

# POPULAR SCIENCE:

## FUND HELPS FOCUS SCIENCE AND TECHNOLOGY

Science and technology play a vital role in our modern lives, affecting everything from the ways we communicate to the air we breathe. Every field has been impacted in ways we never thought possible just a decade ago. From the educator teaching in the wired classroom to the musician mixing her latest song on a soundboard to the attorney using DNA evidence to prove a client's innocence, every life is affected by science and technology.

At the SUNY College at Oneonta, we recognize the growing significance of science and technology and the enormous roles that they will play in the future of our students. For the past two years, the Fund for Science and Technology has helped focus the College's fundraising efforts to ensure that all students—science and non-science majors alike—graduate with an appreciation of science and technology as part of a well-rounded liberal arts education.

"All SUNY Oneonta students take at least two courses in the sciences as part of their General Education requirement," explains Provost and Vice President for Academic Affairs F. Daniel Larkin. "And technology infuses our curriculum from our popular major in Computer Art to our new online Master's in Nutrition and Dietetics to our highly respected Education programs, which now include our new Master's in Educational Technology."

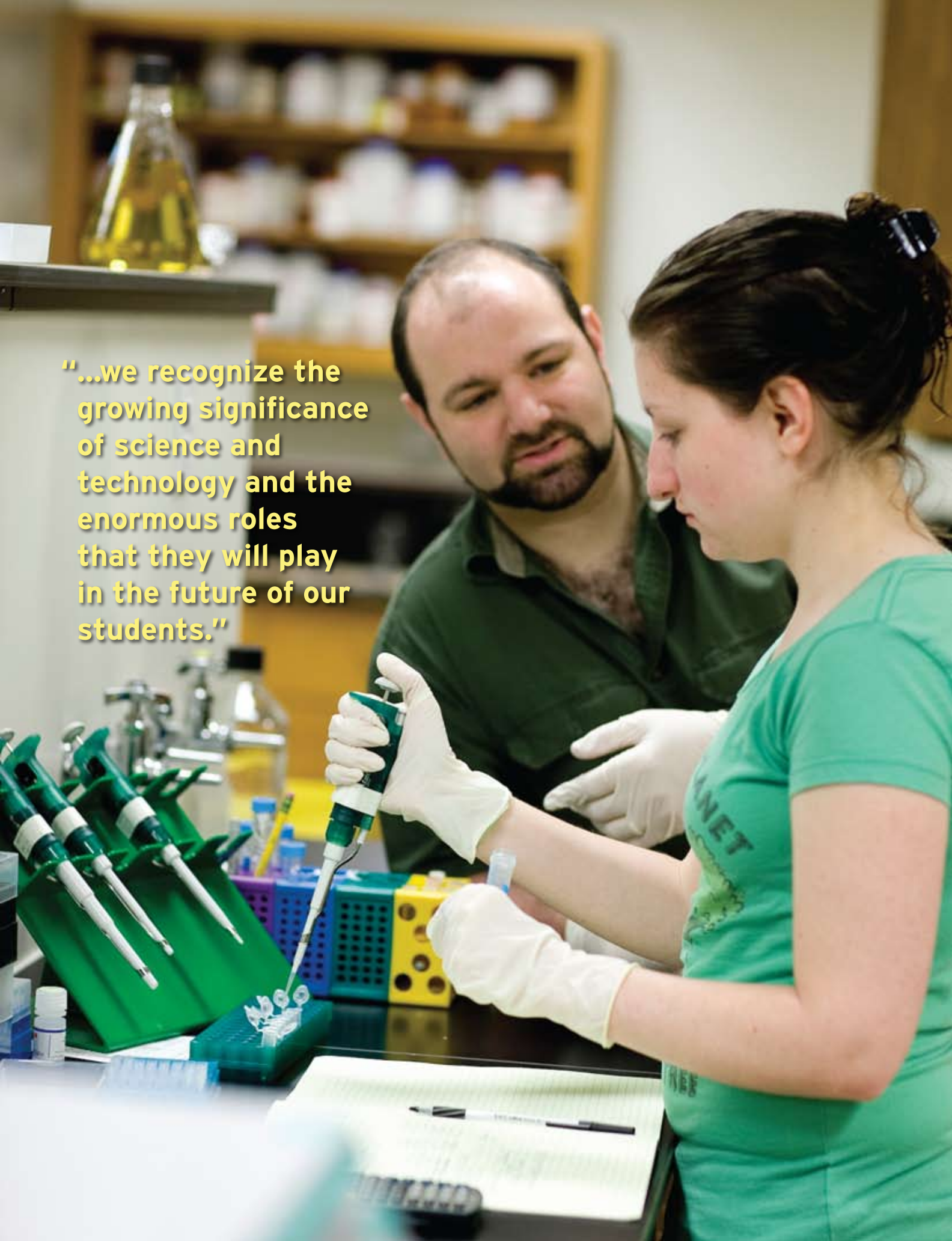
The Fund for Science and Technology played an important role in the development and equipping of our newly renovated Science Building I, the opening of which highlighted the beginning of the 2008-2009 academic year. For example,



faculty and students now conduct cellular, molecular, and plant biology research in the Pietraface Tissue Culture Laboratory in Science 1, thanks to a gift from Professors Bill Pietraface of the Biology Department and Marjorie Pietraface of the Human Ecology Department.

Science Building 1 now houses one of the College's most impressive pieces of new technology—the digital planetarium/theater shown on the cover of this issue. The state-of-the-art facility is one of only three of its kind in the world, equipped with a full-dome digital video system and computer-controlled dual projectors that can place over four million pixels on the dome above the audience. Astronomy faculty use the planetarium to create high-resolution Earth-based views of the stars and sky while other faculty use the

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equipment for computer-based simulations in the sciences, social sciences, humanities, and arts.

One of the College’s hidden gems in its science facilities, the Biological Field Station in Cooperstown, is currently undergoing a complete renovation and upgrade. Dr. Bill Harman, SUNY Distinguished Service Professor of Biology and Rufus J. Thayer Chair for Otsego Lake Research, and his colleagues are working from the Thayer Farm, which the College received as a gift several years ago. The former sap house on the property has been expanded and converted into an Upland Interpretive Center with a classroom, display space, and office space. The hop shed has been renovated to create classroom and field laboratory spaces, a conference room, and offices. The boathouse, located on the shore of the lake, was renovated to provide research support space, a classroom, and a laboratory. The new facilities support programs for SUNY Oneonta faculty and students as well as high school students and science teachers from our region.

We are collaborating with others in our region on another important initiative: the STEM Leadership Council. With the Chenango-Delaware-Otsego Workforce Investment Board, DCMO BOCES, and others, SUNY Oneonta has established the new council, chaired by Kevin Price ’90 of the CDO Workforce Investment Board, to promote the disciplines of Science, Technology, Engineering, and Mathematics (STEM). The group’s goals are to stimulate young people’s interest in STEM careers, re-train adults for STEM employment, promote teacher development in STEM areas, and establish educational pathways between high schools, colleges, and workplaces.

The College’s efforts to enhance science and technology have been recognized

from well beyond central New York. The National Science Foundation recently awarded several significant grants to SUNY Oneonta.

Nicola McEnroe of the Biology and Earth Sciences Departments and Professor Harman received a grant of \$41,340 through the NSF’s Major Research Instrumentation Program to acquire a Total Organic Carbon Analyzer and associated equipment for research at the Biological Field Station.

Jacqueline Bennett, Kelly Gallagher, and Trudy Thomas-Smith of the Chemistry and Biochemistry Department received a National Science Foundation grant through the Course Curriculum and Laboratory Improvement Program for their project entitled “PREDICT” for “Predicting Results and Evaluating Data using Insights from Computational Techniques.” The grant of \$164,753 will support the introduction of computational chemistry to the College’s Chemistry curriculum through a graduated approach.

Todd Ellis and Jerome Blechman of the Earth Sciences Department received an NSF grant of \$199,592 through the Course Curriculum and Laboratory Improvement Program. The award will be used to develop new Meteorology curriculum elements and to improve the Meteorology program’s computing facilities in Science Building 1 through a project entitled “Improving the Use of Computer Data Analysis Skills in Undergraduate Meteorology.”



Perhaps the most significant NSF grant came last spring when Drs. Paul Bischoff of the Secondary Education Department, John Schaumloffel of Chemistry and Biochemistry, James Ebert and Todd Ellis of Earth Sciences, and Paul French of Physics and Astronomy received an award of \$900,000 for the SUNY Oneonta Noyce Scholars Program. The grant will help prepare students for careers as highly qualified high school science teachers in high-need school districts, offering annual scholarships of over \$13,000 to students who complete majors in science and Adolescence Education. While studying at SUNY Oneonta, the Noyce Scholars will serve in both high-need urban and rural districts through summer experiences in New York City schools and academic-year and summer experiences in rural schools in central New York.

Enhancing the educational experience of our students, of course, is the focus of all gifts to the Fund for Science and Technology. The future scientists were out in force at our 2009 Student Research Day last April. Eighty projects involving approximately 150 students and 60 faculty sponsors from 25 different departments were presented. Much of the research was funded through our Student/Faculty

Grant Program for Research and Creative Activity, which is supported by gifts to the fund and the College Foundation's unrestricted endowment.

When the Fund for Science and Technology began just two years ago, we had only 18 endowed scholarships available for students majoring in science and technology. Thanks to the fund's focus on scholarships and the generosity of so many supporters, we now have gifts or commitments for 31 endowed scholarships. We have also established a general fund for science and technology to expand opportunities for student and faculty research, provide professional development for faculty and students, and support new technologies, instrumentation, and instructional methods.

Like science and technology, SUNY Oneonta has come a very long way in a very short time. With support from gifts and grants to the Fund for Science and Technology, the College has built a solid foundation for helping all of our students prepare for the challenges of tomorrow and beyond.

*For more information about the Fund for Science and Technology, please visit [www.oneonta.edu/advancement/donors/v-s/](http://www.oneonta.edu/advancement/donors/v-s/) or call the Office of College Advancement at (607) 436-2535.*

## SCHOLARSHIPS: Focus on Science and Technology

The following new scholarships are among those created through the Fund for Science and Technology:

### JAMES '83 AND LAURA BIDWELL SCHOLARSHIP

For Science, Mathematics, or Education majors with a preference to students with dual majors in two of the three who demonstrate academic achievement by maintaining a GPA of 3.0 or higher.

### MICHAEL '87 AND DEBORAH '87 CURCIO SCHOLARSHIP

For "average" students majoring in Biology, Chemistry, Biochemistry, Earth Science, Physics, or Astronomy who may not qualify for other types of scholarships based on lack of financial need or academic performance below a specific level.

### DAVID AND MARY P. DACQUINO '80 SCHOLARSHIP

For Environmental Science majors with demonstrated financial need.

### GWEN LATENDORF SCHUSTER '68, '73G AND RUDOLPH SCHUSTER, DVM, SCHOLARSHIP

For recruiting and retaining top students in the fields of Science Education or Family and Consumer Science Education.