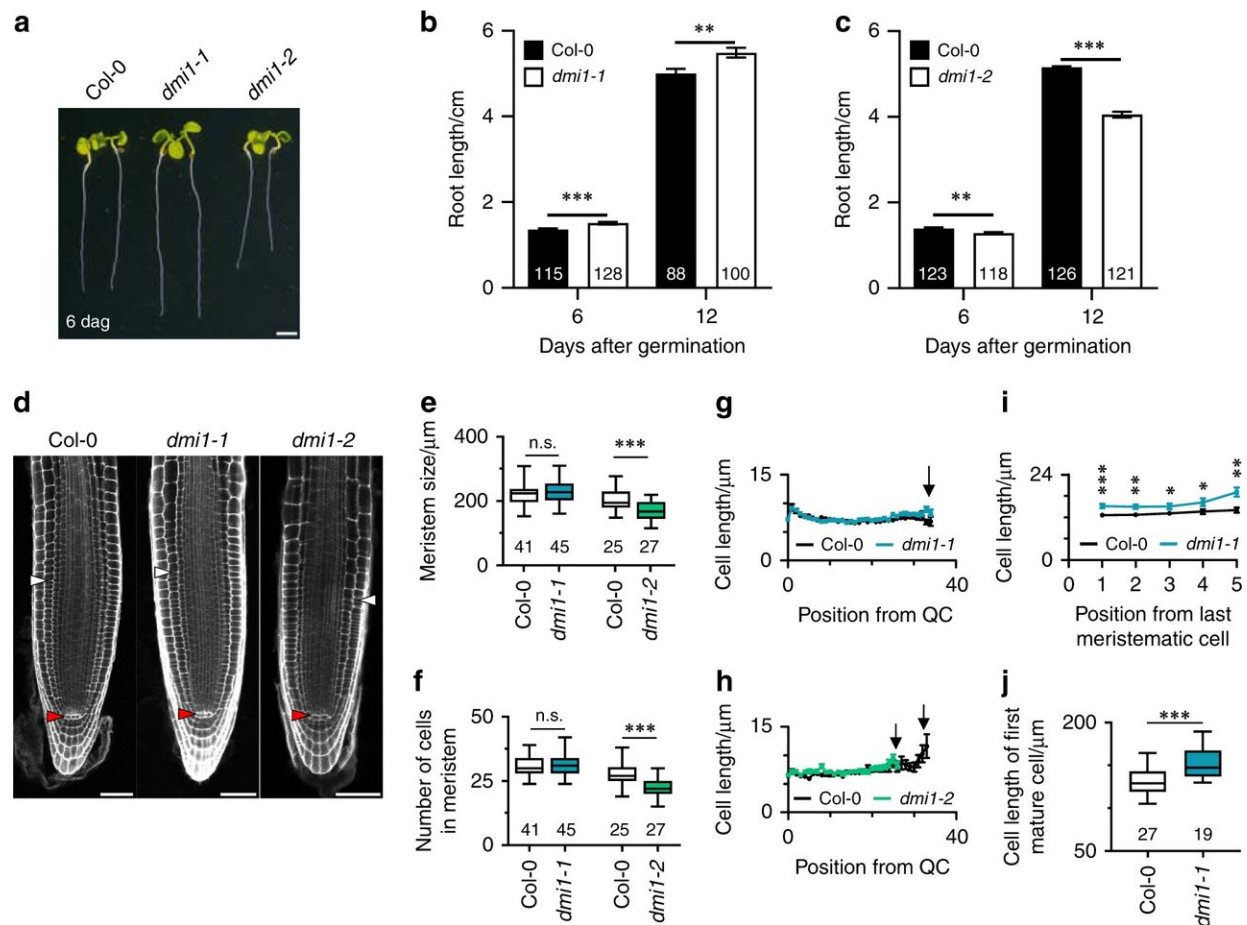


Key role for calcium release in root development

October 28 2019



dmi1 mutants are impaired in primary root development. **a** Representative image of Col-0, *dmi1-1*, and *dmi1-2* seedlings 6 days after germination (dag) (scale bar represents 0.2 cm). **b, c** Primary root length of wild type (Col-0), *dmi1-1* (**b**) and *dmi1-2* (**c**) 6 and 12 dag. **d** Cellular organisation of the root meristem visualised by confocal microscopy after staining with propidium iodide of wild type (Col-0), *dmi1-1*, and *dmi1-2* at 6 dag. White and red triangles mark the first

elongated cortex cell and the quiescent centre (QC), respectively. Scale bars represent 50 μm . **e–h** Root meristem length (**e**), root meristem cell number (**f**), and cell length over cell position from the QC to the last meristematic cortex cell (**g, h**) of wild type (Col-0), *dmi1-1*, and *dmi1-2*. Black arrows in **g, h** mark the last meristematic cell. **i** Cell length over cell position from the first rapidly elongated cortex cell of Col-0 and *dmi1-1*. ($n \geq 41$ in each population for each cell position). **j** Cell length of the first mature cortex cell of Col-0 and *dmi1-1*. Values in bar and *xy* charts are means \pm s.e.m. Box and whisker plots show 25% and 75% percentiles, median, minimum, and maximum. Numbers in bars and under boxes denote sample size (n). n.s. not significant, * p

Citation: Key role for calcium release in root development (2019, October 28) retrieved 24 April 2024 from <https://phys.org/news/2019-10-key-role-calcium-root.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.