1963

University of Vermont, College of Medicine Bulletin

University of Vermont

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CATALOGUE 1963-64

College of Medicine
OF THE
University of Vermont

BURLINGTON / VERMONT

THIS BULLETIN PUBLISHED
JANUARY 1, 1964
1. DeGoesbriand Memorial Hospital.

2. Old College of Medicine Building.

3. Mary Fletcher Hospital.

4. New College of Medicine Buildings.
THE UNIVERSITY OF VERMONT

3RD YEAR

1ST TRIMESTER: Sept. 16 (Mon.) through Nov. 30 (Sat.)
Sept. 16 Monday. Classes Begin.

2ND TRIMESTER: Dec. 2 (Mon.) through March 7 (Sat.)
Jan. 6 Monday. Assignments Resume.
Feb. 4 Tuesday. Enrollment.

3RD TRIMESTER: March 9 (Mon.) through June 6 (Sat.)
Apr. 12-19 Sunday through Sunday. Spring Vacation.

4TH YEAR

1ST FIFTH: July 29 (Mon.) through Sept. 22 (Sun.)
July 29 Monday. Enrollment.
July 30 Tuesday. Assignments Begin.

2ND FIFTH: Sept. 23 (Mon.) through Nov. 17 (Sun.)

3RD FIFTH: Nov. 18 (Mon.) through Jan. 26 (Sun.)
Jan. 6 Monday. Classes Resume.

4TH FIFTH: Jan. 27 (Mon.) through March 22 (Sun.)

5TH FIFTH: March 23 (Mon.) through May 16 (Sat.)
Apr. 12-19 Sunday through Sunday. Spring Recess.
May 16 Saturday. Last Day of Assigned Work.
May 18-20 Monday through Wednesday. Pre-examination Days.
May 21-27 Thursday through Wednesday. Examinations.
May 28-June 5 Thursday through Friday. Vacation.
June 6 Saturday. Class Day.
June 7 Sunday. Graduation.
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UNIVERSITY ADMINISTRATION

THE BOARD OF TRUSTEES

JOHN THEODORE FEY, J.S.D., LL.D., President
PHILIP HENDERSON HOFF, B.A., LL.B., Governor

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EDWARD MILTON WINANT, M.D.

March, 1959—March, 1965

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MERRILL ERNEST PERLEY, B.S.

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JAMES NORMAN KENNEDY, D.D.S.
ROBERT EMMETT O'BRIEN, B.S., M.D.


WOODHULL STANTON HALL, M.D.
ELMER LYLE NICHOLSON, B.S.
LAWRENCE HARCOLD MARVIN, B.S.

March, 1963—March, 1969

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BARTHOLOMEW FRANCIS GARRITY, B.S.
SANBORN PARTIDGE, LL.B., M.S.
ELLERY REDFIELD PURDY, B.S., M.Ed.

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Vice Chairman of the Board—LAWRENCE H. AVERILL, B.S.
Secretary of the Board—LAWRENCE H. MARVIN, B.S.
Assistant Secretary of the Board—ROSE SULLIVAN DOLSON, B.Ed.
Comptroller and Business Manager of the University—MELVIN ALLEN DYSON, B.B.A.
ACADEMIC DIVISIONS OF THE UNIVERSITY OF VERMONT

JOHN THEODORE FEY, J.S.D., LL.D., President of the University

CLINTON DANA COOK, Ph.D., Dean of Faculties

THE COLLEGE OF ARTS AND SCIENCES
George Vincent Kidder, Ph.D., Dean

A general four-year program is provided leading to the degree of Bachelor of Arts with the opportunity for concentration in one or more of the following studies: botany, chemistry, commerce and economics, English, French, geology, German, Greek, history, Latin, mathematics, music, philosophy, physics, political science, psychology, sociology, Spanish, speech, and zoology. Preprofessional programs for students who plan to continue their education in professional schools may be planned.

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THE COLLEGE OF MEDICINE
Robert James Slater, M.D., Dean

The College of Medicine offers a four-year graduate program leading to the degree Doctor of Medicine and provides facilities for a limited number of candidates for other graduate degrees to take courses in its departments.

THE GRADUATE COLLEGE
William Hooper Macmillan, Ph.D., Dean

Opportunities for graduate study are offered in academic fields in which University resources have made sound graduate programs possible. Doctoral programs have been inaugurated in several areas and Master's programs are available in nearly all departments. The Graduate College administers all studies beyond the Bachelor's degree with the exception of the program of the College of Medicine leading to the degree Doctor of Medicine.

THE SCHOOL OF DENTAL HYGIENE
Wadi I. Sawabini, D.D.S., Director

A two-year program is offered which leads to a Certificate in Dental Hygiene. Recipients of the certificate are eligible to take all state board examinations for licensing as dental hygienists.

THE SUMMER SESSION
Raymond Virgil Phillips, Ph.D., Director

Courses are offered on both the graduate and undergraduate level in many subjects under the regular staff as well as special classes given by visiting instructors.
STANDING COMMITTEES
1963–1964

Executive Committee
Robert J. Slater, Dean, Chairman
Ellsworth L. Amidon
Thomas J. Boag
Robert W. Coon
John C. Cunningham
Fred W. Gallagher
Albert G. Mackay
John Van S. Maекk
Robert J. McKay
Donald B. Melville
Chester A. Newhall
Ferdinand J. M. Sichel
Durwood J. Smith
A. Bradley Soule, Jr.
Thomas B. Tomasi, Jr.
Kerr L. White
Sinclair T. Allen (ex-officio)
Herbert L. Martin (1 year)

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Harold B. Pierce, Vice-Chairman
Richard W. Amidon
Joseph C. Foley
William H. Luginbuhl
Lester J. Wallman

Advancement Committee
Harold B. Pierce, Chairman
Members of Executive Committee
John F. Bell
John F. Daly
Raymond M. P. Donaghy
R. W. Paul Mellish
Rufus C. Morrow, Jr.
Platt R. Powell
George A. Schumacher
Thomas B. Tomasi, Jr.

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Henry M. Doremus, Chairman
Julian J. Jaffe
Richard L. Naeye

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Ellsworth L. Amidon
Albert G. Mackay
Donald B. Melville, Chairman
Robert W. Coon
John Van S. Maекk

Building Committee
Donald B. Melville, Chairman
Robert W. Coon
John Van S. Maекk

Harold B. Pierce (ex-officio)
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Robert J. Slater, Dean, Chairman
John H. Bryant, Director of Center
Ellsworth L. Amidon
Robert W. Coon
John Van S. Maecck

Curriculum Committee
Jerold F. Lucey, Chairman
W. Stewart Agras
Sinclair T. Allen
Richard E. Bouchard
Alfred H. Chambers
Herbert A. Durfee, Jr.
Julian J. Jaffe
Merton P. Ludden
John H. Mabry
Rufus C. Morrow, Jr.

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Edward C. Andrews, Jr., Chairman
Sinclair T. Allen, Jr.
John H. Bryant

University-Hospitals Liaison Committee
President John T. Fey
Robert J. Slater
Bishop Robert F. Joyce
John F. Berry
Frederick W. Shepardson
Lester E. Richwagen

Intern Committee
Robert J. McKay, Chairman
Sinclair T. Allen
Richard E. Bouchard
John H. Bryant
Stanley L. Burns
Herbert A. Durfee, Jr.
Mary J. Gray
Carleton R. Haines

Joint Residency Committee
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Ellsworth L. Amidon
Thomas J. Boag
Robert W. Coon
John C. Cunningham
Albert G. Mackay
John Van S. Maecck
Herbert L. Martin

Library Committee
Bert K. Kusserow, Chairman
William L. Meyer
Burton S. Tabakin

Lester E. Richwagen (Administrator, Mary Fletcher Hospital)
Ethan A. H. Sims
Thomas B. Tomasi, Jr.

Richard L. Naeye
William M. Stahl, Jr.
Walter A. Stultz
J. Robert Suriano
Burton S. Tabakin
John P. Tampas

Edward C. Andrews, Jr. (Liaison Member)
George A. Schumacher (Consultant)

William H. Macmillan
A. Bradley Soule, Jr.

The University of Vermont
The DeGoesbriand Memorial Hospital
The Mary Fletcher Hospital

John S. Hanson
Jerold F. Lucey
Ethan A. H. Sims
William M. Stahl, Jr.
Burton S. Tabakin
Thomas B. Tomasi, Jr.
John C. Twitchell

Robert J. McKay
A. Bradley Soule, Jr.
Kerr L. White

Lester E. Richwagen (Administrator, Mary Fletcher Hospital)
John F. Berry (Administrator, DeGoesbriand Memorial Hospital)

George H. Hunter (ex-officio)
Ben C. Bowman (ex-officio)
The College of Medicine of the University of Vermont is one of the oldest institutions of its kind. A lecturer on Chirurgery and Anatomy was appointed by the Trustees of the University Corporation on August 16, 1804. The first full and regular course of lectures, however, was not given until the fall of 1822. In 1829 a Medical College building was erected at the south end of the campus. In 1836 the College was abandoned because of the death of some of its leading spirits and for lack of students. There had been graduated up to that time one hundred and sixteen men.

The reorganization and successful re-establishment of this school were due chiefly to the efforts of Dr. S. W. Thayer, then a practitioner of Northfield. His efforts date back to 1840 and finally were successful in 1853. Dr. Levi W. Bliss of Bradford was also active in securing the reopening of the College. The prosperity of the newly organized department in 1854 soon became manifest, and a material enlargement of the old Medical College building at the head of Main Street was demanded. A sum was raised and the necessary improvements made. In 1870 the citizens of Burlington contributed an additional sum of two thousand five hundred dollars to enlarge the building further by the addition of a wing and to increase the seating capacity of the two lecture rooms. In 1884 the late John P. Howard generously gave a building at the head of Pearl Street which was occupied first in 1885.

Until 1899 the relation of the College of Medicine to the University was nominal. Its reorganization at that time made it a coordinate department of the University under the control of the Board of Trustees and its facilities for teaching and study were increased. The faculty was enlarged and teaching facilities were improved. In 1903 the college year was lengthened to seven months and again in 1907 the teaching year was increased to thirty weeks of instruction. In December, 1903, the building which had been occupied by the College for twenty years was destroyed by fire. A new building was begun in August, 1904, and dedicated in June, 1905.

In 1911 the faculty of the College of Medicine was reorganized and became an integral part of the University. In 1912 one year of college work was required for admission and the College of Medicine year was made equal in length to that of the academic college. Two full years of college work were required for admission in 1917. In 1920 women were admitted to the College of Medicine. In recent years all the students have completed four years of college prior to entrance into the College of Medicine.
In 1957 ground was broken for Phase I of a new College of Medicine building. Phase I was dedicated in September, 1959. Phase II was completed and occupied in September, 1962. Planning for Phase III is under way but not yet advanced enough to estimate the time of completion.

FORMS FOR GIFTS AND BEQUESTS

The corporate title of the University is "The University of Vermont and State Agricultural College."
The following forms are suggested:

General:
"I give (or bequeath) to The University of Vermont and State Agricultural College, a corporation of the State of Vermont, located at Burlington, Vermont, the sum of ................................................ for the uses and purposes of the College of Medicine."

Endowment:
"I give (or bequeath) to The University of Vermont and State Agricultural College, a corporation of the State of Vermont, located at Burlington, Vermont, the sum of ................................................ to be added to the general Endowment of the said Corporation for the use of the College of Medicine."

For a Specific Purpose:
"I give (or bequeath) to The University of Vermont and State Agricultural College, a corporation of the State of Vermont, located at Burlington, Vermont, the sum of ................................................ to be known as the .................................. Fund, the principal to be invested and reinvested in its discretion, and the income therefrom to be used for the purposes of .................................................
If at any time, in the judgment of the Trustees of the said Corporation the need of income for such purpose no longer exists, the Trustees of the said Corporation shall be, and hereby are, authorized to use the income from the Fund for such purpose as shall in their judgment promote the interests of the College of Medicine."
STUDENT INFORMATION

REQUIREMENTS FOR ADMISSION

The College of Medicine requires that an applicant hold a Bachelor's degree, and that his four years of college work be taken in an institution listed among the "Accredited Institutions of Higher Education," compiled and published by the National Committee of Regional Accrediting Agencies of the United States. The College of Medicine requires one year each of:

Biology
English
Fundamental mathematical principles, at the college level
Physics (including laboratory)
General Chemistry
Organic Chemistry
Quantitative Chemistry (a satisfactory one-semester course)
or Physical Chemistry, including laboratory work

The College strongly recommends that the applicant while in college study in depth one or more fields of interest to him.

Correct English usage is demanded by all departments in the University. Written work of any kind which is unsatisfactory in manuscript form, grammar, punctuation, spelling, or effectiveness of expression may be penalized regardless of contents. Students whose written work falls below the standard of correct usage may be remanded to the English Department for additional instruction, even though the freshman course in English has been passed.

Students must complete satisfactorily all requirements for admission to the College of Medicine in any given year by July 1 preceding the September admission. Ordinarily courses taken in other than a liberal arts college will not meet our admission requirements.

Eligibility of an applicant for admission to the College of Medicine is determined by the Admissions Committee of the College of Medicine on the basis of the following:

1. The scholastic record of the applicant in his premedical work.

2. Personality and general fitness of the applicant for the study and practice of medicine as determined by recommendations of the applicant's college teachers and others, and by personal interview with the Admissions Committee.

3. The applicant's scores on the Medical College Admission Test. Such scores are taken into consideration but are not used as a final determinant in accepting students. If a majority (all but one or two) of the required courses have been or will be completed by the end of the third year in college, applicants are urged to take the Medical College Admission Test in May of that year.
4. All applicants are required to submit a health report completed by their college or university health service and not by their personal physician.

A maximum of fifty students is admitted to the entering class. Preference for admission is according to the following priorities:

1. Qualified residents of Vermont.
2. Qualified residents of other New England states having contractual arrangements with the College of Medicine through the New England Board of Higher Education. Contracts are presently in force with the states of Maine, New Hampshire, Massachusetts and Rhode Island.
3. Qualified residents of other areas.

Sons and daughters of the alumni of the College of Medicine of the University of Vermont are given special consideration within the framework of the above policy.

Applications for admission to the class entering in September of any year will close January 1 preceding the September admission. Application blanks should be in by December 1 for early consideration.

An application fee of ten dollars, payable to The University of Vermont and State Agricultural College, must accompany all applications and is not refundable.

ENROLLMENT

On a day designated at the opening of each semester, registration and enrollment take place. Payment of one half of the tuition and other fees must be made at this time.

Students who fail to register on the day designated for registration will be required to pay the fee for late registration.

Residents of those states having contractual arrangements with the University of Vermont College of Medicine must establish proof of residence prior to the date of registration.

ADMISSION OF STUDENTS TO ADVANCED STANDING

When vacancies occur, students may be considered for admission to advanced standing. Such students will be accepted only on the conditions stated herewith.

1. That the premedical and medical work be in accord with the courses required at this institution, and have been taken at an institution approved by the Council on Medical Education and Hospitals of the American Medical Association.
2. That the scholastic record is satisfactory.
3. That the statement of record shows no condition and that said statement be accompanied by a letter of honorable dismissal.

No applicant for advanced standing will be enrolled under more favorable conditions than he would obtain were he to continue at the institution from which he seeks to transfer.
A personal interview is required of all applicants for admission by transfer to the College of Medicine. Preference will be given according to the policy for first-year students.

Students dismissed by reason of failing grades from other institutions will not be considered for admission to any class in the College of Medicine.

FEES AND EXPENSES

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<tr>
<td>Application Fee</td>
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<tr>
<td>Athletic Fee</td>
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<td>Books and other supplies</td>
<td>$200.00</td>
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<tr>
<td>Fee for late registration</td>
<td>$6.00</td>
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<tr>
<td>Tuition Fee for each session for Vermont students and bona fide residents of states having contractual arrangements with the University of Vermont College of Medicine</td>
<td>$550.00</td>
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<td>Tuition Fee for other students</td>
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<td>Medical Student Activity Fee</td>
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<tr>
<td>Medical Student Activity Fee (For Student Council and Year Book)</td>
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<tr>
<td>Microscope rental (required first and second years)</td>
<td>$40.00</td>
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<tr>
<td>Locker Fee for first year</td>
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<tr>
<td>Locker Key Deposit—Paid on admission; refunded end of year</td>
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Average Range

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<th>Description</th>
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<tbody>
<tr>
<td>Room Rent</td>
<td>$400 to $500</td>
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<tr>
<td>Board</td>
<td>$600 to $700</td>
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Medical students may, by paying the student activity fee of $15.00, become entitled to the benefits students receive from payment of that fee as described in the general catalogue of the University.

Students must provide microscopical supplies for use in the various laboratories.

Each student must purchase a dissecting set for use in the Anatomical Laboratory.

Medical textbooks, outlines, student supplies and equipment are sold at the University Store in the Waterman Building.

Students temporarily absent from the University are charged as if present.

A student who has been dropped into a lower class because of deficiency in his work, or for other reason, will be required to pay his bills for the additional year or years in which he may be in attendance at the University.

In the event of withdrawal from college, refunds are made as follows:

During the first week of any semester the full tuition is refunded. Thereafter 20 percent of the tuition is deducted for each week that has elapsed.

LIVING ACCOMMODATIONS

Information regarding living accommodations may be obtained from the Housing Bureau in the Waterman Building.
HONORS AND PRIZES

Certain students who have been top-ranking during the entire four years' course of study in the college may be graduated as Doctors of Medicine, cum laude, upon recommendation of the Advancement Committee and the Faculty.

Prizes for general high standing for four years shall be awarded only to students who have been enrolled for four years at this college.

Clinical prizes may be awarded to any student who has spent the third and fourth years at this college.

Alpha Omega Alpha.—Honor medical society. Students are elected to this national society by faculty advisers and student members. Selection is based not only upon high academic records but also upon evidence of individual scholarship and promise for a medical career.

The Governor Woodbury Prizes.—The income from a fund of one thousand dollars, augmented by funds from the Century Club of the U.V.M. Medical Alumni Association, provides two prizes annually. The first is awarded at graduation to the student who has shown the greatest proficiency in clinical work. The other is awarded to the sophomore having the highest standing in the subjects of the first two years. The amount of each prize is determined by the income obtained from the investment of the fund.

The Carbee Prize.—A prize fund of three thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. The annual income from the investment of this fund provides a prize to be awarded annually to that student of the Senior class who has shown the greatest proficiency in the field of Obstetrics. The Department of Obstetrics makes the award.

The Helaine Mesch Memorial Award.—This award is presented annually by the Class of 1961 to the most deserving senior, the recipient to be selected by his classmates.

Lamb Foundation Prizes.—This award is based on excellence in understanding the patient-physician relationship. Details regarding this award may be obtained from the Dean's Office.

The U.V.M. Century Club Prize.—This award is presented annually to the graduating student who has attained the highest scholastic rank in his class during four years, all taken at the University of Vermont.

The William Eastis Brown Alumni Prize.—This award is presented annually to a graduating student on the basis of broad cultural interests and loyalty to the College of Medicine. The award was established by an annual grant from the Century Club of the U.V.M. Medical Alumni Association.
The Ernest Hiram Battees Century Club Prize.—This award is presented annually to the second-year student selected by the Department of Pathology for outstanding performance in that subject.

SCHOLARSHIPS AND LOAN FUNDS

A scholarship fund of three thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. The income derived from the investment of this fund is given annually to a deserving student in the College of Medicine.

Vermont residents in need of financial assistance are eligible for $200 state scholarships. Upon receipt of the scholarship, the student will be required to sign notes for each year of state scholarship assistance. These notes will be payable serially beginning five years after graduation. If not paid by this time, interest will begin. Interest will not accrue if the notes are timely paid. The notes can be cancelled by the recipient practicing in the State of Vermont for each year for which scholarship aid was received.

Small scholarships, as well as loan funds, are available for students:

A loan fund of four thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. Students in the College of Medicine in need of financial assistance may apply for loans from this fund.

The Dr. H. C. Tinkham Scholarship Fund was established by the will of Dr. Tinkham, the income to be used for scholarships for deserving students in the College of Medicine.

The John W. and John Seeley Estabrook Scholarship Fund was established by the will of John W. Estabrook, the income to be used for scholarships for students in the College of Medicine from Rutland County, with preference given to students from the town of Brandon.

The Edith Blanche Kidder Scholarship Fund was established by the late Joseph W. Kidder. This is for students in the College of Medicine, preference being shown to legal residents of Barre, Vt. The amount of each scholarship is determined annually by the income from the invested fund.

The Edward Everett Hawes Fund, founded in 1946 by bequest of Dr. Edward Everett Hawes of Hyannis, Mass., provides scholarship aid for medical students.

The Medical College Loan Fund is available for loans to students enrolled in the College of Medicine.

Student loan funds are available through the Health Professions Educational Assistance Act of 1963.

The W. K. Kellogg Loan Fund was established in May, 1942 by a gift of $10,000 from the W. K. Kellogg Foundation. It provides loan funds for students of ability in the College of Medicine who may be in need of financial assistance.
A scholarship has been made available in the amount of $1,000 by the Pfizer Laboratories Division of Chas. Pfizer and Company, Inc., to apply toward the academic and subsistence expenses of one medical student during the 1963-64 college year. Selection of the recipient is made by the Committee on Prizes and Awards on the basis of scholastic record, financial need, or both.

The G. Stedman Huard Medical Student Loan Fund is available:

1. To students residing in Winooski, Vt.
2. To students residing in other areas of Vermont.

A medical scholarship fund was established in 1962 by Dr. Aldo J. Leani and is available for medical students.

In 1963 The Quarter of a Century Loan Fund for the benefit of medical students was established by the Class of 1938. Contributions will be made annually at the twenty-fifth reunion of each class.

A loan fund was established in 1963 by Dr. Thomas R. Plowright, Class of 1946, for sons of Congregational ministers who are residents of the State of New Hampshire and who are students in the College of Medicine.

The Dr. Thomas Harman Denne Memorial Scholarship Fund was established in 1963 by relatives and friends of the late Dr. Thomas H. Denne, Class of 1905, the income to be used for deserving students in the College of Medicine.

The American Medical Association has established the Medical Education Loan Guarantee Program whereby loans are available to medical students who are residents of the United States.

Certain special and endowed scholarships and funds, including the Wilbur Fund, are available to students of any college in the University. See the catalogue number of this Bulletin. All requests for student aid should be made through the Dean's Office.

Application forms for scholarship and loan funds may be obtained from the Dean's Office and should be submitted by April 15 prior to September entrance.

The George W. Merck Memorial Loan Fund for interns and residents was established in 1959 by the Merck Company Foundation. It provides loan funds for selected graduates of this College of Medicine wherever they are training, or to graduates of other medical schools who are in training at hospitals associated with this medical school. The Fund is administered by the Dean.

STUDENT RESEARCH FELLOWSHIPS

A number of research fellowships are awarded each year to students who conduct research projects under supervision of a faculty member. These fellowships are supported by grants received from various sources. The number of fellowships available vary from year to year. Student research fellowships carry a stipend of $60 per week and are awarded for investigative work during the summer. Application should be made to Department Chairman.
There are also several post-sophomore fellowships available for students who wish to take a year's leave for advanced study in a basic science department. Students who have completed their first or second year are eligible. The annual salary is approximately $3,200 per year. Under this plan, some students complete work for the Master's degree.

LECTURESHIPS

Lawrence Barnes Hayward Memorial Speakership in Medical Rehabilitation.

In 1956, through the generosity of Mrs. Fray N. Hayward of Burlington, a lectureship was established for the purpose of obtaining speakers in the field of medical rehabilitation.


In 1960 the Vermont Heart Association established this memorial lecture in honor of one of its founders and past president, Dr. Clarence H. Beecher. The lecture is given annually at the May Clinical Meeting.

Wayne Griffith Memorial Lecture.

In 1960 the Vermont Division of the American Cancer Society established a memorial lecture for Wayne Griffith, M.D., formerly of Chester, Vt. The fund will be used to bring speakers on cancer to the May Clinical Meeting each year.

REGULATIONS FOR COLLEGE OF MEDICINE STUDENTS

ATTENDANCE

a. Attendance upon the exercises assigned for the year is obligatory. Failure to attend 80 per cent of the exercises of any course constitutes a failure in that course.

b. Students must wait 10 minutes for an instructor or lecturer who is tardy. In case of examination, students are expected to remain at least 30 minutes.

c. No student is eligible for a medical degree who has not been registered in medical school four complete consecutive years unless a leave of absence has been granted by the Executive Committee. Resumption of study after other absences greater than the time allowed for absence will be permitted only on majority vote of the Faculty of the College of Medicine upon the recommendation of the Admissions Committee.

ADVANCEMENT

a. The work of each year is final, and students are advanced when they have completed satisfactorily the work assigned for the year.

b. The standing of each student in his class at the end of the session is based upon the general character of his work in the different laboratories and other practical exercises, upon the character of his recitations,
and upon the results of all examinations held during and at the end of
the session.

c. The work of students is evaluated on the basis of 100 per cent. The
lowest passing grade is 75 per cent except in the case of minor sub-
jects. In the first and second years, the passing grade for each minor
subject is 75 per cent. In the third year, a grade of 60 per cent is accepted
for individual minor subjects, but the average for a group of minor sub-
jects must be 75 per cent.

d. Any student who has failed in 25 per cent or more of the major
courses in any year will not be allowed to advance with his class. Neither
shall he be allowed to repeat the work of that year, except upon recom-
modation of the Committee on Advancement and by vote of the faculty.

e. Students who fail in less than 25 per cent of the major courses in
the first, second, or third years may be re-examined in the subjects failed
at the regular examination period preceding the opening of the next
school year. The highest final grade allowed for a course passed on re-
examination shall be 75 per cent.

f. A student who, upon re-examination in any subject, again fails
will be dismissed from the College. Such student may, however, petition
the faculty to repeat the year.

g. In a repeat performance of the work of any year, a student must
have an average of at least 80 and must not fail any courses whether
major or minor.

h. A student, whose grade average for the year is less than 80, may
be required, after review of his status by the Committee on AdvANCE-
MENT and formal approval of the faculty, to withdraw from the College.

i. A student who has been a member of either the first, second, or
third-year class for two school years, and has failed to fulfill the require-
ments for advancement, or a student who has been a member of the
fourth-year class for two school years and has failed to fulfill the require-
ments for graduation will not be enrolled again as a student of the Col-
lege of Medicine.

j. The Faculty may recommend the dismissal at any time of a stu-
dent who is considered to be unfit for a career in medicine.

k. A student who fails to present himself at the appointed hour for
any examination at which he is due to appear will be treated as having
taken the examination and failed to pass it, unless he is excused from
such examination by the chairman of the department or division.

l. The scholastic records of all students shall be reviewed by the
Committee on Advancement at the end of the course work, and may be
reviewed at any time.

m. Students shall not be apprised of their grades in any course or
examination, nor of their exact standing in their class and they shall not
have access to their grades from the files of the college or of the Uni-
versity.

n. Final written examinations shall not be returned to students. If
a student receives a failing grade in any final written examination or
in any course, final written examination shall be filed in Dean's Office.
o. Final examinations may or may not be held, at the option of the departmental chairman, with the approval of the Dean.
p. Final course marks are to be reported to the Dean's Office; if a course terminates in mid-term, final marks shall be reported to the Dean's Office within two weeks after such termination.
q. No student of the college, assigned to extra-mural duty, shall absent himself from such assignment except with Dean's permission.

r. Special rules affecting each class:
   (1) 1st year: Rules regarding failures apply, except that the Committee on Advancement is empowered to review cases of failure and make such recommendations to the Dean and the Faculty as it may see fit.
   (2) 2nd year: At the completion of the second year's work students may be required to take a comprehensive examination upon recommendation of a department chairman, subject to the approval of the Committee on Advancement and the Dean. At the end of the second year, students are advised but not required, to take Part I Examinations of the National Board of Medical Examiners.
   (3) 3rd year: The third-year students shall be judged on the basis of course work, present rules regarding failures to hold except that the Committee on Advancement is empowered to review cases of failure and make such recommendations to the Dean and Faculty as it may see fit.
   (4) 4th year: Fourth-year students may be required to take a comprehensive examination upon recommendation of a department chairman unless excused by the Dean of the College. They are advised, but not required, to take Part II Examinations of the National Board of Medical Examiners.

REQUIREMENTS FOR GRADUATION

Candidates for the degree of Doctor of Medicine must have reached the age of twenty-one years and must be of good moral character. All the requirements of this college in regard to preliminary education must have been met, and the candidate must have attended regularly and completed satisfactorily the prescribed work of the four courses of instruction. Students must have discharged all current indebtedness to the University.

The degree of Doctor of Medicine is granted by the Board of Trustees of the University of Vermont and State Agricultural College to candidates only upon the recommendation of the Committee on Advancement and the Faculty of the College of Medicine to the University Senate.

While internship is not required for graduation, graduates are expected to serve at least a one-year internship in a hospital approved by the Council on Medical Education and Hospitals of the American Medical Association.

All candidates for degrees must be present at Commencement unless excused by the Dean of the College.

ACCREDITATION

The University of Vermont College of Medicine is one of 87 accredited schools of medicine in the United States, having been approved by the
American Medical Association and by the Association of American Medical Colleges.

Its joint residency programs with the DeGoesbriand Memorial Hospital and the Mary Fletcher Hospital have been approved by the Council on Medical Education and Hospitals of the American Medical Association and by the respective American Boards.

**MEDICAL COLLEGE PROGRAM AND OBJECTIVES**

The formal program of training in the College of Medicine consists of four years. During this period the objective is to provide students with a sound foundation for careers in any branch of medicine, to create the desire for and to prepare them for further training in the many different fields of endeavor.

Since medicine increasingly embraces broad and extensive fields of knowledge, specialized training in a specific area is deferred until graduation. Postgraduate training may continue one to five years by means of internships, residencies or research.

Emphasis is placed upon development of ability to evaluate objectively the trends and advances in medicine, to inculcate attitudes and ideals whereby medicine is a dedicated way of life.

The development of high ethical standards against a background of liberal education provides a basis for proficiency of the student not only in the science and art of medicine, but also in meeting civic and social responsibilities within the community in which he will practice.

**GENERAL PLAN OF THE CURRICULUM**

**FIRST YEAR:** Anatomy, physiology and biochemistry are integrated in such a fashion that topics are considered simultaneously by all departments in so far as possible. Thus when the abdomen is being dissected, the physiology of the gastro-intestinal system and the biochemistry of digestion are being considered at the same time. The students are introduced to psychobiology, epidemiology and community medicine during the first year.

**SECOND YEAR:** The curriculum is divided into three parts and correlated in time.

*Course A:* ** Morphology, Physiology and Chemistry of the Abnormal,** runs throughout the entire year and includes pharmacology, pathology, clinical pathology, medical microbiology, psychopathology, and epidemiology and community medicine.

*Course B:* **Elicitation of Data,** includes history-taking and examination which are taught cooperatively by the various specialists under the general supervision of an internist. This is given in the second semester only.
Course C: Introduction to Clinical Medicine, consists of didactic lectures and case presentations covering elementary medicine, pediatrics, surgery, obstetrics, gynecology and oral medicine, and is given in the second semester.

The schedule varies from week to week because the subject material presented by the different departments is correlated.

Third and Fourth Years: The third and fourth years provide a continuing clinical clerkship under the direction of the major clinical departments. A one-and-a-half-month vacation is afforded during the summer at the end of the third year. The schedule provides for clerkship experience in general and specialty hospitals, and includes ambulatory patient services in the Family Care Unit, the outpatient departments of the general hospitals, and in the home. Up to three months of elective time is provided for the student to pursue in depth an area of his interest.

GRADUATE BASIC SCIENCE PROGRAM

The following departments offer graduate programs directed toward the Ph.D. degree: Biochemistry, Medical Microbiology, Pharmacology, and Physiology and Biophysics. The requirements for a Master's degree may be met by work in each of the basic science departments.

Details of these programs may be obtained from the catalogue of the Graduate College of the University of Vermont.

GRADUATE TRAINING

An internship in an approved hospital is considered essential in preparing for the practice of medicine. At the conclusion of the internship year, many graduates seek additional education by serving as residents or fellows for periods up to five years.

The Internship Committee assists students in obtaining appointments as interns. Third-year students are provided with information regarding available internships and are counseled in the selection of hospitals for their future training.

The College of Medicine participates in the National Internship Matching Program.

An active interest is maintained in graduates of the College of Medicine and the College is pleased to offer its continued support to them as they seek advanced training or staff appointments.

RESEARCH

Although the chief objective of the College of Medicine lies in teaching students the science and art of medicine, another important objective is research into causes of diseases and improvements in their treatment.

Investigations in progress at the College, numbering more than one hundred, are supported by grants and by gifts amounting to over one million dollars annually—a thirty-fold increase in the past 15 years.
TEACHING FACILITIES

The activities of the College of Medicine take place in a number of buildings on the University of Vermont campus. The Library, administrative offices, and laboratories of the Departments of Anatomy, Physiology and Biophysics, and Biochemistry are located in the original College of Medicine building.

The Department of Psychiatry and the teaching laboratories of Pharmacology occupy the Annex. Part of the animal quarters are located adjacent to this area.

Teaching and research facilities of the Department of Pathology, teaching facilities of the Department of Medical Microbiology, and laboratories for clinical research are contained in Phase I of the new College of Medicine building which forms part of the eastern boundary of the University campus. Phase II, first wing of the Medical Sciences building, completed in 1962 provides additional research space for the Departments of Biochemistry, Medical Microbiology, Pharmacology and Animal Care. Ultimately all of the basic science facilities will be located here.

The Department of Epidemiology and Community Medicine, including the Family Care Unit, occupies Mansfield House.

FAMILY CARE UNIT. The Family Care Unit is located in the Epidemiology and Community Medicine building at 25 Colchester Avenue. It is a family medicine demonstration of combined preventive and curative medical care. Junior and senior students participate in the program throughout their clinical years. Under the supervision of instructors in the Department of Epidemiology and Community Medicine, the students in junior-senior pairs provide health supervision and maintenance to selected families. Approximately 1,500 visits are made during the academic year. These visits include both house calls and office visits.

DURFEE MEMORIAL CLINIC. The Clinic is located in the Mary Fletcher Hospital. Approximately 11,500 patient visits are made each year to twenty-five general and specialty clinics. Patients must be referred by the Family Care Unit or practicing physicians. Under the supervision of Medical College staff specialists, the student receives a major portion of his training in the fourth year through this outpatient service.

DEGOESBRIAND MEMORIAL AMBULATORY PATIENT SERVICE. A total of 18,000 patient visits were made to the outpatient division during the past year. A new clinic area has been built, greatly expanding the facilities for teaching and patient care. A new emergency room area is under construction. Fourth-year medical students receive a wide outpatient experience under the supervision of Medical College staff specialists.

The College of Medicine maintains a museum with a collection of pathological specimens for use in teaching.

In addition to the teaching laboratories of the College of Medicine, the laboratories of the Vermont Department of Health are available for bacteriological, diagnostic, serological, medico-legal, food and water testing.
THE MARY FLETCHER HOSPITAL. This general hospital has 316 beds and 38 bassinets. It has been associated with the College of Medicine as a teaching hospital since 1879, and treats all diseases without limitation. Most recent developments have been open-heart, cerebrovascular and microsurgery. The hospital has a yearly average of approximately 83,635 patient days. At least two-thirds of the patients are available for teaching purposes through the use of free and part-pay beds and the use of private patients by attending staff men as members of the faculty of the College of Medicine. The hospital's facilities have been increased, providing greatly expanded services and additional beds. The hospital is approved by the American Medical Association for intern training and for residencies in anesthesia, medicine, neurology, neurosurgery, obstetrics-gynecology, otolaryngology, pathology, pediatrics, psychiatry, radiology, surgery and urology.

Besides medical teaching, educational programs are conducted in nursing, x-ray technique, laboratory technology, hospital administration and physical therapy. The recent addition of a cinefluoroscopy unit has greatly aided the accuracy of diagnosis and treatment. Research is an important part of the hospital program.
THE DEGOESBRIAND MEMORIAL HOSPITAL. The DeGoesbriand Memorial Hospital is a modern and completely equipped general hospital and houses the Vermont Rehabilitation Center. There is, in addition, an area devoted to clinical research. The present capacity of the hospital is 300 beds and 35 bassinets. The hospital has a yearly average of 58,446 patient days. All the specialty services are represented. All cases, both service and private, are used for teaching. Medical students and house staff are both under the close supervision of the attending staff who are members of the faculty of the College of Medicine.

The DeGoesbriand Memorial Hospital is fully approved for intern training and has joint residency programs under the University of Vermont College of Medicine. There are approved residencies in anesthesia, general practice, medicine, neurology, neurosurgery, obstetrics-gynecology, otolaryngology, pathology, pediatrics, psychiatry, radiology, surgery and urology.
# FIRST YEAR SCHEDULE

**1963-64**

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<th>Hours</th>
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<td>8:00-8:50</td>
<td>Biochemistry</td>
<td>Medical Statistics</td>
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<td>9:00-9:50</td>
<td>Anatomy*</td>
<td>Psychobiology</td>
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<td>10:00-10:50</td>
<td>Physiology</td>
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<td>Physiology (sec. a)</td>
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*Includes Gross Anatomy, Histology, Embryology and Neuro-anatomy.*
## SECOND YEAR SCHEDULE

First Three-fifths of Year 1963-64

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<tr>
<td>8:00-8:50</td>
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<td>Medical Microbiology</td>
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<td>11:00-11:50</td>
<td>Pharmacology</td>
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<td>COURSE C: Introduction to Clinical Medicine</td>
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There are some variations in this schedule from week to week.
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<tr>
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<td>COURSE A: Pathology</td>
<td>COURSE C: Introduction to Clinical Medicine</td>
<td>COURSE C: Introduction to Clinical Medicine</td>
<td>Genetics</td>
<td>COURSE B: Elicitation of Data</td>
<td>COURSE A: Surface Anatomy</td>
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<td>COURSE C: Introduction to Clinical Medicine</td>
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<td>COURSE B: Elicitation of Data</td>
<td>COURSE B: Elicitation of Data</td>
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There are some variations in this schedule from week to week.
THIRD YEAR SCHEDULE
1963-64

Medical Trimester (12 weeks)
(Other trimesters are: Surgery and Pediatrics-Obstetrics)

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<td>8:00-9:00</td>
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<td>Rounds</td>
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<td>10:00-11:00</td>
<td>Follow up Clinic</td>
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<td>Grand Rounds</td>
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<tr>
<td>11:00-12:00</td>
<td>Neurology Seminar</td>
<td>Dermatology Seminar</td>
<td>Metabolic Seminar</td>
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<td>12:00-1:00</td>
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<td>2:30-3:30</td>
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<td>Chest, Psychiatry Conference</td>
<td>Medicine Conference</td>
<td>Medical Conference</td>
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<td>3:30-4:30</td>
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<td>Hematology, CPC, Neurology, Metabolic Conference</td>
<td>Medical Conference 4-5 p.m.</td>
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All hospital rounds and conferences not listed will be available for student attendances.

Students spend unassigned time on the wards of the hospitals as clinical clerks.

During the year, students will participate in the Family Care Unit Program.
FOURTH YEAR SCHEDULE
1963-64

Detail of Rotation

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<th>1ST FIFTH</th>
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<tr>
<td>Medicine</td>
<td>Surgery</td>
<td>Obstetrics</td>
<td>Psychiatry</td>
<td>Elective</td>
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</table>

The fourth-year class is divided into five sections, each rotating through the above services but in different order. This affords the opportunity for small group instruction.

One afternoon each week from each service is assigned to the Department of Epidemiology and Community Medicine.
THE UNIVERSITY OF VERMONT

SUMMARY OF STUDIES 1963-1964

CLASSROOM AND LABORATORY HOURS

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<tr>
<th>Course</th>
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<tr>
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<td>1st Semester</td>
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<tr>
<td>Gross Anatomy</td>
<td>174</td>
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<tr>
<td>Histology and Embryology</td>
<td>126</td>
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<tr>
<td>Neuroanatomy</td>
<td>88</td>
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<td>Biochemistry</td>
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<td>16</td>
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<td>Psychiatry</td>
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<th>Course</th>
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<td>1st Semester</td>
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<tr>
<td>Medical Microbiology</td>
<td>134</td>
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<tr>
<td>Pathology and Clinical Pathology</td>
<td>248</td>
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<tr>
<td>Pharmacology</td>
<td>107</td>
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<tr>
<td>Epidemiology and Community Medicine</td>
<td>11</td>
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<tr>
<td>Psychiatry</td>
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<th>Course</th>
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<td>Elicitation of Data</td>
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<td>Course C</td>
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<tr>
<td>Introduction to Clinical Medicine</td>
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<td>532</td>
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</table>

CLERKSHIPS

Third Year

The year consists of 36 weeks devoted predominantly to clinical work on the ward services of the two major teaching hospitals in Burlington. The work is divided into periods of clinical clerkships as follows: Medicine (12 weeks), Pediatrics-Obstetrics (12 weeks), Surgery (12 weeks). The approximate total number of hours is 1,584 (36 weeks x 44 hours).

Fourth Year

This year consists of 40 weeks divided into five 8-week periods, devoted entirely to clinical work. This takes place in outpatient departments, on a home care service, and on the wards of general and specialty hospitals. The approximate total hours is 1,760 (40 weeks x 44 hours).
ORGANIZATIONS

STUDENT COUNCIL

Elected representatives from each class, and the president of each class _ex-officio_, form a student council which meets with the Dean regularly during the academic year.

ALPHA OMEGA ALPHA

A chapter of the national medical honor society was installed at this College on November 21, 1952.

MEDICAL FRATERNITIES AND SOCIETIES

Beta Pi Delta Mu Chapter of Nu Sigma Nu
(Founded 1880)

Alpha Gamma Sigma
(For Women, Founded at University of Vermont, 1924)

Alpha Chapter of Phi Chi
(Founded at University of Vermont, 1889)

Phi Delta Epsilon

THE OSLER CLINICAL SOCIETY

The Osler Clinical Society, which was organized in 1929, is composed of all undergraduate students in the College of Medicine.

STUDENT AMERICAN MEDICAL ASSOCIATION

A chapter of the Student American Medical Association was established in 1959.

MEDICAL STUDENTS WIVES CLUB

Wives of medical students meet frequently during the year for social activities and other projects. They share a lounge on the second floor of the Medical Alumni Building.

U.V.M. MEDICAL ALUMNI ASSOCIATION

The University of Vermont Medical Alumni Association, whose membership is made up of all graduates of the College of Medicine, is increasingly active in its support of the school and the student body.

Each fall the Alumni Association sponsors a Century Club banquet, at which time all members of the senior class are entertained and recent graduates of the medical school help prepare the prospective graduates for their years of postgraduate education. The Alumni Association also sponsors many awards and prizes which are given to outstanding students.

At Commencement the Medical Alumni Association sponsors an annual alumni banquet on Alumni Day, at which time the senior class and their guests attend with all the alumni who are returning for Commencement.

In addition, the Alumni Association through its Century Club sponsors
many student and faculty endeavors during the year. This includes such activities as the sponsorship of visiting professors, the support of students who are doing research, and of studies of educational methods in medicine.

For the year 1963-64 the following alumni serve as officers of the University of Vermont Medical Alumni Association:

**President**—George W. Starbuck, '38, New Bedford, Mass.
**President-Elect**—Edward M. Winant, '36, Bronxville, N. Y.
**Vice-President**—John C. Cunningham, '35, Burlington
**Secretary-Treasurer**—Ralph D. Sussman, '38, Burlington

**Executive Committee**—Dr. Arthur A. Gladstone, '31, Chairman, Burlington; Dr. A. Bradley Soule, Jr., '28, Burlington; Dr. Oliver R. Eastman, '38, Burlington

**Obituary Committee**—Dr. William T. Fagan, Jr., '48, Chairman, Burlington; Dr. Chester A. Newhall, '28, Burlington; Dr. Charles B. Rust, '39, Burlington
THE DEPARTMENTS IN THE COLLEGE OF MEDICINE

THE DEPARTMENT OF ANATOMY

*Thayer Professor and Chairman of Department
Chester Albert Newhall, A.B., Northwestern College, 1924; M.D., University of Vermont, 1928.

Professors
*Fred Williams Dunihue, A.B., Wabash College, 1929; M.S., New York University, 1931; Ph.D., 1934.
Walter Alva Stultz, A.B., Acadia, 1927; Ph.D., Yale, 1932.

Professors Emeriti
Thomas Stephen Brown, M.D., University of Vermont, 1904.

†Hovey Jordan, Ph.B., University of Vermont, 1913; M.S., 1914; A.M., Harvard, 1916.

Associate Professor
Wilbert Franklin Chambers, A.B., University of West Virginia, 1945; M.S., 1946; Ph.D., University of Wisconsin, 1952.

Fellow
Steven Leslie Freedman, B.S., University of New Hampshire, 1957; Ph.D., Rutgers University, 1962.

Senior Technician
Dallas Richard Boushey.
This Department is concerned with teaching the morphology of the human body correlated with function.

First-year courses for medical students are given in histology (including embryology), gross anatomy and neuroanatomy. The program provides for the microscopic study of tissues and for the gross study and identification of structures by means of dissections and the use of cross sections. The facilities of the laboratory are available to physicians and nurses.

Work in the several branches of Anatomy leading to credit for a Master of Science degree can be arranged.

**Graduate Courses**

*Prerequisite—Permission of the Department Chairman.*

301-302 *Gross Anatomy.* Study of the gross structure of the human body by means of general dissection, cross sections and special dissections. Lectures and laboratory, 320 hours. *Fourteen credit hours.*

311 *Medical Histology.* The microscopic study of cells, tissues and organs using routine techniques. Lectures and laboratory, 140 hours. *Six credit hours.*

322 *Neuroanatomy.* Gross and microscopic study of the central nervous system, by means of dissection of the brain, accompanied by microscopic examination of stained sections and reconstructions of the principal nervous pathways. Lectures and laboratory, 96 hours. *Four credit hours.*

332 *Surface and Radiological Anatomy.* This is a course in Living Anatomy in which all available landmarks are studied and utilized in the placement of internal structures. A complete series of radiological plates is used to correlate radiological landmarks with the positions of deep structures. Prerequisite: 301-302. Lectures and laboratory. *Two credit hours.*

341-342 *Special Problems in Gross Anatomy.* Special dissections of particular regions of the human body, utilizing either adult or fetal material or investigative work designed to advance knowledge of some special structure or relationship. Prerequisite: 301-302. Laboratory, special readings and discussions. Hours and credit as arranged.

351-352 *Special Histology.* Specific work as agreed upon by the instructors and the graduate student. A study of selected cells, tissues or organs by means of special techniques. Prerequisite: 311. Conferences and laboratory. Hours and credit as arranged.

361-362 *Special Problems in Embryology.* Specific work as agreed upon by student and instructor. The study of some particular embryological problem utilizing special techniques, with directed reading. Pre-
requisite: Undergraduate course in Comparative Embryology (such as Zoology 111 at U. V. M.) and in particular cases, in Experimental Embryology (as Zoology course 222, U. V. M.). Hours and credit as arranged.

371-372 *Special Problems in Neuroanatomy*. The study of some particular phase of Neuroanatomy, as selected by mutual consent, including minor investigations designed to serve as an introduction to research. Prerequisite: 322 or its equivalent. Readings, conferences and laboratory work. Hours and credit as arranged.

*Seminars in Anatomy*


Attendance at departmental or sectional seminars. Designed to review the more recent literature and findings in one or another of the various branches of Anatomy. Prerequisite: Graduate standing. Hours and credit as arranged.

*Thesis Research in Anatomy*


Investigation of a research topic under the direction of an assigned staff member, designed to culminate in an acceptable Master's thesis. Credit as arranged.
THE DEPARTMENT OF BIOCHEMISTRY

Professor and Chairman of Department

Donald Burton Melville, B.S., University of Illinois, 1936; M.S., 1937; Ph.D., 1939.

Professor Emeritus

Harold Barnard Pierce, B.S., Massachusetts State College, 1917; M.S., Pennsylvania State College, 1921; Ph.D., University of Rochester, 1928.

Associate Professors

Erland Cheney Gjessing, B.S., Copenhagen, 1936; M.S., Michigan State, 1938; Ph.D., Cornell, 1942.

Merton Philip Lamden, B.S., University of Massachusetts, 1941; Ph.D., Massachusetts Institute of Technology, 1947.

Arnold Harold Schein, B.S., College of the City of New York, 1936; Ph.D., University of Iowa, 1943.

Associate Professor (Clinical)

Ethan Allen Hitchcock Sims, B.S., Harvard, 1938; M.D., College of Physicians and Surgeons, Columbia University, 1942.

Assistant Professor

Robert Cummings Woodworth, B.S., University of Vermont, 1953; Ph.D., Penn State University, 1957.

Instructor


Instructor (Clinical)


Research Associate


Assistant

Jeanne Choquette, B.S.

Betty LaGrange, M.S.

Joyce Livak

John P. Ryan, B.A.

Leopold Wierzbicki, M.S.
The primary aim of the Department is to provide a sound biochemical foundation for the study of medicine.

Medical biochemistry is taught throughout the first year by means of lectures, conferences, seminars and laboratory. Emphasis is placed on fundamental biochemical principles; applications to medicine are discussed whenever possible. Exercises are conducted upon animal and man whenever feasible. Members of the Department give lectures in other departments when the subject matter is related to biochemistry.

Summer research fellowships in biochemistry are available to qualified medical students.

A program leading to the Doctor of Philosophy degree is offered jointly by the Departments of Biochemistry and Agricultural Biochemistry. The Department of Biochemistry also offers a graduate program leading to the Master of Science degree.

Members of the staff participate in clinical conferences in the local hospitals.

Graduate training includes the following:

**Graduate Courses**

**Prerequisite—Permission of the Department Chairman.**

**301-302 Medical Biochemistry.** The course is designed to afford students an insight into the chemical transformations which take place in the living body, with special reference to man. The topics discussed are enzymes, digestion, absorption, respiration, cellular metabolism of carbohydrates, lipids, proteins and nucleic acids, blood, urine, tissues, body fluids, water and electrolyte balance, internal secretions, foods, nutrition, and vitamins. Laboratory work covering the above topics is largely quantitative. Lectures and conferences, 50 hours, first semester; 50 hours, second semester; laboratory, 60 hours, each semester. *Five credit hours each semester.*

**311-312 Biochemical Preparations.** Students taking this course will synthesize and prepare from natural sources important biologic compounds. These substances may be subjected to chemical and physiological examination for identity and purity. With the assistance of the staff, the student will review the literature and choose suitable laboratory methods. Laboratory, 4 hours per week, 15 or 30 weeks. Offered either first or second semester and in summer. *Two credit hours per semester.*

**321 Enzymology.** The general principles of enzyme chemistry are studied using specific enzymes as examples. Topics include isolation, purification, and characterization of enzymes; kinetics, specificity, inhibitors, enzyme-substrate interactions, the nature of the active site, induction and adaptation. *One semester, 2 credit hours.*

**351 Intermediary Metabolism.** Lectures and seminars dealing with current concepts of the internal transformations of amino acids, carbohydrates and lipids. Methods of investigating intermediary metabolism are evaluated. Among the topics discussed are: dynamic state of the
body constituents, application of isotopes to the study of metabolic pathways, and the integration of the metabolism of the proteins, carbohydrates and lipids. Three credit hours.

371 Physical Biochemistry. A survey of such topics as protein interaction, solubility and fractionation, electrophoresis, sedimentation, diffusion, viscosity, spectrophotometry, rotatory dispersion, energetics of biochemical reactions, and related subjects. Lectures and seminars 2 x 1 hour per week. Two credit hours.

381 through 389 Seminar. Discussions of recent developments and current literature in the various fields of biochemistry. One hour per week. Hours to be arranged.

391 through 399 Master's Thesis Research. Investigation of a research topic under the direction of a staff member, culminating in an acceptable Master's thesis. Credit as arranged.

491 through 499 Doctoral Thesis Research. Original research under the direction of a staff member, culminating in an acceptable doctoral dissertation. Credit as arranged.
DEPARTMENT OF EPIDEMIOLOGY AND COMMUNITY MEDICINE

Professor and Chairman of Department

Professor Emeritus

Visiting Professor
Wilson George Smillie, M.D., Harvard, 1912.

Associate Professors
Robert Bascom Aiken, Ph.B., University of Vermont, 1931; M.S., 1933; M.D., 1937; M.P.H., Harvard, 1948.
Frank Lusk Babbot, Jr., B.A., Amherst, 1947; M.D., New York State University, 1951; M.P.H., Harvard, 1953; M.S. in Hygiene, 1954.

Professor and Chairman of Department

Assistant Professors
James Owen Culver, B.A., Stanford, 1936; M.D., 1940; M.P.H., University of California, 1959.
Frank James Fals (Speech Pathology), A.B., University of Kentucky, 1970; M.A., 1951; Ph.D., Pennsylvania State University, 1975.
Thomas Chompton Gibson, B.A., Cambridge University, 1942; M.A., 1945; M.B., B.Ch., 1946.
John Murray Last, M.B., B.S., University of Adelaide, 1949; D.P.H., University of Sydney, 1960.
**Assistant Professor Emeritus**

Charles Perkins Moat, B.S., Massachusetts Institute of Technology, 1896.

**Instructors**

Audrey Jeanne Naylor, B.A., University of California (Berkeley), 1943; M.D., University of California (Los Angeles), 1956.


Robert Pease Smith (Rehabilitation), A.B., Princeton, 1939; M.D., Harvard, 1945.

**Instructors (Clinical)**

Dewees Harold Brown, B.S., Donora, 1947; M.D., University of Vermont, 1954.

Edward Byington Crane (Family Medicine), A.B., Dartmouth, 1945; M.D., University of Vermont, 1947.


John Clifford Lantman (Family Medicine), B.S., University of Vermont, 1948; M.D., 1951.

Hyman Bernard Levine (Family Medicine), B.S., University of Vermont, 1939; M.D., 1939.

**Instructors Emeriti**

Henry Lee Mills, D.V.M., Grand Rapids Veterinary College, 1911.

Viola Russell, A.B., Vassar, 1913; M.D., University of Michigan, 1917.

**Research Associate**

Gordon Macgregor, B.A., Yale, 1929; Ph.D., Harvard, 1933.

**Fellows**

Syed Riyaz Ahmed, M.B., B.S., University Medical College, Mysore, India, 1951; D.P.H., Calcutta University, 1956.


Nicholas H. Wright, A.B., Williams, 1917; M.D., New York University, 1961.

**Assistants**

Edgar L. Bacon, B.S.

Mary Anne Freedman, B.A.

Ellen Gillies, B.A.

Margaret Shaw

Eleanor Thomas, B.A., M.A.

Instruction in the Department of Epidemiology and Community Medicine is provided throughout the four years of medical school. The department is interested in helping the student to understand the social and environmental factors which condition the health and disease patterns of individuals and communities. Emphasis is placed on preparing students to accept their future responsibilities, as physicians, for improving the availability and quality of health services.

The department is responsible for the Family Care Unit, a demonstration teaching and research program in which primary, continuing, personal medical care is given to a group of families from various socioeconomic backgrounds. The junior and senior students care for these patients under the supervision of the staff.

**Courses**

**First Year**

311 Medical Statistics. This course provides basic instruction in the principles, logic, and techniques of vital statistics and biostatistics. Emphasis is placed on those aspects which are of greatest value to the
physician. Programmed text, lectures and seminars; 18 hours, first semester.

312 Epidemiology I. This course is designed to introduce the student to the demographic, social, and environmental factors which influence the health and disease patterns of individuals and communities. Lectures, case presentations, and seminars; 16 hours, second semester.

Second Year

321-322 Epidemiology II. This course is designed to provide the student with an understanding of the principles, concepts, and techniques of epidemiology as applied to problems of health and disease. Selected problems of environmental health and international medicine are also presented. The latter part of the course introduces the student to the organizational and institutional arrangements which society employs for providing and evaluating its health services. Lectures and demonstrations; 47 hours, first and second semesters.

Third Year

331-332 Community Medicine I. Students in the junior year are assigned to two families and assisted by a senior student, both under the supervision of a preceptor, provide complete primary, personal medical care in the home and the Family Care Unit. Patients requiring consultant services or hospitalization are followed by their assigned students; first and second semesters.

Fourth Year

341-342 Community Medicine II. Senior students assume increasing responsibility for all aspects of continuing personal care for two assigned families under supervision of a preceptor. This care includes prevention, treatment, support and rehabilitation. The assignment provides opportunities for acquainting students with community medical and social resources and their appropriate use. Weekly seminars with assigned reading are conducted on "Advances in Epidemiology," "Family Medicine," "The Physician in Community Mental Health" and "Medical Care and Medical Practice." Clinical Preventive Medicine rounds are conducted on the wards of the teaching hospitals. One-half day a week; 128 hours, first and second semesters.
THE DEPARTMENT OF MEDICAL MICROBIOLOGY

Professor and Chairman of Department
Fred W. Gallagher, A.B., Western Reserve University, 1929; M.A., Ohio State University, 1936; Ph.D., 1939.

Assistant Professors
Seikichi Tokuda, B.S., University of Hawaii, 1953; Ph.D., University of Washington, 1959.

Assistants
Mrs. Susan Hein, M.S.
Mrs. Helen Huyffer, B.S.
The primary objective of the course in Medical Microbiology is to impart to the student an understanding of the relationship of microorganisms to disease in man. To this end, the student needs an understanding of the basic life processes of microorganisms as well as an understanding of how they cause disease and how the body reacts toward them.

The course is given during the first three-fifths of the sophomore year. After a brief survey of the general biological characteristics of bacteria and of essential laboratory technics, a detailed consideration is then given to the general principles of infection and resistance. The remainder of the course is devoted to studies of the various groups of infectious agents. Laboratory exercises are designed to reinforce the didactic material by observation and handling of the individual species of bacteria, fungi and viruses. Certain basic serologic technics and the separation and identification of bacteria from "unknown" mixtures further round out the laboratory sessions.

The department offers programs of graduate study leading to the Master of Science and Doctor of Philosophy degrees.

Graduate Courses

Prerequisite—Permission of the Department Chairman.

201 Medical Microbiology. First semester, 7 credit hours.

301 Special Problems in Bacteriology. Minor investigations in bacteriology designed to serve as an introduction to research. Prerequisite: Medical microbiology or its equivalent. Two credit hours.

302 Special Problems in Immunology. Minor investigations in immunology and serology designed to serve as an introduction to research. Prerequisite: Medical microbiology or its equivalent. Two credit hours.

312 Genetics of Microorganisms. Three credit hours. Prerequisite: Permission of the instructor.

322 Advanced Immunology and Immunochemistry. Two credit hours. Prerequisite: Permission of the instructor.

324 Advanced Immunology and Immunochemistry Laboratory. One credit hour. Prerequisite: Permission of the instructor.

381 through 389 Seminar. Attendance at the departmental seminar. One credit hour.

391 through 399 Master's Thesis Research. Investigation of a research topic under the direction of an assigned staff member. Prerequisite: Permission of the department. Credit as arranged.

491 through 499 Doctoral Thesis Research. Original research under the direction of an assigned staff member, culminating in an acceptable doctoral dissertation. Credit as arranged.
THE DEPARTMENT OF MEDICINE

Professor and Chairman of Department

Ellsworth Lyman Amidon, B.S., Tufts College, 1927; M.D., University of Vermont, 1932; M.S. (Med.), University of Pennsylvania, 1938.

Professor Emeritus (Clinical)

Paul Kendrick French, Ph.B., University of Vermont, 1920; M.D., 1923.

Associate Professor and Associate Chairman of Department

Sinclair Tousey Allen, Jr., B.A., Williams College, 1936; M.D., Harvard, 1940.

Associate Professors

Ethan Allen Hitchcock Sims, B.S., Harvard, 1938; M.D., College of Physicians and Surgeons, Columbia University, 1942.


Associate Professors (Clinical)


Christopher Marlowe Terrien, M.D., University of Vermont, 1936.

Hiram Eugene Upton, B.S., St. John's College, 1924; M.D., University of Maryland, 1927.

Assistant Professors


Stanley Livingston Burns, Jr., A.B., University of Vermont, 1951; M.D., 1955.

John Sherwood Hanson (National Institutes of Health Special Fellow), B.A., Yale, 1951; M.D., New York University, 1954.

Wadi Sawabini (Oral Hygiene and Dental Medicine), D.D.S., American University of Beirut, 1940.


Assistant Professors (Clinical)

Richard Walker Amidon, B.S., University of Vermont, 1941; M.D., 1943.

James Henry Bannon, M.D., C.M., McGill, 1940.

Richard Emile Bouchard, M.D., University of Vermont, 1949; M.S., 1951.

Winston Milo Eddy, B.S., University of Vermont, 1943; M.D., 1945.

Elbridge Eugene Johnston, M.D., University of Vermont, 1936.
This department accepts the general opinion of medical educators, that a medical department constitutes the central core of teaching in the clinical years. From this core the specialties grow. With this concept in mind, the Department has been built on a broad base. All members are highly trained in the field of internal medicine, and nearly all have additional training in some specific aspect of this field. Many of the members maintain close contact with one of the basic science departments. This arrangement tends to bridge the gap between preclinical and clinical instruction.

A well-balanced department must teach and do research, as well as care for patients, resulting in an understanding of the disease process, its pathology, patho-physiology and biochemistry. This information must be transferred as completely and accurately as possible to the student. The information, when applied to a given patient, should indicate the proper steps for treatment and thus result in the proper care of the patient, which is the ultimate goal.

The staff of the Department numbers 37. Staff members are carefully chosen and for the most part are certified by their respective Boards. The junior men are either members of, or eligible for their Boards.

The weekly departmental conferences are attended not only by students, house staff, and members of the department, but by many physicians throughout the state.
Second Year

322 Medicine, Course B: Elicitation of Data. The course teaches the student to develop the facts of the patient's illness, record this information, and synthesize it logically into a formal diagnosis. Techniques of interviewing and evaluation of historic information are discussed and demonstrated. Methods of examination are explained and the student is supervised in their execution. The course presents the concept of a diagnosis as an explanation of the patient's symptoms and signs in terms of disordered structure, function, and personality, organized as a basis for treatment of illness.

324 Medicine, Course C. Clinical Medicine is introduced concurrently by members of the Department of Medicine, Surgery, Obstetrics and Gynecology, and Pediatrics. Objectives fall in two general categories.
1. The faculty introduce many of the phenomena of disease, reproduction, pregnancy, labor, growth, aging, and trauma. Examples of such phenomena not dealt with in the "preclinical divisions" would include wound-healing, infant feeding, shock, postoperative management, fever. This approach is intended to equip a student to meet simple clinical problems, including those involved in first aid.
2. The faculty relates the phenomena of disease as described above and as seen in clinical examples, to the underlying facts as studied in previous and concurrent courses.

Third Year

331-332 Third Year Clinical Clerkship in Medicine. Third year medical students gain their instruction as clinical clerks during a 12-week period. Teaching is at the bedside supplemented by rounds, tutorial sessions, and daily conferences. Students through their close contact with patients under the careful supervision of their instructors begin their role as student physicians. Stress is placed on differential diagnosis of disease, the pathophysiology of disease, and the overall effects of disease on the patient. The role of the laboratory and the actual performance of laboratory studies is integrated with the course. Students are encouraged and required to search the current literature in regard to an understanding of their own patients.

Fourth Year

341-342 Medicine, Fourth Year Clinical Clerkship. During their senior year students spend a minimum of eight weeks in Medicine as groups of four or five assigned to one of the affiliate hospitals in Burlington. While daily teaching rounds are made on selected hospital patients, major emphasis is given to experience in the outpatient department. Here the student sees many patients each week in various subspecialty clinics as well as the general medical clinics. Student performance is carefully supervised by members of the attending staff. The patient load is designed to present the student with a broad variety of clinical problems, yet
further care is taken to leave ample time for reading. Attendance at
the regularly scheduled conferences in both hospitals is required.

351-352 Medicine, Eight-week Elective Periods. Many seniors
choose to spend additional time in Medicine. This may be done in one
of the medical subspecialties at the affiliated hospitals, or elsewhere, if
approved by the Department Chairman.

DIVISION OF DERMATOLOGY

Professor and
Chairman of Division

John Fidlar Daly, B.S., Knox College,
1926; M.D., University of Pennsylvania,
1930.

Case demonstrations of cutaneous disease, seminars, informal discus-
sions and demonstrations are employed to present an outline of the field
of dermatology to third-year students. Such instruction is carried out in
groups of about 15 during the trimester devoted to Medicine.

Fourth-year students receive practical instruction with patients in
the outpatient clinics of the hospitals. They may arrange for elective
assignment for more complete training.

Consultation service to the hospitals is provided in dermatology and
syphilology and limited instruction of nursing students is conducted.

DIVISION OF EXPERIMENTAL MEDICINE

Associate Professor and
Chairman of Division

Thomas Bartholomew Tomasi, Jr. (Ar-
thritis and Rheumatism Foundation Senior
Investigator), A.B., Dartmouth, 1950;
M.D., University of Vermont, 1954.

Professors

Eugene Lepeschkin (National Institutes
of Health Research Career Award), M.D.,
University of Vienna, 1939.

Karl Jefferson Thomson, M.D., Harvard,
1931.

Professor Emeritus

Wilhelm Raab, M.D., University of Vi-
enna, 1920; M.D., German University of
Prague, 1926.

Assistant Professor

John Franklin Watson (National Institu-
tes of Health Career Development
Award), A.B., Dartmouth, 1952; M.D.,

Instructor

Philip Conboy Kelleher, B.S., George-
town, 1950; M.D., 1954.

Research Associates

Herman Conrad Herrlich, B.S., Rense-
laer Polytechnic Institute, 1938; M.S., Uni-
versity of California, 1949; Ph.D., North-
western, 1953.

Zang Z. Zao, M.D., Medical Academy
(Duesseldorf), 1942.

Assistants

Dolores Czerwinski, B.S.
Wilda Gigee, B.S.
Mrs. Patricia McHugo, B.S.
Mrs. Rhea Paro, B.S., M.S.
Mrs. Carol Smith, A.B.
Yvonne Starcheska, B.S.
Benjamin Tier.
Jane Wark, B.S., M.S.
The aims of the Division include stimulating among students and clinical staff a tendency to approach clinical questions in terms of their experimentally-established physiological and biochemical background, and to contribute to the progress of clinical medicine by means of experimental techniques. The research activities of the Division concentrate on cardiovascular, neuro-vegetative, endocrine, metabolic, biochemical and immunological problems.

Aided by grants from the U.S. Public Health Service, the Arthritis and Rheumatism Foundation, the American Heart Association, the Vermont Heart Association, the National Science Foundation, the Vermont Cancer Society, the American Medical Association, and the U.S. Navy, research problems are being studied which involve derangements of the adrenergic-cholinergic balance in myocardial metabolism; the role of physical activity and inactivity respectively in cardiac health; protection of the heart muscle by drugs against degeneration; cardiotoxic effects of chronic sympathetic stimulation; correlation of the electrocardiogram, action potential and contractility of the heart in experimental animals; the chemical structure of serum protein, the carbohydrate metabolism of normal and malignant tissue, mechanisms of transplantation immunity, and fetal development of proteins and renal mechanism of electrolyte transport.

The staff is comprised of eight internists. Two staff members are authors of books related to their specialties. All members are involved in active research and participate in the teaching programs of the University at both medical and graduate student levels.

A library of cardiological literature (14 foreign journals and more than 15,000 reprints) is maintained by the Division. Research laboratories for the clinical Cardiovascular Research Unit of the Division at the DeGoesbriand Memorial Hospital were opened in August, 1959, with up-to-date equipment.

The laboratories for biochemical, renal and immunological research are located in the Medical Alumni Building.

Teaching of undergraduate students includes lectures, ward rounds, demonstration of electrocardiograms and phonocardiograms. In addition, the staff participates in clinical, clinicopathological and correlation conferences, and arranges special courses and international symposia for graduates in cardiology, endocrinology and immunology.

DIVISION OF NEUROLOGY

**Professor and Chairman of Division**

George Adam Schumacher (National Institutes of Health Research Career Award), B.S., Pennsylvania State College, 1932; M.D., Cornell, 1936.

**Associate Professor (Clinical)**

Herbert Lloyd Martin, B.S., Boston University, 1947; M.D., 1950.

**Instructors (Clinical)**


Marion Claire McKee, B.A., Hunter, 1949; M.D., Temple, 1953.
The Division provides instruction to undergraduate medical students in the first three years, in diseases of the nervous system and carries on a graduate (residency) training program in neurology at the two local teaching hospitals.

Interns obtain training by rotation through the neurological services at the Mary Fletcher and the DeGoesbriand Memorial Hospitals. Rounds and conferences take place at which selected diseases of the nervous system are presented. The Resident staff in Neurology is assigned to both hospitals and assists in the instruction of students.

The staff consists of the Chairman and Professor who is full-time, three part-time clinical teachers, and three resident neurologists. Activities of the staff, in addition to teaching and research, consist of talks before hospital staff groups and presentation of papers at state, regional, or national society meetings. Staff members participate in the Cerebral Palsy Clinics sponsored by the Vermont Association for the Crippled and function on the medical advisory boards and committees of regional and national voluntary medical societies. They serve as neurological consultants to various hospitals and agencies, including the Veterans Administration. The Chairman serves as a consultant to the Surgeon General of the U. S. Public Health Service on the Neurology Research Program Project Committee of the National Institutes of Health. Lectures are given to three schools of nursing.

Second Year

322 Neurology. Emphasis is placed on the techniques of examination, the common methods of eliciting and analyzing data, and training in neurological diagnosis. Lectures are given, including a brief review of basic neuroanatomic and neurophysiologic concepts, and demonstrations are provided, to permit better understanding of and guidance in the carrying out of the neurological examination. Opportunity is provided to small groups of students for performance of complete neurological examinations on each other and on patients with nervous system disease.

Third Year

331-332 Neurology. Lectures provide broad orientation in the field of nervous system disease. No attempt is made to present comprehensively a series of individual disease syndromes. During the clinical clerkship on Medicine the student is assigned in rotation patients admitted to the Neurological Service. Patients with nervous system disease are presented by the students at the regular weekly neurological conference held for clinical clerks on the floors of either the Mary Fletcher or DeGoesbriand Memorial Hospitals.

Fourth Year

341-342 Neurology. Instruction in neurology is confined mainly to participation in the work of the Neurology Outpatient Clinics. Small groups of students are assigned to the Clinics, which meet once a week, and students perform complete neurological examinations on new patients. At this time the student is expected to record his complete diagnostic formulation and plan of management. The work is closely supervised and checked. A one-month elective for clinical work in neurology on the hospital wards is available to fourth-year students.
THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Professor and Chairman of Department
John Van Sicklen Maeck, B.S., University of Vermont, 1936; M.D., 1939.

Professor Emeritus
Oliver Newell Eastman, M.D., University of Vermont, 1908.

Associate Professor

Associate Professors (Clinical)
Herbert Ashley Durfee, Jr., B.S., Yale, 1944; M.D., University of Vermont, 1948.
Oliver Rolfe Eastman, B.S., University of Vermont, 1935; M.D., 1938.
William Joseph Slavin, Jr., B.S., University of Vermont, 1933; M.D., 1935.

Assistant Professor (Emeritus)
Edward Douglas McSweeney, A.B., University of Vermont, 1919; M.D., 1922.

Assistant Professors (Clinical)
John Douglas Boardman, A.B., Holy Cross, 1945; M.D., Univ. of Vermont, 1948.
Benjamin Franklin Clark, B.S., University of Vermont, 1930; M.D., 1933.

Instructor

Instructors (Clinical)
Martin John Cannon, B.S., University of Vermont, 1943; M.D., 1945.
Henry Lewis Pratt, B.S., University of Vermont, 1938; M.D., 1941.
David Latham Taber, M.D., Long Island, 1946.
Wilfrid Louis Thabault, B.S., St. Michael's, 1943; M.D., Univ. of Vermont, 1947.

Consultant (Endocrinology)
Samuel Solomon, B.S., McGill, 1947; M.S., 1951; Ph.D., 1953.

Assistant
George Ward, M.S.
The course is designed to create an inquisitive interest and fundamental knowledge of the functions and abnormal pathologic processes of the female generative tract. The science of human reproduction is approached through the anatomy, embryology, physiology, endocrinology, and pathology of the reproductive organs, and the clinical application of this knowledge.

The philosophy is not to create obstetrician-gynecologists, but to develop an attitude and concept upon which may be built the researcher, the teacher and the clinician in his postgraduate training years.

Clinical and basic research is stressed and encouraged. An active research laboratory is functioning in the medical school. The teaching-research staff is actively investigating basic problems in toxemia of pregnancy and related electrolyte and hormonal factors. The most modern techniques, using radioactive substances, are used under grants from the National Institutes of Health and other sources. Other studies relating to female cancer, intra-uterine fetal electrocardiography and electroencephalography, and various biochemical studies are in progress.

Members of the faculty work in close cooperation with and serve as consultants to the State Department of Health. All Faculty members are available for consultant service to physicians throughout the State.

The residency program in obstetrics and gynecology consists of four years of intensive training. Three years are devoted to clinical obstetrics and gynecology, as required by the American Board of Obstetrics and Gynecology. An additional six months are spent in pathology, as assistant resident, and six-months time in the fields of general surgery, urology and internal medicine with emphasis on metabolic diseases and endocrinology. Residents who qualify may obtain additional obstetrical training by arrangement with such institutions as the Boston Lying-In Hospital, the Boston City Hospital, and the State University of New York Down-state Medical Center. Positions as Trainees or Fellows are usually available in the fourth or fifth years.

Second Year

322 Obstetrics and Gynecology. In the last two-fifths of the sophomore year, correlated lectures in obstetrics and gynecology and embryology are presented by the clinical staff. The material presented is selected to help bridge the gap between the preclinical and the clinical years of medical education. Building on the knowledge gained from the basic science courses, the student is introduced to the embryology of the reproductive system, the normal menstrual cycle and its significance, the normal aspects of the changing physiology, biochemistry, anatomy, etc., of the pregnant woman, the clinical significance of the various stages of labor including the mechanism of labor, the normal delivery, the separation and delivery of the placenta and the immediate puerperium. The complications of pregnancy and the subject of gynecology are primarily presented in the third and fourth years.

Sophomore obstetrics is presented as a part of Course C, known as the Introduction to Clinical Medicine. In this course the student is guided
through the transition from thinking in terms of tissues and systems to thinking in terms of the individual patient—whether healthy or diseased.

Third Year

331-332 Obstetrics and Gynecology. Third-year obstetrics and gynecology is presented over a period of approximately 12 weeks, which is shared by the Department of Pediatrics. Three two-hour sessions of seminar or lecture are presented each week on scheduled topics relating to obstetrics and gynecology.

For approximately one month, each student is given two or three gynecologic patients per week to work up thoroughly, including history and physical examination. If surgery is involved, the patient is investigated pre-operatively, usually examined at surgery and followed post-operatively. The students' work up is reviewed by the resident and attending staff at a scheduled time.

On a rotating basis, the students serve as observers in the delivery room, assisting when requested. The newborn infant is examined and followed in the nursery by the student observer.

Attendance at weekly departmental staff meetings followed by Medical Grand Rounds is required of all students while on the service.

Thus, in the third year the major mass of important obstetric and gynecologic material is presented. The more technical aspects of delivery and operating room procedure are learned through experience in the fourth year.

Fourth Year

341-342 Obstetrics and Gynecology. Students obtain their chief experience with clinical obstetrics and gynecology during their senior year, normally spending one month at each of the two Burlington hospitals. Students cover obstetrics and gynecology in rotation, with two students usually being assigned to a service at one time. While on obstetrics, the students are on 24-hour call for admission and work-up of ante-partum patients. They follow these patients throughout their labors, and scrub on all deliveries. Senior students deliver all normal service and occasional private patients under supervision. While on gynecology, students are responsible for admission work-ups of all patients, for supervised pelvic examinations of such patients, and scrub on all operative procedures. Patients are to be followed until discharge.

During this period, the students attend all Departmental Grand Rounds and conferences. They examine patients, under supervision, in the Ante-partum, Tumor, Gynecology and Endocrine Clinics, and at the Elizabeth Lund Home for unmarried mothers. A student Journal Club is held once a month, under the guidance of the resident staff. Rounds are scheduled with attending and resident staff, and numerous small teaching conferences are held with various members of the Department.

During his time on obstetrics and gynecology, each student is required to choose a topic of current interest, to review the literature in this field
in a comprehensive manner, and to present a formal one-hour lecture to his colleagues and staff, following which he is required to answer questions and lead the discussion resulting therefrom.

Students in the upper portion of their class are permitted to take one month of their obstetrical training at teaching hospitals outside of Burlington, usually in the New York and Boston areas. Students are encouraged to go to hospitals with both a large volume of clinical material and recognized excellence. This program has proved most satisfactory to date.

351-352 Obstetrics and Gynecology. Electives are available to the senior students for additional work in clinical obstetrics and gynecology, and also for individual research projects to be carried on in the research laboratories of the Department.
THE DEPARTMENT OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

Shipman Professor and Chairman of Department

John Charles Cunningham (Ophthalmology), A.B., University of Vermont, 1931; M.D., 1935.

Assistant Professor


Instructor (Clinical)

Edward Suter Irwin (Ophthalmology), B.S., University of Vermont, 1940; M.S., 1942; O.D., Pennsylvania State College of Optometry, 1950; M.D., University of Vermont, 1955.
DIVISION OF OTOLARYNGOLOGY

Associate Professor and Chairman of Division
Rufus Clegg Morrow, Jr., B.S., Davidson College, 1934; M.D., Duke, 1939.

Assistant Professor
Vilma T. Falck (Audiology), (National Institutes of Health Research Career Development Award), B.S., University of Pittsburgh, 1948; M.S., Pennsylvania State, 1950; Ph.D., 1955.

Assistant Professors (Clinical)
John Wilbur Heise, Jr., A.B., Johns Hopkins, 1949; M.D., University of Maryland, 1953.
Elmer McCready Reed, B.S., Allegheny, 1912; M.D., Jefferson Medical College, 1916.

Assistant Professor Emeritus
Peter Paul Lawlor, M.D., University of Vermont, 1920.

Instructor (Clinical)
Richard Herron Goldsborough, B.S., University of Pittsburgh, 1950; M.D., 1951.

Consultant
Frank James Falck (Audiology), A.B., University of Kentucky, 1950; M.A., 1951; Ph.D., Pennsylvania State University, 1955.

Teaching of all aspects of ophthalmology and otolaryngology to undergraduate students is the primary aim of this Department. In addition, the staff participates in the activities of the Vermont Association for the Crippled and the Divisions of the Blind and Vocational Rehabilitation of the State Health Department. Regular monthly clinics in oto-audiology are conducted in various cities of Vermont.

Clinics are maintained at the Mary Fletcher and DeGoesbriand Memorial Hospitals. Consultation duties are performed at hospitals in neighboring communities of Vermont and New York.

Ophthalmology and otolaryngology are taught in the second, third and fourth years by lectures, rounds, patient conferences and clinics.

A residency in Otolaryngology is maintained in which is offered a program of clinical training in all phases of this specialty, including broncho-esophagology, and plastic and tumor surgery of this region.
THE DEPARTMENT OF PATHOLOGY AND ONCOLOGY

Professor and Chairman of Department

Robert William Coon, B.S., North Dakota State College, 1942; M.D., University of Rochester, 1944.

Associate Professors


Bert Karl Kusserow, B.S., Union, 1948; M.D., Yale, 1953.


Richard L. Naeye (Markle Scholar), A.B., Colgate, 1951; M.D., Columbia, 1953.

Ernest Stark, B.S., Columbia, 1933; M.D., Long Island, 1939.

Assistant Professors

Roy Vedder Butte, B.S., University of Vermont, 1937; M.D., 1940.

Jackson Joshua Walter Clemmons (Helen Hay Whitney Fellow), B.S., University of Wisconsin, 1947; M.S., 1949; Ph.D., 1953; M.D., Western Reserve, 1959.

Rex Dee Couch, A.B., Indiana University, 1952; M.D., 1956.

Margaret Heckman, B.S., Ursinus College, 1947; M.S., Columbia, 1949; M.D., 1956.


Instructor

Mary Breen (Medical Technology), B.S., University of Vermont, 1947.
The interests and responsibilities of the Pathology staff include teaching, research, and the practice of both anatomical and clinical pathology in the affiliated teaching hospitals. The diversity of interest and variety of responsibility within the staff, as represented by these activities, create an ideal atmosphere for the introduction of students and residents to the study of disease in all of its manifestations.

The formal instruction for second-year students, with emphasis on the correlation of functional and structural changes, is arbitrarily divided into the study of general pathology which includes the processes of injury, inflammation, repair, neoplasia, etc., and the study of special pathology in which diseases of the various organ systems are considered. In addition to the loan slide collection, extensive use is made of visual aids in the classroom and laboratory work. Study of fresh gross material from the teaching hospitals, attendance at autopsies, and use of museum specimens are integral parts of the course work.

Instruction in clinical pathology is closely correlated with work in general and special pathology. The clinical pathology course is designed to acquaint the student with laboratory medicine, including the tests available in the clinical laboratory, the value and limitations of these tests, and the interpretation of results. Emphasis is placed on the clinical application of laboratory data and the integration of the data obtained with other clinical findings. Hematology and parasitology are introduced in this phase of the course, as are techniques for examination of urine, gastric contents, cerebro-spinal fluid, and other body fluids.

The teaching activities of the Department continue into the clinical years of the undergraduate curriculum as well as into the residency years. Students assigned to the various clinical services of the teaching hospitals meet at regular intervals with members of the Pathology Department for specialized instruction in conjunction with their clinical assignments. Clinico-pathological conferences are conducted twice monthly at the teaching hospitals.

Complete residency training in anatomic and clinical pathology approved by the American Board of Pathology is offered by the Department in conjunction with its affiliated teaching hospitals. Residents are encouraged to engage in research and to participate actively in the teaching programs.
Graduate Courses

Prerequisite—Permission of the Department Chairman.

201 Histochekmistry. A survey of techniques used for chemical identification of cellular and tissue components, including discussion of underlying theories. Prerequisite: an acceptable course in cell structure (e.g., Anatomy 311, Botany 256); Chemistry 131-132; permission of the department. A course in biochemistry is strongly recommended. Credit as arranged.

301-302 General and Special Pathology. This is similar to the course for second-year medical students except it does not include the course work in clinical pathology. It may be taken by graduate students who have proper prerequisite training. Lectures and conferences: total for year, 110 hours. Laboratory: total for year, 195 hours. Thirteen credit hours total.

By special arrangement, properly qualified graduate students may be permitted to enroll for the first portion of the course only with credit hours to be arranged.

310, 311, 312 Advanced Pathology. Supervised practical experience in handling, processing, and diagnosis of pathological materials. Participation in departmental seminars and conferences. Prerequisite: 301-302; permission of department. Credit as arranged.

391, 392, 393, 394 Thesis Research. Investigation of a research topic under the direction of a staff member, culminating in an acceptable Master's thesis. Prerequisite: Courses 301 and 302. Credit as arranged.
THE DEPARTMENT OF PEDIATRICS

Professor and Chairman of Department

Professor (Clinical)
Robert James Slater, M.D., University of Toronto, 1946; B.Sc., 1948.

Associate Professor
Jerold Francis Lucey (Markle Scholar), A.B., Dartmouth, 1948; M.D., New York University, 1952.

Associate Professors (Clinical)
Paul Dennison Clark, M.D., University of Vermont, 1926.
Ralph Daniel Sussman, B.S., University of Vermont, 1933; M.D., 1938.

Assistant Professor (Clinical)

Instructor
Marion Claire McKee, B.A., Hunter, 1949; M.D., Temple, 1953.

Instructors (Clinical)
Elizabeth Ann Clark, B.S., University of Vermont, 1953; M.D., 1956.
Dorothy Jackson Morrow, B.S., Boston University, 1936; M.D., Tufts, 1940.
Audrey Jeanne Naylor, B.A., University of California (Berkeley), 1953; M.D., University of California (Los Angeles), 1956.
James Ward Stackpole, B.A., Bowdoin, 1910; M.D., University of Vermont, 1956.

Clinical Associate
Edward Esau Friedman, A.B., Norwich, 1942; M.D., University of Vermont, 1950.

Assistants
Robert P. Franz, B.A.
Mrs. Jean Hewitt, B.S.
The Department seeks through its required courses to give each student a grounding in pediatrics which will enable him to handle children successfully in whatever branch of medicine he eventually practices. Particular emphasis is put on doctor-child-parent relationships. Emphasis is also placed on the practical aspects of pediatrics through the exposure of each student to the teaching of an active pediatric practitioner during one full month of a three-month clinical clerkship.

The Department also takes the responsibility for pediatric training of rotating interns and pediatric residents in the Burlington hospitals.

Second Year

322 Introduction to Pediatrics. A series of approximately 15 orientation lectures covering physiology of the newborn, growth and development, infant feeding, and some general clinical and psychological considerations in the management of children. Given as part of a general lecture series Introduction to Clinical Medicine.

Third Year

331-332 Clinical Pediatrics. A three-month clerkship in conjunction with the Department of Obstetrics and Gynecology. Three two-hour seminars in obstetrics and gynecology each week. Daily teaching rounds on pediatric services of the DeGoesbriand Memorial and Mary Fletcher Hospitals. Each student spends one month on the pediatric service of each hospital participating actively in the care of patients. The third month is spent similarly on the nursery service of one of the hospitals. During this latter month he also works up three obstetric or gynecologic patients each week and observes obstetrical deliveries. One afternoon a week throughout the clerkship is spent working in a supervised child-health center and another afternoon every other week in a pediatric outpatient clinic. Approximately 20 lectures are given in the Noon Lecture Series.

Fourth Year

Elective Courses

351-352 Outpatient Pediatrics. Advanced clinical clerkship in outpatient facilities of the University of Vermont Medical Center or other approved pediatrics departments. Attendance at daily inpatient teaching rounds also, with assignment to detailed work-up of cases of particular interest. Student works closely with senior pediatric resident. One or two months.

353-354 Practice of Pediatrics. Assignment to work with an approved pediatrician in his practice. One month.

355-356 Hospital Pediatrics. Substitute internship on an approved pediatric service at University of Vermont Medical Center or elsewhere.

357-358 Research Pediatrics. Supervised work in an approved pediatric research laboratory at University of Vermont Medical Center or elsewhere, or the carrying out, under supervision, of an approved specific clinical research project. One, two or three months.
THE DEPARTMENT OF PHARMACOLOGY

Professor and Chairman of Department
Durwood James Smith, A.B., Syracuse, 1938; M.D., 1941.

Professor
Samuel Booth Barker (National Institutes of Health Research Career Award), B.S., University of Vermont, 1932; Ph.D., Cornell, 1936.

Professor Emeritus
David Marvin, M.D., University of Vermont, 1900.

Associate Professors

Assistant Professor of Clinical Pharmacology
Murdo Glenn MacDonald, B.S., University of Vermont, 1947; M.D., 1951.

Instructor

Director of Animal Services and Research Associate
Henry Meade Doremus, A.B., Dartmouth, 1937; M.S., Cornell, 1938; D.V.M., 1946.

Research Associates
Masao Makiuchi, M.D., Shinshu University School of Medicine, 1955.

Assistant Robert Busier.

The pharmacology course for undergraduate medical students is taught in correlation with the course sequence of the Departments of Pathology and Medical Microbiology. The course considers a study of the basic mechanism of action of therapeutic agents, their pharmacological actions, their fate and toxicology. The course consists of lectures, medical motion picture teaching films, discussion groups, demonstrations, and laboratory exercises. Demonstrations and laboratory experiments in pharmaco-
dynamics are designed to emphasize accurate observation, careful recording, and biological variations in drug action.

The Department of Pharmacology offers graduate programs leading either to the degree of Master of Science or Doctor of Philosophy. Facilities are available for properly qualified students and others for research either independently or in cooperation with members of the staff.

Graduate Courses

Prerequisite—Permission of the Department Chairman.

301-302 Pharmacology. This is the course given in the medical curriculum, with such modifications for the individual graduate student as are required. Lectures, conferences and demonstrations, 84 hours; laboratory, 80 hours. Eight credit hours.

311, 312 Pharmacological Techniques. Demonstration of and laboratory exercises in selected procedures of pharmacological research with special emphasis upon the cardiovascular system and neuropharmacology. Laboratory, 4 hours per week, 15 or 30 weeks. Offered either first or second semester and in summer. Prerequisites: Physiology and Biophysics 201-202 or Pharmacology 301-302. Two credit hours per semester.

320 Drug Metabolism. A study of how absorption, distribution, excretion and metabolism alter drug action. Methods of studying drug metabolism at the sub-cellular to the whole-organism level are discussed and evaluated, which include lectures on recent methods for analysis, such as counter current distribution, paper chromatography and electrophoresis. Lectures and seminars, 2 x 1 hour per week. Prerequisites: Pharmacology 301-302. Two credit hours.

362 Drug Evaluation. The techniques by which a new chemical agent is evaluated between its synthesis and its release to the medical profession are critically discussed. Lectures and seminars, 2 x 1 hour per week; laboratory, 1 x 4 hours per week for 6 weeks. Offered second semester on alternate years only. Prerequisites: Pharmacology 301-302. Two credit hours.

372, 374, 376 Special Topics in Pharmacology. Topics of current interest and importance in pharmacology are considered in depth through presentations by graduate students and staff. During each year a specific theme of study will be developed. Prerequisite: Permission of the Department. One credit hour per semester.

381, 382, 383, 384 Seminar. General topics are presented by students, staff members and visiting scientists. Organized surveys of selected fields may be presented upon request. One x 1 hour per week. Offered both first and second semesters. Open to all properly qualified graduate students. One credit hour per semester.

391 through 399 Master’s Thesis Research. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master’s thesis. Credit as arranged.

491 through 499 Doctoral Thesis Research. Original research under the direction of an assigned staff member, culminating in an acceptable doctoral dissertation. Credit as arranged.
THE DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

Professor and
Chairman of Department
Ferdinand Jacob Morris Sichel, B.Sc., McGill, 1928; Sc.M., New York University, 1930; Ph.D., 1934.

Professor Emeritus
Fred Kinney Jackson, A.B., University of Vermont, 1897; M.D., 1899.

Associate Professors
Alfred Hayes Chambers, A.B., Swarthmore, 1936; Ph.D., University of Pennsylvania, 1942.
Walter Leroy Wilson, B.S., State Teachers College, West Chester, Pa., 1940; Ph.D., University of Pennsylvania, 1949.

Instructor
George Richard Howe, B.S., University of Vermont, 1957; M.S., Penn. State University, 1959; Ph.D., University of Massachusetts, 1961.

The aim of the Department is to facilitate the dissemination of physiological and biophysical knowledge and to add to its store, particularly those phases which may be applied to medical practice and to clinical teaching and research. Current investigations in the Department include projects on the physiology and biophysics of cardiac and voluntary muscle contraction, intracellular clotting mechanisms, auditory mechanisms, and endocrine relations in reproductive physiology.

The teaching to medical students aims to describe and explain function in the whole human organism and also at the cellular, tissue, and
organ levels. The approach is mainly biological and physical. Physiological principles fundamental to clinical medicine are examined on the basis of supporting experimental evidence. Formally scheduled instruction is given throughout the first year, mainly by means of lectures, laboratory classes and demonstrations. The laboratory work is of a quantitative nature wherever feasible; in almost half of the experiments the student also acts as subject.

The graduate program of the Department includes curricula culminating in the Master of Science and in the Doctor of Philosophy degrees. The courses and research program are restricted to the general fields of interest of the full-time faculty members. Further details will be found in the catalogue of the Graduate College.

Graduate Courses

Prerequisite—Permission of the Department Chairman.

301-302 Physiology and Biophysics. This is the course given in the medical curriculum, modified as required to meet the needs of individual graduate students. Lectures and conferences, 64 hours, each semester; laboratory, 64 hours, each semester. Six credit hours, each semester.

303 through 306 Special Problems in Physiology. These courses, open to qualified students by arrangement with the staff, will cover various special problems by means of lectures, seminars and directed reading. Hours and credit as arranged.

321-322 Cellular Physiology and Biophysics. Fundamental physical and physicochemical properties of living cells. The reading of original scientific papers in the area covered will be stressed. Hours and credit as arranged.

381 through 389 Seminar. These courses are designed to review recent developments and literature. Topics are presented by students, staff, and by visiting scientists. Hours and credit as arranged.

391 through 394 Thesis Research. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master's thesis. Credit as arranged.

481 through 489 Thesis Research. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Doctor's thesis. Credit as arranged.
DIVISION OF BIOPHYSICS

Professor and Chairman of Division
Ferdinand Jacob Morris Sichel, B.Sc., McGill, 1928; Sc.M., New York University, 1930; Ph.D., 1934.

Consultant
George Robert Stibitz, Ph.B., Denison, 1926; M.S., Union College, 1927; Ph.D., Cornell, 1930.

Associate
Oscar Sylvander Peterson, Jr., M.D., University of Vermont, 1936.

Assistant
Susan Margaret Stevens, B.A.

Graduate Courses

Prerequisite—Permission of the Division Chairman.

311 through 314 Special Problems in Biophysics. These courses, open to qualified students by arrangement with the staff, will include lectures, seminars and directed readings on current problems in biophysics and medical physics. Hours and credit as arranged.

371 through 379 Seminar. These courses are designed to review recent developments and literature. Topics are presented by students, staff, and by visiting scientists. Hours and credit as arranged.

395 through 399 Thesis Research. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master's thesis. Credit as arranged.

491 through 499 Thesis Research. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Doctor's thesis. Credit as arranged.
THE DEPARTMENT OF PSYCHIATRY

Professor and Chairman of Department

Thomas Johnson Boag, M.B., Ch.B., University of Liverpool, 1944; Diploma Psychiatry, 1953.

Professor

Rupert Addison Chittick, B.S., University of Nebraska, 1923; M.A., 1924; M.D., Harvard Medical School, 1929.

Associate Professor (Clinical)

George Wilson Brooks, B.S., University of New Hampshire, 1941; M.D., University of Vermont, 1944.

William Greenhill Young, M.D., University of Toronto, 1930.

Assistant Professors


Gerald Francis McGinniss, A.B., St. Anselm's, 1946; M.D., University of Vermont, 1950.

Raul Horacio Vispo, M.D., University of Buenos Aires, 1949; Diploma Psychiatry, McGill University, 1959.

William A. Woodruff, B.A., King's College (London), 1938; M.B., B.S., St. Bartholomew's, 1952; Diploma Psychiatry, University of Toronto, 1958.

Assistant Professors (Clinical)

Julius George Cohen, B.S., University of Vermont, 1942; M.D., 1945.

Lelon Ashley Weaver, Jr. (Psychology), A.B., University of Vermont, 1943; M.A., Columbia, 1947; Ph.D., Purdue, 1957.

Assistant Professor Emeritus (Clinical)

Elizabeth Kundert, B.S., University of Wisconsin, 1920; M.S., 1924; M.D., Women's Medical College of Pennsylvania, 1926.

Instructors

William Nelson Deane (Social), A.B., Gordon College, 1941; B.D., Andover-Newton Theological School, 1944; M.A., Uni-
While the primary and most obvious responsibility of this Department is the teaching of Psychiatry as a special discipline of Medicine dealing with the diagnosis and treatment of emotional disturbance and mental illness, its task is not confined to this. It also includes the presentation of the behavioral sciences as part of the basic science preparation in the preclinical years and the application of behavioral sciences to disturbed behavior, i.e., Psychopathology. Its teaching also has relevance to medical practice overall. It includes presentation of a body of knowledge concerning human behavior, and techniques for understanding and managing interpersonal relationships, which are utilized by all physicians, whatever their field of endeavor.

The staff is composed of 19 members. Some of these practice Psychiatry privately and supervise the Psychiatric Outpatient Clinics. Others specialize in psychiatric problems of children, psychological techniques, psychiatric social service, community psychiatry, and the care of patients in psychiatric hospitals.

First Year

311-312 Psychiatry. This course is devoted to the study of the concept of personality as the dynamic integration within the individual of those psychophysical factors which determine his unique adaptation to his environment. Starting with the consideration of neurologic, physiologic, biochemical and genetic factors in adaptation, it goes on to cover the development of human personality. External moulding factors are discussed, including family structure, patterns of mothering, etc. This is followed by the presentation of psychoanalytic concepts of human development, an introduction to language problems, the growth of the infant to adulthood, and the mental mechanisms of adaptation.

Second Year

321-322 Psychiatry. This course concerns itself with the understanding of personality problems as they occur in patients suffering from physical and mental disorders. Emphasis is placed on giving the student a clear understanding of terminology, systems of classification, and the
basic concepts of dynamic psychiatry. Examples of the major approaches to the study of disturbed behavior are presented, drawing upon the contributions of clinical, social and biological sciences.

Fourth Year

341-342 Psychiatry. The clinical course consists of a two-month block of time in the fourth year. Part of this time the student serves as a clinical clerk at the Mary Fletcher or DeGoebriand Memorial Hospital, studying inpatients and outpatients and participating in all the regular teaching exercises and conferences. Visits to other mental health agencies in the State are arranged. The other part of the time the student serves as a clinical clerk at the Vermont State Hospital or the Brattleboro Retreat, giving him an opportunity to see an extended range of patients.

351-352 Psychiatry, Electives. A range of elective placements is available and also a variety of opportunities for summer work in either a clinical or research position.

A residency program, approved for three years of training by the Council on Medical Education of the American Medical Association is carried on by the Department in conjunction with the affiliated hospitals. Residents rotate through the general hospitals and state hospital, and affiliations with other mental health agencies are available in the later years of the residency. In addition to the regular clinical teaching and conferences in the hospitals, an academic program of seminar instruction is carried on within the Department during the academic year.
THE DEPARTMENT OF RADIOLOGY

Professor and Chairman of Department
Arthur Bradley Soule, Jr., A.B., University of Vermont, 1923; M.D., 1928.

Associate Professor
Clinton Dales Janney (Radiologic Physics), B.S., University of Illinois, 1941; Ph.D., University of California, 1941.

Associate Professors (Clinical)
Joseph Clayton Foley, B.S., Middlebury, 1939; M.A., New York State College, 1940; M.D., University of Vermont, 1949.
Oscar Sylvander Peterson, Jr., M.D., University of Vermont, 1936.
Frederick William Van Buskirk, A.B., University of Pennsylvania, 1930; M.D., 1933.

Assistant Professors
Benjamin Albert Ring (Neuroradiology and Radiologic Anatomy), B.S., Bates, 1942; M.D., Tufts, 1946.
John Peter Tampas (James Picker Foundation Scholar in Radiological Research), B.S., University of Vermont, 1951; M.D., 1954.

Assistant Professors (Clinical)
Howard Theodore Guare, M.D., University of Vermont, 1934.
Robert Jacob Hunziker, A.B., University of Vermont, 1948; M.D., 1952.

Instructors (Clinical)
William Herbert Johnston, B.S., University of Vermont, 1940; M.D., 1943.
Robert Newton Saxby, B.S., University of Vermont, 1937; M.D., 1941.

Instructor
Ralph Bannister (X-ray Technique), R.T., American Society of X-ray Technicians, 1950.

Assistant
Daniel Cunningham.

The Department of Radiology provides special services to local teaching hospitals and to community hospitals in central and northwestern Vermont. In addition, medical students, residents, nurses and x-ray technicians receive instruction by members of this Department.

Nine staff members work full time in radiology in the teaching hospitals and the College of Medicine.

The teaching of radiology extends through the entire four years. In conjunction with the Department of Anatomy, lecture-demonstrations of the normal roentgen anatomy are given during the first year. In conjunction with the Department of Physiology, fluoroscopic demonstrations of the chest and alimentary tract are conducted at the hospitals. During the latter part of the second year, students are instructed in the principles of diagnostic and therapeutic radiology. Third-year students receive sectional instruction in film analysis. Third- and fourth-year students attend weekly radiology conferences.

A fully accredited residency program is available and utilizes the facilities of the College of Medicine and cooperating hospitals. Staff members participate in most of the teaching conferences of the College of Medicine.
THE DEPARTMENT OF SURGERY

Professor and Chairman of Department
Albert George Mackay, B.S., University of Vermont, 1929; M.D., 1932.

Professor Emeritus (Clinical)
Walford Tupper Rees, M.D., University of Vermont, 1924.

Associate Professors (Clinical)
Arthur Gladstone, B.S., University of Vermont, 1928; M.D., 1931.
Harold Gordon Page, B.S., University of Vermont, 1940; M.D., 1945.
Keith Frank Truax, B.S., University of Vermont, 1928; M.D., 1931.

Assistant Professor
William Martin Stahl, Jr., A.B., Dartmouth, 1943; M.D., Harvard, 1946.

Assistant Professors (Clinical)
Carleton Raymond Haines (Oncology), B.S., University of Vermont, 1941; M.D., 1943.

Jay Edgar Keller, M.D., University of Vermont, 1940.
James Bishop McGill, B.S., University of Vermont, 1944; M.D., 1946.
William Ireland Shea, A.B., Holy Cross, 1936; M.D., University of Vermont, 1940.

Instructors (Clinical)
Francis Arnold Caccavo, A.B., Syracuse, 1940; M.D., University of Vermont, 1943.
Robert Nolan Cain, B.S., University of Vermont, 1943; M.D., 1945.
Albert James Crandall, B.S., University of Vermont, 1930; M.D., 1933.
Henri Louis Pache, B.S., University of Vermont, 1941; M.D., 1944.
Louis George Thabault, M.D., University of Vermont, 1930.

Research Associate
Tamotsu Shinozaki, M.D., Okayama University, 1958.
Assistants

Rodney Larrow, B.S.
Jerry Rand

The Department offers training in disciplines leading to a knowledge of the science of surgery.

The Department concerns itself also with training personnel in the approved intern appointments of both local hospitals and their residency program, which latter is a four-year approved program and is conducted jointly by the College of Medicine and the hospitals. The completion of this residency program leads to full qualification for admission to examinations by the American Board of Surgery, and, indirectly, to experience completing qualification for fellowship in the American College of Surgeons.

Postgraduate courses are given in conjunction with other departments under the guidance of the Committee on Postgraduate Education.

Second Year

322 Introduction to Clinical Surgery. Given in second half of second year, 27 hours, introduction of the applications of basic medical biology to clinical surgery, lectures and demonstrations, entire second year class. Dr. Mackay and staff.

Third Year

331-332 General Surgery. Clinical clerkship, given to groups of five to six third-year students, eight weeks duration, emphasis on patient work-up and examination with guidance and correction, four and one-half hours of tutorial review and case material discussion per week, in addition to ward work, rounds and scheduled conferences. Dr. Mackay and staff.

333-334 Surgical Specialties. Third year, each student spends one full week on the following specialties: ophthalmology, orthopedics, otolaryngology, urology, with patient work-up and physical examination, ward rounds and conferences and case presentations, supervised by the division involved and its staff.

335-336 Surgical Seminars. A seminar series given one hour daily, five days weekly, for a 12-week period to groups of 15 third-year students. Seminars and demonstrations discuss material in general, pediatric, thoracic, cardiac and specialty surgery. Attending staff of all divisions of department.

Fourth Year

341-342 General Surgery. Fourth-year general surgery clerkship, four weeks in length, four to five fourth-year students, two to three in each hospital. Increased responsibility, including one full week in the emergency department, emphasis on integrated appraisal of patient's total problem and management. Dr. Mackay and staff.
Surgical Specialties. Fourth-year surgical specialty teaching allows for elective choice: two weeks spent in two of the following specialties: (a) anesthesia, (b) neurosurgery, (c) ophthalmology, (d) orthopedics, (e) otolaryngology, (f) pediatric surgery, (g) thoraco-cardiac surgery, (h) urology. One student accepted in any program at one time, experience in clinic and ward handling of patients, including operating room assisting. Surgical Division Chairmen and staff.

Surgical Elective Courses. Elective periods of one month in length are offered in general surgery and in the specialties, (a) through (h) as noted in section "Surgical Specialties.” In addition, one month elective programs are offered in clinical research and laboratory research, at the Burlington campus, and out-of-town electives are offered in trauma and general surgery at a variety of medical centers.

DIVISION OF ANESTHESIOLOGY

Professor and Chairman of Division
John Abajian, Jr., M.D., New York Medical College, 1937.

Assistant Professors (Clinical)
Gino Aldo Dente, M.D., University of Vermont, 1941.
Ernest Lee Mills, B.S., University of Vermont, 1938; M.D., 1942.

Instructors (Clinical)
William Noyes Bernhard, B.S., Trinity College (Hartford, Conn.), 1953; M.D., Hahnemann, 1957.
John Edmund Mazuzan, Jr., B.S., Boston College, 1951; M.D., University of Vermont, 1954.
William Craigie Street, B.E.E., Rensselaer Polytechnic Institute, 1952; M.D., University of Vermont, 1959.

Under a new plan inaugurated this year the third year instruction will be confined to intensive, small-group, operating room didactic and practical experience. A two-week elective program for fourth-year students is available on the surgical rotation.

A full month of elective may be taken with special permission. Weekly anesthesia conferences are open to students. The resident training program consists of the appointment of six residents for two years.

DIVISION OF NEUROSURGERY

Professor and Chairman of Division
Raymond Madiford Peardon Donaghy, B.S., University of Vermont, 1933; M.D., 1936.

Associate Professor
Lester Julian Wallman, A.B., Yale, 1934; M.D., 1938.

Instructor
Mitsu Numoto (Experimental), M.D., Okayama University, 1948; Ph.D., 1953.

Instructor (Clinical)
Martin Edward Flanagan, B.S., St. Michael's, 1952; M.D., University of Vermont, 1956.

Assistant
John Collier, B.S.

The Division of Neurosurgery exists for four main purposes: research, teaching, therapy of neurological conditions by surgical measures, and aid to all regional practicing physicians via the medium of consultation.
Third-year students during the rotation on surgery meet in small clinical conferences and share in combined conferences on neuropathology and neuroradiology.

They serve as clinical clerks and gain experience in the presentation of patients in conference, the preparation of patients for presentation and the preparation of a bibliography. They are welcomed to the daily neurosurgical rounds and the weekly staff conference, as well as to the Monday noon teaching hour for residents.

Fourth-year students work in the combined neurology-neurosurgery outpatient clinics. An elective in neurosurgery is offered to those fourth-year students who are certified by the Dean of Medicine to be in the upper third of the class and who have demonstrated aptitude for both neurology and general surgery. This may be taken in clinical or experimental neurosurgery.

Those who choose clinical neurosurgery make complete daily ward rounds, work-up selected patients, assist in the operating room, perform ward duties under direction such as lumbar punctures and dressings both by the neurosurgical technique and spend time in the offices of attending neurosurgeons watching the combined neurological and surgical approach to problems.

Those who select experimental neurosurgery will take part in current research projects and obtain experience in surgery in the laboratory, principles of research and statistics. A full-time neuro-chemist and a full-time neuro-physicist are available to the beginning researcher for consultation.

A four-year residency program is offered.

Neurosurgical services are maintained in both local teaching hospitals.

DIVISION OF ORTHOPEDIC SURGERY

Associate Professor and Chairman of Division
John Frye Bell, A.B., Yale, 1931; M.D., Harvard, 1933; M.P.H., 1952.

Assistant Professors (Clinical)
Raymond Frank Kuhlmann, B.A., University of Wisconsin, 1936; M.D., Washington University, 1939.
Charles Brush Rust, M.D., University of Vermont, 1939.

Instructors (Clinical)
Philip Hovey Davis, B.S., University of Vermont, 1970; M.D., 1953.
James Edwin Simpson, B.S., University of Vermont, 1941; M.D., 1943.

Consultant Emeritus
David Marsh Bosworth, A.B., University of Vermont, 1918; M.D., 1921.

Undergraduate teaching is conducted in the second, third and fourth year. In the second year, the emphasis is on the orthopedic aspects of the physical examination. In the third year during their clinical clerkship in surgery the students actively participate in the work-up and management of orthopedic cases. Ward rounds and conferences on selected orthopedic subjects are conducted during this period.

In the fourth year the emphasis is on out-patient services, where the students work in the several orthopedic clinics, both general and for
children. An elective month of orthopedic surgery is also available during the fourth year for a maximum of two students each month.

Intern and resident teaching is carried out through rounds and personal contact regarding specific cases. Approved residencies in orthopedic surgery are not yet available.

DIVISION OF PEDIATRIC SURGERY

Assistant Professor and Chairman of Division

R. W. Paul Mellish, M.B., B.S., St. Mary’s Hospital Medical School, London University, 1945.

The Division of Pediatric Surgery aims to provide optimum surgical care for children in the hospitals of the University of Vermont Medical Center. A consultative service for other departments, practicing physicians and the State Department of Health is being developed.

The teaching program complements the general surgical courses with a series of lectures three times a year for the third-year students. In addition, tutorial sessions one morning a week from 8 to 9:30 at alternate hospitals will be given. These will be directed toward case presentation and discussion. In the fourth year, weekly tutorial seminars with patient presentations are held, utilizing patients from both hospitals.

An active research program is being developed with particular stress on surgery of the newborn period.

The service is integrated with the general surgical residency program and works closely with the Department of Pediatrics in the care of patients.

DIVISION OF THORACIC AND CARDIAC SURGERY

Associate Professor (Clinical) and Assistant Professor

Chairman of Division

Donald Barker Miller, A.B., Johns Hopkins, 1938; M.D., 1942.

Assistant Professor


This Division concerns itself primarily with thoracic and cardiovascular surgery and with endoscopy and other related diagnostic procedures. An active teaching and research program is maintained in the College of Medicine in close correlation with both of the teaching hospitals. In addition to covering the surgery and surgical clinics in this field in the local hospitals, regular visits are made to the Vermont Sanatorium in Pittsford and to the Barre Chest Clinic.

Student teaching program: In the second year, we give one-hour lectures having to do with basic practical application of cardiopulmonary physiology as it applies to thoracic and cardiac surgery. In the third year, we meet the students the year around, and cover the basic fundamentals of the application of cardiac and thoracic surgery to the various types of acquired and congenital cardiac problems in diseases of the chest. Once a week at alternate hospitals, the Division conducts a one and a half hour tutorial session. In the fourth year, during their two months on General
Surgery at both hospitals, students take part in the work-up of patients and in the operating room, and participate in weekly conferences, but unless the student takes an elective in our Division, we do not have any specific assignment to thoracic and cardiac surgery.

The research program of this Division has concentrated primarily upon various problems related to open-heart surgery over the past few years, but studies involving pulmonary emphysema, carcinoma of the lung, strictures of the esophagus, and the development and application of microsurgery technic have also been maintained on an active basis and will continue to grow with the addition of new personnel.

DIVISION OF UROLOGY

Associate Professor (Clinical) and Chairman of Division
Platt Rugar Powell, B.S., University of Vermont, 1936; M.D., 1939.

Assistant Professor (Clinical)
William Thomas Fagan, Jr., B.S., University of Vermont, 1945; M.D., 1948.

Instructor (Clinical)
Louis William Esposito, B.S., University of Notre Dame, 1931; M.D., Johns Hopkins University, 1935.

Instructor (Clinical)
Louis William Esposito, B.S., University of Notre Dame, 1931; M.D., Johns Hopkins University, 1935.

The teaching program is directed at the third and fourth years. Didactic lectures usually levelled at the third-year group, are largely supplemented by tutorial sessions with smaller groups, briefly reviewing and clarifying puzzling aspects of broad segments of material to be covered. Patient material is used to assist in this effort. Third- and fourth-year teaching is carried out almost entirely in the hospital where the students are particularly active on the wards and in the outpatient departments. They are occupied with patient study, weekly urological rounds, observation in cystoscopy and operating rooms.

A three-year approved urological residency program has been operational for a number of years with clinical and research material gathered from both teaching hospitals and the College of Medicine research unit. Cinefluorographic studies and urological microsurgery are among current research projects.

Interns are assigned to urology in both hospitals and participate in teaching and conferences.
MEDICAL LIBRARY

Medical Librarian


Medical Cataloguers

Alice Lois James, A.B., MacAlister College, 1922; B.S. in L.S., University of Minnesota, 1929.


Periodicals Librarian

Mrs. Guinevere Hanbridge.

Reference Librarian


Circulation Librarian

Helen Fogg Green, Ph.B., University of Vermont, 1934.

The Medical Library is located on the second floor of the College of Medicine building.

The collection, totalling 27,000 volumes, consists of textbooks, monographs and periodicals in the field of the medical sciences. Approximately 750 periodical subscriptions are received currently.

Instruction in the use of the library and in the preparation of medical bibliography is available for students and staff in the College.

The library has facilities for microfilm projection and can obtain microfilms of material which it does not possess. Photostats also may be ordered. Original material may be obtained through inter-library loan.

DIVISION OF PHOTOGRAPHY

Francis Charles Mallory, Director.

Wing Morrison Woon.

The division of photography has photographic equipment and laboratories at the College of Medicine for photomicrographic and other types of photographic work. This division has a full-time staff whose services are available to all departments of the College of Medicine and the local hospitals.
GRADUATES—JUNE, 1963

INTERNSHIP APPOINTMENTS

Charles Curtis Beebe, III, A.B.
Duval Medical Center, Jacksonville, Fla.

Thomas George Brault, A.B.
U. S. Naval Hospital, St. Albans, N. Y.

John Barry Burns, B.S.
St. Mary's Hospital, San Francisco, Calif.

James Chrysostom Cabral, B.S.
Salem Hospital, Salem, Mass.

Joseph Donald Capra, B.A.
St. Luke's Hospital, New York, N. Y.

James Ford Clapp, III, A.B.
Bronx Municipal Hospital Center, New York, N. Y.

Joseph Valentine Cresci, Jr., B.A.
Cincinnati General Hospital, Cincinnati, Ohio

Peter Clowes Dowling, B.S., M.S.
San Francisco Hospital, San Francisco, Calif.

Ann Marie Tompkins Dvorak, B.A.
Boston Floating Hospital, Boston City Hospital, Boston, Mass.

Gerald Louis Evans, B.A.
Mary Fletcher Hospital, Burlington

Jesse Lewis Ginsburg, B.A.
Boston University Straight Specialties, Boston City Hospital, Boston, Mass.

Philip Anthony Goddard, B.A.
George Washington University Hospital, Washington, D. C.

Alan Burton Gruskin, B.S.
Bronx Municipal Hospital Center, New York, N. Y.

Thomas Joseph Halligan, Jr., B.S.
St. Francis Hospital, Hartford, Conn.

Thomas Michael Hanlon, Jr., B.S.
U. S. Naval Hospital, Pensacola, Fla.

Frederick Perry Hobin, B.S.
Mary Fletcher Hospital, Burlington

John David Iszak, B.A.
Albert Einstein Medical Center, Philadelphia, Pa.

Robert Lowell Jennings, B.S.
St. Mary's Hospital, Duluth, Minn.

Leigh Wakefield Kendall, A.B.
University of Illinois Research Center, Chicago, Ill.

Arnold Martin Kerzner, B.A.
Boston Floating Hospital, Boston City Hospital, Boston, Mass.

William Edward Layden, B.A.
Hartford Hospital, Hartford, Conn.

Neil Nason Mann, B.A.
Syracuse Medical Center, Syracuse, N. Y.
Leroy George Meshel, B.A.  
Syracuse Medical Center, Syracuse, N. Y.

Edward Richard Mulcahy, Jr., A.B.  
III Surgical, Boston City Hospital, Boston, Mass.

John Joseph Murray, Jr., B.A.  
University of Kentucky Hospital, Lexington, Ky.

Ronald Stanley Nadel, B.A.  
Edward J. Meyer Memorial Hospital, Buffalo, N. Y.

Henry Modestino Stephen Nigro, A.B.  
State University of Iowa Hospitals, Iowa City, Ia.

John Lowery Noyes, B.A.  
Highland-Alameda County Hospital, Oakland, Calif.

Cathleen Connaughton O'Brien, B.S.  
Bronx Municipal Hospital Center, New York, N. Y.

Felix Anthony Perriello, B.S.  
The Carney Hospital, Boston, Mass.

Allen Douglas Price, B.S., M.S.  
Albany Hospital, Albany, N. Y.

Peter Ivan Rabinovitch, B.A.  
Rochester General Hospital, Rochester, N. Y.

Paul Chester Rutkowski, B.A.  
V & VI Medical, Boston Univ., Boston City Hospital, Boston, Mass.

Edward Charles Saef, B.A.  
Boston University Straight Specialties, Boston City Hospital, Boston, Mass.

David Giles Saunders, A.B.  
Beth Israel Hospital, New York, N. Y.

Frederick Stephen Shmase, B.A.  
Syracuse Medical Center, Syracuse, N. Y.

Richard Norman Stein, B.A.  
Sinai Hospital, Baltimore, Md.

Derwood Lynn Stetson, B.S.  
Harrisburg Hospital, Harrisburg, Pa.

Duncan Edward Stewart, B.A.  
Public Health Service Hospital, Staten Island, N. Y.

Peter Dodds Upton, B.S., M.S.  
Colorado General Hospital, Denver, Colo.

Philip Joseph Villandry, B.A.  
Maine Medical Center, Portland, Me.

Howard Alan Walker, B.A.  
Emanuel Hospital, Portland, Ore.

Hervey Allan Weitzman, B.S.  
Bronx Municipal Hospital Center, New York, N. Y.

Houghton McClellan White, B.A.  
Maine Medical Center, Portland, Me.

Carol Marion Wildman, B.S.  
Highland-Alameda County Hospital, Oakland, Calif.

Walter George Wrobleski, Jr., B.S.  
St. Vincent Hospital, Worcester, Mass.
Alan Yagoda, B.A.  Syracuse Medical Center, Syracuse, N.Y.
Graham Yelland, B.A.  Madigan General Hospital, Tacoma, Wash.
George Nebile Yerid, B.S.  Syracuse Medical Center, Syracuse, N.Y.
Sheldon David Zigelbaum, B.S., D.M.D.  University of Kentucky Hospital, Lexington, Ky.

PRIZES
JUNE, 1963

CARBEE PRIZE
For greatest proficiency in the subject of Obstetrics
James Ford Clapp, III, A.B.
Peter Ivan Rabinovitch, B.A.

WOODBURY PRIZE IN MEDICINE
For greatest proficiency in Clinical Work in senior year
James Ford Clapp, III, A.B.
To the sophomore having the highest standing for two years of Medical Work
Marlene Ann Aldo, B.A.

HELAINE MESCH MEMORIAL AWARD
Howard Alan Walker, B.A.

ALPHA OMEGA ALPHA
National Honor Medical Society
Joseph Donald Capra, B.A.
James Ford Clapp, III, A.B.
Alan Burton Gruskin, B.S.
Frederick Perry Hobin, B.S.
Cathleen Connaughton O'Brien, B.S.
Paul Chester Rutkowski, B.A.
Peter Dodds Upton, B.S., M.S.
Houghton McLellan White, B.A.
THE WILLIAM EUSTIS BROWN ALUMNI PRIZE
Awarded to a senior on the basis of broad cultural interests and loyalty to the College of Medicine
Joseph Donald Capra, B.A.

THE U.V.M. CENTURY CLUB PRIZE FOR SCHOLARSHIP
Awarded for the highest scholastic rank based on four years completed at University of Vermont College of Medicine
Joseph Donald Capra, B.A.

THE ERNEST HIRAM BUTTLES CENTURY CLUB PRIZE
Awarded to the sophomore selected by the Department of Pathology for outstanding work in that subject
Marlene Ann Aldo, B.A.

THE ROCHE AWARD
Given in recognition of an outstanding student who has successfully completed the first two years of medical school
Brian Machanic, B.A.

THE PFIZER AWARD
Awarded annually to a student on the basis of the scholastic record, financial need, or both
William Thomas Whitney, Jr., B.A.
FOURTH YEAR:

Arthur George Aarons on, B.A.
Woodbridge, Conn.

Stewart Atkinson, Jr., B.A., M.Sc.
Manchester, Conn.

Cameron Clarence Bangs, B.S.
Fairhaven, Mass.

Anthony Poch Belmont, A.B.

Frank Platt Bolles, B.A.
Bellows Falls, Vt.

Augustine David Brewin, Jr., B.S.
Nabant, Mass.

William Michael Burke, A.B.
Rockbury, Mass.

John Alan Calzaghi, B.A.
Morrisville, Vt.

Prescott John Cheney, A.B.
Bristol, Me.

John Tang Chiu, B.A.
Macao

David Ralph Congdon, B.A.
Wallingford, Conn.

Taylor Irving Cook, B.A.
Carolina, R.

Robert Marshall Cross, A.B.
Bennington, Vt.

David Davis, B.A.
Brooklyn, N.

Leonard John Defos, A.B.
Brockton, Mass.

Lawrence Melvyn Eisenstein, B.A.
Brooklyn, N.

Stanley Everett, B.A.
Floral Park, N.

Melvin Louis Feldman, B.S.
Huntington, N.

Robert Lawrence Fenning, B.A.
Bridgewater, Pa.

Gerald Allan Frank, B.S.
M Mattapan, Mass.

Melvin Ayram Golden, B.S., A.B.
Brookline, Mass.

John Samuel Gould, A.B.
Brockton, Mass.

Theodore James Halle, B.S.
Pittsfield, Me.

Herbert Frederic Hein, B.A.
Rockville Centre, N.

THIRD YEAR:

Marlene Ann Aldo, B.A.
Bridgeport, Conn.

Merrill Douglas Benson, B.A.
Albany, N.

Meyer Sidney Bornstein, B.S.
Boston, Mass.

Mazzini Bueno, B.A.
Rio de Janeiro, Brazil

Frederick Martin Burkle, Jr., A.B.
Hamden, Conn.

James Fenwick Butler, III, B.A.
Augusta, Me.

Philip Timothy Cole, B.A.
Brighton, Mass.

Francis Michael Collins, Jr., B.A.
Feeding Hills, Mass.

Thomas Maxwell Connelly, Jr., B.S.
Milton, Mass.

Gerald Powers Corcoran, B.S.
Newton Lower Falls, Mass.

Alan Frederick Crosby, A.B.
Burlington, Vt.

Robert Bourdon Daigneault, B.S.
Marlboro, Mass.

Willis Edwin Ingalls, B.A.

Michael Israel, A.B.
Boston, Mass.

Margaret Mary Kilcoyne, B.S.

David Korman, B.S.
New York, N.

Arthur Kotch, B.S.
Glenville, Conn.

Aurum R. Kraft, A.B.
Brookline, Mass.

Paul Michael Leiberman, B.A.
Flushing, N.

Stephen Victor Savino, B.S.
Greenfield, Mass.

William Carl Swanson, Jr., B.A.
Woodstock, Conn.

Sheldon Weiner, B.A.
Brooklyn, N.

Gerard Michael West, B.A.
Winookski

Robert Hayes Wheelock, B.S.
Wakefield, Mass.

Lester Herbert Wurtele, Jr., B.S.
Elkins Park, Pa.

Melvin Arnold Yoselevsky, B.A.
Oakdale, Conn.

Woolson Whitney Doane, B.A.
Springfield

Thomas Wendell Dow, B.S.
Allston, Mass.

Patricia Anne Fenn, B.A.
St. Johnsbury

Allen Lee Gardner, A.B.
Lynn, Mass.

John Abner Mead Hinsman, Jr., B.A.
Rutland

David Ira Hirsch, A.B.
Newport, N.

Robert Joseph Hobbie, B.A.
Cranford, N.

Sharon Lee Hostler, A.B.
Rutland

Dorothy Elaine Indick, B.A.
Elizabeth, N.

Paul John Jabar, B.A., M.A.
Watersville, Me.

Jamie Jay Jacobs, B.A.
Colchester

John Paul Keane, B.A.
Medford, Mass.

Robert Irving Kleinowitz, B.A.
Middletown, N.

Sanford Levine, B.A.  Brooklyn, N. Y.
Frederick George Lippert, III, B.S.  New Canaan, Conn.
George Alexiy Little, B.A.  Willimantic, Conn.
James Sylvester McGinn, B.S.  St. Albans Bay
Jan Howard Mashman, B.A.  New Rochelle, N. Y.
George Davis Noble, A.B.  Dorchester, Mass.
John Levi Ohman, Jr., B.S.  Marlboro, N. H.
David Ellis Osgood, B.S.  Greenfield, Mass.

SECOND YEAR:
Michael Peter Barron, A.B.  Watertown, Mass.
Joseph Carl Bass, B.A.  Claremont, N. H.
Joseph Roger Beauregard, B.S.  St. Albans
Dale Roy Childs, A.B.  Boscawen, N. H.
Stephen Hart Dyke, B.A.  Montpelier
Frederic Ira Fagelman, B.S.  Broo
klyn, N. Y.
Samuel Leon Fishbein, B.S.  Pawtucket, R. I.
Joseph Anthony Guzzetta, B.S.  Quincy, Mass.
John Ellis Hartford, B.E.E.  Brooklyn, N. Y.
Robert Kenneth Heistin, B.A.  Newark, N. J.
Robert David Herstoff, A.B.  Newport, R. I.
John Joseph Kelley, Jr., B.S.  Middleboro, Mass.
Richard Howard Landeman, B.S.  Flishing, N. Y.
Frederick George Lea, B.S.  San
cook, N. H.
William Harris Likosky, B.A.  Burlington
Jean Elinor Long, B.A.  Putney
Raymond Francis Macionsus, B.A.  Bridgeport, Conn.
Bruce Reed MacPherson, B.A.  Abington, Mass.
Ellen Mansell, B.S.  Stoddard, N. H.
Owen Danforth Mathewson, B.A.  Montpelier
Howard William Meridy, B.A.  Hartford, Conn.
George Nelson Morrissette, B.A.  Augusta, Me.
Andrew Bowen Packard, B.A.  Hanover, N. H.
David Llewellyn Perkins, B.S.  Barre
Gordon Samuel Perlmutter, B.A.  Burlington
Elliot Roy Singer, A.B.  New Rochelle, N. Y.
Paul Byron Stanilowski, B.S.  Vergennes
Joseph Henry Vargas, III, A.B.  Rutland
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*Swarthout*

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