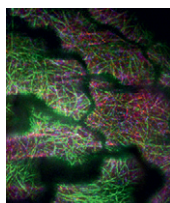


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ON THE COVER



Cell walls are a defining feature of plant cells, performing a diversity of functions essential to the growth, defense and development of plants. While it has long been appreciated that cellulose microfibrils and matrix polysaccharides make up the bulk of the cell wall, how cells spatially coordinate the delivery of these components synthesized at different cellular locations remains unclear. In this work, we show that the Arabidopsis FRA1 kinesin, which contributes to the deposition of matrix polysaccharides, physically interacts with CMU proteins that stabilize cortical microtubule tracks. By regulating the amount and microtubule localization of CMU proteins, the FRA1 kinesin ensures that the deposition sites of both cellulose and matrix polysaccharides remain stable. The cover image depicts the motility of tdTomato-labeled FRA1 molecules along GFP-TUB6-labeled cortical microtubules in leaf pavement cells visualized using variable-angle epifluorescence microscopy.

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Executive Director,

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Editorial Office

15501 Monona Drive

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