

# Not for PhDs only

## Foundation grants expand the universe of research for Boston College undergraduates

Two recent foundation grants are enabling Boston College to advance a critical mission in undergraduate education: utilizing new technology to expose more students to the intellectual rigors of scholarly research.

The grants, from the Davis Educational Foundation of East Bridgewater, Massachusetts, and the W. M. Keck Foundation of Los Angeles, give the faculty in two departments new tools to further that goal. The result, said Associate Professor of Biology and department chair William Petri, will be a learning environment for undergraduate students enriched by "first-hand experience in doing research on a graduate level."

Petri's department will benefit from one of the awards, a \$400,000 grant from the W.M. Keck Foundation that will be used during the proposed renovation of Higgins Hall to construct an advanced undergraduate research lab in molecular neurobiology. The lab will provide dedicated bench space to 12 advanced undergraduate biology majors, under the supervision of a professor and a graduate student.

When built, the new laboratory will function akin to Higgins' existing molecular biology—biochemistry lab, where selected juniors and seniors do

real research on real problems.

For example, explained Petri, a faculty member might have a project which requires analyzing hundreds of strains of fungi. Each of the 12 undergraduates could be taught how to do the analysis and be given a strain to work on. "Progress in science depends not on memorizing what has been learned in the past, but in discovery," said Petri. "Therefore, the best science education immerses students in research and analysis. The Keck laboratory will help make this possible."

But advanced technology isn't just for advanced students. A recent \$235,000 grant from the Davis Educational Foundation is being used by the Department of Psychology to develop a new introductory course in statistics and research methodology.

When the course is introduced next year, it will be the first survey course in research methodology the department has ever offered. "In the past, students first took a statistics course, and then a research practicum," explained Associate Professor Jeanne Sholl, the department chair. "But students found it hard to absorb the abstract concepts in the statistics course and had difficulty remembering and applying them in the practicum."

Because the new course, in effect, replaces two separate courses, it also will allow Boston College to reduce teaching time for faculty and graduate teaching fellows, producing a cost savings of at least \$80,000 per semester.

Sholl, Professor Marie LaFrance, Associate Professor Hiram Brownell and Assistant Professor Liza Barrett-Feldman are developing the course, while Assistant Professor Kavitha Srinivas is translating their work to Agora, Boston College's campus-wide computer network.

Srinivas noted that, "The timing of the Davis Educational Foundation grant was perfect. We had already used an internal Boston College grant to establish a computer lab with 12 dedicated computers, and had begun applying computer technology to undergraduate teaching." But with 200 students taking the statistics course each year, and only 12 computer stations available, resources limited what could be done.

The Davis grant offered a unique opportunity to break through those limits by allowing the department to utilize the Agora network to deliver undergraduate instruction directly to students' own personal computers.



### ART APPRECIATION

University President William P. Leahy, SJ, chats with Cardinal Bernard Law, University Trustee Chairman Richard F. Syron '66 and museum benefactor John J. McMullen, at the special October 7 opening of the McMullen Museum of Art's exhibit, "J.M.W. Turner and the Romantic Vision of the Holy Land and the Bible." The exhibit runs to December 15.