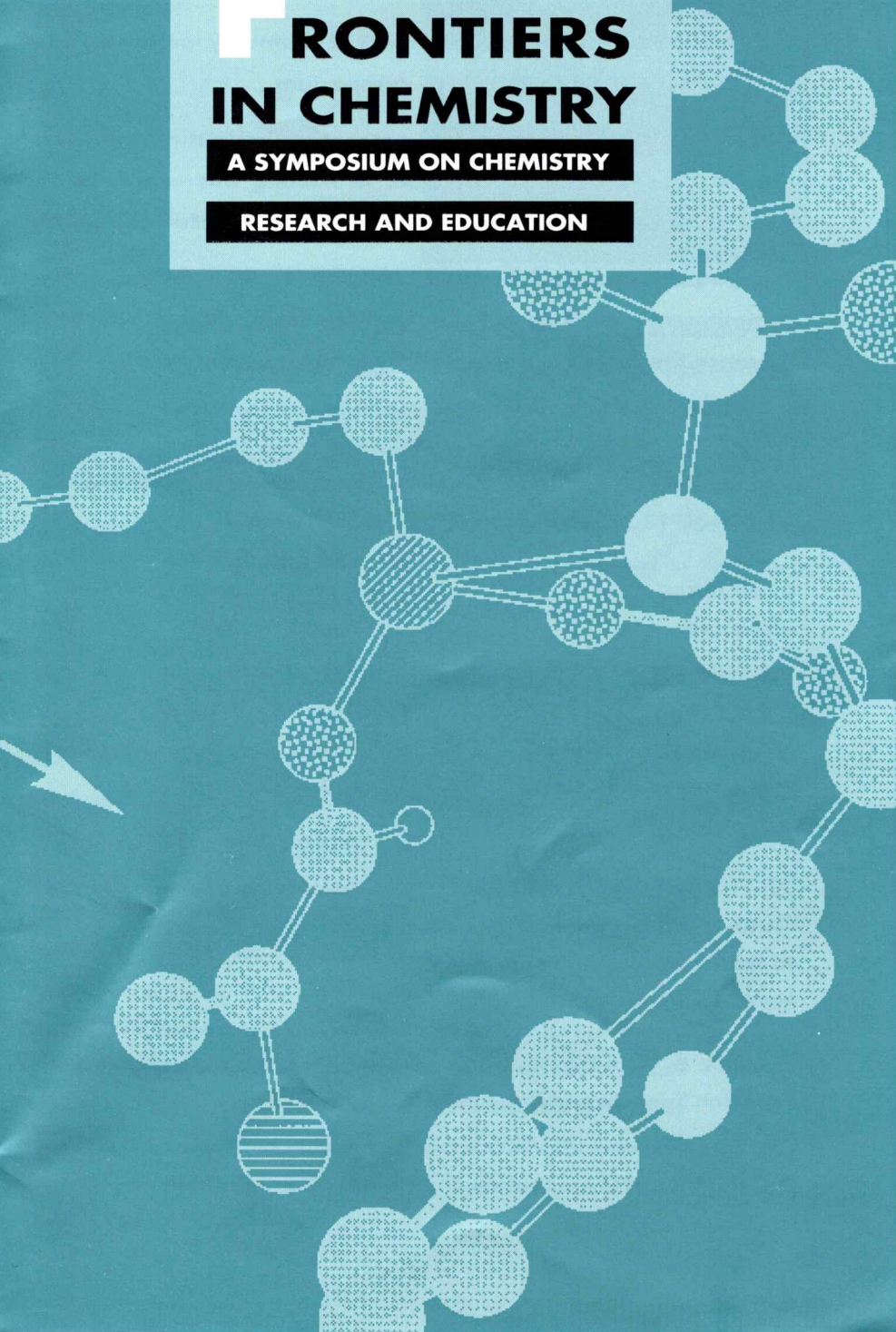
BOSTON COLLEGE

FRONTIERS IN CHEMISTRY

A SYMPOSIUM ON CHEMISTRY RESEARCH AND EDUCATION



Boston College and the Department of Chemistry welcome you to the "FRONTIERS IN CHEMISTRY" symposium.

The distinguished speakers will present topics in the forefront of chemical research and education. In hosting this event, Boston College affirms its commitment to excellence in scientific inquiry.

The symposium also celebrates the tangible results of the University's commitment—the Eugene F. Merkert Chemistry Center, which will advance the frontiers of chemistry research and learning.

FRONTIERS IN RESEARCH

APRIL 24, 1992
1 TO 4:30 P.M.
GASSON HALL
ROOM 100

E.J. COREY
"Molecular Details of the Cyclization Step in Sterol Biosynthesis"

PETER B. DERVAN
"A Chemical-Enzymatic Approach to the Single Site Cleavage of Human Chromosomes"

HARRY B. GRAY
"Electron Tunneling in Proteins"

FRONTIERS IN EDUCATION

APRIL 25, 1992
9:30 A.M. TO 12 NOON
EUGENE F. MERKERT
CHEMISTRY CENTER ROOM 127

ROALD HOFFMANN
"Chemistry, Democracy and Education"

BASSAM Z. SHAKHASHIRI
"Achieving Scientific Literacy"

Reception and tour of the chemistry center immediately following each day's program.

E.J. COREY

Sheldon Emory Professor
of Chemistry
Harvard University

Elias J. Corey, winner of the 1990 Nobel Prize in chemistry, has taught at Harvard University since 1959. He was recognized by the Nobel committee for developing a wide variety of methods of organic synthesis that are used by virtually every researcher in the field. He has served as science advisor to the Welch Foundation since 1968, and has received numerous honorary degrees and science awards, in addition to the Nobel Prize. He earned his Ph.D in chemistry from the Massachusetts Institute of Technology in 1950.

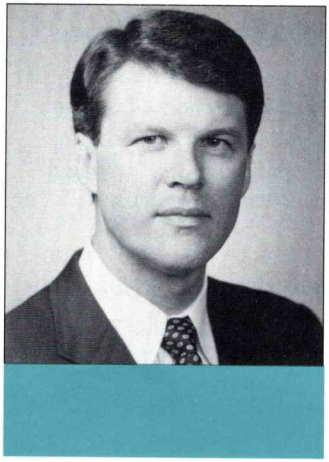
HARRY B. GRAY

Arnold O. Beckman Professor
of Chemistry
California Institute of Technology

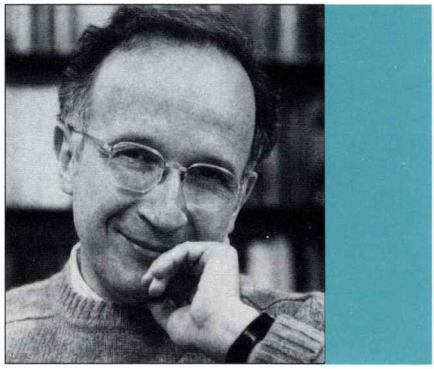
Harry B. Gray has received numerous honors for his research in inorganic chemistry, including the National Medal of Science in 1986. The American Chemical Society will award Gray its prestigious Willard Gibbs Medal this month. He earned a Ph.D in chemistry from Northwestern University in 1960, and has received honorary doctorates from Rochester, Chicago, Northwestern, Toulouse and Göteborg. Gray has taught at Caltech since 1966.

PETER B. DERVAN

Bren Professor of Chemistry
California Institute of Technology



Peter B. Dervan, who earned a B.S. in chemistry from Boston College in 1967, has been the recipient of numerous honors in science, including the American Chemical Society's Arthur C. Cope Scholar Award in 1986. On the faculty of Caltech since 1973, he pioneered the techniques necessary to analyze the specific ways in which molecules bind to DNA. He earned a Ph.D in chemistry from Yale University in 1972.



ROALD HOFFMANN

John A. Newman Professor
of Physical Science
Cornell University

Roald Hoffmann, who shared the 1981 Nobel Prize in chemistry with Kenichi Fukui, has taught at Cornell University since 1965. He characterizes his blend of computations stimulated by experiment and the construction of generalized models, of frameworks for understanding, as "applied theoretical chemistry." He hosted the television series, "The World of Chemistry," that is aired on many PBS stations. Hoffmann attended Columbia University and earned his doctorate in chemistry at Harvard University.

BASSAM Z. SHAKHASHIRI

Professor of Chemistry
University of Wisconsin

Bassam Z. Shakhashiri, a member of the chemistry faculty at the University of Wisconsin in Madison since 1970, also served for six years during the 1980s as assistant director of the National Science Foundation for Science and Engineering Education. He has been a tireless and popular advocate for professional science education and general science literacy. Shakhashiri, who earned his Ph.D in chemistry from the University of Maryland in 1968, has won numerous awards, including the American Chemical Society's Award in Chemical Education in 1986.

CHEMISTRY AT BOSTON COLLEGE

The University is recognized for the excellence of its chemistry program at the graduate and undergraduate levels. During the decade that ended in 1986, the number of baccalaureate graduates going on to earn a Ph.D in chemistry placed Boston College 21st among the top 70 private colleges and universities in the nation. More than 950 undergraduates are enrolled in the chemistry curriculum, which includes courses in biochemistry, physical chemistry, analytical chemistry and organic and inorganic chemistry. Fifteen to twenty students are awarded B.S. degrees in chemistry or biochemistry (a joint degree with the Biology Department) each year. Sixty graduate students and more than a dozen postdoctoral associates are continuing their research and education at the University.

The chemistry department is emerging as a top quality center for research and training in chemistry and biochemistry. Testifying to the transformation that has taken place over the past two decades are several scholarly awards bestowed on members of the faculty of 18, including three Alfred P. Sloan Foundation Fellowships, a Guggenheim Fellowship, two National Institutes of Health Research Career Development Awards, a Dreyfus Teacher Scholar Award, an American Cancer Society Faculty Research Award and a National Science Foundation Faculty Award for Women Scientists and Engineers.

Faculty research includes advanced concepts in catalysis, numerous projects of profound biomedical significance and relevance to the development of new pharmaceuticals, as well as the study of environmental and atmospheric chemistry. Specific areas of investigation such as cellular regulation, cancer chemotherapy and atmospheric ozone depletion place Boston College chemists at the very frontiers of chemical research.

Chemistry has been part of the curriculum at Boston College since 1877. Courses in organic and analytical chemistry were introduced in 1917. The first master's degree in chemistry was awarded in 1923, and the first four Ph.D degrees were conferred in 1964.

THE MERKERT CHEMISTRY CENTER

The laboratory, engine of scientific discovery for student and researcher alike, is the heart of the Merkert Chemistry Center.

◆ The 109,000 square-foot facility dramatically increases laboratory space for research and instruction, and includes state-of-the-art computer technology that give freshmen chemistry students the same advantages in collecting and analyzing experimental data that once were strictly reserved for researchers.

◆ Two new advanced laboratories, in biochemistry and inorganic chemistry, offer better preparation and greater opportunities for senior undergraduate research.

◆ A new microcomputer facility includes advanced graphics that makes possible three-dimensional visualization for molecular modeling, molecular mechanics and electronic structure calculations.

◆ The same facility offers undergraduates the opportunity to conduct on computers experiments that are either too hazardous or expensive to undertake "live" in the laboratory, and to use interactive videodiscs to "walk through" experiments and tutorials and correct mistakes immediately.

◆ Teaching laboratories include monitors that can show computer displays as well as videotapes of laboratory demonstrations and actual experiments; likewise, the two lecture auditoriums include large overhead screens that enable students to view material on videotape, slides, film and computer displays.

The Merkert Chemistry Center's elevation of graduate and undergraduate chemical education to new heights of sophistication is consistent with Boston College's goal of nurturing both research and teaching; today's highly-accomplished, motivated undergraduates are tomorrow's cutting-edge researchers.