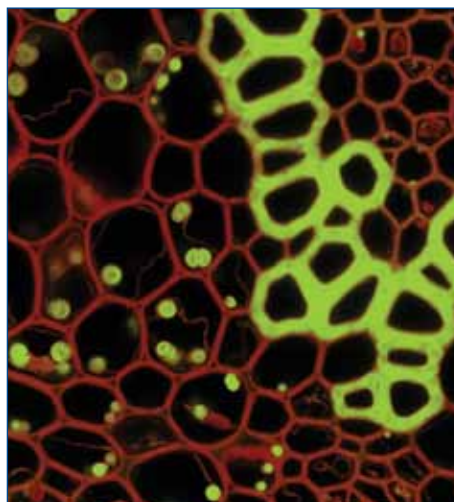


For more than 20 years, the Plant Biology Division has conducted fundamental biochemical, genetic and genomic plant research.

A primary research focus includes understanding and improving legumes. The Noble Foundation is recognized internationally for contributions to the scientific community and, in particular, its efforts to advance the legume *Medicago truncatula* as the genomic model for the study of all legumes, including economically significant crops such as soybean, alfalfa, clover and peanut.

The division's studies range from the potential use of plants to produce health-benefitting natural compounds, such as anthocyanins, tannins and isoflavonoids, to the study of beneficial microorganisms that live within plants and enhance plant performance and stress tolerance.

The Plant Biology Division is also recognized for its contribution to the field of plant cell wall engineering. The outcomes of this work will extend from the pastures – enabling new forages that are more easily digested by grazing livestock – to tomorrow's biorefineries – providing new, advanced cellulosic feedstocks that have the potential to yield more liquid biofuels per acre.



## In the past year the Plant Biology Division:

- maintained 11 primary Noble Foundation laboratories;
- received public support from the National Science Foundation, U.S. Department of Agriculture, Oklahoma Center for the Advancement of Science and Technology, U.S. Department of Energy, National Center for Complementary and Alternative Medicine (National Institutes of Health) and the state of Oklahoma (Consortium for Legume Research and Oklahoma Bioenergy Center);
- held 12 adjunct faculty positions at seven institutions of higher education: Oklahoma State University, Rice University, Texas A&M University, University of Oklahoma, University of Texas, University of North Texas and Washington State University;
- served on 14 editorial boards;
- published 80 peer-reviewed papers in international journals including *Plant Physiology*, *Plant Journal* and *Proceedings of the National Academy of Sciences*; and
- received \$4,912,377 in new external funding from both public and private sources.