Membranes are highly dynamic structures, with the timescales for turnover of lipid and protein spanning orders of magnitude from seconds to many hours. These hydrophobic fluid barriers incorporate phospholipids, sphingolipids, glycolipids, and sterols, and contain a wide range of proteins crucial for transporting ions and biomolecules (e.g., sugars, miRNAs) across the lipid bilayer. They are crucial as platforms supporting integral and peripheral proteins, hosting sensors, and receptors for signal detection and transduction, and they are essential for plant growth and development. The Focus Issue on Dynamic Membranes will capture up-to-date views and perspectives on developments at the forefront of membrane research, and it will highlight the most important gaps in understanding that will be the focus for future studies. Invited Updates will provide reviews on areas that continue to add transformative insights pertinent to existing knowledge and on nascent but important areas of future development. We seek submissions of research articles on all aspects that make plant membranes dynamic, including signaling, endocytosis, exocytosis, vesicular transport, membrane barriers, protein and lipid binding, and the mechanics of these processes.

Authors interested in contributing should indicate this in the cover letter when submitting papers online at http://pphys.msubmit.net. Please select “Dynamic Membranes” from the Focus Issue list in the online submission system. Articles published in Plant Physiology on this topic within 2 years before and after the Focus Issue publication date will be collected in an online Focus Collection.

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