

On the Cover: The ethylene signaling pathway known in land plants was recently found to be conserved in *Spirogyra pratensis* (a filamentous Charophycean green alga). Ethylene treatment of *Spirogyra* induces elongation of the cells within the filament, as shown. A transcriptomic analysis of the ethylene response in *Spirogyra* by Van de Poel et al. (pages 533–545) suggests changes in cell wall metabolism, photosynthesis, and abiotic stress responses. The cover image shows confocal microscopy of two *Spirogyra* filaments, one with normal-sized cells (left) and the other with elongated cells (right). To create the image, a confocal section of DAPI-stained (blue) filaments, showing cell walls, was overlaid with the autofluorescence (red) of chlorophyll in the spiral chloroplasts. The image was produced by Dr. Bram Van de Poel.

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