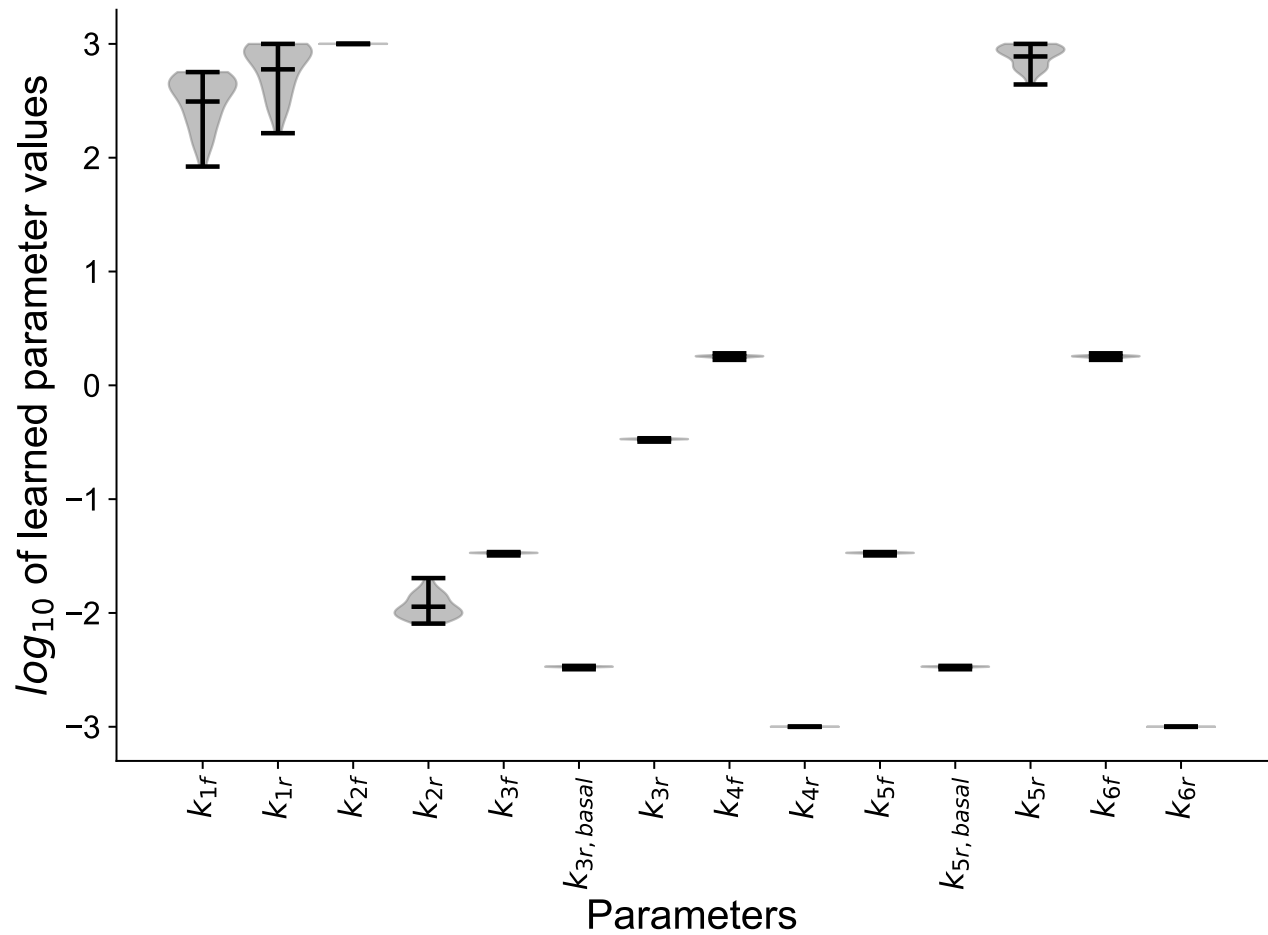


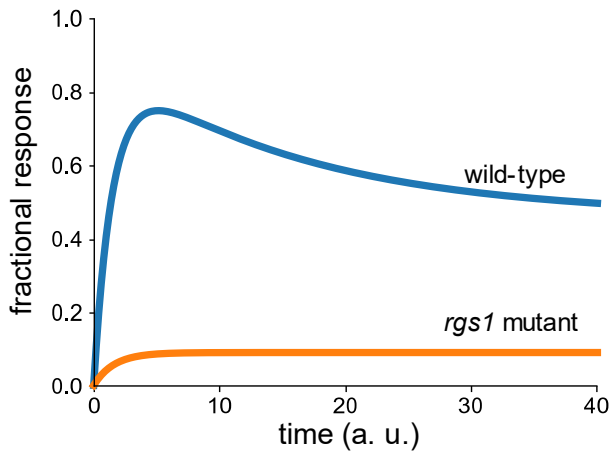
# Supplemental Information for “Towards resolution of a paradox in plant G-protein signaling”

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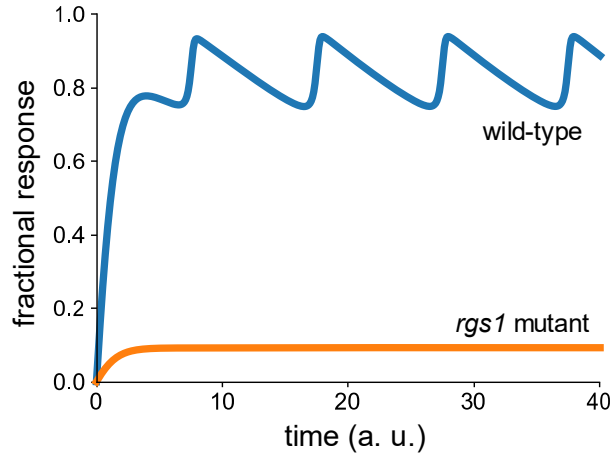


**Supplemental Figure S1: Top 50 parameter sets that minimize the cost function in Eq. (1).** The shaded regions are the violin plots, representing the densities of each of the parameters. The solid lines represent the minimum, maximum, and mean values. Details about the evolutionary algorithm and the constraints used to restrict the search space are described in the Materials and Methods section.

**A. Response to constant input**



**B. Response to sinusoid input**



**Supplemental Figure S2: Dynamics of  $\alpha_{GDP}^*$  for the best parameter set obtained from the evolutionary algorithm.**

**(A)** Signaling responses over time for wild-type and *rgs1* mutant in response to a step input with a constant amplitude. The response was obtained by simulating the models in Eq (2) and Eq. (3) in the Materials and Methods section with the best parameter set obtained from the evolutionary algorithm that minimized the objective in Eq. (1). **(B)** Response of wild-type and *rgs1* mutant to a sinusoid input for the same parameter set.