

**S1 Table. Calcium response parameters.**

| Parameter             | Symbol         | Units                                     | Description   |
|-----------------------|----------------|---|---|
| Activation time       | $t_{10-90\%}$  | s   | Time for signal to increase from 10 to 90% of peak.                                   |
| Magnitude             | -              | $\Delta[\text{Ca}^{2+}]_i$                | Amplitude of response (peak – baseline).  |
| Area under curve      | $AUC$          | $\Delta[\text{Ca}^{2+}]_i \cdot \text{s}$ | Area under response curve.  |
| Decay time            | $\tau_{decay}$ | s   | Decay constant of the exponential decay region of the deactivation phase of response. |
| Oscillatory fraction  | -              | -   | Fraction of cells with multi-peaked (oscillatory response).                           |
| Oscillatory magnitude | $E$            | $\Delta[\text{Ca}^{2+}]_i$                | Mean magnitude of oscillatory peaks.  |
| Oscillatory period    | $T$            | s   | Mean periodicity of oscillatory peaks.  |
| Oscillatory peaks     | $N_{osc}$      | -   | Number of observed oscillatory peaks.   |
| Response fraction     | -              | -   | Fraction of cells with discernable calcium response.                                  |
| Signal radius         | $\rho$         | $\mu\text{m}$                             | Average distance of secondary (2°) responders from primary (1°) stimulated cell.      |

Refer to [13] for schematic-based definitions.