

Call for Papers

2021 Focus Issue on the Plant Cell Atlas

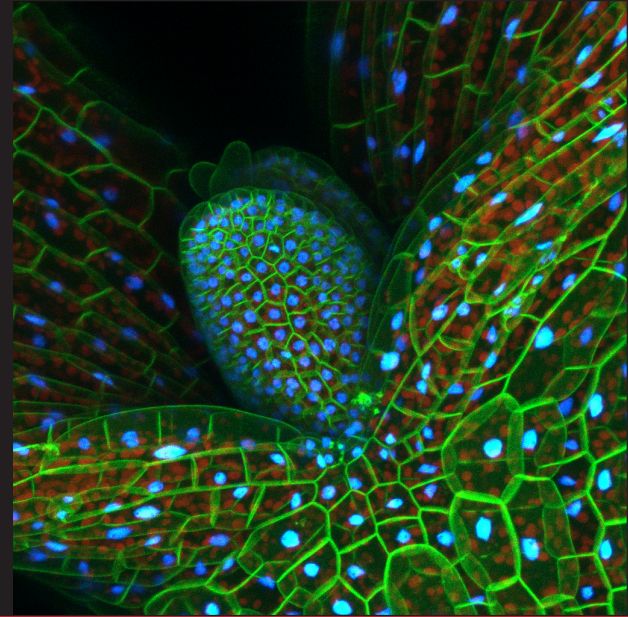


Photo credit: Kate Harline, PhD student, Adrienne Roeder lab. Epidermal plasma membrane in green and nuclei (H2B-TFP) in blue, together with chlorophyll autofluorescence in red below in the mesophyll.

Editors: Kenneth D. Birnbaum, Julia Bailey-Serres, Marisa Otegui, and Sue Rhee

Deadline for Submission: May 1, 2021; Publication: December 2021

To submit an article, go to <http://pphys.msubmit.net>

Many questions central to plant biology focus on the state of specialized cells and their response to the environment. Cellular states are relevant to every aspect of plant life, from the specialized cells that accumulate nutrients for human consumption to cell state changes in response to stress, pathogens, or developmental cues. At the same time, new technologies have opened up vast potential to screen cells—some at the level of the whole cell and others with stunning resolution at the subcellular level. The editors of this focus issue seek to include manuscripts that will provide a foundational set of approaches, concepts, techniques, and analytical methods to build a Plant Cell Atlas—a framework to generate and synthesize data on the development, dynamic functions, and specialization of plant cells. The manuscripts submitted should implement new technologies and provide new mechanistic insights. Also encouraged are manuscripts that provide new methods in plant science geared toward overcoming barriers to adoption by the plant community. Contributions will likely include such topics as single cell ‘omics, including nucleic acids, proteins and metabolites, advances in imaging including live imaging, cell physiology, computational cell biology, synthetic biology, mathematical modeling, and data science techniques from data visualization to machine learning approaches.

Authors interested in contributing should indicate this in the cover letter when submitting papers online at <http://pphys.msubmit.net>. Please select “Plant Cell Atlas” 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.

For inquiries, please contact the editors of the Focus Issue:

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