



DEDICATION PROGRAM

Welcome and Comments President James Bultman

Comments The Hon. Peter Hoekstra
Member of Congress
2nd Congressional District of Michigan

Dr. Judith Ramaley
Assistant Director
Education and Human Resources Directorate
National Science Foundation

Mr. William Gustafson
President
Ballinger & Associates

Dr. James Gentile
Dean for the Natural Sciences
Hope College

Dr. Leah Chase-Waller
Assistant Professor of Biology and Chemistry
Hope College

Ms. Jennifer Yamaoka
Senior Biology Major
from Zeeland, Michigan

Dedication Prayer Rev. Paul Boersma
Sr. Chaplain
Hope College

A LETTER FROM THE PRESIDENT

As a 1963 Hope College chemistry graduate, I can fully appreciate the impact our new Science Center will have on the students and faculty who will call it 'home.' While the building is a beautiful addition to our campus, it is what will occur *inside* the building that will enable Hope to continue its reputation as a leader in undergraduate science education. Our passion is to provide an exceptional educational experience in a caring, Christian environment.

Hope enjoys a rich heritage in science education. Collaborative research among students and faculty is a distinguishing feature of science at Hope. This will be further enhanced with the availability of state-of-the-art scientific equipment and laboratory spaces designed to support legitimate research efforts.

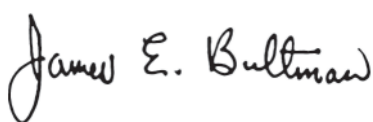
Research-based learning is invaluable to undergraduates preparing for employment or graduate study in science-related fields. Hope's collaborative approach to research engages students in the active and significant processes of discovery, and is nationally recognized as a model that is worthy of replication.

Evidence of Hope's lofty status abounds. Hope leads all liberal arts colleges in obtaining undergraduate research grants funded through the National Science Foundation's program, "Research Experiences for Undergraduates." And, in *U.S. News and World Report's* initial ranking for undergraduate research and creative expression, Hope was fourth behind only the University of Michigan, MIT and Stanford.

In addition to depth, Hope's science program evidences breadth. A full array of majors in science as well as offerings for non-majors virtually ensures that every Hope student will have an opportunity for utilizing this outstanding facility. Learned will be the knowledge and skills necessary for embracing a range of exciting careers in a rapidly changing world of opportunities.

The successful capital campaign to construct the new Science Center and renovate the Peale building is a tribute to the faculty, staff and students at Hope as well as the many loyal and generous alumni and friends who understand the pivotal role our science program plays in the success at Hope. For this we are most grateful.

The Science Center at Hope College ensures that the highest quality of learning and collaborative research opportunities available in an undergraduate setting will continue for generations to come. Thank you for your part in making it so.



James E. Bultman
President



FACULTY REFLECTIONS

*...dedicated to teaching, research,
student development*

These are some quotes from select faculty members about Hope's ability to prepare our graduates for careers in science and related areas.



Dr. Leah Chase-Waller
*Assistant Professor of Biology
and Chemistry*
2000 Towsley Research Scholar

“Collaboration teaches learning and life skills like critical thinking, applying information and ideas in new ways, communication and team work. These are skills that transfer well to a variety of career choices.”



Dr. Janet Andersen
*Associate Professor of
Mathematics*

“Hope’s interdisciplinary and collaborative approach to science education benefits students by acknowledging the importance of team communication, essential to any present day research activity.”



Dr. Paul DeYoung
Professor of Physics

“Hope engages students in both traditional and research-based approaches to studying science. Traditional has the student saying to the professor, ‘Tell me!’ Research-based investigation finds the student asking, ‘How do I do this? Help me understand.’”



Dr. Roger Veldman
Assistant Professor of Engineering

“Incorporating an interdisciplinary approach to science keeps students and faculty in a constant state of learning. We have opportunities to struggle with unknown areas of research, and that’s essential to science careers in our rapidly changing world.”



**Dr. Charlotte vanOyen
Witvliet**
*Associate Professor of
Psychology*

“Interdisciplinary studies, now supported by wonderful facilities, enable students to learn from the perspectives of the natural sciences, health sciences, and behavioral sciences. Students develop their skills and understanding as scientists who will contribute to the well-being of society and creation, and thereby bring glory to God.”



Mrs. Susan Dunn

Assistant Professor of Nursing

“By nature nursing is collaborative and interdisciplinary.

Hope’s nursing program adds a research component. Students learn theory and complete a nursing research practicum with others, including faculty or researchers in the community, preparing them to be critical thinkers and problem solvers.”



Dr. Ryan McFall

Assistant Professor of Computer Science

“Working across disciplines allows my students to apply their computer science skills to large and complex “real world” problems, reinforcing concepts into something that is tangible.”



Dr. Graham Peaslee

*Associate Professor of Chemistry and Geology/
Environmental Science*

“Hope has a collaborative research program that is second

to none. Students interact with science professionals and develop intellectual property they can claim as their own. Faculty are challenged, and it’s what keeps good faculty on campus and brings outstanding students through our doors.”



Dr. Christopher Barney

T. Elliott Weier Professor of Biology

“Interesting and important problems in science and technology will only be solved with a broad-based approach; for example, to understand climate change, information and techniques from chemistry, physics, engineering, geology and computer science must be employed. Similarly, an understanding of individual responses to illness requires input from biologists, psychologists, and nurses. Our program and facilities are built on the way scientists will interact in the workplace.”



Dr. Thomas Bultman

*Professor of Biology
Chairperson of the Department*

“Hope is responding to where science is going – collaborative and interdisciplinary – and is *leading* the field in providing a quality learning experience in an undergraduate setting.”



Dr. Kenneth Brown

Assistant Professor of Chemistry

“We create an environment in which students combine knowledge, understanding and wisdom. Our students are well-prepared to present research findings at the national level; they are ready to compete at the finest graduate and professional schools.”

ALUMNI REFLECTIONS

...prepared at Hope for careers of distinction

These are some quotes from select alumni about the ways Hope prepared them for careers in science, medicine and related areas.



Dr. A. Paul Schaap

Hope Class of 1967

Ph.D. in Organic Chemistry from Harvard University

Professor of Chemistry, Wayne State University (1970-2000)

President of Lumigen, Inc.

“As I reflect on my Hope days, two distinct themes come to mind. First, the dedication of the faculty to quality education. My professors were personally committed to their students, providing many opportunities for one-on-one or small group discussions. They had high expectations of us as students, yet always encouraging. Second, the opportunities for first-class, original research. As an early undergraduate, I was able to go

beyond textbook experiments to make new scientific discoveries, and even have the results published. Professors became role-models, and inspired me towards a career in academics.”



Dr. James Serum

Hope Class of 1965

Ph.D. in Organic Chemistry from University of Colorado

Management, Hewlett-Packard Company (1973-1999)

President of SciTek Ventures

“Hope prepared me well for my professions. The Christian foundation and values permeated my Hope experience, giving me a value system for life and for business. A caring faculty taught me the importance of being a mentor to others. Hope’s broad-based educational offering both prepared me with written and verbal communication skills, and instilled in me a quest for learning and understanding.”



Dr. George Zuidema

Hope Class of 1949

M.D. from Johns Hopkins University School of Medicine

Professor of Surgery Emeritus, University of Michigan

Retired Vice Provost for Medical Affairs, University of Michigan

“Hope College gave me a strong background in basic science and in research, and taught me to be passionate for both. My professors provided me the freedom to learn while providing appropriate, wise supervision. The opportunity to publish the results of original research gave me the skills and confidence that prepared me well for medical school and beyond.”



Dr. Donald Mulder

Hope Class of 1948

*M.D. from Johns Hopkins School of Medicine
Professor of Cardiothoracic Surgery Emeritus,
UCLA Medical Center*

“ ‘What we have to learn to do, we learn by doing!’ It’s an attitude that has always been a key to one of the unique features of a Hope College education. In addition, at Hope, I was always surrounded by the infectious enthusiasm of thoughtful mentors and supportive friends and colleagues, helping to shape my personal and professional goals.”



Dr. Sylvia Ceyer

Hope Class of 1974

*Ph.D. from University of California at Berkeley
J.C. Sheehan Professor of Chemistry,
Massachusetts Institute of Technology*

“Hope College taught me how to teach and how to do effective research. Both inside and outside the classroom or laboratory, my Hope professors were wonderful role models and mentors, and inspired me to pursue a career in teaching and research.”



Dr. Robert Motzer

Hope Class of 1977

*M.D. from University of Michigan
Attending Physician, Memorial Sloan-Kettering Center
Professor of Medicine, Weil Medical College of Cornell University*

“Hope provided me with a strong, deep core of science education. Hope also provided me with a broad, liberal arts background that gave me a overall perspective of the world and my role in it. I had great teachers and mentors that instilled in me an understanding of science, and motivated me to teach future scientists who will impact tomorrow’s world.”

THE SCIENCE CENTER AT HOPE COLLEGE

The new Science Center at Hope is the culmination of at least ten years of planning and collaboration among faculty, staff, students, administrators and architects. It is the completion of a large addition to the Peale Science Building, finished in August 2003, and a renovation of Peale, finished in August 2004, at a cost of \$36 million. The center now provides over 92,000 net square feet of classroom, laboratory and interdisciplinary instruction space.

Learning through research is a tradition handed down by faculty through the early days of science at Hope. Student-faculty collaborative research is at the center of the design and scope of the facility. It allows for flexible interdisciplinary space throughout the building, encouraging all disciplines to interact and exchange information. There is an abundance of community space for conversation and group study.



The Science Center will:

- Provide many new and remodeled teaching laboratories,
- Provide state-of-the-art technologies in classrooms and labs,
- Promote expanded faculty/student research,
- Provide a setting that reflects the blending of disciplines that is a requirement of today's world,
- Provide an infrastructure to support critical instrumentation needs,
- Provide a healthy and pleasant environment for the study of science,
- Serve as a standard for excellence that will attract the best faculty and students to Hope.





The Science Center houses the departments of:

- Biology
- Chemistry
- Geological and Environmental Sciences
- Nursing
- Psychology

Housed in VanderWerf Hall are the remaining science departments of:

- Computer Science
- Engineering
- Mathematics
- Physics

HOPE COLLEGE



...a School of Distinction in Science Education

Hope has a long-standing commitment to provide students opportunities to learn cutting-edge science in coherent and rigorous laboratory courses that stress hands-on, research-based modes of learning. Collaborative research with faculty is an integral part of the science curriculum.



Hope is recognized for excellence in undergraduate research...

U.S. World & News Report Top Seven National Programs

- Univ. Michigan
- MIT
- Stanford
- **Hope College**
- Furman
- Princeton
- Cal Tech



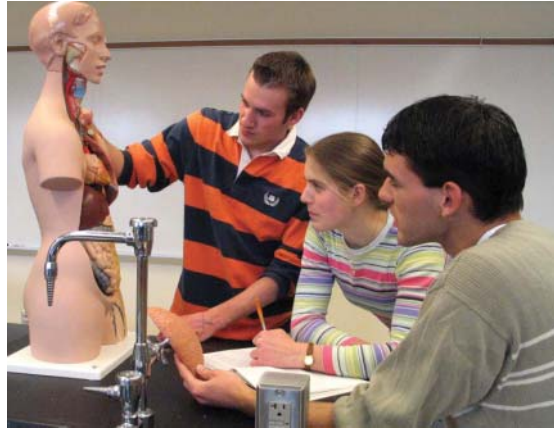
Hope is one of only ten liberal arts colleges awarded a National Science Foundation AIRE recognition...

Hope is awarded an "Award for the Integration of Research and Education" as an institution demonstrating exceptional leadership, innovation and achievement in pursuing excellence in the integration of research and education (1998).



Hope has received 3 awards from the Howard Hughes Medical Institute totaling over \$3 million in grants...

The most recent grant of \$1.5 million was awarded to enable Hope College to develop even further an approach to science education that has a proved record of success and full infusion of science education across disciplinary boundaries.



Hope has been recognized as a “Program that Works”...

Project Kaleidoscope of Washington, D.C., identified Hope as a model for other institutions in science education.

Hope ranks high in producing future Ph.D.s...

In a study of 518 baccalaureate institutions released by Franklin and Marshall College, Hope ranked in the top six percent in the nation in producing future Ph.D. holders between 1920 and 1995 – with the department of chemistry in the top one percent.

Hope students consistently receive top academic awards...

Since 1997 Hope students have received 26 NSF Fellowships for graduate work, nine Goldwater scholarships, ten Beckman scholarships and 12 Merck scholarships.



HISTORICAL OVERVIEW

The solid reputation of today's science program at Hope is the culmination of the vision, effort and commitment of many significant people and events in the college's history. Professors, like J. Harvey Kleinheksel and Gerrit Van Zyl, presidents, like Calvin VanderWerf, Gordon VanWylen and James Bultman, science administrators, like Sheldon Wettack, Irwin



Brink and Jim Gentile, and many others have left an indelible mark on the successes of the departments in the sciences.

The recognition of the essential experiential nature of science was present from the college's birth as evidenced by the establishment of the first laboratory in 1867 as a small wooden structure originally built for storage. Improved laboratory facilities were realized with the outfitting of a former chapel in the basement of VanVleck Hall. Van Raalte Hall was dedicated in 1903 and specifically accommodated the sciences. Increased enrollments in the late 1930s resulted in a campaign to raise \$250,000 to build a new science building. On September 16, 1942, the science building

(now Lubbers Hall) was dedicated. The expansion of programs in physics and math resulted in the building of the Physics Mathematics Hall in 1964; the addition of computer science and engineering led to a renovation of the building in 1989 (renamed VanderWerf Hall in 1981).

The growth of the biology and chemistry departments, and the addition of the geology department, in the 1960s necessitated new facilities for the sciences. Plans for a new science hall were made and an initial million dollar federal grant for construction was



Samuel O. Mast



Van Raalte Hall



Lubbers Hall



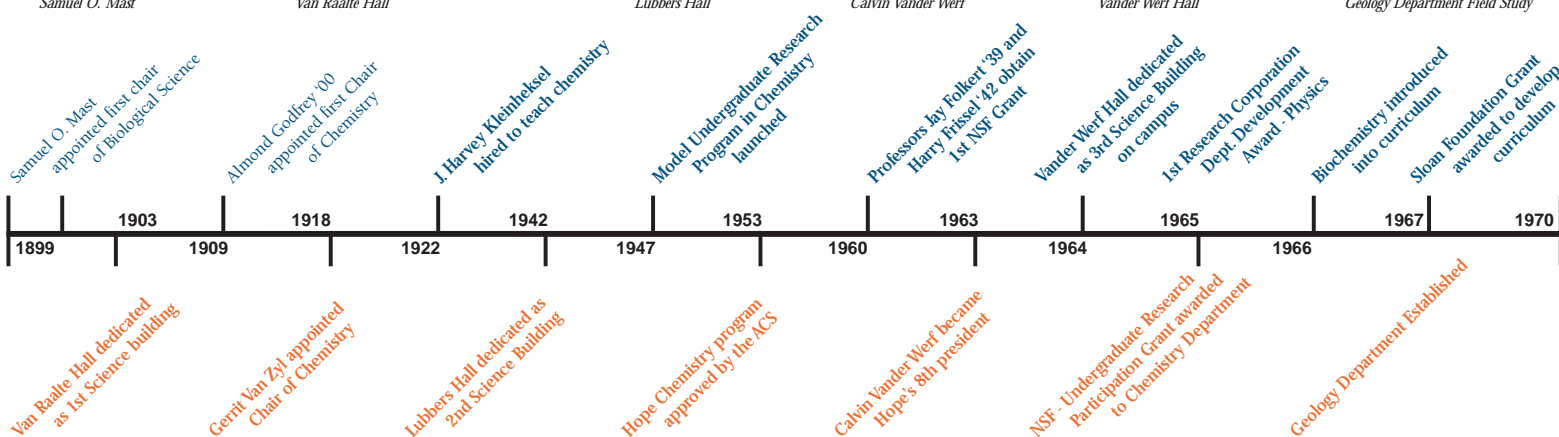
Calvin Vander Werf



Vander Werf Hall



Geology Department Field Study



committed in 1967. The Peale Science Center was dedicated in 1973, and served the departments of biology, chemistry, geology and psychology well.

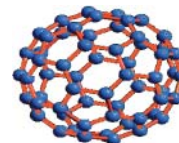
By the early 1990s, it became apparent that the facilities in the Peale Center limited the college's ability to expand, or even maintain, programs of innovative science instruction and research methods. Supported by a leadership grant from
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Peale Science Center



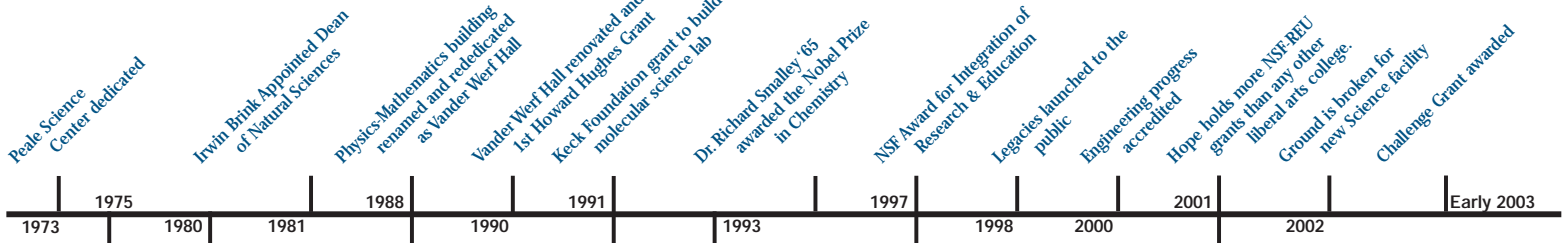
LEGACIES
A VISION OF HOPE



"Bucky Ball"



New Science Building under construction



Dean for Natural Sciences position established. E. Sheldon Wetreck first Dean

Nursing Program established

Dr. Jim Gentile is named Dean for the Natural Sciences

Harvey Blankespoor awarded Professor of the Year by CASE and 1st Kresge Grant

First Sherman Fairchild Grant

Board of Trustees authorizes Legacies: A Vision of Hope Campaign

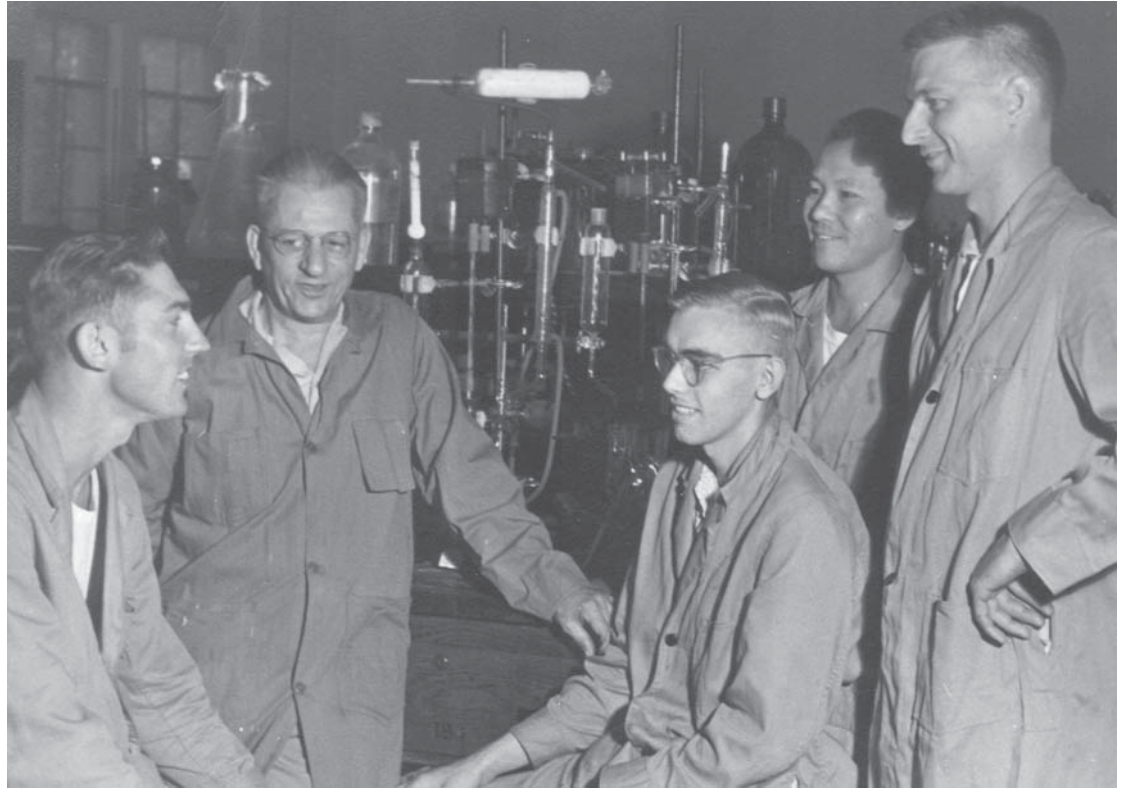
Second Sherman Fairchild Grant

U.S. News and World Report names Hope 4th in nation, 1st among liberal arts colleges, for undergraduate research

HISTORICAL OVERVIEW CONTINUED

the Herbert and Grace Dow Foundation, planning began for a new state-of-the-art addition to and a complete renovation of the Peale building. The nursing department, with a fully accredited program, was added to the departments within the new facility.

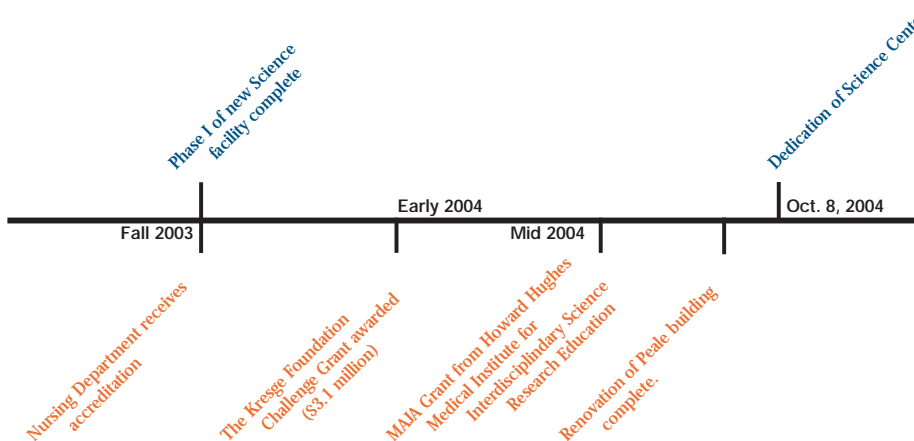
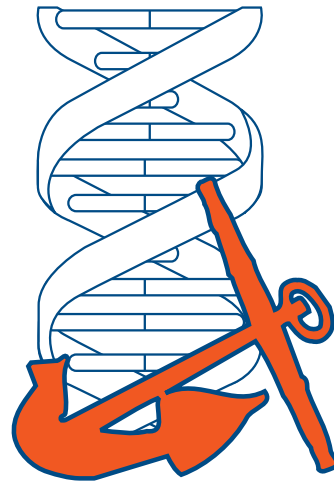
With the dedication of the Science Center on October 8, 2004 begins a new chapter in the history and legacy of outstanding science education at Hope College.



The Science Center at Hope College



GOAL: \$3.1 million



DR. JAMES GENTILE

A visionary, a distinguished scientist, an exceptional administrator, a noted author, a leader in the field of mutagenesis, a great teacher, a productive researcher, a role model for student collaborative research, an “architect” of the new Science Center, and a great friend of Hope — all these and more describe a man who has clearly made his mark in science education and research.

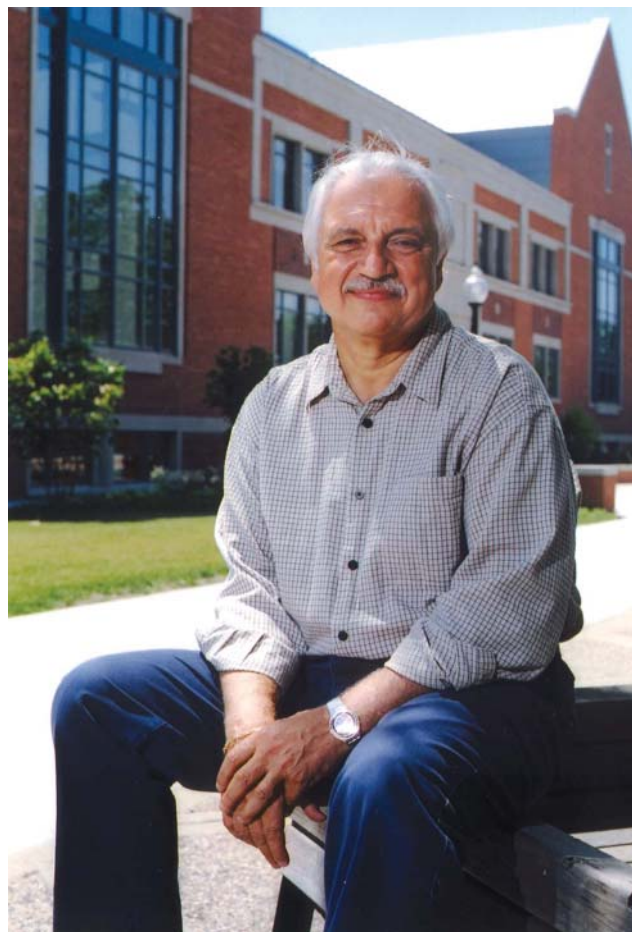
Jim Gentile is the Dean for the Natural Sciences and the Kenneth G. Herrick Professor of Biology at Hope, where he has been a member of the faculty since 1976. He received his bachelor’s degree in biology/chemistry from St. Mary’s University in 1968, and his M.S. and Ph.D. from Illinois State University in 1970 and 1974. At Hope, he has served as a faculty member in Biology, chairperson of the department, and dean for 16 years.

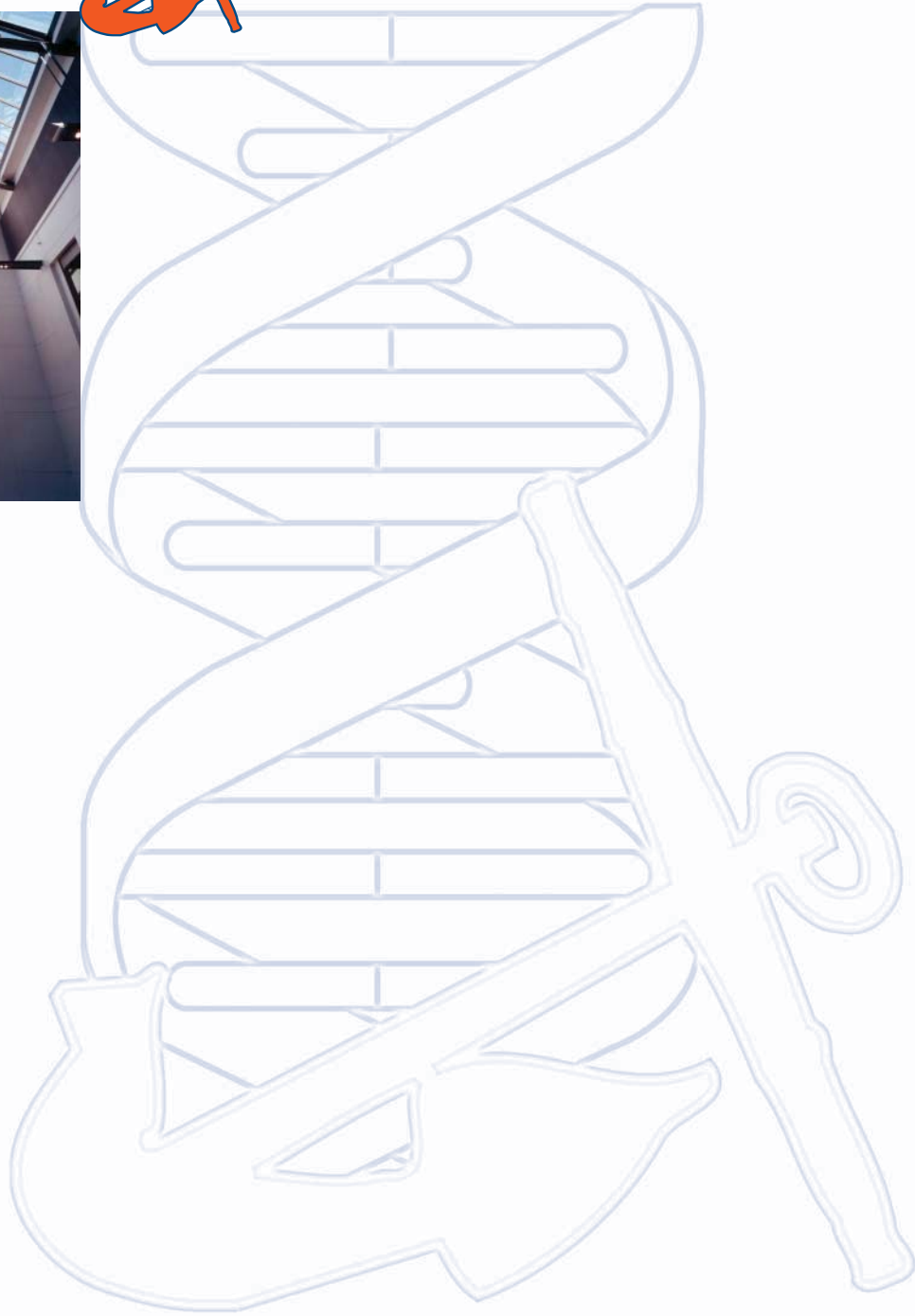
Dr. Gentile has received many awards and citations in recognition of both his outstanding work in research and his major role in shaping science education nationwide. The partial listing that follows demonstrates the breadth and depth of that recognition.

The Illinois State University Alumni Association presented him with an Alumni Achievement Award in 1995. He has served as a member of the Executive Committee of “Project Kaleidoscope,” a Washington, D.C.-based initiative focusing on identifying and promoting effective models for undergraduate mathematics and science education. He serves as the president of the International Association of Environmental Mutagen Societies, an organization that awarded him the Alexander Hollaender Award for excellence in 2001. In 2003, he was elected a Fellow of the prestigious American Association for the Advancement of Science (AAAS), one of the highest honors that the association can bestow upon a scientist.

For over a decade, Dr. Gentile has worked tirelessly on faculty collaboration, interdisciplinary program development and building a visibility for Hope at the national level. He influenced the architectural design direction that culminated in a world-class science facility at Hope College. The Science Center not only reflects a strong tradition of excellence in science education at Hope, but also the dedication of a man who has devoted his life to that tradition.

As Dr. Gentile assumes his new role as President of the Research Corporation, we express our thanks for his tireless and outstanding service to Hope, and wish him rich blessings in his future endeavors.





HOPE COLLEGE
HOLLAND, MICHIGAN