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Phycomyces phototactic response to actinic blue light (about $\times 10$). The giant sporangiophores of this fungus exhibit sensory responses to light, gravity, and the proximity of objects. The sensory transducing mechanism involves the modulation of chitin cell wall biosynthesis. *Phycomyces* in vitro chitin synthesis systems can be used to study the molecular mode of action of fungicides and insecticides. See page 905. [David Dennison, Dartmouth College, Hanover, New Hampshire 03755]

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