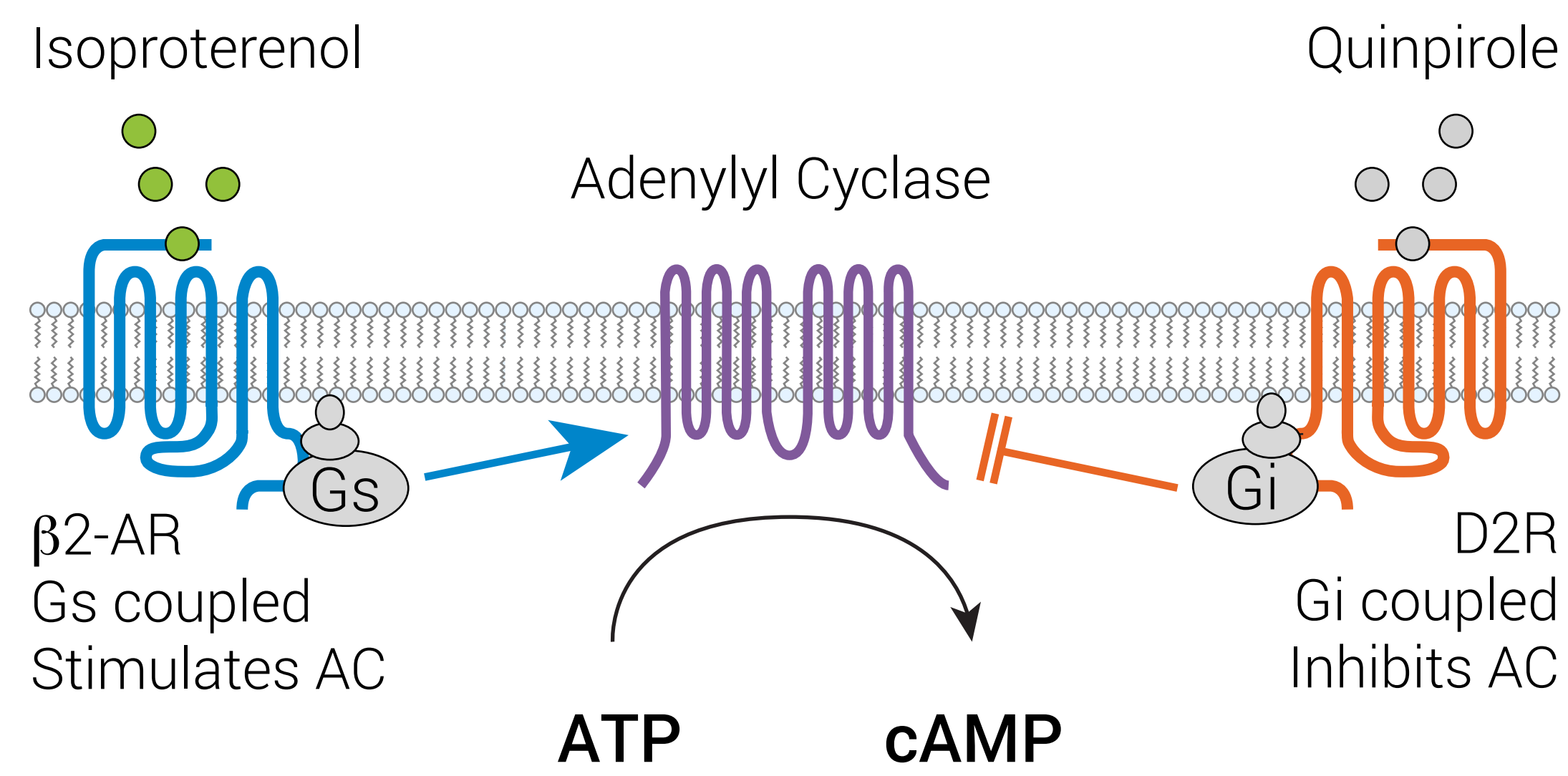
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MM cADDIs Sensors for Drug Discovery

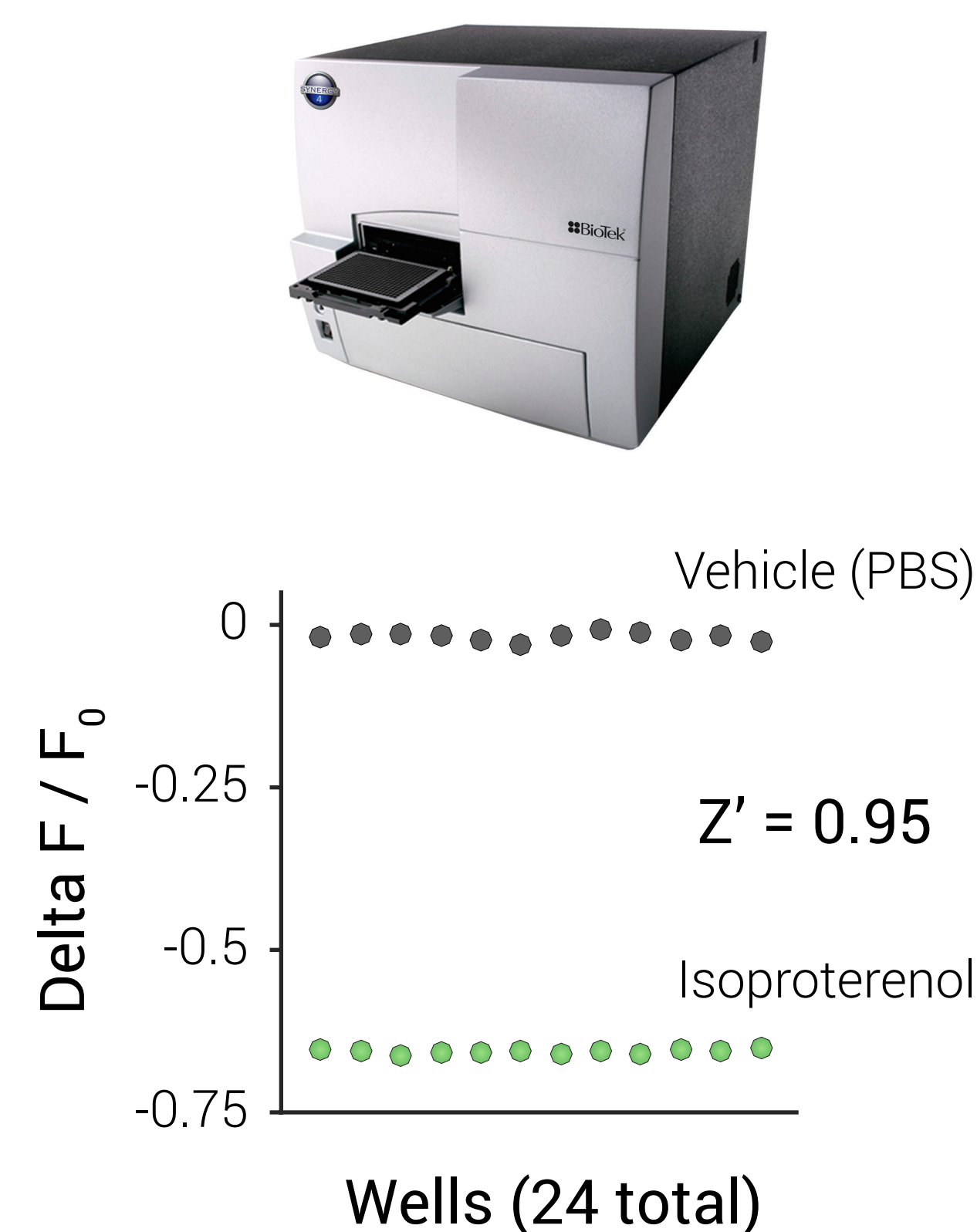
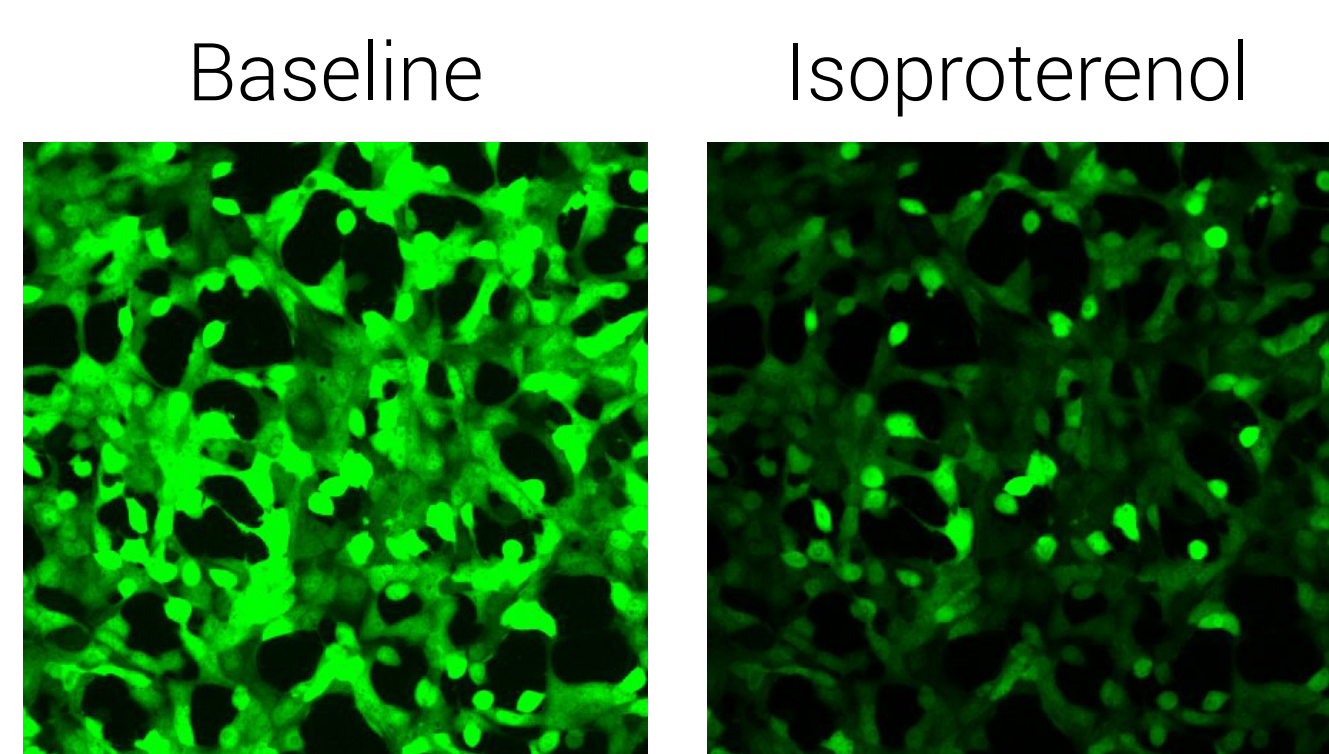
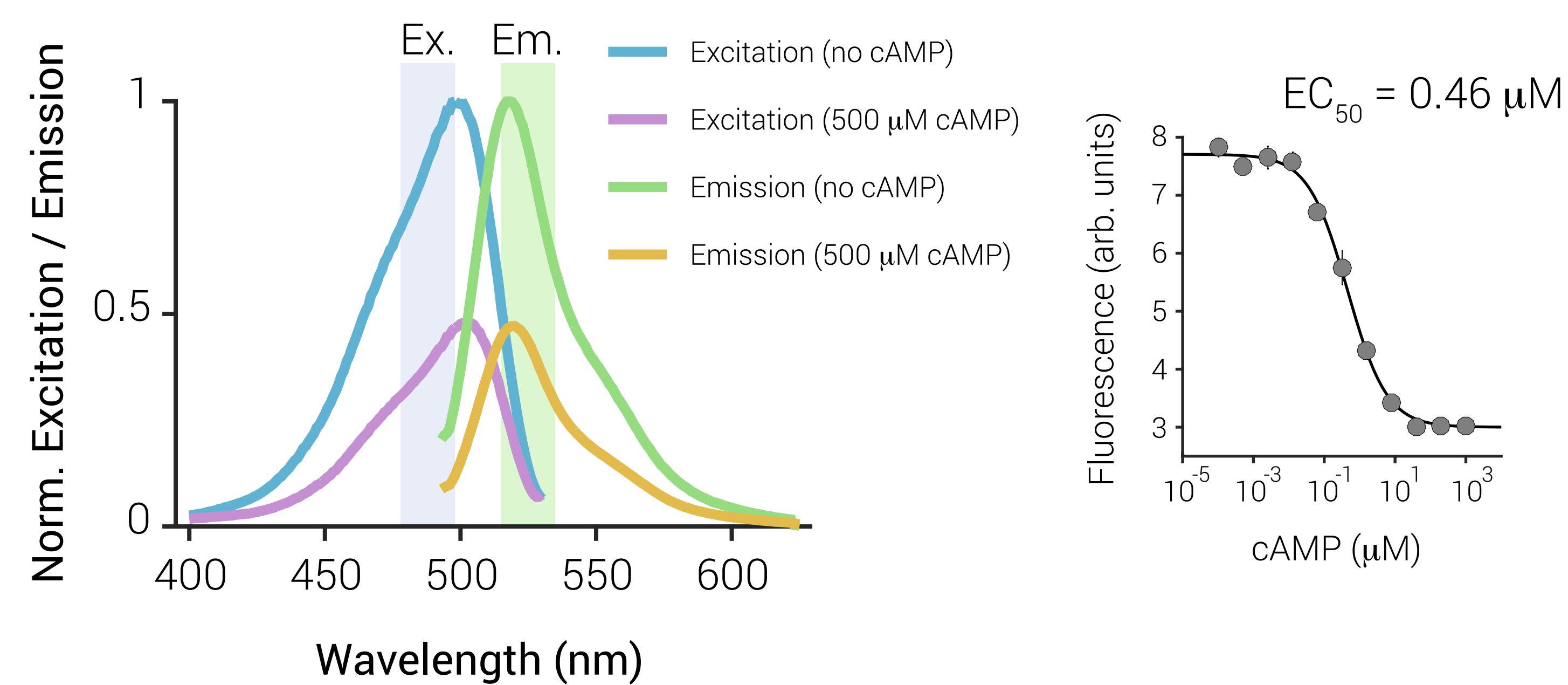
## Real-Time cAMP Detection

Here, we introduce a new fluorescent cAMP indicator, cADDIs2, capable of detecting dynamic changes in cAMP concentration in living cells. We have applied cADDIs2 to use in a novel Gi assay that, for the first time, directly reports Gi mediated reductions in cAMP concentration, across a variety of receptors, on standard automated fluorescence plate readers.



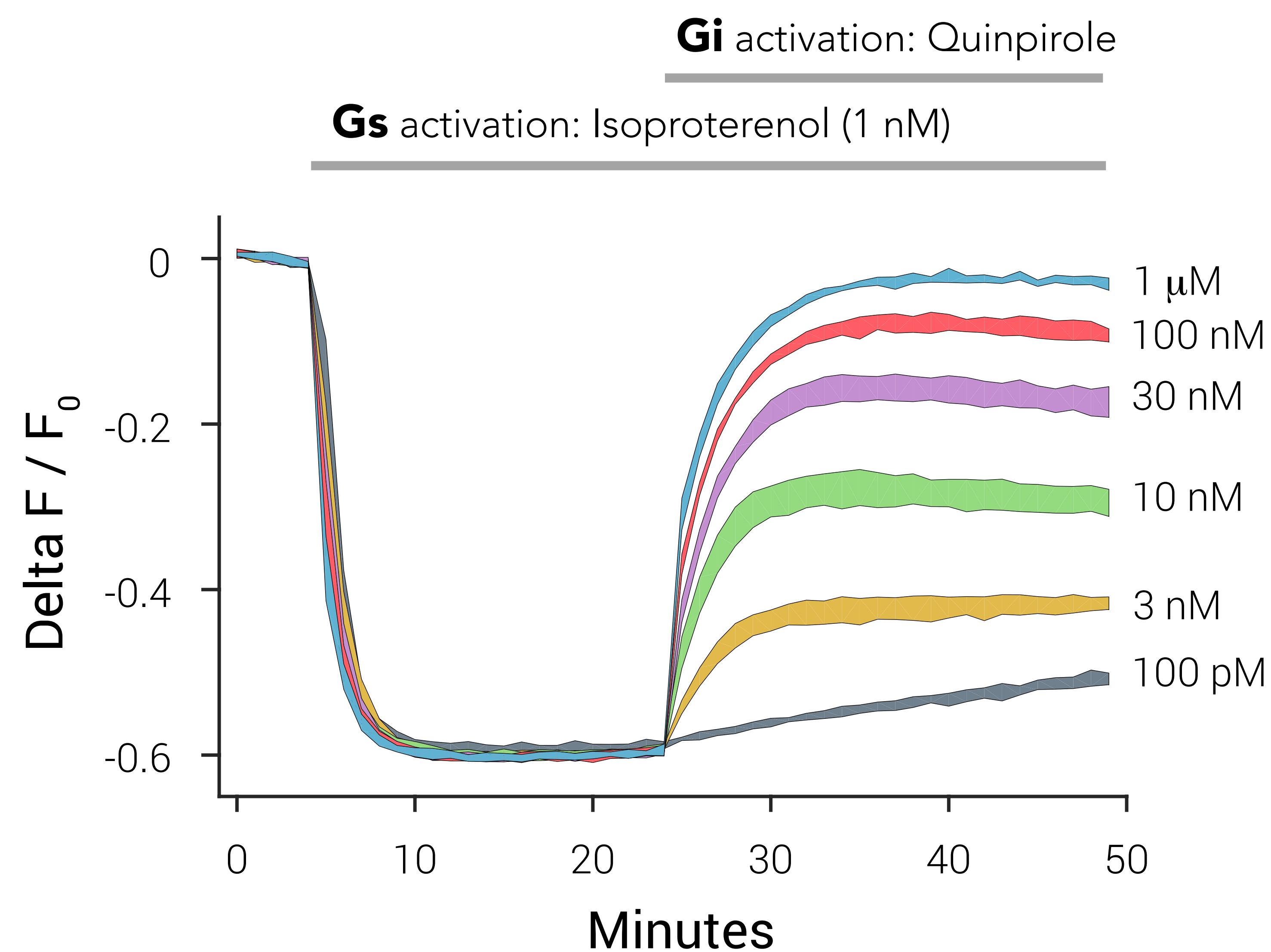
### cADDIs2 cAMP Indicator

- Genetically encoded, single fluorescence emission
- Packaged in a variety of viral vectors for use in any cell type
- Decrease in fluorescence signal upon binding cAMP
- Easy to use on standard fluorescence microscopes and automated fluorescence plate readers



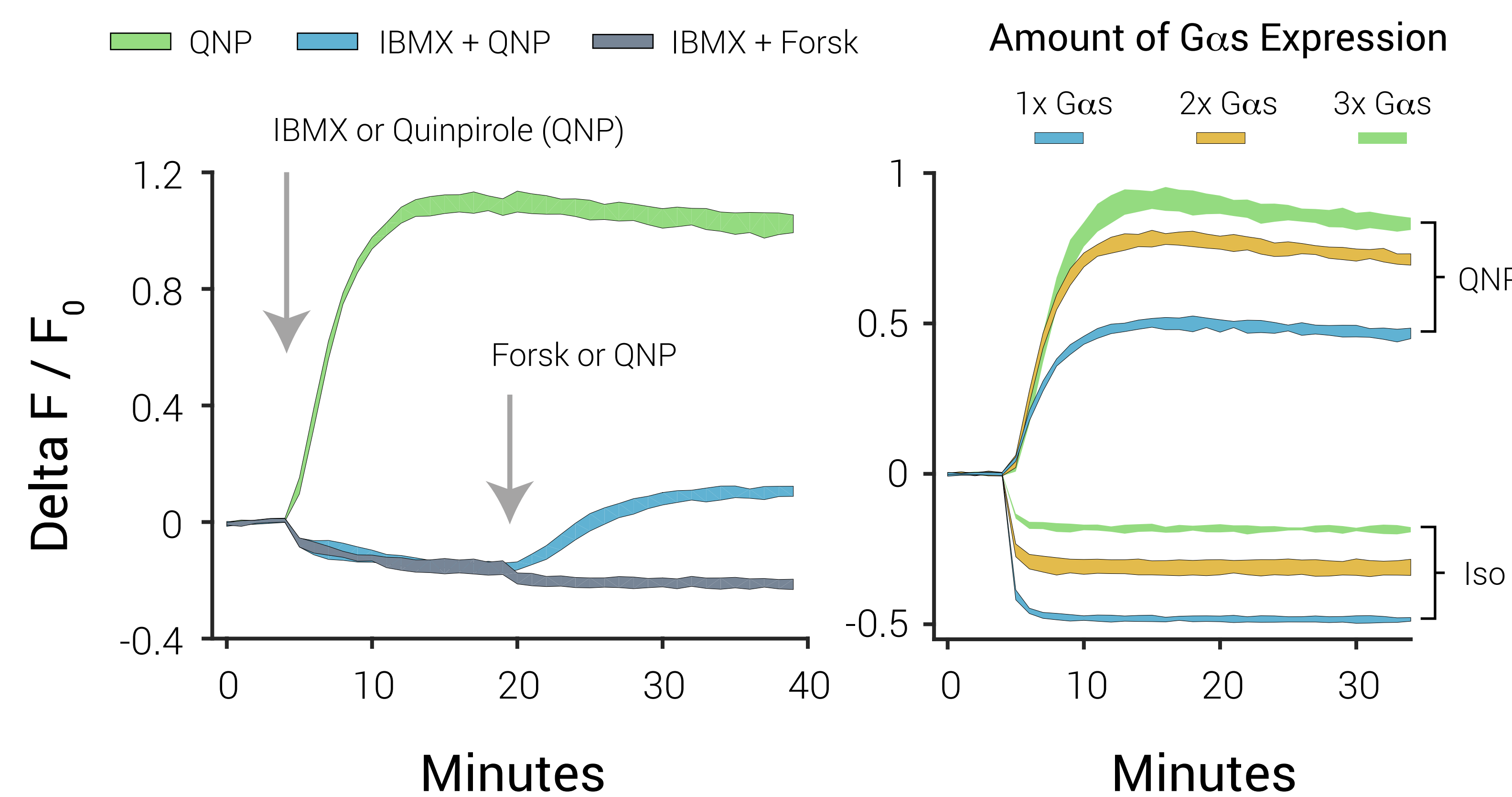
## A New Way to Detect Gi Signaling

- Simple, No cell lysis, No FRET, Fully reversible
- Real-time detection of dynamic cAMP levels
- All data obtained on Biotek Synergy MX plate reader

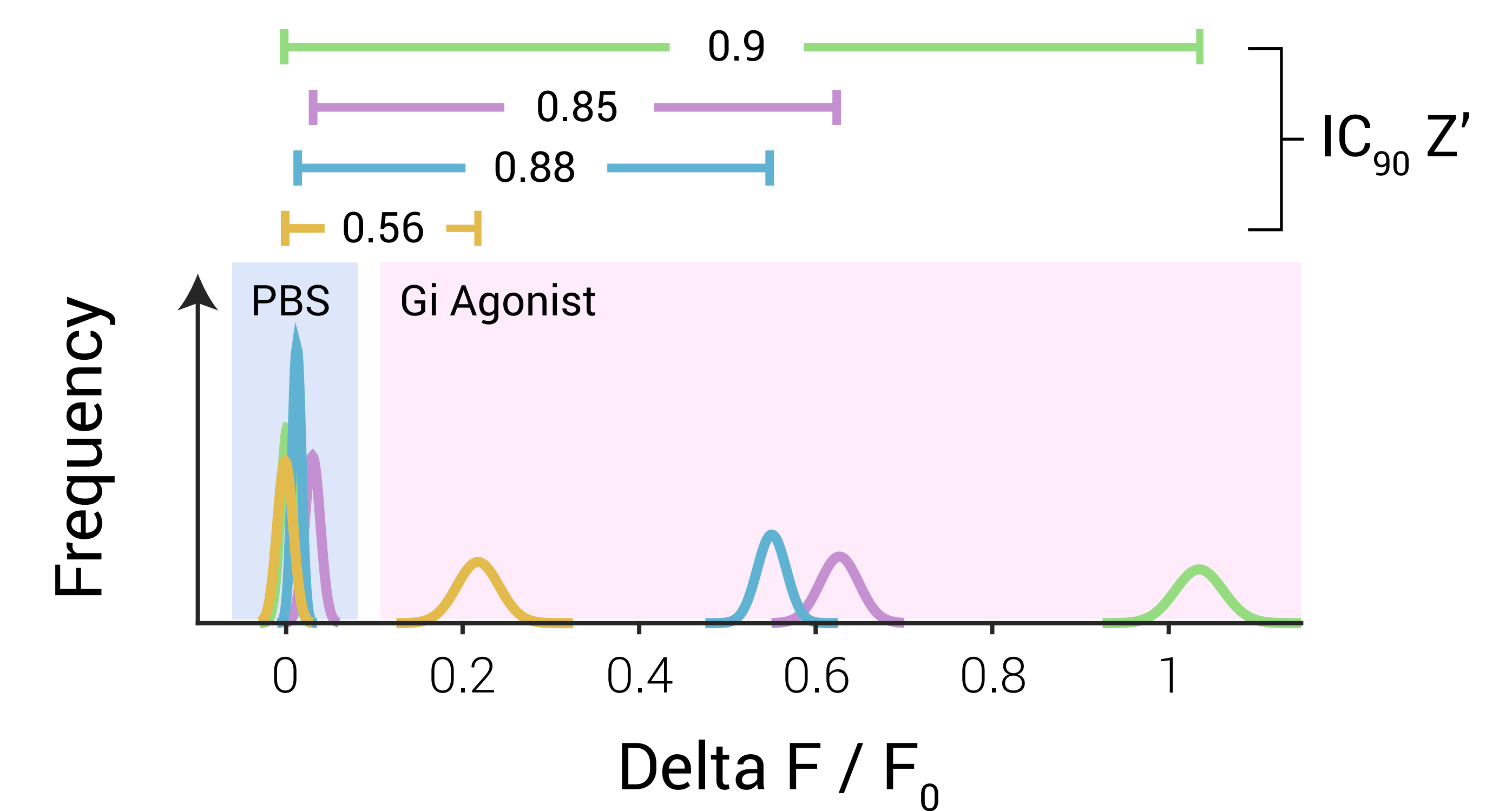
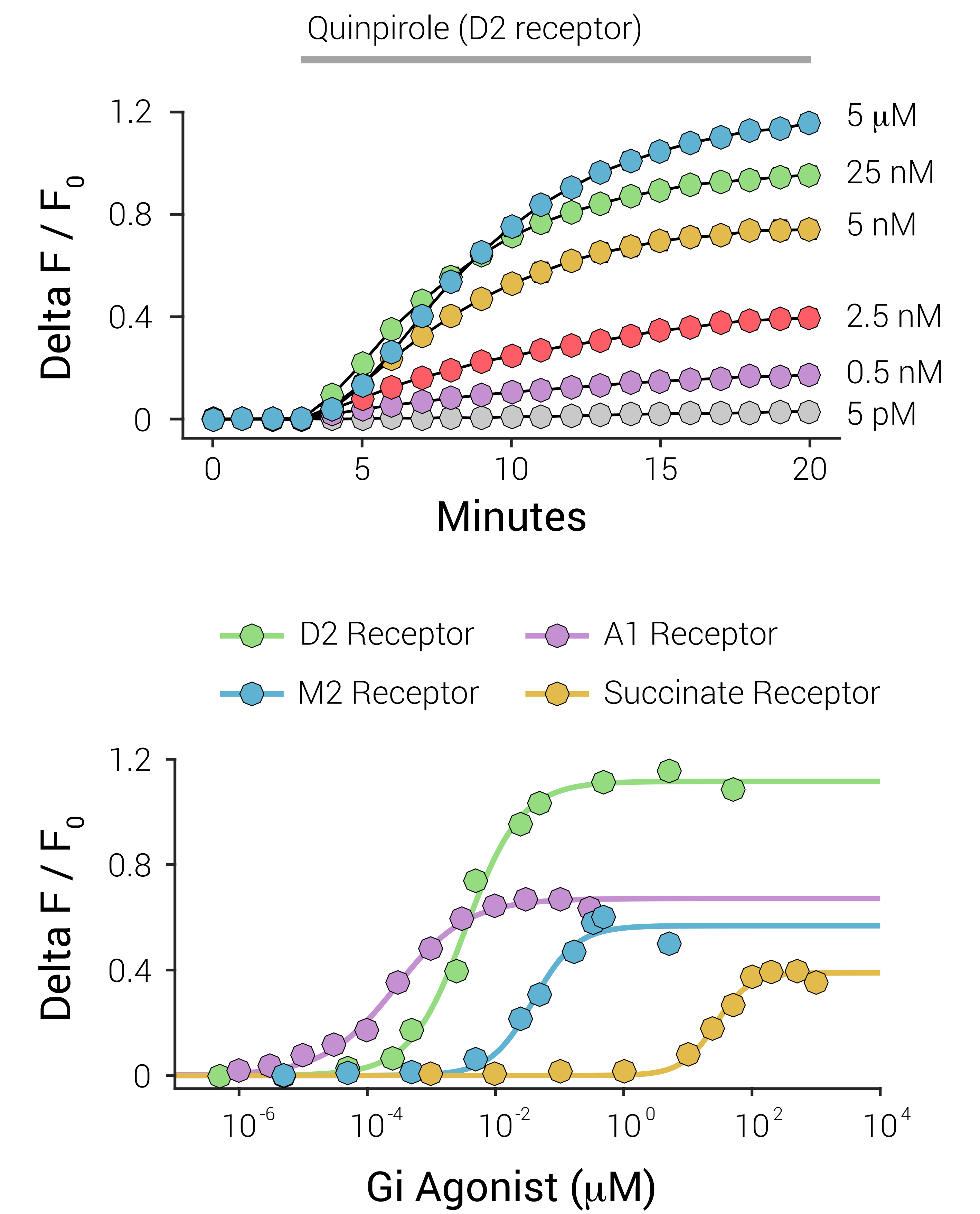


### First ever direct readout of Gi mediated reductions in cAMP

- Tuned expression of constitutively active Gαs raises basal levels of cAMP, without saturating cADDIs2
- No pre-treatment with Gs agonists, Forskolin, or IBMX
- Reveal the activity of Phosphodiesterases



## Direct, Real-Time Gi Detection



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