

Table of Contents

FEATURES

Approaches to Biology Teaching and Learning

Talking to Learn: Why Biology Students Should Be Talking in Classrooms and How to Make It Happen
 Kimberly D. Tanner 89–94

From the National Science Foundation

Current Developments and Funding Opportunities in Life Sciences Education
 Deborah Allen and Terry Woodin 95–99

WWW.Life Sciences Education

BioDiversifying the Curriculum
 Dennis Liu 100–107

Current Insights

Recent Research in Science Teaching and Learning
 Erin Dolan 108–110

Meeting Report

Northeast Under/graduate Research Organization for Neuroscience (NEURON): Our 13th Conference for Neuroscience Trainees and Educators
 Jay P. McLaughlin, Stacey Gomes, Angela Seliga, Sharon Ramos-Goyette, Amy Morrison, Christian G. Reich, and Cheryl A. Frye 111–113

Educator Highlight

Carol Hurney
 Interviewed by Laura L. Mays Hoopes 114–115

Book Review

The Unbearable Lightness of Being Microscopic
 José Vázquez 116–117

ESSAYS

Garage Demos: Using Physical Models to Illustrate Dynamic Aspects of Microscopic Biological Processes
 Diane K. O’Dowd and Nancy Aguilar-Roca 118–122

The Research Dynamic: A Professional Development Model for Secondary School Science Teachers
 Philip M. Silverman 123–130

ARTICLES

A Statistical Analysis of Student Questions in a Cell Biology Laboratory
 Elena L. Keeling, Kelly M. Polacek, and Ella L. Ingram 131–139

A Study of Rubisco through Western Blotting and Tissue Printing Techniques
 Zhong Ma, Cynthia Cooper, Hyun-Joo Kim, and Diane Janick-Buckner 140–146

An Investigative, Cooperative Learning Approach to the General Microbiology Laboratory
 Kyle Seifert, Amy Fenster, Judith A. Dilts, and Louise Temple 147–153

On the Cover

(A) Scanned image of a fresh celery petiole in cross-section. (B) Student-prepared tissue prints of cross-sections, immunostained to visualize the distribution of Rubisco (purple). Strongly stained sections are from mature and young petioles of plants grown in bright light, while weakly stained sections (arrows) are from petioles kept in water under dim light for several days before printing, leading to a decrease in Rubisco content. From Ma *et al.* article on p. 140.