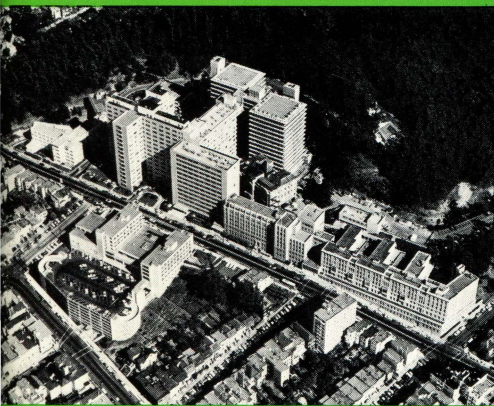




ONE HUNDRED YEARS

THE SCHOOL OF PHARMACY

**UNIVERSITY OF CALIFORNIA
SAN FRANCISCO**





THE FORMER PHARMACY COLLEGE

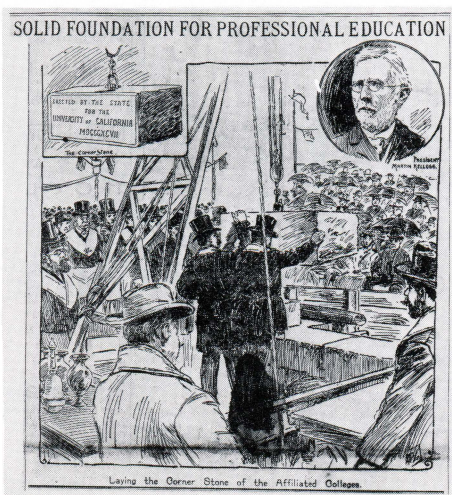
ONE HUNDRED YEARS



THE SCHOOL OF PHARMACY
UNIVERSITY OF CALIFORNIA
SAN FRANCISCO



Groundbreaking ceremony for the College of Pharmacy.



Laying the cornerstone for the affiliated colleges.

“The advancement of pharmaceutical knowledge and the elevation of the professional character of apothecaries throughout the State of California.”

With the above words, the founders of the California College of Pharmacy—the first such institution west of the Mississippi and the tenth in the United States—stated their objectives in the Articles of Incorporation on August 7, 1872. Less than a year later (June 2, 1873) the College became affiliated with the University of California, but it maintained its own board of directors and continued to hold title to its assets and to manage its own affairs for the next sixty-one years. On July 1, 1934, the College was fully incorporated into the University and was designated the University of California College of Pharmacy until 1955, when it became the University of California School of Pharmacy. This new name reflected more accurately the length and character of the educational program that had by that time evolved; namely, four years of professional study in the School preceded by two years of preprofessional collegiate study.

In this centennial year it is appropriate that we of the faculty and alumni look back with pride and some wistfulness at the accomplishments of the first century and turn to the future with the resolve to maintain and enhance the eminent reputation and respect that both faculty and students have achieved for this school.

There were twenty-seven students in the first entering class, enrolled in a program of two five-month courses embracing botany, chemistry, materia medica, and pharmacy. The faculty consisted of four professors, each of whom presented one lecture one evening per week. At the time of the first graduation “exercises” in December,

1874, only one student appeared, and thus John P. Heany became the first graduate of the new college. The first "class" was graduated in 1875. It consisted of five students. The class of 1972 added eighty-five new pharmacists to the ranks of our alumni who now number more than 4,500 men and women who have taken or are taking active parts in their chosen aspects of health care—most of them, in California. Our graduates are practicing or teaching in relation to health service and care in almost every one of the fifty states and in nearly two dozen foreign countries. Some are engaged full time in research; others are in the pharmaceutical manufacturing industry; several are applying their talents in various aspects of federal, state, or local government, and public service relating to pharmaceutical and/or health care generally. Building on the excellent knowledge of drugs and their actions, acquired while in pharmacy school, some have entered medical school and now are active physicians or surgeons; and others have joined the dental profession.

The College was moved four times during the first twenty-six years of its life to provide for the rapidly increasing number of students. In 1875, it moved from the two rented rooms on Montgomery Street where the first classes were held to the larger Toland Hall on Stockton Street, and a year later into the still larger Hall of the Academy of Sciences at the corner of Dupont and California Streets. Five years later, a lot on Fulton Street was purchased, a three-story building was erected, and in 1883 students and faculty moved into the building that was to be the College's home for the next fifteen years.

In 1895, the legislature appropriated funds to construct three buildings that were to house the Colleges of Pharmacy and of Dentistry, the Hastings College of Law, and the Department of Medicine on land donated for the purpose by Adolph Sutro, Mayor of San Francisco.

It is difficult to please everyone, however, even when intentions are of the best. The College of Law never moved into its new building on "Parnassus Heights," as it has been called—too far from the courts, they said. Eventually the building was used to house the Anthropology Museum. But its most noteworthy occupant, from Sep-

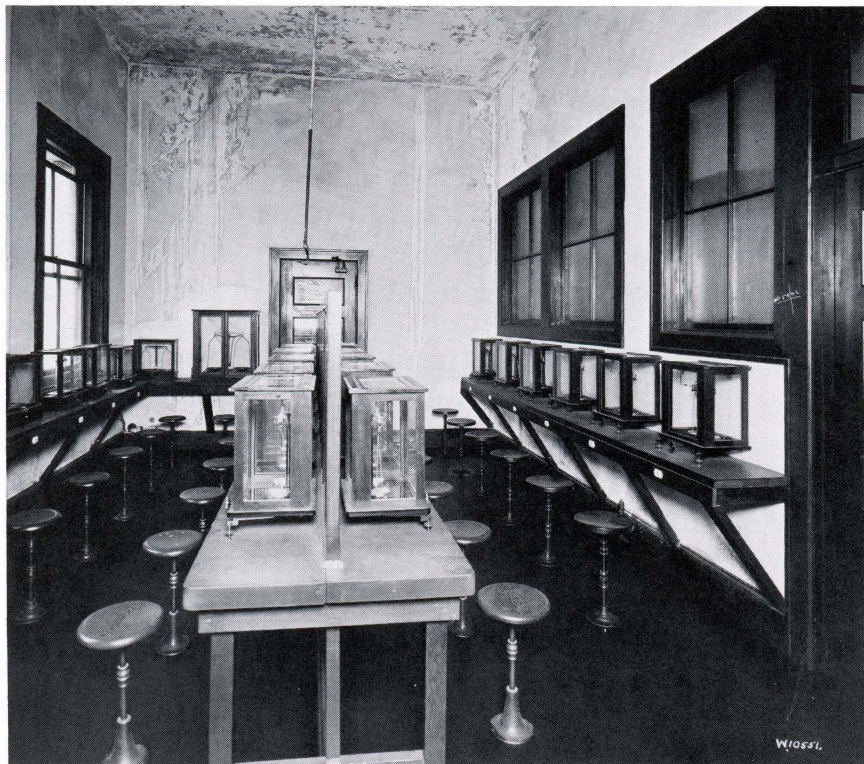
tember 1, 1911 until his death in the Spring of 1916, was Ishi, the gentle, intelligent, wise individual sometimes referred to as the "last wild Indian of America."

In 1898 the College of Pharmacy moved into its new home and was joined by the College of Dentistry and the Department of Medicine on the new campus, but one can surmise that some of the physicians in town, if not the entire Department of Medicine, were not too pleased. The *Pacific Medical Journal* editorialized most unfavorably about the site—too remote, nearest street car line several blocks away, and other complaints. It is true that then there was nothing but sand dunes between the campus and the ocean.

After surviving the "shake" in 1906 with damage limited to broken glassware and apparatus and minor damage to plaster here and there, enthusiasm for recruitment of students was feverish. The first issue of *Pacific Pharmacist* (May, 1907) published the following lure: "It is never too hot or too cold in San Francisco to work with comfort. There is no exhaustion or sickness due to heat, cold, or malaria, and zymotic diseases are rare. The new and commodious building erected by the State for the College of Pharmacy is a delightful place to work in, being spacious, light, airy, and well ventilated and the faculty and equipment are up-to-date."

In 1954, the College made its fifth move—this time into another building on the same geographic site. The new quarters occupied four floors of the then new \$10,000,000 Medical Sciences Building in the University of California's San Francisco Medical Center Complex. The offices and laboratories contained more than forty thousand square feet of usable floor space available for pharmaceutical teaching, research, and administration. Further expansion in 1970-71 increased the total space occupied to approximately fifty-thousand square feet.

When the proprietary College of Pharmacy opened in 1872, the faculty consisted of four professors and the course of study required attendance at lectures four evenings per week during two five-month sessions. Today the faculty of the School of Pharmacy is composed of twenty-five full-time academic professors; more than thirty part-time



Chemistry balance room.

academic professors; and more than forty lecturers and clinical appointees, some part-time and some full-time. The curriculum embraces required courses in sixteen subject areas, and elective courses in these, as well as in several other categories, are available. The time required to complete the program as a full-time student, after two years of preprofessional collegiate study, is four years. But physical statistics, such as number of students graduated, their geographic distribution, square feet of floor space occupied, number of faculty and length of curriculum, are meaningless measures of growth and development unless accompanied by solid evidence of accomplish-

ment. The school has been fortunate in having had administrators and faculty who have not only encouraged intellectual and professional development, but also have worked diligently to achieve it—and continue to do so.

ADMINISTRATION

Deans Painter, Runyon, Searby, Green, Biddle, Carey, Schmidt, Daniels, and Goyan, from 1883 to the present, have served with the same pioneer spirit and devotion to attainment of high academic and professional ideals that introduced the study of pharmacy to the West about fifty years after the first school of pharmacy was established in the United States.* The efforts of the three most recent leaders exemplify the spirit that has brought the School to its eminent position.

In order to bring about a liaison between the theoretical and the practical—to develop a closer and more obvious relevancy of the basic sciences to the professional courses and thereby to strengthen instruction in the latter—Dean Carl L. A. Schmidt, who served from 1937 to 1944, “imported” men from related sciences. A plant physiologist, a biochemist, a physical chemist, and a biophysicist were added to the teaching staff in the period 1937–1938, each for the unique contributions his knowledge and background could make to pharmaceutical instruction and research. These members of the staff, through their research, committee duties, and contact with graduate students in their respective disciplines, initiated a close liaison between pharmacy and the basic sciences. Dynamic and experimental approaches, in contrast to the older, static concepts of observation, were encouraged in teaching and research. Largely through Dean Schmidt’s concept of improving pharmaceutical education by fostering its association with basic sciences and research, members of the staff were able for the first time to receive special research grants from private industry and government agencies as well as from the University Research Board.

The requirements and standards for admission to the four-year program were made more rigorous during Dean Schmidt’s adminis-

* Philadelphia College of Pharmacy and Science (1821).

tration, and the curriculum was strengthened by introduction of physical chemistry and biochemistry courses of true academic caliber. Courses in public health and in biophysics also were initiated.

It was through Dean Schmidt's initiative that a program of graduate study in pharmaceutical chemistry was established. The first M.S. degree in pharmaceutical chemistry was awarded in 1940 and the first Doctor of Philosophy degree in 1942.

From 1944 to 1967, Dean Troy C. Daniels directed the destiny of the School with great personal magnetism and leadership. His democratic form of government was outstanding in furthering an *esprit de corps* that led to notable advancement of study and group research. The recognition accorded him as a leader in the field of pharmaceutical education has been made evident in numerous ways. It will suffice to mention only three major honors: (1) selection to head an official delegation of American pharmaceutical educators on a mission to Japan in 1949 to render advice on reorganizing and restructuring pharmaceutical education in that country; (2) selection by the membership of the American Association of Colleges of Pharmacy to become its President-elect in 1951 and to succeed to the Presidency the following year; (3) designation in 1962 as recipient of the American Pharmaceutical Association Foundation Achievement Award for contributions to the advancement of pharmaceutical education.

It was during Dean Daniels' tenure and with his guidance that a separate Department of Pharmaceutical Chemistry was established in 1958. Many individuals collaborated in the long, arduous, sometimes tedious, and occasionally frustrating work that led to that achievement. But Professor John J. Eiler, a biochemist and one of Dean Schmidt's "imports," merits special mention for his dedicated, persistent, and skillful help in planning the program and guiding it through the academic and administrative maze of committees and hearings required in such action. Professor Eiler was appointed the first Chairman of the new Department, and our present Dean was one of his graduate students.



Chemistry apparatus room.

In 1967, Dean Daniels retired and his successor was appointed. For the first time in the history of the school, an alumnus, Jere E. Goyan, assumed the top administrative post. Dean Goyan received his B.S. in 1952 and his Ph.D. in 1957. Upon completion of his graduate studies and research he accepted a teaching position at the University of Michigan College of Pharmacy, where he remained for several years. In 1963, he returned to his Alma Mater as an Associate Professor of Pharmaceutical Chemistry. As Dean Daniels' retirement approached, speculations as to his successor ranged far and wide,

but there was little doubt in the minds of the faculty that Jere Goyan was the man to meet the challenges then emerging.

Dean Goyan took office during a period of rapid transition—a time noted for student unrest, the “Free Speech Movement,” confrontations and presentations of “non-negotiable” demands on the various campuses of the nation. Our school was not sheltered from these issues; there were and continue to be differences of opinion between some students and the faculty and administration. However, there have been no crises such as have occurred elsewhere, primarily due to the maturity and objectivity of the students and the willingness of the faculty and the Dean to listen and attempt to resolve problems as they arise.

Our students, like the majority of students elsewhere, are alert and eager young men and women, and they have an active, healthy interest in shaping the world in which they will spend, on the average, a minimum of forty to forty-five years of their adult lives. They have



Museum in the College of Pharmacy.

an interest also in shaping the affairs of the school that is preparing them for the years in which they will spend *all* of their *professional lives*. They want an active part in making the broad decisions that will effect not just the present but also the future of their community, state, and nation and in making the decisions that will affect their future profession, their roles in it, and their preparation for those roles.

From almost its earliest days, the School has attracted students from near and far and has had a cosmopolitan composition. As early as 1879 a student from Alaska was graduated, and there were three more in the next decade. In the graduating class of 1885 there were two students from Hawaii, and well before the beginning of the twentieth century we graduated students who had come to the school from Germany, Guatemala, Mexico, and the Philippine Islands.

This early tradition has continued through the decades and, although the student body has always been composed predominantly of United States citizens (at least 98 to 99 per cent being residents of California), there has seldom been a year when some distant land has not been represented by one of its citizens in our student population. When the first Bachelor of Pharmacy degree was awarded in 1919, there were three graduates who had elected to complete the then optional four-year program in lieu of the two-year or the three-year programs also available. Among those three, one was from India, and one was from Japan. Since the end of World War II, students from more than twenty-five foreign countries scattered over all of the continents have enriched the lives of our local students and of our faculty by bringing some of their varied cultural heritages with them and have in turn found their own horizons broadened by association with American students.

San Francisco, ever since the days of the gold rush in California, has had the reputation of being a most varied and cosmopolitan city, and students from other lands have felt welcome and comfortable not only in the school, but also in this city. To attract more young California men and women from a broader ethnic and cultural base,

a special recruitment program began in 1967.

It may be of interest to observe that the first student representing the distaff side was graduated from the college in 1884. She was Josephine E. Barbat from San Francisco. Beginning with the Commencement of 1892, almost every class had at least one member of the "gentler sex." The first female student from out of state came from Spokane and graduated in 1896. In recent decades, the number of young women electing to enter the ranks of pharmacy has increased greatly, and this has been reflected in the composition of our student population.

It may also be of interest to note that of the five students who were graduated in 1875, two already had an M.D. degree; there was at least one candidate with such a degree in almost every graduating class from that time until the turn of the century, by which time sixty-four medical doctors had attended the College of Pharmacy and completed the course. Those were the days when many physicians prepared their own medicaments.

TEACHING, RESEARCH, AND PUBLIC SERVICE

The teaching and research of the faculty have attracted national and international attention for many years. Original research reports of several of our faculty have regularly appeared in some of the most prestigious national and international scientific journals in their respective fields of specialization and have contributed greatly to establishing the outstanding reputation our school now enjoys. World War II brought with it a decrease in student enrollment and, paradoxically, "year-round operation," i.e., three "semesters" per year, to enable students to complete the eight semesters of study (normally requiring four years) in a little over two and one-half years. Despite the accelerated teaching workload, nearly half of the full-time academic faculty of ten served as full- or part-time consultants or as active participants in important government research from 1942 to 1946. Among problems toward solution of which they collaborated with others in making significant contributions were safe night land-

ings of naval aircraft on carriers in the dark (Frank Goyan, Kumler, Strait), sonar studies to improve submarine operation (Frank Goyan), treatment of brain injuries from concussion (Strait), methods for improving production of penicillin and isolation of high-yielding strains of *Penicillium* species (Pratt), and consultation in the Manhattan project and in a program for training personnel in airplane factories in the intricacies of spectrographic analysis of metals (Strait).

Numerous honors have come our way. The list is long, but as one example, during the past two decades, five faculty members of this school have been recipients of the Ebert Prize awarded annually by the American Pharmaceutical Association for the best research paper in pharmaceutical sciences published during the preceding year. Members of our faculty are frequently called upon to render, as a public service, advice and consultation in their areas of expertise to numerous federal, state, and local agencies.

Members of our faculty have constantly been sought also for service on committees of national professional organizations concerned with teaching, curricula, and other matters pertaining to upgrading the teaching and practice of pharmacy; and they have always served willingly—some for many years.

Students, too, have contributed to the reputation of the school. On three occasions in recent years, a student from our senior class has been recipient of the Kilmer Prize awarded by the American Pharmaceutical Association for the best original research in pharmacognosy completed while an undergraduate.

In 1969, first prize in the APhA Public Education Awards competition (PEAC) was awarded to our student chapter of the APhA for the public educational program on drug abuse, conceived, developed, and presented by members of the chapter to various groups (particularly teen-agers) in Northern California counties. Several of our students have held national offices in the Student American Pharmaceutical Association at different times including the Presidency in 1970–71. Students have been active also in numerous community

affairs. Five of our graduate students have won first prize (Western region) and six have won honorable mention in the Lunsford Richardson Pharmacy Awards competition, and in this our centennial year two of our undergraduate students, Steven C. Forland and Donald L. Wolfe, in a joint project won the national award.

CURRICULUM AND DEGREES

There have been many changes in the curriculum and, as new developments and advances in the basic sciences have occurred, a continuous upgrading of pharmaceutical education during the one hundred years the School has been in existence. All have been intended to improve the quality and to extend the scope of pharmaceutical service to the community, the state, and the nation by better serving the health needs of the people.

Some of these changes have been accompanied by changes in the degrees offered for successful completion of the programs. The first course of study (1872), as mentioned before, consisted of classes four evenings per week through two five-month sessions, upon completion of which candidates received the degree *Graduate in Pharmacy* awarded by the University upon recommendation of the College.

By 1914 the course had lengthened to two years, and that same year saw the first offering of two additional programs of study: one a three-year course, the other a four-year course. Candidates successfully completing the two-year course received the Graduate in Pharmacy diploma; the three-year course was recognized with a Certificate in Pharmacy; and a Bachelor of Pharmacy degree was earned by completion of the four-year program.

During the nineteen-twenties, the two-year program was abandoned, and the Graduate in Pharmacy was awarded for successful completion of the three-year course of study. The Bachelor of Pharmacy degree for the four-year sequence then became a Pharmaceutical Chemist (Ph.C.) degree.

Upon full integration of the College as an integral part of the University in the 1934-1935 academic year, the degrees were changed again: they now became Certification of Graduation in Pharmacy for

the shorter program and Bachelor of Science in Pharmacy for the four-year course.

In 1955, a six-year program (two years of preprofessional collegiate preparation plus four years of professional studies) was established. Consistent with the content and duration of the program, the professional degree, Doctor of Pharmacy (Pharm.D.), not to be confused with the graduate Ph.D. (Doctor of Philosophy) degree, was established. The former four-year program was phased out in June, 1960, when the last Bachelor's degree was awarded. The six-year program has been the only one available to students entering since September 1958.

Not too many years ago—in terms of human history—pharmacognosy, medical and pharmaceutical botany and zoology, pharmacology, toxicology, and posology were all embraced in the subject known as “materia medica,” and usually the physician and the pharmacist were one and the same person. As a physician, he examined the patient and considered the presenting and underlying symptoms—in short, made a diagnosis—and, on the basis of this, prescribed medication, which, in his role as pharmacist, he proceeded to compound and dispense. Since the separation of the professions a couple of hundred or so years ago, and especially during the last thirty or forty years, there has been a veritable “knowledge and technique explosion” in both medicine and pharmacy, and each profession has become highly specialized. No longer can one individual be expected to be truly an expert in both.

For many years, and especially during the last quarter century, the concept of the pharmacist as a consultant on drugs and medication has been bandied about at various professional meetings, and students in schools of pharmacy have been told that this is an important part of their role as members of the “health team.”

There was much exhortation, but relatively little of significance was done to enable the pharmacy student, upon graduation, to fill such a role with either competence or justified confidence in his capability for the role.

About 1920, the School of Pharmacy inaugurated a course in phar-

macology. Before 1940 offerings in chemistry and in biologic sciences had been greatly strengthened and courses in human anatomy, biochemistry, and human physiology had been introduced. The School was among the first, if not *the* first, school of pharmacy to present required "solid" courses in biochemistry; physiology; human anatomy, with students learning by dissecting cadavers rather than simply from charts and models; pathology, with laboratory as well as lectures; and parasitology, also with laboratory.

But simply taking courses in a subject and having an acquaintance with its highly specialized jargon is not enough. Although such courses may follow in a logical sequence or even be appropriately integrated, this "one-shot" kind of experience seldom makes the subject matter part of a student's useful, every-day lifetime equipment, and rarely does the terminology become significant as part of a permanent working vocabulary. The solution to this problem lies in daily experience in thinking in terms of the subject matter and applying it in real-life situations and in daily use of the specialized terminology until both become second nature, as it were, and thus useful tools. Only in such a way can the pharmacist converse with the physician in the latter's own language about matters that are more complex and usually of much greater significance for the patient's welfare than simply doses and available dosage forms of a particular drug. It seems, and understandably so, that only in such a way can the pharmacy student really become, with justified confidence in his competence and ability, a *bona fide*, actively contributing member of the health care team, rendering advice on drug interactions and reactions and other related matters of great importance. Frequently, especially in out-patient and in community practice, the pharmacist is the only member of the professional health team who is aware of *all* kinds of medication, including proprietaries, the patient may be using.

With the above thoughts in mind, a small experimental pilot project was instituted in cooperation with the medical personnel in one patient-care area of Moffitt Hospital in 1966. Despite early misgivings of some physicians and a sense of benevolent, even if a little

irritated tolerance on the part of others, the project soon was well accepted—more than accepted, it was welcomed. From a small beginning with a few students on one service, the program expanded in three years to two other services on an enlarged scale and became a required part of the education and training of the entire senior class.

In this program, each student is under the supervision and jurisdiction of a faculty mentor. As part of the admission interview of a new patient the pharmacy student records prior and current drug history, drug allergies, etc. During a patient's hospitalization the student attends ward rounds regularly, discusses the case, and reviews results of clinical laboratory tests and other factors pertinent to therapy. The student also attends other rounds and conferences, such as gastro-intestinal, clinical pharmacology, and hematology. A similar program has been established in the out-patient clinics, where the pharmacy student is paired with a senior medical student in cooperative patient-care.

This is the program that is called "Clinical Pharmacy." The concept is not new. It is merely a new term for the old concept of the pharmacist as a consultant on drugs. The program is simply a method for implementing the old concept—a concept that was unattainable, until a means was found to adequately prepare the pharmacist to meet the physician on equal professional terms, each respecting and benefiting from the other's knowledge and expertise in his professional discipline. A secondary benefit has been development of a healthy and genuine mutual interprofessional understanding of the problems faced by each. But, of course, the most important and the real beneficiary of this joining of skills is the patient.

Emphasis on the "Clinical Pharmacy" program in the senior year should not be interpreted to mean that the faculty or the administration is ignoring, or even minimizing, preparation of students for community pharmacy practice or for other aspects of pharmaceutical endeavor. By eliminating excessive overlapping that, despite constant vigilance, had crept into some courses over the years; by combining and integrating other courses; and updating still others by streamlining; it has been possible to present the same subject matter as before

and in addition include the "Clinical Pharmacy" program in the same length of time the traditional curriculum required.

THE FUTURE

In June of our centennial year, 1972, eighty-five young men and women graduated from this school and have begun their active professional careers. Present plans for helping to meet the needs of California for professional clinical and community pharmacists call for graduating classes of one hundred twenty each year before the end of the decade. Barring unforeseen complications and a continuation of the present budget crisis we confidently expect to reach that goal. Adequately supporting scholarship and work-study programs has always been a problem, and it may become aggravated when the classes are larger. But challenges have been surmounted in the past and we expect to do so in the future.

Our school has survived the first one hundred years. With the cooperation and understanding support of our alumni and students, and with the continued dedication of our faculty and administration the School embarks on its second century with confidence and determination; as well as with a sense of gratitude to the administrations, faculty, and students who preceded us and gave us a heritage to preserve and upon which to build.

SYNOPTIC CHRONOLOGICAL AND PERSPECTIVE HISTORY

1860

Experiments of Louis Pasteur “explode” the theory of spontaneous generation of life (1862).

University of California chartered as land-grant coeducational university (1868).

Experiments of Joseph Lister with antiseptics and heat sterilization of instruments establish basis of modern aseptic surgery (1865).

University opened as successor to private California College (1869).

Junction of Union Pacific and Central Pacific R.R.—West of Ogden, Utah—joined Missouri and Pacific Coast (May 10, 1869).

1870

California College of Pharmacy chartered (August 7, 1872).

Birth of national park system: Yellowstone National Park established by act of Congress (1872).

Affiliation with University of California (1873).

Moved from Montgomery street to larger quarters in Toland Hall on Stockton street (1875).

Pasteur & Joubert recognize clinical potentiality of microorganisms as curative (as well as causal) agents of disease; beginning of scientifically based antibiotic therapy (1877).

Moved to larger Academy of Sciences at corner Dupont and California streets (1876).

Emlen Painter, appointed Dean (1878).

1880

Occupied new 3-story building on Fulton street (1883).

First female student graduated (1884).

Edward W. Runyon, appointed Dean (1885).

First patent for a television system issued (Germany (1884).

Successful extension of technique of vaccination to rabies (1885).

1890

William M. Searby, appointed Dean (1893).

Legislature appropriated funds for construction of building on present campus site (1895).

College occupied new building on present campus (1898).

Role of *Anopheles* mosquito in transmitting malaria demonstrated (1897).

Spanish-American War (1898).

Aspirin introduced (1899).

1900

William McKinley, 24th President of U.S., assassinated in Buffalo, New York (1901).

First powered flight of heavier-than-air craft (Wright brothers, Kitty Hawk, N. C., 1903).

Special Theory of Relativity (Albert Einstein, 1905).

First industrially-produced antibiotic (pyocyanase) discovered (1901) and marketed (1906) in Germany.

Only minor damage to College from earthquake and fire (1906).

San Francisco earthquake and fire (April 18, 1906).

First Model T Ford (1908).

1910

Franklin T. Green, appointed Dean (1910).

Ishi came to campus to live his remaining years (1911).

Established first 4-year program, still retaining 2- and 3-year programs (1914).

Ishi, "last wild Indian of America," died (1916).

First graduates of 4-year program: 3 in number (1919).

Panama Canal completed (1914).

Panama-Pacific Exposition (World's Fair) in S.F. (1915).

Sinking of Lusitania (1915), a significant factor in turning sentiment in U.S.A. against Germany and in eventual entry of U.S.A. into World War I (1914-1918).

General Theory of Relativity (Einstein, 1916).

U.S.A. declared war on Germany (April 6). First U.S. troops under command of General Pershing, arrived in France (June 25, 1917).

Armistice ended fighting in World War I (Nov. 11, 1918).

18th Amendment to U.S. Constitution; the Volstead Act (prohibition) passed. } (1919)
League of Nations established.

1920

19th Amendment to Constitution (Women's Suffrage) passed (1920).

Warren G. Harding, 29th President of U.S.A., died at Palace Hotel, San Francisco—August 2, 1923.

Charles A. Lindbergh flies solo across the Atlantic—New York to Paris (1927).

Henry C. Biddle, appointed Dean (1929).

Stock market crash—beginning of depression.
Volstead Act (prohibition) repealed.
Penicillin "discovered" by Alexander Fleming } (1929)

1930

Henry B. Carey, appointed Acting Dean (1932).

College integrated into University of California (1934–1935).

Adolph Hitler appointed Chancellor in Germany (1933)

Golden Gate Bridge completed (1937).

Hindenburg disaster—Lakehurst, New Jersey (1937).

Carl L. A. Schmidt appointed dean (1937).

Germany annexes Austria.
Munich Pact: France and England, in appeasement policy, sacrifice Czechoslovakia to Germany. ("Peace in our time") } (1938)

Graduate program in Pharmaceutical chemistry initiated.
California Legislature requires 4 years of college-level pharmacy education as prerequisite for licensing as pharmacist. } (1938)

Germany overruns Poland.
France and England declare war on Germany—beginning of World War II. } (1939)

1940

Three-year program in College discontinued.
First Master's degree in Pharmaceutical Chemistry awarded.

(1940)

Germany invades Russia.
Japan attacks Pearl Harbor (December 7).
Germany declares war on U.S.A.

(1941)

First Ph.D. in Pharmaceutical Chemistry awarded (1942).

Accelerated program: year-round classes—3 "semesters" per year (1942–1946).

First industrially produced penicillin released to Armed Forces.
Original Declaration of United Nations—26 nations pledged to continue joint war effort and not to make peace separately with Axis States (Jan. 1).

(1942)

Troy C. Daniels, appointed Dean (1944).

Streptomycin discovered (1944) made possible first successful chemotherapeutic attack on tuberculosis.

United Nations Charter signed by 51 nations in San Francisco (June 26, 1945).

Hiroshima—First atomic bomb (August 6).
Nagasaki—Second atomic bomb (August 9).

(1945)

Chloramphenicol discovered (1947) made possible successful chemotherapy for typhoid and typhus fevers.

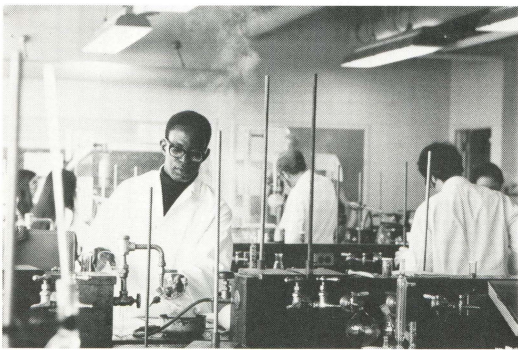
Berlin airlift begins (June 28).
Chlortetracycline (Aureomycin) discovered—first of the tetracyclines.

(1948)

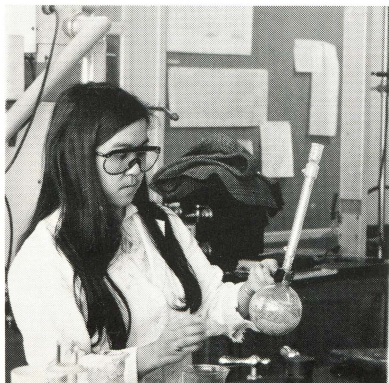
	1950	
College moves into new Medical Sciences Building (1945).		Expanding Theory of Relativity (Einstein, 1950). Watson-Crick: Double helix structure of DNA (1953).
Old Dental-Pharmacy building razed. Six-year program: Dr. of Pharmacy degree (Pharm.D.) established. Name changed to School of Pharmacy.	} (1955)	Russia puts first sputnik into orbit (October 4, 1957). Laboratory synthesis of amino acids (1957).
Medical Sciences Building II completed. Department of Pharmaceutical Chemistry established.	} (1958)	First U.S.A. satellite orbited (1958).
	1960	
Last Bachelor's degree awarded (1960).		U.S. Senate Hearings on "Administered Prices in the Drug Industry (Antibiotics)—Kefauver Investigation (1960). John F. Kennedy assassinated (November 22, 1963).
Pilot project in Clinical Pharmacy begins (1966).		
Dean Troy C. Daniels retires. Jere E. Goyan appointed Dean.	} (1967)	Robert F. Kennedy assassinated (June 6, 1968).
Clinical Pharmacy required for all seniors (1969).		Neil Armstrong, first man on moon (July 21, 1969).
	1970	
Department of Pharmacy established (1971).		26th Amendment to Constitution (18-year-old vote) passed (1971).
School of Pharmacy begins its second century (1972).		Players' strike delays opening of professional baseball season (1972).



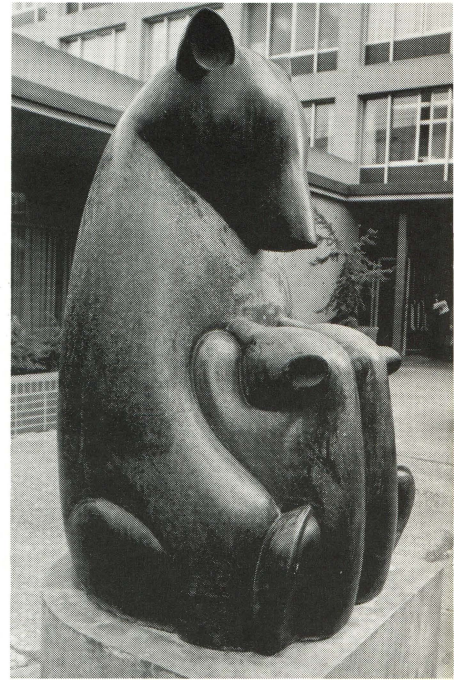
Campus Library.



Students in present day laboratories.



Nurse with medications prepared by pharmacist for hospitalized patients.



Bufano Bear.



"It is never too hot or too cold in San Francisco to work with comfort, there is no exhaustion or sickness due to heat, cold, or malaria, and zymotic diseases are rare. The new and commodious building erected by the State for the College of Pharmacy is a delightful place to work in, being spacious, light, airy, and well ventilated and the faculty and equipment are up-to-date."

Pacific Pharmacist
May, 1907