## **Table of Contents**

## **FEATURES**

Letter to the Editor The 11th Misconception? Nicholas M. Glykos
From The National Academies Dual Use Issues in the Life Sciences: Challenges and Opportunities for Education in an Emerging Area of Scientific
Responsibility Katherine Bowman and Jo L. Husbands
Current Insights Recent Research in Science Teaching and Learning Deborah Allen
Meeting Report Society for the Advancement of Biology Education Research (SABER) Erika G. Offerdahl, Teri Balser, Clarissa Dirks, Kathryn Miller, Jennifer L. Momsen, Lisa Montplaisir, Marcy Osgood, Karen Sirum, Mary Pat Wenderoth, Brian White, William B. Wood, Michelle Withers, and Robin Wright
ESSAYS
The Benefits of Using Clickers in Small-Enrollment Seminar-Style Biology Courses  Michelle K. Smith, Caleb Trujillo, and Tin Tin Su
Implementation of a Project-Based Molecular Biology Laboratory Emphasizing Protein Structure–Function Relationships in a Large Introductory Biology Laboratory Course  Daniel J. Treacy, Saumya M. Sankaran, Susannah Gordon-Messer, Danielle Saly, Rebecca Miller, R. Stefan Isaac, and Melissa S. Kosinski-Collins
ARTICLES
Investigation of Science Faculty with Education Specialties within the Largest University System in the United States Seth D. Bush, Nancy J. Pelaez, James A. Rudd, Michael T. Stevens, Kimberly D. Tanner, and Kathy S. Williams 25–4:
A Study Assessing the Potential of Negative Effects in Interdisciplinary Math–Biology Instruction Andreas Madlung, Martina Bremer, Ed Himelblau, and Alexa Tullis
Combining Peer Discussion with Instructor Explanation Increases Student Learning from In-Class Concept Questions M. K. Smith, W. B. Wood, K. Krauter, and J. K. Knight
Effects of Collaborative Group Composition and Inquiry Instruction on Reasoning Gains and Achievement in Undergraduate Biology  Jamie Lee Jensen and Anton Lawson
Student Use of Out-of-Class Study Groups in an Introductory Undergraduate Biology Course  Stephen M. Rybczynski and Elisabeth E. Schussler
An Undergraduate Course to Bridge the Gap between Textbooks and Scientific Research Fred Wiegant, Karin Scager, and Johannes Boonstra
A Semester-Long Project for Teaching Basic Techniques in Molecular Biology Such as Restriction Length Polymorphism Analysis to Undergraduate and Graduate Students Susan M. DiBartolomeis

## On the Cover

This cover depicts a conceptualization of Science Faculty with Education Specialties (SFES). The diagram shows that SFES are housed within colleges of science and interact with colleges of education. SFES use their training in basic science and science education to engage in three key arenas of science education (discipline-based science education research, K–12 science education, and undergraduate science education), as well as basic science research. As such, SFES appear well positioned to have an impact on science education from within science departments. This issue (page 25) presents results of an investigation of SFES in the largest U.S. university system.