## in the OCTOBER, 1963 Issue

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## VOLUME XIII
### Number 4

Mrs. Joseph J. Mulone, Editor  
Mrs. Christine Campbell Brown, Associate Editor  
Alumni Office of The Jefferson Medical College  
1025 Walnut Street, Philadelphia, Pa. 19107
Jefferson Opens 140th Annual Session

ONE hundred and seventy-eight Freshmen students were welcomed to Jefferson by President Bodine and Dean Sodeman at Opening Exercises for the 140th Annual Session of the College on Monday, September 9, 1963.

In greeting the new students, their parents and friends, Mr. Bodine said that these 178 Freshmen represented the top 10% of the 1,739 applicants who had been screened by the Admissions Committee. The new students, eleven of whom are women, come from 65 different colleges and from 12 states and Puerto Rico. Sixteen are the sons of former Jefferson graduates.

Dr. Sodeman, Dean and Vice President for Medical Affairs, spoke particularly to the families of the Freshmen and to the returning Sophomore, Junior and Senior Classes, since he had already welcomed the new students in the morning.

He said that this was the 140th Opening Session of the College and that Dr. J. Parsons Schaeffer, Emeritus Professor of Anatomy, has now been present at 50 such Opening Exercises. The audience gave Doctor Schaeffer a standing ovation for his remarkable record.

Dr. Sodeman commended the Admissions Committee for their fine work in selecting these 178 freshmen, since the number of applications to be screened and considered had increased some 10% over the previous year.

He told the new students that they would be treated as adults in this medical college, which might seem to be an abrupt transition from their undergraduate days. But he pointed out that members of the Faculty are always ready and most willing to give help and advice and he counseled the new students to take advantage of such aid should they need it.

Dean Sodeman then announced that our Faculty presently numbers 799, and that there have been the following changes in the Faculty since the last Opening of Session. Thirteen Faculty members have been made full Professors, six have
"No man's knowledge, here, can go beyond his experience."

(JOHN LOCKE)

been advanced to the rank of Associate Professor and 27 to the rank of Assistant Professor. Sixty new appointments were made during the past year, three of which were as full Professors. There have been 34 resignations during the period and four deaths.

The deceased Faculty members are Dr. Frank J. Ciliberti, Associate
in Anatomy, Dr. Leopold Z. Goldstein, Assistant Professor of Clinical Obstetrics and Gynecology, Dr. Herbert Kramer, Instructor in Medicine and Dr. Leandro M. Tocantins, Cardeza Professor of Clinical Medicine and Hematology in the Department of Medicine. Dr. Sodeman asked the audience to rise and observe a moment of silence in honor of these men.

Mr. James M. Large, Chairman of the Board of Trustees, then presented the following undergraduate awards: APPLETON CENTURY-CROFTS, INC. PRIZE to Herbert Myles Fisher; PHYSIOLOGY PRIZE to Steven Arthur Friedman, with Honorable Mention to Richard Andrew Ulrich; ANATOMY PRIZE to Robert Gibbon, Jr. and Harvey Jay Sugerman; ROCHE AWARD to Louis Aaron Karp; AMERICAN CANCER SOCIETY PRIZES: First Prize to David Paul Shreiner and Second Prize to Jay Franklin Ziegenfuss, Jr., and THE BENJAMIN LEE GORDON PRIZE to Elliott Mark Stein.

Dr. Peter A. Herbut, Professor of Pathology and Head of the Department, gave the audience the biographical background of the speaker of the evening, Dr. John B. Montgomery.
"Professor Montgomery," Dr. Herbut said, "is a native Pennsylvanian and a native Jeffersonian. Born in Lewistown, he attended both the public and high schools of Huntingdon and graduated from Juniata College in 1921 with a Bachelor of Arts degree. The following year he spent at the University of Pennsylvania Graduate School and four years later he graduated from the Jefferson Medical College with an M.D. degree. Upon completion of a two year internship at Jefferson in 1928, he became an assistant to our then Professor of Gynecology—Dr. Brooke M. Anspach. This association continued until 1940.

"Academically, Doctor Montgomery started as an Assistant Demonstrator in the Department of Gynecology in 1929. Gradually, he advanced through the ranks until, in 1955, he was appointed Co-Chairman of the Department of Obstetrics and Gynecology and, in 1961, Head of the combined Department. He is a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, a member of all the important general medical societies and a member of all the societies pertaining to

"He is wise, who follows the Wise."
(EDWARD FITZGERALD)

(below) Members of the faculty and Board of Trustees line up for the academic procession.
(above) Dr. Nye, Associate Dean, leads the procession into McClellan Hall
"Nevertheless, he does epitomize his profession."

(DR. PETER A. HERBUT)

"There are men and classes of men that stand above the common herd; the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarer still, the clergyman; the physician as a rule. He is the flower (such as it is) of our civilization."

(ROBERT LOUIS STEVENSON)

Dean William A. Sodeman
"And still they gazed, and still the
wonder grew. That one small head
should carry all he knew."
(OLIVER GOLDSMITH)

"Motivation plus work
equals success."
(DR. JOHN B. MONTGOMERY)

"A good talker, even more than a good
orator, implies a good audience."
(SIR LESLIE STEPHEN)
"If you have knowledge, let others light their candles at it."
(MARGARET FULLER)

"A man's real life is that accorded to him in the thoughts of other men by reason of respect or natural love."
(JOSEPH CONRAD)

Dr. J. Parsons Schaeffer receives an ovation

his specialty—including the American Gynecological Society, the American Gynecological Club and the American Association of Obstetricians and Gynecologists. He has contributed much to the field of cancer in women and has been vitally interested in maternal welfare.

"Aside from his vocation, Dr. Montgomery has always been active in church and civic affairs. He was awarded an Honorary Degree of Doctor of Science by Juniata College in 1952 and has served as a member of its Board of Trustees for many years.

"Dr. Montgomery is married to the former Elizabeth Haines. Their son, Bruce Barrick, is currently a resident in Obstetrics and Gynecology here at Jefferson."
"Professionally, Dr. Montgomery has no peer. His colleagues, to a man, opine that he is a good diagnostician, an excellent operator and a sound physician. His patients, to a lady, say he is always gentle, kind and understanding. Although these traits are the ingredients of an excellent Obstetrician and Gynecologist, and although they are singularly possessed by Dr. Montgomery, the question as to whether he chose this specialty because of these characteristics or whether he acquired these attributes because of his long and intimate association with the fair sex, must remain unanswered. Nevertheless, he does epitomize his profession," Dr. Herbut concluded.

The title of Dr. Montgomery's address was "On Entering Medicine" and he said that, as Professor Goodner had once stated . . . "We are met here tonight to renew the spirit. We are here to rededicate ourselves to the purposes of this fine old Medical College and to welcome the Class of 1967 into the Jefferson family."

"Your decision to study medicine," Dr. Montgomery said, "is an accepted indication of your desire to become a doctor, to devote your life to the service of your fellow man, to serve them personally and intimately in the realm of health. Although there are secondary motives that have influenced your great decision, I am confident that the ideal of dedication to service has been paramount in your thoughts. It is axiomatic in medicine that the private interests of the doctor are subordinate to this guiding purpose of his profession. These two fundamental principles or ideals have formed the bedrock upon which the great traditions of the medical profession have been built by many generations of devoted physicians."

Dr. Montgomery pointed out that the image of the traditional family doctor, who was "short on science but long on understanding and devotion to his task" lingers in the minds of our people and they long for his return.

"Today," he said, "you enter medicine at the most dramatic and the most amazing period in the history of our profession. Progress in the diagnosis, treatment and prevention of disease has been rapid and effective during the past thirty years. Better medicine is available to more people today than at any time in history. At the same time public opinion appears to indicate increasing unrest and, not uncommonly, dissatisfaction with physicians and with the medical profession. The motives of the physician and the fundamental purposes of the profession are being viewed with skepticism. It is said that in this day of declining morality with emphasis on the profit motive, that altruism has declined as the guiding light in medical practice; that the physician has been knocked off his pedestal and that the medical profession has lost its prestige.

"These expressions of dissatisfaction on the part of
the public are mirrored by dissatisfactions on the part of the physician and medical profession. This general unrest stems from influences that are not understood clearly by the patient or by the physician. It is most certainly related to the rapid increase in scientific and medical knowledge, to the marked social change, and to the vigorous industrial and economic advancement that have come upon us so rapidly.

"On one point there is general agreement. We have today in our country the finest medical service in the world. The unrest and the dissatisfaction center around the problem of the distribution and utilization of this service and the method of paying for it.

"Time does not permit us to enter into a detailed discussion of this problem. It is important, however, that you who today enter medicine are aware of the problem. It is even more important that you become aware promptly of the responsibility of the doctor in helping to provide a solution."

Dr. Montgomery emphasized that the clinical practice of medicine is a public trust, the right and privilege having been granted because of what has gone before and he warned that if present day physicians do not measure up . . . "the privilege of medical practice as a free enterprise can be withdrawn by the society that has granted it to us."

He then discussed the magnitude and importance of the rising cost of modern medical service and stated that intelligent, progressive leadership by the physician is essential to the solution of this problem within the confines of free enterprise.

R. MONTGOMERY pointed out, however, that regardless of these present day problems of medical care and distribution of services, one fundamental principle remains—that good medical care must be personalized and, while . . . "the modern doctor must be strong

"The happiest conversation is that of which nothing is distinctly remembered, but a general effect of pleasing impression."

(SAMUEL JOHNSON)
on science, he must also be a man of deep understanding, a man of compassion with a sincere interest in the life problems of his patients.

He gave the students a formula for success in medical school and throughout their careers: "Motivation plus work equals success." He also exhorted them to remain students of medicine through all of their lives.

Dr. Montgomery's closing remarks were those of encouragement to the new class.

"I won't attempt," he said, "to describe further the desirable attributes of the medical student nor will I belabor the trials and tribulations, of which there will be many. I will rest with confidence, the formula when intelligently applied never fails. It brings success, and success in medicine brings bounteous rewards. Wealth or power will not be prominent, although medicine will provide you with a good living and reasonable security. Respect and honor will be yours in full measure. Joy, and a life never dull, satisfaction, contentment and happiness that is inseparable from unselfish service will be yours in abundance. To this end I leave you one additional formula, the formula of four things by that fine American scholar and poet, Professor Henry Van Dyke, who wrote:

'Four things a man must learn to do if he would make his record true:
To think without confusion, clearly
To love his fellow men, sincerely
To act from honest motives, purely
To trust in God and Heaven, securely' "
PROMOTIONS, NEW APPOINTMENTS, RESIGNATIONS AND DEATHS

(September 10, 1962 to September 9, 1963)

PROMOTIONS

PROFESSORS
(without a seat on the Executive Faculty)

C. EARL ALBRECHT, B.A., B.D., M.D., LL.D. (Hon.), from Visiting Professor of Preventive Medicine to Professor of Preventive Medicine.

JOHN E. DAVIS, B.S., M.D., from Assistant Professor of Clinical Psychiatry to Professor of Psychiatry.

J. MONTGOMERY DEAVER, B.S., M.D., from Associate Professor of Surgery to Professor of Clinical Surgery.

ROMANO H. DEMELO, B.S., Ph.D., from Associate Professor of Biochemistry to Professor of Biochemistry.

DAVID M. FARELL, A.B., M.D., from Clinical Professor of Obstetrics and Gynecology to Professor of Obstetrics and Gynecology.

KENNETH E. FRY, B.S., M.D., from Clinical Professor of Surgery to Professor of Clinical Surgery.

GEORGE ALAN HAHN, A.B., M.D., from Clinical Professor of Obstetrics and Gynecology to Professor of Obstetrics and Gynecology.

FRANZ X. HAUSBERGER, M.D., from Associate Professor of Anatomy to Professor of Anatomy.

JOHN H. HODGES, B.S., M.D., from Associate Professor of Medicine to Professor of Clinical Medicine.

R. CRANFORD HUTCHINSON, A.B., Ph.D., from Associate Professor of Anatomy to Professor of Anatomy.

WARREN R. LANG, A.B., M.D., from Associate Professor of Obstetrics and Gynecology to Professor of Obstetrics and Gynecology.

HYMAN MENDUKES, A.B., M.A., Ph.D., from Associate Professor of Preventive Medicine (Biostatistics) to Professor of Preventive Medicine (Biostatistics).

THOMAS F. NEALON, Jr., B.S., M.D., from Associate Professor of Surgery to Professor of Surgery.

ASSOCIATE PROFESSORS

GONZALO E. APONTE, B.S., M.D., from Assistant Professor of Pathology to Associate Professor of Pathology.

WALTER F. BALLINGER, II, M.D., from Assistant Professor of Surgery to Associate Professor of Surgery.

CARL FRANCIS CLANCY, B.S., M.S., Ph.D., from Assistant Professor of Microbiology to Associate Professor of Microbiology.

JAMES J. KOCSIS, B.A., M.S., Ph.D., from Assistant Professor of Pharmacology to Associate Professor of Pharmacology.

JOHN A. KOLTES, A.B., M.D., from Assistant Professor of Psychiatry to Associate Professor of Clinical Psychiatry.

MELVIN J. SILVER, A.B., M.Sc., D.Sc., from Assistant Professor of Pharmacology to Associate Professor of Pharmacology.

ASSISTANT PROFESSORS

JULES H. BOGAEV, B.A., M.D., from Assistant Professor of Clinical Urology to Assistant Professor of Urology.

HERBERT S. BOWMAN, B.A., M.D., from Instructor in Medicine to Assistant Professor of Medicine.

RUDOLPH C. CAMISHION, B.S., M.D., from Associate in Surgery to Assistant Professor of Surgery.

AUGUST P. CIELL, A.B., M.D., from Associate in Clinical Otolaryngology to Assistant Professor of Clinical Otolaryngology.

GERALD R. CLARK, B.A., M.D., from Associate in Clinical Psychiatry to Assistant Professor of Clinical Psychiatry.

WILLIAM E. DELANEY, III, B.S., M.D., from Instructor in Pathology to Assistant Professor of Pathology.

DONALD B. DOEMLING, B.S., M.S., Ph.D., from Instructor in Physiology to Assistant Professor of Physiology.

JOHN H. DOWLING, B.S., M.D., from Associate in Clinical Orthopedic Surgery to Assistant Professor of Clinical Orthopedic Surgery.

HARRY R. DRAPER, A.B., B.S., M.D., from Associate in Clinical Psychiatry to Assistant Professor of Clinical Psychiatry.

ERICH A. EVERTS-SUAREZ, M.D., from Instructor in Pathology to Assistant Professor of Pathology.
CHARLES FINEBERG, B.S., M.D., from Associate in Surgery to Assistant Professor of Surgery.

GEORGE R. FISHER, III, B.S., M.D., from Associate in Clinical Medicine to Assistant Professor of Clinical Medicine.

WILLIAM FRAMMOW, A.B., M.D., from Associate in Medicine to Assistant Professor of Medicine.

JOHN H. GARTLAND, A.B., M.D., from Associate in Orthopedic Surgery to Assistant Professor of Orthopedic Surgery.

PHILIP H. W. GEISLER, B.A., M.D., from Instructor in Pathology to Assistant Professor of Pathology.

ALVIN F. GOLDFARB, B.A., M.D., from Associate in Obstetrics and Gynecology to Assistant Professor of Obstetrics and Gynecology.

GEORGE J. HAUPT, M.D., from Associate in Surgery to Assistant Professor of Surgery.

THEOLOGOS IOULIOS A. Iossifides, M.D., from Instructor in Pathology to Assistant Professor of Pathology.

PAUL LEROY LEWIS, B.A., M.D., from Instructor in Pathology to Assistant Professor of Pathology.

JOHN J. McKEOWN, B.S., M.D., from Associate in Clinical Surgery to Assistant Professor of Clinical Surgery.

PAUL MECRAY, Jr., A.B., M.D., M.Sc. (Surg.), from Associate in Surgery to Assistant Professor of Clinical Surgery.

JOHN B. REDDY, A.B., M.D., from Associate in Otolaryngology to Assistant Professor of Otolaryngology.

HAL E. SNEDDEN, M.D., from Associate in Orthopedic Surgery to Assistant Professor of Clinical Orthopedic Surgery.

FRANCIS J. SWEENEY, Jr., B.A., M.D., from Associate in Medicine to Assistant Professor of Medicine.

ASSOCIATES

WILLIAM B. ABRAMS, B.S., M.D., from Instructor in Medicine to Associate in Medicine.

WILLIAM T. BRANEN, A.B., M.D., from Instructor in Obstetrics and Gynecology to Associate in Clinical Obstetrics and Gynecology.

BARRY BRICKLIN, B.A., M.A., Ph.D., from Instructor in Psychiatry (Psychology) to Associate in Psychiatry (Psychology).

RALPH A. CARABAS, B.S., M.D., from Instructor in Medicine to Associate in Medicine.

ROBERT T. CARROLL, B.S., M.D., from Instructor in Medicine to Associate in Medicine.

JAMES G. DICKENSHREETS, M.D., from Instructor in Medicine to Associate in Medicine.

HOWARD L. FIELD, A.B., M.D., from Instructor in Psychiatry to Associate in Clinical Psychiatry.

ELMER H. FUNK, Jr., B.S., M.D., from Instructor in Medicine to Associate in Clinical Medicine.

SHELDON G. GILGORE, B.S., M.D., from Instructor in Medicine to Associate in Medicine.

WARREN P. GOLDBURGH, B.S., M.D., from Instructor in Medicine to Associate in Clinical Medicine.

Benjamin F. Lee, Jr., B.S., M.D., from Instructor in Surgery to Associate in Clinical Surgery.

DAVID N. WICOFF, B.S., M.D., from Instructor in Psychiatry to Associate in Clinical Psychiatry.

LEWIS M. WIENER, B.A., M.D., from Instructor in Neurology to Associate in Neurology.

ABRAHAM JACK ZAGERMAN, A.B., M.D., from Instructor in Medicine to Associate in Clinical Medicine.

RESEARCH ASSOCIATE

IN MIN YOUNG, M.D., from Research Fellow in Audiology to Research Associate in Otolaryngology (Audiology).

INSTRUCTORS

ANTHONY M. ALBERICO, B.S., M.D., from Assistant in Medicine to Instructor in Medicine.

SANDRA S. DEUTCHMAN, B.A., M.D., from Assistant in Anesthesiology to Instructor in Anesthesiology.

HYMAN R. KAHN, B.S., M.D., from Assistant in Medicine to Instructor in Medicine.

JOHN JOSEPH KELLY, JR., A.B., M.D., from Assistant in Medicine to Instructor in Medicine.

ARNOLD S. KESSLER, A.B., M.D., from Assistant in Obstetrics and Gynecology to Instructor in Obstetrics and Gynecology.

JACK B. KREMENS, B.A., M.A., M.O., from Assistant in Psychiatry to Instructor in Psychiatry.

LEOPOLD S. LOEWENBERG, B.S., M.D., from Assistant in Obstetrics and Gynecology to Instructor in Obstetrics and Gynecology.

LEON A. PERIS, A.B., M.D., from Assistant in Obstetrics and Gynecology to Instructor in Obstetrics and Gynecology.

EDWARD M. PODGORSKI, B.S., M.D., from Assistant in Obstetrics and Gynecology to Instructor in Obstetrics and Gynecology.

LEOPOLD A. POTKONSKI, M.D., from Assistant in Psychiatry to Instructor in Psychiatry.
LUDWIG E. SCHLITT, M.D., from Assistant in Pediatrics to Instructor in Pediatrics.
WALTER SCHLOSSER, JR., B.S., M.S., Ph.D., from Teaching Fellow in Pharmacology to Instructor in Pharmacology.
FRANCIS J. SULLIVAN, A.B., M.S., Ph.D., from Teaching Fellow in Physiology to Instructor in Physiology.
EDWARD A. THEURKAUF, JR., B.S., M.D., from Assistant in Medicine to Instructor in Medicine.
ALBERT D. WAGMAN, B.A., M.D., from Assistant in Neurology to Instructor in Neurology.

RESEARCH FELLOWS
RONALD PAUL JENSH, A.B., M.A., from Teaching Fellow in Anatomy to Clarence Hoffman Teaching and Research Fellow in Anatomy.

NEW APPOINTMENTS

PROFESSORS
ROBERT L. BRENT, A.B., M.D., Ph.D., Professor of Radiology (Radiation Biology).
ROBERT C. PRALL, B.S., M.D., Professor of Psychiatry (Child Psychiatry).
ROBERT WAELDER, Ph.D., Professor of Psychiatry (Psychoanalysis).

VISITING PROFESSOR
J. LAWRENCE ANGEL, A.B., Ph.D., Visiting Professor of Anatomy (Physical Anthropology).

ASSOCIATE PROFESSORS
CLAUS B. BAHNSON, Ph.D., Associate Professor of Psychiatry (Psychology).
SAMUEL A. GUTTMAN, A.B., M.A., Ph.D., M.D., Associate Professor of Clinical Psychiatry.
FREDERICK A. HORNER, B.A., M.D., Associate Professor of Neurology.
PETER J. L. WELT, M.D., Associate Professor of Psychiatry (Behavioral Research).

VISITING ASSOCIATE PROFESSOR
JAN LIEBEN, M.U.C., M.B., Ch.B., M.P.H., Visiting Associate Professor of Occupational Medicine.

ASSISTANT PROFESSORS
THOMAS BEHRENDT, M.D., Assistant Professor of Ophthalmology.

ALFRED C. LABOCETTA, B.A., M.D., M.P.H., Assistant Professor of Clinical Medicine.
LEONARD M. PAKMAN, A.B., Ph.D., Assistant Professor of Microbiology.
EILEEN LOUISE RANDALL, B.S., M.T. (ASCP), M.S., Ph.D., Assistant Professor of Microbiology.

VISITING LECTURERS
ALAN D. BENDER, B.A., M.S., Ph.D., Visiting Lecturer in Physiology.
HENRY W. KOLBE, B.S., M.D., Visiting Lecturer in Preventive Medicine.
WILLIAM E. B. SCOTT, M.B.B.Ch., B.A.O.D.A., Visiting Lecturer in Anesthesiology.

ASSOCIATES
MORRIS D. GALINSKY, M.D., Associate in Clinical Psychiatry.
WALTER B. OMANS, B.S., M.D., Associate in Pediatrics.
MORTON ROSENBERG, B.A., M.D., Associate in Pediatrics.

RESEARCH ASSOCIATES
PANAGIS KOKOLIS, M.D., Research Associate in Medicine.
YU-CHEN (LI) LIN, B.A., M.S., Research Associate in Biochemistry.
WILLIAM O. REID, B.A., M.D., Research Associate in Medicine.
CHESTER R. WILPIEZSKI, A.B., Research Associate in Otolaryngology (Experimental Psychology).

INSTRUCTORS
HAROLD E. BAUER, B.S., M.D., Instructor in Pathology.
JACQUELINE G. COANT, M.D., Instructor in Pediatrics.
NEIL M. DAVIS, B.S., M.D., Instructor in Pharmacology.
JAY A. DESJARDINS, A.B., M.D., Instructor in Medicine.
WILLIAM ELIADES, A.B., M.D., Instructor in Medicine.
JOHN B. FRANKLIN, A.B., M.D., Instructor in Obstetrics and Gynecology.
ROGER D. FREEMAN, B.A., M.D., Instructor in Psychiatry.
ROBERT J. JOSEPH, A.B., M.D., Instructor in Psychiatry.
ABRAHAM B. MAPOW, A.B., M.D., Instructor in Otolaryngology.


RICHARD N. MYERS, A.B., M.D., Instructor in Surgery.

ALBERT H. PEARCE, B.S., V.M.D., Instructor in Physiology (Mammalian Physiology and Consultant veterinarian).

MURRAY RESWICK, B.A., B.S., M.D., Instructor in Radiology.

Harold R. Schumacher, B.S., M.D., Instructor in Medicine.

NAGALINGAM SUNDHARALINGAM, B.S., I.E.E., Instructor in Radiology (Radiation Physics).

ROBERT J. TROLLINGER, A.B., M.D., Instructor in Pathology.

HIDEO UNO, M.D., Instructor in Pathology.

WILLIAM J. WARREN, A.B., M.D., Instructor in Pathology.

ROBERT B. WEIMANN, A.B., M.D., Instructor in Surgery.

ASSISTANTS

RAYMOND S. ALEXANDER, B.A., M.D., Assistant in Obstetrics and Gynecology.

BENJAMIN BACHARACH, B.S., M.D., Assistant in Surgery.

STANLEY FARBO, M.D., Assistant in Otolaryngology.

CARL J. GUZZO, B.S., M.D., Assistant in Surgery (Proctology).

ELI B. HALPERN, A.B., M.S., M.D., Assistant in Otolaryngology.

ROY LOUIS-CHARLES, M.D., Assistant in Pediatrics.

PHILLIP J. MARONE, B.S., M.D., Assistant in Orthopedic Surgery.


PATRICK J. MCKENNA, Jr., B.S., M.D., Assistant in Medicine.

RICHARD P. MIRABELLI, B.S., M.D., Assistant in Pediatrics.

RAY EARL PLYMYER, B.S., M.D., Assistant in Medicine.

NATHAN W. RUBIN, M.D., C.M., Assistant in Obstetrics and Gynecology.

AMIR HOOSHANG SHAHANDEH, M.D., Assistant in Anesthesiology.

SAROJA SIDDARTH, M.B.B.S., M.S., Assistant in Pediatrics.

RESEARCH FELLOWS


ERNEST RIOUX, A.B., M.D., Research Fellow in Medicine (Hematology).

TEACHING FELLOW

MOHAMMAD AHSAH KARIM, M.B.B.S., M.S., Teaching Fellow in Anatomy.

REAPPOINTMENTS

JUNZO IDA, B.S., M.D., Ph.D., Research Fellow in Surgery.

JUNG-CHING LIU, B.M., Research Fellow in Otolaryngology.

REMEDIOS K. ROSALES, M.D., Teaching Fellow in Neurology (Neuropathology).

HONORARY MEMBERS

(as of June 30, 1963)

JOSEPH ASPEL, M.D., Instructor in Urology.

JOHN F. COPPOLINO, M.D., Clinical Professor of Pediatrics.

GILSON C. ENGEL, B.A., M.D., Associate Professor of Surgery.

C. CALVIN FOX, M.D., Clinical Professor of Otolaryngology.

JOHN W. HOLMES, M.D., Associate Professor of Clinical Pediatrics.

NORMAN M. MACNEILL, M.D., Clinical Professor of Pediatrics.

ARTHUR S. MCCALLUM, B.S., M.D., M.S., Associate in Clinical Otolaryngology.

AUSTIN T. SMITH, M.D., Clinical Professor of Otolaryngology.

MARTIN J. SOKOLOFF, M.D., Clinical Professor of Medicine.

LEAVE OF ABSENCE

JAMES R. HERRON, B.S., M.D., Assistant Professor of Obstetrics and Gynecology.

(one year—effective January 1, 1963)
RESIGNATIONS

FELIX E. KARPIŃSKI, Jr., B.S., M.D., Clinical Professor of Pediatrics.
REEVE H. BETTS, A.B., M.D., Associate Professor of Surgery.
JAMES J. RYAN, M.D., Associate Professor of Clinical Neurology.
SUMMAR ROOT ZIEGRA, B.S., M.D., Associate Professor of Pediatrics.
EUGENE J. GANÇARODA, A.B., M.S., M.D., Visiting Associate Professor of Microbiology.
JOHN F. KURZKE, B.S., M.D., Assistant Professor of Clinical Neurology.
IRVING J. OLŠIN, A.B., M.D., Assistant Professor of Clinical Pediatrics.
GIANCARLO RABOTTI, M.D., Assistant Professor of Pathology.
EDWIN R. RISTINE, A.B., M.D., Assistant Professor of Surgery.
JAMES M. SURVER, M.D., Assistant Professor of Surgery.
RICHARD M. WELCH, B.S., M.S., Ph.D., Assistant Professor of Pharmacology.
DEMÉTRIO A. ALVERO, B.S., M.D., Research Associate in Microbiology.
FRANCIS WILLSON DAILY, M.D., Associate in Clinical Anesthesiology.
MARY STUART FISHER, A.B., M.D., Associate in Radiology.
IRVIN F. HERMANN, M.D., Associate in Medicine.
JAMES W. MESSER, B.S., M.S., Research Associate in Microbiology.
GÉRALD M. SHANNON, M.D., M.Sc., Associate in Clinical Ophthalmology.
HASIB TANYOL, M.D., Research Associate in Physiology.
DAVID N. WICOFF, B.S., M.D., Associate in Clinical Psychiatry.
DONALD AKUTAGAWA, M.A., Ph.D., Instructor in Pediatrics (Psychology) and Instructor in Psychiatry (Psychology).
GENENE MARIE BAKER, B.S., M.D., Instructor in Radiology.
ROBERT J. DICKINSON, B.S., M.D., Instructor in Psychiatry.
ARTURO R. HERVADA, B.S., M.D., Instructor in Pediatrics.
HERBERT KEAN, B.S., M.D., Instructor in Otolaryngology.

RUSSELL H. KESSELMAN, M.D., Instructor in Medicine.
RAUL SAN MARTIN, M.D., Instructor in Physiology.
DENNIS STEPHEN O'CONNOR, B.S., M.D., Instructor in Pathology.
PADMINABHAN SIDDARTH, M.B.B.S., M.S., Instructor in Anatomy.
DOROTHY E. BAKER, B.A., M.D., Assistant in Psychiatry.
EDWARD F. BECKER, B.S., M.D., Assistant in Ophthalmology.
DAVID E. BULLOCK, Jr., B.S., M.D., Assistant in Medicine.
LAWRENCE T. FREEDMAN, A.B., M.D., Assistant in Obstetrics and Gynecology.
JAMES C. MCLAUGHLIN, A.B., M.D., Assistant in Obstetrics and Gynecology.
RALPH JOSEPH ONOFRO, M.D., Assistant in Obstetrics and Gynecology.
MARY LEONA RESINSKI, A.B., M.D., Assistant in Pediatrics.
SAUL LIPKIN, A.B., M.S., Research Fellow in Microbiology.
LAILA A. NAHHAS, M.D., Research Fellow in Microbiology.
MECIA MARIA OLIVEIRA, M.D., Research Fellow in Hematology (Medicine).
ATSUSHI OZAWA, M.D., M.S., Research Fellow in Microbiology.
VEDAT MEHMET SEZER, M.D., Research Fellow in Pediatrics.
MASANOBU SHIGETA, D.M.Sc., M.D., Research Fellow in Pediatrics.
PHILIP K. RUSSELL, B.A., M.D., Visiting Research Fellow in Microbiology.
JOSE RAPHAEL YUNEN, B.S., M.D., Teaching Fellow in Urology (Nathan Hatfield).

DEATHS

LEANDRO M. TOCANTINS, M.D., The Thomas Drake Martínez Cardeza Professor of Clinical Medicine and Hematology in the Department of Medicine, 3/22/63.
LEOPOLD Z. GOLDSTHAIN, M.D., Assistant Professor of Clinical Obstetrics and Gynecology, 8/6/63.
FRANK J. CILIBERTI, M.D., Associate in Anatomy, 7/1/63.
HERBERT KRAMER, B.A., M.D., Instructor in Medicine, 4/21/63.
**RESEARCH AT JEFFERSON**

The great upsurge in medical research in the United States has found Jefferson a most active participant. From essentially no outside grants in 1940, our research program rose to a dollar value of $321,366 in 1955, over a million dollars in 1960 and is now over the 2.5 million dollar mark. In the last fiscal year 214 grants from outside agencies were effectively under way. In addition the vast Cardeza activities and such programs as that in Pathology under the Kraemer Foundation, as well as many projects with special purpose funds given to Jefferson by many interested benefactors, represent additional research functions. Other studies not in the category of true research are in full action. These include the Neurosensory Disease Study to establish the extent and nature of neurosensory disease in Pennsylvania, Delaware, and South New Jersey. The results of this survey will be important in planning special patient care and research in this field in the future. Another such study is the Home Care Program in which patients attending the Curtis Clinic are seen in their homes. It is a limited study to establish merits of such an approach in reducing need for hospitalization.

Our research activities continue to grow, limited and restrained from more remarkable development only by lack of space, a problem which we hope will be solved in large part in our Building Program.

William A. Sodemian, M.D.
Dean and Vice-President for Medical Affairs

(Research in additional departments will be featured in the December issue.)

**RESEARCH IN ANATOMY**

Teacher-Researchers in anatomy departments in most American medical schools were for years concerned primarily with morphology—gross, microscopic and developmental morphology. As more detailed knowledge of the morphology of the entire body and of its tissues, cells and sub-cellular constituents was accumulated it became clear that the structure and substance are better understood if function is also considered, and that differences in function and in functional states must be reflected in altered morphology. Thus the anatomist began the in vivo and in vitro experimental manipulation of living materials in order to observe changes in morphology and to be able better to understand and predict function and functional possibilities of such living materials.

To the traditional scalpel, forceps, light microscope, tissue cultures, stains and his own inquiring eyes, the anatomist has added the electron microscope, the X-ray microscope, X-ray diffraction and electron diffraction apparatus, the computer, radio-isotopes and radiometric apparatus, and other recently devised chemical and physical apparatus and methods. But the human body still holds a host of secrets which must be explored by the original methods of the morphologist. For example, the development of modern clinical and research arteriography is depending largely upon current advances in the knowledge of normal blood vascular patterns and their variations, and of collateral and compensatory connections. The detailed studies of Dr. Nicholas A. Michels and his students are now recognized to be of extraordi-
nary value in this instance. However, the majority of research at The Daniel Baugh Institute of Anatomy utilizes experimental approaches and a surprising diversity of modern apparatus and techniques to probe the areas of endocrinology, cytchemistry, neuro-endocrinology, lipogenesis, glandular secretion, neuro-anatomy and neuro-physiology, physical anthropology, chondrogenesis and osteogenesis, experimental embryology and teratology, tissue culture, transplantation of tissues, cancer chemotherapy, and the like. Also we are concerned with such studies as: skeletal stresses, electronic image amplification, cardiac endoscopy, visualization of lymphatics, descriptive and dynamic aspects of arterial and venous patterns. However, in the midst of increased scientific activity, it may be reassuring to the Alumnus to learn that increasing attention, in the Anatomy Department, is being directed toward experimentation in curriculum and in teaching, lest the student, and the art of effective teaching, be lost sight of or forgotten in the "modern" medical curriculum.

ENDOCRINE STUDIES occupy Drs. S. A. D'Angelo and F. X. Hausberger. Dr. D'Angelo, through experimental manipulation of the hypothalamus, pituitary gland and the thyroid, is analyzing the neuro-endocrine interplay between these vital centers and their target areas, including the reproductive organs. In addition to his employing radiometric, biochemical and cytological techniques, his bioassay procedures, devised to detect and to quantify thyrotropic and thyroid hormones, is recognized throughout the world and his laboratory commonly entertains visiting scientists from abroad. A Career Research Award, the first in our area of United States, permits Dr. D'Angelo to concentrate largely on his research interests. Dr. Hausberger's activity requires experimental manipulation of the hypothalamus, adrenal glands, islets of Langerhans, and adipose tissue in his analysis of the factors concerned with carbohydrate metabolism and lipogenesis, fat storage and utilization, obesity and weight loss. Genetically imposed adrenocorticotropic hormone producing tumors, tissue transplantation, parabiosis, and the like, are utilized in his studies which, clearly, are in the forefront and have set the pace for the recent widespread focus upon adipose tissue as a center of fat metabolism.

Drs. A. W. Sedar and C. G. Rosa are concerned with the study of the structure and function of formed as well as biochemical subcellular components through electron microscopy, cytchemistry, and other ultrastructure techniques, a field now experiencing our greatest and most rapid development. Dr. Sedar's significant work in the mechanism of glandular secretion and other subcellular functions has resulted in his recently having been awarded funds for a Siemens electron microscope and for the necessary supporting personnel and equipment. Dr. Rosa's prime interest is in the newly opened field of localization of enzyme systems in subcellular areas and in their visualization through electron microscopy, in normal and malignant cells. Drs. Sedar and Rosa scored a significant "first" in demonstrating the localization, and action, of enzyme systems between cristae of mitochondria.

 PATTERNS of vascular supply interest Drs. N. A. Michels, R. J. Merklin and W. W. Parke. Dr. Michels is continuing his classic studies, with Dr. Parke (and, until recently, Dr. P. Siddharth), on the blood supply of the abdominal and pelvic organs, a study whose importance was recently acclaimed anew. Dr. Merklin, in addition to analyzing the blood supply, extrinsic and intrinsic, of the adrenal glands, is engaged in histochemical studies of the female reproductive system, delayed pregnancy, and the human scalp. Dr. Parke has recently developed an unusually successful method for visualizing lymphatic vessels in the cadaver and is applying his method to a study of the lymphatics of abdominal organs and serous membranes. In addition, he is exploring the patterns of the systemic arterial connections to the lungs. Experimental analyses of normal and abnormal development, and the genetic and clinical implications in maldevelopment, interest Drs. R. J. Merklin, W. W. Parke, A. J. Ramsay and Mr. R. P. Jesh (with Dr. Robert L. Brent). Dr. Merklin is making an extensive study of the problem of reversed asymmetry in the human and its role in anomalies (ex: cardiac defects). Dr. Ramsay analyzes normal development through embryonic transplants in mammals, while Mr. Jesh is studying teratogenic effects of various agents and influences during pregnancy. Dr. Parke seeks genetic and developmental explanations of inherited characteristics of the pulmonary tree.

IN further developmental studies, Dr. R. C. Hutchinson utilizes various chemical agents in stimulating and in arresting the growth of cartilage, chondrolysis and ossification in the development of bones. Dr. Hutchinson also contributes to the knowledge of the anatomy of the fetus and newborn infant.

Dr. S. Zitzlsperger applies the principles of analytical mechanics to the analysis of bones, singly and articulated, and when connected by ligaments, in normal and abnor-
mal states (ex., in flat foot). This is a new method using mathematical concepts. Dr. Zitzlsperger is also working with Dr. Ramsay on the use of image amplification, intensification, and processing, for use in research and teaching.

Neuroanatomic and physiologic areas of investigation interest Drs. J. O. Brown and Norman Moskowitz. Dr. Brown's projects pertain to the nervous system with the current problems relating to the peripheral nervous system and certain intramuscular terminals in some of the non-supportive muscles of vertebrates. Dr. Moskowitz has started a comparative study of the auditory system in primates, the first phase of which, morphology of system, is underway with physiological studies to follow. For this study Dr. Moskowitz has developed a special room for monkeys, with constant temperature and humidity controls. Also, Dr. Moskowitz is studying, with Dr. Sedar, the fine structure of synapses in the central nervous system.

Other Anatomy projects include: the effect of proteolytic enzymes on human cancer cells and tissue cultures, the modification of metabolite and anti-metabolite therapy in human carcinoma, the blood supply of metastatic tumors of the lungs with the purpose of applying metabolite and anti-metabolite infusion in their control, investigation of extracorporeal circuits as they apply to segmental infusion in tumor therapy, and infrared cardiac endoscopy (Dr. B. J. Miller); the structure of the walls of arteries and the hydrodynamic and biophysical significance (Dr. Ramsay); constitutional and genetic factors in representative medical student groups (Dr. J. L. Angel).

Research in the Anatomy Department also includes thesis projects for four candidates for the Doctor of Philosophy degree in Anatomy and one for Master of Science, and a clinical anatomy study, the latter by Dr. Felix V. Lectura, a visitor for two years from University of the East, Ramon Magsaysay Memorial Medical Center, Philippine Islands. Nineteen medical students have participated this year in research at the Institute and only the lack of funds and laboratory space has kept fourteen others who wished similar opportunities for taking part, also.

Dr. J. Parsons Schaeffer, Professor Emeritus of Anatomy and former Head of the Department and Director of The Daniel Baugh Institute of Anatomy, who retired in 1948, comes to the Institute daily and lends his personal warmth and friendly counsel to Jeffersonians as he has since 1914. Recently Dr. Schaeffer has shared some of his authorships with Dr. Ramsay. And of course he shares his boundless enthusiasm for Anatomy, for medical education in all its phases, and for Jefferson, with everyone he sees and as he has continued to do for 49 years.

It is obvious that since the enlarged research programs of basic medical science departments cannot be supported by the normal budgets from College funds, outside sources must be sought. Although several of our projects do not require large expenditures the approximate cost of Anatomy research for the 1963-1964 year, deriving from extramural granting agencies (exclusive of postdoctoral, teaching and training fellowships and medical student research fellowships and stipends) will be between $205,000 and $210,000.00.

RESEARCH IN THE DEPARTMENT OF ANESTHESIOLOGY

BRONCHIAL HUMIDITY IN ENDOTRACHEAL ANESTHESIA—Harold F. Chase, M.D., Mearl Kilmore, M.S., and Rose Marie Tomasello, R.N.

A major study of the department supported by Public Health Grant #HE 3344 for the past five years has been concerned with water loss and tracheal dehydration and its effects during endotracheal anesthesia particularly when a non-rebreathing anesthesia system is used in children. Facts about water loss by various anesthetic techniques have been derived and have shown that water loss and dehydration is a problem only in the non-rebreathing system. Simple methods of providing moisture to dry anesthetic gases for inhalation without the use of atomization and electrical heat were studied and have been reported by publication and exhibit.

In the past year a study was made in humans of heat and moisture exchangers designed to fit on tracheostomy tubes or to be inserted between endotracheal tube and non-rebreathing valve. They condense moisture on exhalation and permit it to be revaporized in inhalation. Very small devices have been found which function with relative efficiency and will be studied clinically in the coming year.

In anesthesia the basic subject of water loss is con-
continuing with a clinical study of the difference in water loss from patients breathing via mask (nose and throat) and via endotracheal tubes.

The effects on lung function of breathing dry air or arid anesthetic gases were explored by studying three functions of the lung. Ciliary action was observed by bronchoscopic observation of implanted particles, defense against bacterial infection was studied by tagging tracheas of paired dogs with cultures of the non-pathogenic bacterium, serracia narcessens, and exposing the pairs in crossover techniques to breathing of dry or moist gases. This portion of the study had to be abandoned because of inadequate animal facilities, a factor which we anticipate will be improved with the construction of the new basic science building and revision of the present medical school facilities for better research units. The effects of breathing dry air were explored by developing pressure-volume diagrams of lungs of dogs exposed to wet and dry atmospheres and failed to reveal any measurable effect on their surface tension characteristics.

Further efforts are in progress to develop simple devices for producing humidity in the operating room involving neither atomization of water by pressure which invalidates measurement of anesthetic gas flows nor heating for vaporization by techniques which increase the ever present hazard of explosion of anesthetic mixtures.

OBJECTIVE EVALUATION OF PRE-ANESTHETIC MEDICATION—Donald L. Clark, M.D., Amilu Martin, B.S., and Louis J. Hampton, M.D.

A method has been under investigation for the past year which it is hoped will make possible the objective evaluation of sedation.

The study is performed with patients scheduled for elective surgery. The psychogalvanic response and electroencephalogram are monitored. The effect on these two parameters of a strobe light stimulus and an emotional stimulus is observed in order to evaluate the sedative qualities of various drugs commonly used for premedication.
(l. to r.) Technician Rose Marie Tomasello, Mearl Kilmore, graduate student in Physiology, and Dr. Harold Chase, Professor of Clinical Research in Clinical Anesthesiology, demonstrate the technique used in studying respiratory water loss during anesthesia.

The field of sensory-evoked response is quite controversial and results often difficult to interpret. The results of this relatively simple study are sufficiently significant in reproduction to warrant further investigation.

REFLEX HYPOTENSION—John M. Hess, M.D., J. H. Killough, M.D., and Edward R. Nowicki, B.A.

Since early spring a study has been under way in conjunction with the Department of Medicine investigating in dogs reflex hypotension under anesthesia during abdominal stimulation.

For many years investigators have attributed the hypotensive response to intra-abdominal stimulation to a "vagal reflex." Recent evidence suggests that the mechanism may be one of central sympathetic inhibition.

Two problems in studying this reflex have been certain technical difficulties and the lack of a stimulus which consistently produces the reflex response.

The present study of reflex hypotension in dogs has been made utilizing simultaneous measurement of arterial pressure, left atrial pressure, myocardial contractility, cardiac output and the electro-cardiogram. Stroke work and peripheral resistance have been calculated.

A stimulus has been devised which gives a consistent and reproduceable hypotensive response of an instantaneous and simultaneous decrease in arterial blood pressure, increase in left atrial pressure, and usually a decrease in cardiac output, stroke work and peripheral resistance.

Electrical stimulation of the distal cut end of the vagus nerve has produced only a slight decrease in systolic pressure with a relatively large drop in diastolic pressure while the characteristic reflex response is one of a larger systolic drop. Stimulation of the vagi with the heart rate held constant does not produce a decrease in the force of myocardial contraction.

Further work is presently being done with local anesthetics in an attempt to block the reflex at various points and an attempt is also being made to determine what effect various anesthetic levels play in the reflex response. Blood levels of ether are being measured by the gas chromatograph of the City Medical Examiners Office in conjunction with Doctor Rieders.

Preliminary work along these lines indicates partial block of the reflex by blockade of the thoracic sympathetic nerves, and elimination of the response at a relatively deep ether anesthetic level.

PREVENTION OF EPINEPHRINE-INDUCED ARRHYTHMIAS USING ADRENERGIC B-RECEPTOR BLOCKADE—John M. Hess, M.D., Louis J. Hampton, M.D., and Rose Marie Tomasello, R.N.

Working on the premise that hearts damaged by vascular disease respond poorly to catecholamines, and that blockade of this effect might prove beneficial in coronary patients by decreasing the myocardial oxygen demand, Stephens and Black studied a compound developed by Imperial Chemical Industries Ltd. by dog experiments and reported it in Lancet, August 18, 1962. Its use in angina patients, resulting in increased exercise tolerance was reported in the same journal by Dornhorst.

It occurred to us that such a drug might be valuable in protecting the myocardium from epinephrine sensitization during halothane and cyclopropane anesthesia.

The development of this drug, which is 2 isopropyl (amino 1-(-2 napthyyl) ethanol hydrochloride, also known as Nethalide or Al-der-lin in England) or Ayerst 6204 in this country, evolved from the concept of adrenergic receptors proposed by Ahlquist in 1948 (Am. J. Physiology). Using the response to a group of 5 amines he classified alpha receptors as those which excite except for intestinal inhibition, and beta receptors as those which are responsible for inhibition, except myocardial stimulation.

Dichloroisoprenaline, studied in 1958, also is a specific beta receptor blocking agent but exerts undesirable sympathomimetic effects. The drug we are studying appears to have no sympathomimetic effect.

If given slowly the drug has minimal side effects on heart rate, ECG, force of contraction, blood pressure and cardiac output, according to Stephens and Black.

Arterial pressure, venacaval pressure, ECG and blood halothane levels are measured. The halothane levels are being measured by the gas chromatograph of the City Medical Examiners office in conjunction with Dr. Rieders.

Preliminary studies have shown a good protection against epinephrine induced arrhythmias in the presence of halothane.

This will be presented on the "Work in Progress" section of the American Society of Anesthesiologists in Chicago, Tuesday, November 5, 1963.
INTERESTING results have been obtained during the past year in studies of the chemotherapy of experimental tumors, conducted by Dr. Cantarow and Mr. Williams in collaboration with Dr. Rupp (Medicine). These illustrate well the manner in which studies of a basic nature can lead to entirely unanticipated results of potential practical utility.

We (Cantarow and Paschkes) had been engaged for 20 years in studies of chemical carcinogenesis in the rat, with special reference to certain aspects of host-tumor interrelationships. Early in the course of these studies it was found that the production of mammary tumors by acetylaminofluorene was enhanced by progesterone and that of liver tumors was stimulated by testosterone and inhibited by thiouracil. Inasmuch as thiouracil is a sulfur analog of uracil, a pyrimidine base component of nucleic acids, the possibility was suggested that this inhibitory effect might be related in some way to interference with synthesis of nucleic acids and, consequently, of proteins. However, at that time the prevailing view was that uracil, in common with other pyrimidine bases, could not be utilized by mammalian tissues. If this were true, this concept of the mechanism of action of thiouracil in this connection would be highly improbable.

On investigating this matter, employing C¹⁴-labelled uracil, we found (1952) that whereas, as had been believed, uracil was not utilized significantly by the normal rat, it was indeed utilized preferentially for nucleic acid synthesis in both hepatoma and preneoplastic liver. This surprising observation was soon confirmed in other laboratories in this country and in Europe and led to a concentration of interest in the metabolism of pyrimidines. Studies during the next several years gave rise to the impression that utilization of uracil for nucleic acid synthesis in the rat may be a metabolic characteristic of rapidly growing tissues, non-neoplastic as well as neoplastic. On the basis of the striking difference in behavior of neoplastic and most normal tissues in this regard, Heidelberger, in Wisconsin, conceived the idea that a fluorine analog of uracil, 5-fluorouracil, might effectively block utilization of uracil in the synthesis of deoxyribonucleic acids and might, therefore, inhibit tumor growth without significantly influencing metabolism in other tissues. Since 1957, when tumor inhibition by fluorouracil was first reported, there has been an enormous expansion of interest in and use of this and related compounds in cancer chemotherapy. It is one of the very few agents effective against a variety of solid tumors. However, as in the case of virtually all compounds employed for this purpose, its clinical usefulness has been limited by its toxicity. The toxic effects are presumably related to its incorporation in nucleic acids of rapidly regenerating tissues, such as bone marrow and intestinal mucosa.

Conceivably, the toxicity of fluorouracil might be decreased, and its therapeutic effectiveness increased, if one could increase its incorporation into the tumor nucleic acids relative to that into the host tissue nucleic acids. Studies in our laboratories during the past few years have demonstrated significant quantitative differences in the effects of certain nutritional and hormonal factors upon the relative degree of incorporation of uracil into neoplastic and non-neoplastic tissues of the rat. Inasmuch as the metabolism of 5-fluorouracil parallels that of uracil, these factors would presumably influence the metabolism of the former in similar manner. Accordingly, during the past year, the influence of the protein anabolic hormones, testosterone and somatotropin (growth hormone), was examined on the toxicity and tumorstatic effect of fluorouracil in rats bearing transplanted tumors. The results of these studies indicate that both hormones afford protection against the toxic effects of fluorouracil and enhance its tumorstatic effect. It appears, therefore, that this and other forms of combination chemotherapy show promise of producing effects in the desired direction. Studies of this type are to be continued and expanded.

Other research activities in this department include the following:

1. Dr. De Meio has made significant contributions to knowledge of mechanisms of sulfate conjugation. His work is currently concerned mainly with mechanisms of biosynthesis of heparin and chondroitin sulfate, mucopolysaccharides of considerable physiological and pathological significance.

2. Dr. Scheutz is engaged in studies of the activities of enzyme systems concerned with amino acid metabolism in the brain tissue of fetal mice. In recent
years it has been found that certain congenital aberrations of amino acid metabolism are associated with states of mental deficiency. This work may throw some light on the pathogenesis of these metabolic defects, some of which may be due to persistence into adult life of a fetal enzymic pattern.

3. Dr. Toporek is employing the isolated rat liver perfusion system in studies of the role of the liver in the metabolism of vitamin B₁₂ and in studies of plasma protein synthesis by the liver of tumor-bearing animals.

4. Dr. Allen is investigating the influence of dietary and hormonal influences on the rate of utilization of glucose for synthesis of fatty acids in various tissues. Information of this sort may contribute to better understanding of aberrations of lipid metabolism in clinical disorders.

5. Dr. Hansen is engaged in attempts to develop improved methods for accurate measurement of minute amounts of steroid hormones, a matter of major importance to clinical endocrinology.

AN IMPORTANT research activity this year has been the development of a plethysmographic goggle. With this device it is possible to perform ophthalmodynamometry by increasing the air pressure in a closed chamber over the eye.

Ophthalmodynamometry is a method of estimating systolic and diastolic ophthalmic artery pressure by viewing the pulsation and complete collapse of the central retinal artery. Ordinarily this is clinically performed by the Baillert instrument which increases the pressure within the eye by applying force to a small area on the external surface.

The plethysmographic goggle has many advantages over the Baillert instrument for experimental purposes. With the goggle it has been possible to investigate pupillary reactions during blackout and the pattern of visual field changes during ophthalmodynamometry. The latter can be definitely related to changes found in glaucoma. Fluorescein dye studies of retinal circulation are also in progress, both in the normal and under increased pressure, with the goggle. In addition, technique with the Electroretinogram has been perfected and further studies of this during ophthalmodynamometry are planned.

The Department has been aided in its research activities by the addition of Dr. Thomas Behrendt to its staff in a full time capacity. His particular interest is retinal circulation and retinal photography.

RESEARCH IN THE DEPARTMENT OF OPHTHALMOLOGY

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RESEARCH IN THE DEPARTMENT OF ORTHOPEDIC SURGERY

PROJECTS designed to increase scientific knowledge in orthopedics have been carried out by the department since 1952. During the early years all research was performed by Dr. DePalma. Currently the laboratory is staffed by two full-time residents and technicians, also a part-time technician. In addition medical students are employed during the summer months. They participate actively in the various projects.

The laboratory is equipped to handle animal surgery, basic histology, autoradiology, anatomic dissection and other study techniques, a wide range of photography (clinical and photomicrographic) basic X-ray, and antigen-antibody techniques.

In 1957, Dr. DePalma began to study the feasibility of transfer of adult articular cartilage and immediate subchondral bone from one dog to another. A series of femoral cap transplants of autogenous, fresh homogenous, and plasma stored homogenous varieties followed. Viability and function were observed over several years. In his early work, Dr. DePalma showed histologic evidence of viability. However, he noted that the homogenous grafts would not survive if stored longer than 28 days.

Success obtained in transferring cartilage grafts during this study has been a great encouragement. Dr. DePalma feels that we shall soon have the technical ability and sufficient understanding of the processes involved to begin clinical studies of cartilage cap grafting.

Other projects are being carried out in the laboratory by members of the staff and residents. These are:

1. The response of immature and mature articular cartilage to different types of trauma. As a corollary we hope to learn more about the ability or lack of ability for articular cartilage to regenerate.

2. Tensile strength studies of normal tendons and development of a tendon prosthesis.

3. A clinical and anatomic correlative study of the human hip joint in various decades.

5. An anatomic study of the nerve supply to the midtarsal joints for possible implications in the peroneal-spastic flatfoot syndrome.


RESEARCH IN THE DEPARTMENT OF OTOLARYNGOLOGY

1. NIH Research Grant B-2035, "Masking Efficiency in Normal and Impaired Ears" has supported research resulting in the following publications:


5. Harbert, F., and Young, I. M.: Spread of Masking in Ears Showing Abnormal Adaptation. Accepted for publication in Acta Otolaryngologica.


8. Harbert, F., and Young, I. M.: Sudden Deafness with Complete Recovery. Accepted for publication in Arch. Otolaryng.


Currently, a study on overmasking techniques is being prepared for publication. It is emphasized that usual clinical testing methods may lead to erroneous conclusions when the ear with better sensorineural function has a conductive barrier. In such cases, overmasking this ear while testing the opposite ear by bone conduction and speech is recommended.

2. The Deafness Research Foundation Grant and the Rosengarten Fund has established a temporal bone laboratory for processing human and animal temporal bones. Dr. Reddy and co-workers (M. Igarashi, M.D., D. Rior-dan, M.D., and P. Jackson, M.D.) have utilized this
support to investigate damage in the organ of Corti due to various ototoxic drugs in varying concentrations including kanamycin, neomycin, streptomycin, dihydrostreptomycin, and polymycin. Simultaneous damage to the vestibular system in certain instances has also been demonstrated. Domestic cats have been exposed to varying degrees of gravitational stress and damage to the cochlea and its components have been studied.

3. Small grants have supported a study of blood circulation in the labyrinth of cats and humans by Dr. Reddy and co-workers. A perfusion technique using contrast media that can be identified in tissue specimens by X-ray was utilized.

4. Clinical nystagmography is being investigated with a single channel recording device consisting of EKG equipment modified to change the time constant and an X-Y recorder. It is hoped that with further support, a multi-channeled system will be in operation in the near future.

5. Dr. Sataloff and co-workers are working on the following problems:

- Relation of otosclerosis to sensorineural deafness (with Lawrence Vassalo, Stanley Farb, M.D., and Dr. Hyman Menduke).
- High tone hearing loss in otosclerosis.
- High tone hearing loss in presbycusis and occupational deafness.
- Audiologic findings in presbycusis (with L. Vassalo and H. Menduke).
- Adaptation to Industrial Noise exposure (with L. Vassalo and H. Schmitz).

6. Drs. Putney, Farb, and Riordan collaborated with members of the Department of Radiology on cine radiography and cervical lymphangiography.

Dr. John B. Reddy, Assistant Professor of Otolaryngology, and Frances M. Bonner, B.S., examining temporal bone specimens in the Rosengarten Otologic Laboratory.
IN RECENT years research facilities and research in the Department of Pathology have been greatly expanded. The investigators, their main projects, and the support for these projects may be listed as follows:

1. Peter A. Herbut, M.D., Professor of Pathology and Head of the Department and Helga M. Suld, Ph.D., Research Associate in Pathology. The Identification and Isolation of a Tumor Inhibitory Principle in Guinea Pig Serum and Liver. Supported by the Elizabeth Storck Kraemer Memorial Foundation for Cancer Research.

2. Robert Love, M.B., Ch.B., M.D., Professor of Pathology and George P. Studzinski, B.S., M.D., Ch.B., Instructor in Pathology. Characterization of the Nucleoproteins of Cells by Cytochemical and Biochemical Procedures. The Effect of Various Chemicals on HeLa Cells. Supported by NIH.

3. Theodore T. Tsaltas, M.D., Associate Professor of Pathology. The Effect of Non-ionic Detergents on Serum Lipoproteins in Vivo and in Vitro. The Effects of Papain on Blood Coagulation Mechanism, Blood Lipids, and Cartilage Metabolism. Supported by NIH.

4. Gonzalo E. Aponte, B.S., M.D., Associate Professor of Pathology. The Relationship of Irradiation and Hormones to Neoplasia. Supported by the Markle Foundation and NIH.

5. John J. Moran, B.S., M.D., Assistant Professor of Pathology. Study of the Methods and Significance of Tumor Cells in the Circulatory Blood. Supported by the American Cancer Society.

6. William E. Delaney, III, B.S., M.D., Assistant Professor of Pathology. Isotope and Element Fractionation in Disease (in conjunction with Pennsylvania State University). Supported by NIH.

7. Ioulios Iossifides, M.D., Assistant Professor of Pathology. Study of Erythropoietic Recovery of Mice Irradiated and Protected with Preserved Bone Marrow. Preservation of Skin and Platelets with Dimethylsulfoxide. Supported by AEC and the Charlotte Drake Cardeza Foundation.

8. Philip H. Geisler, B.A., M.D., Assistant Professor of Pathology. Study of Coagulation Factors in Hemophilic Humans and Dogs. Supported by NIH and the Charlotte Drake Cardeza Foundation.

For purposes of this publication, the work of Doctor Robert Love and his associates will be presented.

In recent years, exciting new information about the nature and function of nucleic acids and nucleoproteins has resulted from the work of biochemists, virologists, and molecular biologists. The physical and chemical structure and function of deoxyribonucleic acid (DNA), informational, transfer and ribosomal ribonucleic acid (RNA) are being elucidated. A great deal is known about the site and mode of synthesis of DNA, RNA and protein and the relationship of these phenomena to cell division and viral replication. The coding system of DNA is believed to direct the formation of informational or messenger RNA which in turn directs the assembly of amino acids by the polyribosomes. The "transfer" RNA plays an intermediary role in the process. There is, however, much to be learned about the inter-relationship of the various metabolic processes involved in normal, abnormal and virus-directed nucleic acid and protein synthesis and how these processes are involved in normal and neoplastic cell division. For example, it has been known since the work of Ellerman and Bang in 1908 that viruses can induce neoplasia. Since this time many viruses, including some which produce minor illnesses, have been shown to be oncogenic under certain circumstances. The manner in which viruses induce neoplastic transformation is not understood.

The research of Doctor Robert Love and his associates is directed toward the elucidation of some of these problems. The construction of the laboratories in which

Figure 1
(Photo supplied by the Department of Pathology)
they work and all the facilities and equipment associated therewith was made possible by grants to Doctor Love from the National Institutes of Health (see Alumni Bulletin, December, 1961). Doctor Love wishes to acknowledge the co-operation of Doctor R. Gerald Suskind, Doctor Giancarlo Rabotti, Doctor George P. Studzinski and, to date, four graduate students who have helped in the conduct of the research and in the development of the laboratories. Doctor Studzinski came to Jefferson from Glasgow, Scotland, to join Doctor Love's research team. He is an honors graduate in Medicine from the University of Glasgow. He is also a Ph.D. and has a first class honors degree in Biochemistry from Professor Davidson's laboratories in Glasgow.

During the last eight years, cytochemical staining methods have been developed by Doctor Love and his colleagues to differentiate nine types of ribonucleoprotein in cells. The methods involve the binding of the cationic dye toluidine blue by phosphoryl groups of the nucleic acid in the cell followed by aggregation of the nucleic acid-dye complexes by polymolybdates to produce intense metachromatic (purple) staining. By means of these toluidine blue-molybdate staining methods, two types of ribonucleoprotein have been shown in the nucleolus (Fig. 1). One of these is the pars amorpha which is the homogeneous matrix of the nucleolus; the other consists of minute granules or hollow spheres which appear to correspond to the nucleolini of classical cytologists. Various types of ribonucleoprotein have been demonstrated in and around the chromosomes and chromatin and in the nucleoplasm (Fig. 1). A granular, and two kinds of amorphous ribonucleoprotein have been shown in the cytoplasm (Fig. 2). Some of these ribonucleoproteins undergo cyclical changes during cell division. In the absence of such changes the cell cannot divide normally. The current research is directed toward the elucidation of the functional significance of the nine types of ribonucleoprotein that can be demonstrated by the toluidine blue-molybdate staining procedures. In particular, changes in the nucleoproteins are investigated when cellular metabolism is modified by virus infections and by antimetabolites and agents that interfere with cell division. Cells grown in tissue culture and ascites tumor cells of mice are used. Cytological and cytochemical observations are correlated with biochemical and, in some instances, virological studies.

Studies of the cytochemistry of cells infected with polyoma, parainfluenza, vaccinia and herpes virus have been made by Doctors Love, Suskind, and Alan S. Rabson of the National Institutes of Health. In association with Doctor R. Gerald Suskind, it was shown that the cytopathology of parainfluenza virus infection in primary cultures of monkey kidney cells was completely different from that in human cervical carcinoma (HeLa) cells. In the former, small ribonucleoprotein inclusions were produced in the nucleus and cytoplasm. The normal ribonucleoproteins of the cell were unaffected and mitotic division of infected cells continued. No true inclusion bodies were seen in the infected HeLa cells, while fusion of cells to form large syncytia occurred, the nucleoproteins of the nucleus were destroyed and no further cell division occurred. Thus, it was shown that the same virus could produce an infection which, in one type of cell allowed mitotic division to continue and which, in another, produced metabolic changes that inhibited the onset of mitosis. Infection of HeLa cells with vaccinia and herpes virus resulted in inhibition of the onset and course of mitotic division.

Interesting changes in one of the two types of ribonu-
cleoproteins in the nucleolus, namely the granular component or nucleolini have been observed in some, but not all the virus infections that have been studied. In cells infected with polyoma and herpes viruses, the earliest change consists of enlargement, fusion and extrusion of the nucleolini from the nucleolus. Vaccinia virus infection, on the other hand, produces no change in the nucleolini. Work is in progress to determine the functional significance of the two nucleoproteins of the nucleolus. The formation of both types has been shown by Mr. Allen M. Clark, a graduate student, to be dependent upon DNA-primed RNA polymerase. Mr. Clark has studied the effect of actinomycin D, which combines with deoxyribonucleic acid and inhibits the action of RNA-polymerase. In the treated cells, both types of ribonucleoproteins in the nucleolus disappear. On removal of the antimetabolite, the pars amorphapha, and later the nucleolini reappear. Doctors Love and Studzinski and Mr. Richard J. Walsh (a graduate student) are investigating the effect of 5-fluorodeoxyuridine (FUDR) on the growth and metabolism of HeLa cells. Inhibition of the synthesis of DNA by FUDR results in the inhibition of the synthesis of RNA in the nucleolini and in and around the chromosomes.

Two graduate students, Mr. Richard M. Walsh and Doctor W. Lawrence Drew are beginning work on the metabolism of virus-infected cells. Mr. Walsh is studying the cytopathology of HeLa cells infected with two strains of Newcastle Disease virus. One of the strains is a recent egg passage isolated from an infected bird. The other is a strain that was adapted by Flanagan and Love to become oncolytic for the Ehrlich ascites tumor. Doctor Drew is extending previous work by Doctor Love and Doctor Peter Wildy of the Department of Virology, Glasgow, Scotland, on the cytopathology of herpes virus infection. He will study the effects of inhibitors of nucleic acid and protein synthesis on infected cells. Doctor George Studzinski is investigating methods of cell fractionation by ultracentrifugation and other procedures with the intention of applying them to the correlation of cytochemical and biochemical observations. Doctor Studzinski has developed precise and reproducible methods for quantitation of nucleic acids and protein in relatively small numbers of tissue culture cells. He is using these, in addition to cytochemical staining procedures and enzymatic analyses to investigate the inter-relationship of nucleic acid and protein metabolism in HeLa cells treated with puromycin, an inhibitor of protein synthesis, and mitomycin, which inhibits synthesis of DNA.

Doctors Love and Rabotti have demonstrated an RNA-DNA hybrid in and around the chromatin and chromosomes and in the nucleolini. Since the formation of this hybrid in inhibited when DNA synthesis is blocked by FUDR, the RNA of the hybrid is probably of the messenger or informational type. Doctor Love, in association with Doctor Jan Ponten and Doctor Hilary Koprowski, Director of the Wistar Institute, has demonstrated a similar hybrid in cells infected with SVG0 virus. SVG0 virus was originally isolated from monkey kidney preparations used in the Salk-type poliomyelitis vaccine (Hilleman el at.). It has since aroused great interest because of its ability to induce what appears to be a malignant transformation of animal and human cells in tissue culture and because of its ability to produce tumors in animals. (Eddy, Koprowski, Enders et al.). Studies of the cytopathology of green monkey kidney cells infected with this virus and of human diploid cells undergoing apparent neoplastic transformation following infection with SVG0 virus are in progress.

Another graduate student, Mr. Elliott R. Tressan, is investigating the effects of fluorophenylalanine on nucleic acid and protein metabolism in HeLa cells. He has noted that the inhibitory effect of the anti-metabolite is quite different from the effect of omission of phenylalanine from the culture medium. No changes take place in the ribonucleoproteins of cells in the deficient medium while the nucleolini disappear in cells treated with the antimetabolite. The changes are reversed by the addition of phenylalanine to the cultures.
ties of the laboratories. The training program also extends to foreign scientists and, at present, Doctor Ragaa Wahaab from the Egyptian Cancer Institute, is studying cytochemical and tissue culture technics. She is conducting research on the effects of deoxyadenosine and adenosine on the metabolism and growth of cells in tissue culture. Doctor Love also plans to bring over his colleagues, Doctors Louise and Jacques Harel, from the Institut Gustave Roussy near Paris to collaborate in the research program. Their wide background in the field of nucleic acid metabolism should be of great help to all.

In general, the work has attempted to follow the admonitions of Francis Bacon. "So whosoever shall entertain high and vaporous imaginations instead of a laborious and sober inquiry of truth, shall beget hopes and beliefs of strange and impossible shapes."

RESEARCH IN THE DEPARTMENT OF PEDIATRICS

FOR THE past six years the Pediatric Department has had continuing interest in two major research areas: one in the clinical investigation of premature care under the direction of Dr. Hans G. Keitel, and the other in Experimental Embryology under the direction of Dr. Robert Brent.

The clinical investigations in prematurity have resulted in the development of a unique method for evaluating the mortality rate of premature infants. The "Probit Mortality" Score Method expresses the mortality rate of the entire premature population by using a single number. This is done by assigning probability values for each infant according to his birth weight, race, and sex. The Probit Mortality Score Method is currently being evaluated by the City of Philadelphia and several major hospitals in America for the clinical evaluation of premature care. One research application of the Probit Mortality Score Method has been in the evaluation of the use of concentrated formulas for feeding premature infants. Concentrated formulas have been shown to increase growth so that the rate of weight gain of the extra uterine premature infant almost matches the rate of the in utero fetus. However, the safety of the use of concentrated formulas remained in question until it was found that the Probit Mortality Score of infants fed concentrated formulas did not differ from that of infants fed formulas of regular dilution.

Investigating the growth of a premature infant are (l. to r.) Catherine Krauss, R.N., Dr. Elsie Chiu, Assistant in Pediatrics and Associate Director of Nursery Staff, and Theresa Fiorentino, Technician.
One of the major projects of the experimental embryology laboratories in the Department of Pediatrics is concerned with the production of congenital malformations in mammals. A part of this research is concerned with the mechanism of action of anti-kidney antibody. It has been found that kidney antibody when injected into pregnant rats produces a high incidence of malformations. Localization of this antibody labeled with radioactive iodine revealed that the antibody localized in the placenta, as well as the kidney and adrenal. It seems most likely that this antibody produces malformations via the induction of placental dysfunction. Most teratogenic agents act directly on the fetus; therefore, teratogenic kidney antibody is a unique teratogen, in that it may act via the placenta and is a protein able to be formed by mammals.

RESEARCH IN THE DEPARTMENT OF PHARMACOLOGY

Toxicologic studies of insecticides

FOR several years this research program, under the general direction of Dr. J. M. Coon, has been carried on by Dr. Richard Welch and three graduate students—Joseph McPhillips, Anthony Triolo and William Lynch. The work has involved primarily the class of insecticides known as the organophosphates, which are potent inhibitors of cholinesterase and are highly toxic substances. They are widely used in this and other countries and constitute an important public health hazard in their manufacture and around the farm, the garden or in the household. In the recent past the investigations by the above group have dealt with the treatment of poisoning and the metabolism of the organophosphate insecticides. At present the emphasis is on their toxicologic interactions among themselves and with the chlorinated hydrocarbon insecticides and a number of clinically useful drugs.

The significance and timeliness of this line of investigation is emphasized by the recent widespread concern over the possible hazards to public health and wild life of the extensive use of pesticides. This concern, though it has existed for more than a decade as a result of the tremendous increase in the number of pesticides and in the extent of their use, flared up to fever pitch following the publication of Rachel Carson's *Silent Spring* in the summer of 1962. The almost hysterical reaction to this book in turn generated considerable activity in Washington, and the President's Science Advisory Committee was put to work to investigate the situation. The report of this Committee, released in May of this year, was, unlike *Silent Spring*, a balanced recognition of the established values as well as the potential hazards of the use of pesticides. Among its several commendable recommendations was one urging intensified research involving studies of the toxicologic implications of simultaneous exposures to two or more pesticides, and to pesticides and drugs.

Investigations of this nature have been going on in this laboratory for about six years. The most significant findings are those that actually reveal *protective* interactions when certain pairs of pesticides or of pesticides and drugs are given together or in sequence.

A lead was taken from the work of others who have shown that certain drugs, such as chlorcyclizine, phenobarbital, phenylbutazone, aminopyrine, and others, when administered to animals subacutely or chronically, can stimulate the microsomal enzyme activity of the liver and thus increase the rate of detoxication and decrease the toxicity of other drugs. In testing the "microsomal stimulants" against the organophosphate insecticides it was found that they provide a marked protection against the toxicity of several of these agents, such as Parathion, Malathion, tetraethylpyrophosphate (TEPP), and EPN. An additional important observation was that chlorcyclizine and phenobarbital increased the levels of several non-specific esterases in liver and plasma which can combine with the organophosphate molecule, thus reducing the amount available for the inhibition of cholinesterase. A significant extension of this work involves the observation that Aldrin, one of the important representatives of the chlorinated hydrocarbon class of insecticides, acts also as a microsomal enzyme stimulant. Animals pretreated with subtoxic doses of this agent are markedly protected against the toxic effects of several of the organophosphate insecticides. It is anticipated that DDT will act in the same way, since other workers have discovered that it serves as a microsomal stimulant of the metabolism of some common drugs.

Other studies in progress here give evidence that repeated administration of one organophosphate compound can promote the development of adaptive mechanisms which impart a tolerance to the same compound,
or to other compounds of this class. A definite tolerance has been established to OMPA (octamethylpyrophosphoramide) and to Di-syston, and rats which have become tolerant to OMPA exhibit a cross-tolerance to Di-syston. The mechanism of this phenomenon has not been determined. In another case, however, tri-ortho-tolylphosphate, when administered to mice repeatedly, decreases the toxicity of Parathion. There is evidence that this antagonism of one organophosphate by another is due to the increased production of microsomal or other enzymes responsible for destroying or combining with the toxic agent.

The general significance and applicability of these examples of protective interactions of toxic pesticides, among themselves or with a number of drugs, have yet to be established. In this line of investigation most of the observations in this and other laboratories have been done with mice and rats, and whether other species of animals, including man, will respond in a similar manner remains unknown. The results thus far, however, if they can be extrapolated to man, suggest that the induction of enzymes by toxic chemicals in our environment, as pesticides, drugs, or otherwise, may play an important role in protecting man against the great multiplicity of substances to which he may be exposed in his "chemical environment."

Action of phenothiazines on voluntary muscle.

Chlorpromazine in low concentrations has been found to have a profound and relatively irreversible effect on isolated voluntary muscles. The possibility that this action might offer a clue to the mechanism of the effects of this drug and perhaps other phenothiazine derivatives on neurones has led to an exploration in some detail of this phenomenon by Dr. C. P. Kraatz and Dr. Walter Schlosser. These studies on frog muscles involve comparative data on intracellular cation changes, resting and contractile tensions, resting and action potentials as measured by both intracellular and extracellular electrodes, and binding of the drug by components of the muscle.

Mechanism of action of botulinum toxin.

Dr. Kraatz and Dr. Schlosser are also inaugurating experiments with botulinum toxin in several species of animals with the objectives of gaining further information of the mechanism of its action, and of developing a more effective approach to the treatment of poisoning by the toxin.

Distribution of anesthetic agents in peri-operative deaths.

This project, under Dr. Fredric Rieders, involves a detailed study of the organ, tissue and body fluid distribution of general anesthetics in man as affected by dosage, duration of administration, pathologic condition, surgical procedure, etc. Little such knowledge exists since previous studies have been carried out almost exclusively on normal healthy animals.

Drug metabolism in malnutritional states.

Dr. R. W. Manthei and his group are presently studying the effect of low protein diet in rats on the responses to and the metabolism of various drugs. Recent results provide evidence that such a diet depresses oxidative drug metabolic processes, as for alcohol, hexobarbital and OMPA (an organophosphate insecticide), while not affecting conjugative processes, as for sulfonamides, benzoic acid, and isoniazid.

Metabolism of metronidazole.

Dr. Manthei is also making a study of the biotransformations in the human body of metronidazole, a new
drug used in the oral treatment of Trichomonas vaginitis. Several metabolic products have been characterized and some unchanged drug has been found in the urine of patients.

Central mechanisms of psychotropic agents.

Dr. Walter W. Baker is directing a program involving the analysis of the brain sites, pathways and receptors through which psychotropic drugs produce neurologic and behavioral changes or disturbances.

Studies on $^{6}H_{4}$ and $^{H}H$ labeled antitumor agents.

Dr. James J. Kocasis and his students are attempting to elucidate the antimitotic action of colchicine and podophyllotoxin. Present efforts are directed toward the study of the effects of colchicine on taurine metabolism and on the liberation, distribution and excretion of other biogenic amines, such as serotonin, norepinephrine, and histamine.

**RESEARCH IN THE DEPARTMENT OF PSYCHIATRY**

Of the several major studies now being conducted as part of the program in the Department of Psychiatry at Jefferson Medical College, the study of the use of permanent recordings in psychiatry has been selected for presentation in the Jefferson Medical College Alumni Bulletin because of its scope and general significance as a behavioral research project and also because of the number and diversified interests of the participants, all of whom bring to this program contributions characterized by their individual backgrounds, professional interests and abilities.

Although there are numerous ramifications of this type of research program there are two major aspects which now have become structured and independent areas of work within the broader overall program. These are 1) a study of self-image experience and 2) the development and use of standard behavioral recordings.

The work on self-image experience began in 1952. It was the first instance in which psychotic persons were studied as they viewed their own self-images from photographs obtained while they were mentally ill. With a hand-held, silent, spring-wound motion picture camera several patients were photographed at Boston State Hospital at that time. The first subject, a chronically ill psychotic patient who had been hospitalized for approximately ten years demonstrated severe psychological and physiological manifestations of anxiety when he looked at silent motion pictures of himself. Later two additional psychotic subjects demonstrated their response to their self-images. These seemed to be very unique reactions.

Later a project was begun in 1956 sponsored by the Department of Psychiatry at Boston University School of Medicine. During this study sixteen patients were seen in a series of self-image experience sessions. Permanent records of their facial expression, body movement and verbal comments were obtained during this study. The investigators reported that self-image experience studies revealed psychotic patients have a large reservoir of feeling about self. The authors also stated that the self-image experience session seemed to offer potential as an adjunct to psychotherapy with severely disturbed patients.

During his stay in Oklahoma the principal investigator continued self-image experience studies of psychotic patients at Central State Hospital and at the Veterans Administration Hospital in Oklahoma City.
The project, supported by a grant from the National Association for Mental Health, was transferred from the University of Oklahoma to Jefferson Medical College in 1962. Current work is being carried on at Eastern Pennsylvania Psychiatric Institute, where laboratories, including a camera room and a subject observation room have been constructed.

In the work area subjects enter and are photographed during a brief behavioral recording session. This 2½ minute sound color motion picture of the subject is then developed, and a few days later the film is shown to the patient in a self-image experience (S.I.E.) session. There may be one or several of such sessions in series, following which other standard behavioral recordings are made. Since all of the self-image experience sessions are photographed while the patient views himself in the projected motion picture, these audio-visual records may be utilized in studying minute details of the patient’s reaction to seeing himself. The standard behavioral recordings are then used for comparison studies to determine what changes may have occurred during the experimental period.

At the self-image experience project on the fifth floor of the Eastern Pennsylvania Psychiatric Institute a number of Jefferson faculty and staff take part in this project. Doctor Floyd S. Cornelison, Jr., Professor and Head of the Department, is the principal investigator for this study. Doctor Peter J. Welt, Associate Professor of Psychiatry (Behavioral Research) recently joined the Jefferson faculty in order to devote most of his professional work to the self-image experience project and related studies. Previously he had been director of the behavioral recording unit in the neurocardiology project at the University of Oklahoma Medical Center in Oklahoma City. He is responsible for collecting and analyzing certain aspects of the behavioral records of subjects including the telemetered physiological data. Doctor Claus Bahnson, Associate Professor of Psychiatry (Psychology), is the chief psychologist for the project. Doctor Bahnson was familiar with Doctor Cornelison’s work when they were acquainted in Boston. He is responsible for the psychological studies which are made of each subject and for the evaluation of the responses and changes in behavior which may occur as the result of self-image experience sessions. Doctor Claus Bahnson’s wife, Doctor Marjorie Brooks Bahnson, research consultant to the Department of Psychiatry, designs and tests the rating procedures and the methods of more accurately determining the specific elements of human behavior which may show evidence of change during the SIE sessions. Both Doctors Bahnson and Dr. Welt supervise the work related to the training of medical students who are in the N.I.M.H. student research trainee program. This program affords an opportunity to a number of Jefferson students each year to participate in projects sponsored by the Department of Psychiatry. A number of them elect to work in the self-image experience project.

Medical students who currently are participating in the self-image experience project include Vincent Ascolese, James Delaplane, Stanley Foster, Benjamin Halpren, Jerome Kosoy, Robert Steiner and Richard Trabulsi. This work is an excellent opportunity for medical students to learn something of research techniques and at the same time gain experience in the field of human behavior, since the sound motion pictures which are obtained may be studied repeatedly, and the medical students have the benefit of experienced researchers and clinicians who discuss with them various aspects of the behavior of the subjects seen in the motion picture.

Mr. Jerome Gelber, Miss Helen Kolson and Mrs. Erwina Cornelison are technical assistants in the SIE project. Most of their time is spent at Eastern Pennsylvania Psychiatric Institute where the actual work of the project is carried out.

The second major aspect of the overall program in the use of audio-visual media and physiological recordings is the study and use of standard behavioral recordings. This project has developed as the rather natural outgrowth of the self-image experience study. It became apparent early in the work that the very techniques utilized in SIE studies were of themselves valuable in making comparisons of samples of human behavior obtained at different times. Psychiatry, as well as the entire field of human behavior, has needed a useful and practical technique for increasing the objectivity in studying overt and internal behavior. Most of the records of patients and research subjects have been written descriptive accounts, check lists or incomplete records of performance; little use has been made of sound color motion pictures, which can obtain and make available more information regarding the appearance, the movement, the speech and the facial expressions of human subjects than is possible from any type of first-hand observation.

During the last decade a number of telemetering techniques have been perfected, and now it is possible to determine both the overt aspects of human behavior by utilizing sound color motion pictures as well as the internal activity in human subjects determined by telemetered records of physiological activity. It is the aim of the research group representing the Department of
In self-image experience studies, subjects view motion pictures of themselves. During each procedure, a behavioral recording is obtained of the subject’s response to his own image. This illustration shows part of the experimental session team, including (l. to r.) Dr. Cornelison, observer, Dr. Welt, director of behavioral recording, and fourth-year Jefferson student, Vincent Ascolese, camera operator.

Psychiatry at Jefferson Medical College to combine all aspects of human behavior which are practical and feasible into a single standard behavioral recording which should be obtainable in similar settings anywhere. Such records could then be used for comparative cross-cultural studies previously not possible. Records of human behavior during times of severe disturbance on admission to a mental hospital would be feasible. The entire field of human behavior would gain the objectivity which to date it has lacked.

The difficult problem is to determine which dimensions of human behavior should be included in the recordings. It is also important that the setting in which such records are obtained be designed so that subjects are not preoccupied with the test situation to an unusual degree. In such a setting it is planned that special tests which evoke emotional and physiological responses be given. Many psychological tests and physiological tests also could be administered under these standardized and repeatable circumstances.

In order to carry out this work members of the Department of Psychiatry recently have designed studies for continuing the program at Eastern Pennsylvania Psychiatric Institute. Doctor Cornelison is principal investigator for the standard behavioral recording project, and Doctor Peter Welt and Doctor Claus Bahnson are research associates. It is anticipated that participants from the Departments of Neurology, Medicine, Pediatrics, and Physiology, as well as from other behavioral disciplines, will combine their special fields of basic and clinical knowledge to design and test apparatus for obtaining standard behavioral recordings. This should be a major contribution to the field of human behavior if the work can be completed successfully.

Additional Research Projects in the Department.

In addition to the study which has been described in this presentation, there are a number of active research projects now in progress in which members of the Department of Psychiatry participate. This include studies of the families of schizophrenic patients at Eastern Pennsylvania Psychiatric Institute, the principal investigators of which are Doctor Ivan Nagy, Assistant Professor and Doctor James Framo, Instructor. Doctor Walter Baker,
Associate Professor of Psychiatry (Neuropharmacology), recently began a research program at Eastern Pennsylvania Psychiatric Institute where he has initiated a program to continue his work in the effects of drugs on behavior. One of his new assistants is Mrs. Mary Gagnon who until recently worked in the medical school office of the Department of Psychiatry.

Doctor Zygmunt Piotrowski, Professor of Psychiatry (Psychology), well-known authority on the Rorschach Ink-Blot Test and its interpretation, is conducting an elaborate study of the utilization of computers to determine more precisely the results and to objectify interpretations of the ink-blot test. Doctor Claus Bahnson, in addition to participating in a number of research projects, some of which are described above, also is co-investigator for a study of psychological and social factors in heart disease, supported by the National Heart Institute. This study is being carried on at the University of Connecticut, where it was initiated by Doctor Bahnson and his colleague, Doctor Walter Wardwell, Associate Professor of Sociology at the University of Connecticut.

Doctor Barry Bricklin, Instructor in Psychiatry (Psychology), has a number of research interests. One of his recent projects has been the study of compatibility factors in marriage as determined by psychological test results. Doctor Gerald Clark, Superintendent of Elwyn School, and Assistant Professor of Psychiatry, administers several on-going research projects in the area of mental retardation at the school which he heads. Doctor J. Clifford Scott, Associate in Psychiatry, and Doctor Leopold Potkonski, Associate in Psychiatry, directors of programs in the Devereux School and Pennhurst School, respectively, supervise research activities in each of their institutions.

Recently, Doctor Howard Field, Associate in Psychiatry, participated in and made an initial report of the study of the effects of hypothermia during surgical procedures on mental functioning. Mr. Allen Howland, Instructor in Psychiatry and coordinator of the learning disability project, a joint program sponsored by the Departments of Pediatrics and Psychiatry, is attempting to understand the factors related to poor performance in school children in the Philadelphia area. Doctor William Rutter, Doctor Claus Bahnson, and Doctor Cornelison have made plans to initiate a study of the response of delinquent adolescents seen in Philadelphia Courts as they view pictures of themselves made in group therapy sessions. This study will be in cooperation with the municipal courts. Dr. Seymour Parker, who recently resigned as Assistant Professor of Psychiatry (Cultural Anthropology) to accept a position at the Michigan State University, has made an extensive study of population segments and attitudes toward role and self in the Philadelphia area. The work is being completed and soon will be reported in detail.

Finally a brief remark should be added regarding the overall goal of the research program in the Department of Psychiatry at Jefferson Medical College. A philosophy is implied in the policy for investigators. All participants in the research activities of the department are encouraged as researchers to relate in two ways toward the program: 1) Each is encouraged to consider how he might participate in, contribute to, and learn from a program in which a number of individuals study the same behavioral phenomenon, and 2) Each is encouraged to carry on individual work in the exclusive domain of his own interests, motivation and particular bent.

In this manner it is felt that a program can have direction, and at the same time offer ample opportunity for individual expression of scientific curiosity.
RESEARCH PROJECTS IN THE DIVISION
OF RADIATION THERAPY AND CLINICAL ISOTOPES

“Effect of Embryonic Irradiation on Adult Life Expectancy and Adult Pathology”—Dr. Robert L. Brent.

Atomic Energy Commission—AEC AT-10 (30-1) 2071


National Foundation—NF CRMS 184

“Evaluation of Experimental Methods of Teratogenesis”—Dr. Robert L. Brent.

National Institutes of Health—NIH CA-K3-4371

“Effect of Drugs Upon Fetal Hematopoiesis”—Dr. Robert L. Brent and Dr. Arthur Weiss.

National Institutes of Health—NIH CY 5287

“Evaluation of New Experimental Methods of Teratogenesis”—Dr. Robert L. Brent.

National Institutes of Health—NIH GM 11237

Dr. Brent holds one of the cages which provide housing for the animals, a necessity in any longevity study.

Clinical

1. Our major clinical research effort is devoted toward the study of the effect of combination chemotherapy and radiotherapy in the treatment of advanced squamous cell carcinoma of the head and neck. We are now studying over thirty cases who have been treated by an initial course of Methotrexate and continued in conjunction with a full course of Cobalt beam therapy for far advanced squamous cell carcinoma of the head and neck. Our early results were reported at the Radium Society Meeting in San Francisco and have created a considerable amount of interest. This clinical study is being continued so as to gather further information both on the immediate results and on a long-term survival.

2. A study is being pursued with the division of pulmonary diseases in which Dr. Walter Gunn is the principle investigator. This study seeks to estimate the pulmonary function before and after treatment of patients with carcinoma of the breast who receive irradiation either post-operatively to the internal mammary chain of lymphnodes and the supraclavicular fossa, and/or the chest wall; and to another group of patients in whom the carcinoma is inoperable and who are receiving radiation therapy to the breast as the primary form of treatment. In patients treated in this manner we frequently see X-ray changes in the apex of the lung on the affected side following a full course of radiation therapy. In spite of the X-ray changes hardly any patients develop symptoms of pulmonary difficulty. This study hopes to use a rather sophisticated approach to study pulmonary function in great detail to see whether there is any impairment at all, even at the sub-clinical level.

3. Radioactive isotope renography and carcinoma of the cervix. A study is being conducted in conjunction with the Department of Gynecology. The principle investigators are Drs. Kramer, Gunn, and John B. Montgomery. Following a preliminary study conducted by Drs. Dische, Caplan, and Kramer which have now been published in the Journal of Roentgenology, Radiation Therapy and Nuclear Medicine, and with the support of the N.C.I., studies are being conducted on all patients with carcinoma of the cervix before, during, and after treatment where repeat isotope renograms are performed and compared with intravenous urograms performed at the same time. This study has now been conducted for six months and we hope to continue for a further three
years. At the moment new instrumentation is being developed for better interpretation of the renograms. At the moment the study is at the stage of collecting information which will be analyzed at a later stage.

4. A special study is being made of malignant tumors in children. All the material submitted so far is being reviewed and survival curves are being plotted. Special attention is being devoted to brain tumors in children. More than 55 patients are now available for study.

Nonclinical Research

1. The major research effort of our division in this field is devoted toward establishing whether or not there is a difference in response of normal tissue to radiation in the adult animal and in the growing animal. To this end we are investigating the effect of radiation on the lungs of Wistar rats using animals that are three months old as adults, and animals that are nine days old as young growing animals. Fractionated doses to both lungs are being given to the levels and in the manner in which radiotherapy is given clinically. We are developing methods to study the pulmonary function in these animals and observe the changes. Animals are sacrificed at intervals and the lungs submitted for histological examination. One group of animals will be allowed to live out their life span to observe at what interval and to what degree pulmonary fibrosis will ensue.

2. An extension of the above study has been commenced by Dr. Carl S. Mansfield in which the effect of Actinomycin D in conjunction with radiotherapy to pulmonary tissue of adults and growing animals is being investigated. The first phase of this experiment has been completed. We hope to embark upon the second phase in the near future.

3. An experimental study has been commenced on the production of intracranial tumors in C-3 H and DBF mice by direct implantation of Ehrlich ascites tumor or a Gardiner lymphoma and by the implantation of Methylcholanthrene crystals directly into the brain as described by Zimmerman. Once this method is well established we will utilize the experimental animals for two lines of investigation. On the one hand, we shall investigate the affect of the radiation of the head on the increased intracranial tension present as the result of the tumor implantation-tumor growth. On the other hand, we shall utilize these animals to study the distribution of radioactive isotope tracers now being utilized clinically in brain scanning. It is hoped by means of autoradiographic methods to indicate the distribution of the isotope within and around the brain tumor and thus to gain some knowledge of the mechanism whereby localization of the isotope occurs within brain tumors.

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RESEARCH IN THE

THE Department of Surgery is engaged in research studies covering a wide range of problems. Dr. Gibbon has assigned the direction of the studies to various men on his staff.

Dr. Thomas F. Nealon, Jr. is directing studies of several possible clinical applications of ion exchange resins. The use of these resins to correct the abnormal electrolyte content of bank blood prior to transfusion is the most advanced. Most blood banks in this country store blood in acid citrate dextrose (ACD) solution. The majority of patients receive no more than two or three transfusions and the abnormal electrolyte content is diluted by the blood volume of the recipient. Hence, only a small number of untoward effects are observed. However, when larger amounts are given the changes can be harmful.

When ACD solution is added to blood the citrate content is raised considerably and the pH lowered from 7.4 to 6.8. During the period of storage there is a gradual rise in serum potassium, ammonium, lactate, pyruvate and sulfate. Approximately one third of the chloride disappears from the serum and the pH falls further to a low of 6.2. The study is aimed at reversing these changes by passing the blood over a column containing ion exchange resins. The column contains four different resins: (1) Amberlite 200 in both sodium and potassium cycles. The sodium cycle removes the excess potassium and ammonium and all the ionized calcium to prevent clotting. The potassium cycle insures that the potassium is not depleted below normal levels, (2) Amberlite 402 in a chloride form removes the citrate additive and the accumulated lactate, pyruvate, phosphate and sulfate and replaces chloride, (3) Amberlite XE168 removes hydrogen ions and (4) Amberlite XE168 removes hydrogen ions so that the pH is not driven into the alkalotic range.

Seventy-two grams of a mixture of these ion exchange resins are encased in a plastic cylinder, one inch in diameter and nine inches long. This is attached to the distal end of a blood administration set and the blood is run through column in transit from the storage bottle to the patient. Experimental studies in the laboratory have demonstrated that animals tolerate transfusion of twice as much ACD blood if it has first been passed over the resins. It is felt that the technique would be most useful for patients requiring large amounts of blood, exchange
transfusions in infants, emergency use and in patients in acute anuria or hepatic disease.

Jefferson Medical College has applied for a patent for this development. Fenwal Laboratories of Morton Grove, Illinois, who worked out the packaging for the resins, is presently undertaking the toxicologic studies required by the Federal Drug Administration.

Other applications of ion exchange resins under investigation include: Treatment of hepatic coma by perfusion of the patient's blood over a cation exchange resin column to remove the excess ammonium and treatment of acute barbiturate intoxication by passing the blood of the patient over an ion exchange resin which removes the barbiturate.

Dr. Nealon is also supervising studies of:
- The use of a technique to induce sputum formation to improve positive cytologic yield in patients with cancer of the lung.
- The evaluation of the different factors implicated in Citrate Intoxication following massive transfusions.
- The effect of anesthetic gases on the measurement of oxygen and carbon dioxide in the blood of anesthetized patients.
- The effect of the size of the tidal volume on the cardiac output of anesthetized patients whose ventilation is being assisted.
- The development of an improved technique of gas chromatography for blood gas determinations.

Dr. Walter Ballinger is directing studies of:
- The changes in structure and function of the small intestine following vagotomy and gastrectomy. Some of this work is being performed in conjunction with the Division of Gastroenterology and the Department of Pathology.
- The development of a gelatin tube to be placed in the lumen of small blood vessels. These tubes maintain dilation of the vessels, provide rigid structure against which to suture and permit continuous blood flow during anastomosis. After the anastomosis is completed, the stent dissolves in the blood stream.
- The return of function following amputation and replacement of a limb of a dog.
- The physiologic effects which follow bypass of the heart and lungs.

Dr. Rudolph Camishion is directing studies of the effect of the administration of mannitol during and after extracorporeal circulation on the acid base balance of the subject. (He is studying this in conjunction with Dr. Nealon.)

- The effect of hemodilution on tissue oxygen tension during hypothermia and heart lung bypass.
- The effects of autotransplantation of the heart on cardiac output and cardiovascular responses.
Dr. Herbert Cohn is directing studies of:
Techniques of preserving a kidney prior to transplantation.
The effects of delayed splenic transplant on survival of renal transplants.
Suppression of transplant rejection with new drugs.
Clinical evaluation of human renal transplantations.

These studies are being done in conjunction with the Renal Team and the Department of Urology.

Dr. Louis Pierucci is supervising studies of:
Use of profound hypothermia and miniaturization of cardiac bypass for application in the pediatric patient.
Effects of autotransplantation of endothelium into dog myocardium in an attempt to revascularize it.

**RESEARCH IN THE DEPARTMENT OF UROLOGY**

The principal focus of interest in the research program of the Department of Urology, under the supervision of Theodore R. Fetter, M.D., Nathan Lewis Hatfield Professor and Head of the Department, has been an intensive clinical and laboratory investigation of the hydrodynamics of urinary conduction from the renal pelvis distalward. The peristaltic patterns of the pelvis and ureter have been studied in over 100 patients with a wide variety of urologic abnormalities by means of small intraluminal catheters connected to strain gauge pressure transducers. Abnormalities in peristaltic patterns have been identified and associated with certain clinical disease processes of the urinary tract, even in cases with normal radiologic features. Thus a new and extremely sensitive diagnostic technique has been added to existing urologic armamentarium. Studies continue in this area.

Measurements of bladder pressures during filling and voiding combined with cinefluoroscopic visualization are being obtained in children with recurrent urinary infections, and subtle obstructions of the bladder outlet and urethra have been diagnosed. The intravesical pressures causing vesicoureteral reflux are also determined by an original technique, providing a valuable basis for subsequent therapy.

Correlated studies are in progress in the new animal research laboratory on the 7th floor of the College. Experimentally induced lesions of the ureter are analyzed by means of pressure studies and radiography in an effort to expand understanding of the pathogenesis of urinary system obstruction.


Other projects in progress include: Studies in renal transplantation; Survival study in renal carcinoma; and Variations in techniques for construction of artificial bladders.
ADMINISTRATION

DR. WILLIAM A. SODEMAN, Dean and Vice-President for Medical Affairs, gave the dedicatory address on July 28 at the opening of the new wing of the Beebe Hospital, Lewes, Delaware.

MR. ROBERT T. LENTZ, Librarian, has been reappointed Chairman of the Medical Library Association Committee on International Cooperation for 1963-64. A past-President of the association, Mr. Lentz has been Chairman of the cooperation group for four terms.

ANATOMY

DR. JAMES O. BROWN, Associate Professor of Anatomy, delivered a paper titled "A Morphological Approach to the Problem of Reflux Pancreatitis" at a general assembly session of the 28th Annual Congress of the North American Federation of the International College of Surgeons in Los Angeles, earlier this year.

DR. BERNARD J. MILLER, Assistant Professor of Applied Anatomy and Assistant in Surgery (Jefferson, 1943), has received a grant-in-aid of $10,000 from the Wm. H. Rorer Company for research relating to studies concerning the etiology and therapeutic measures in occlusive vascular disease.

MEDICINE

DR. MARTIN J. SOKOLOFF, Honorary Clinical Professor of Medicine (Jefferson, 1920), traveled to Ghana in July to meet with officials of that African nation's first medical school. Dr. Sokoloff is campus coordinator for the Ghanian school which is planned as a virtual satellite of four Philadelphia medical schools—Jefferson, Hahnemann Medical College, Temple University School of Medicine and Woman's Medical College. The project is being guided by the College of Physicians of Philadelphia under a contract from the Agency for International Development. The proposed school will be associated with the hospital in Accra, Ghana's capital, and with the University of Ghana.

DR. JOSEPH J. RUPP, Associate Professor of Clinical Medicine (Jefferson, 1942), attended a "Symposium on Obesity—Dangers of a Well-Fed Population" on August 18 in Lexington, Kentucky. Dr. Rupp discussed the changes caused by obesity in the function of the endocrine glands, especially in children. He also discussed various diseases of the endocrine glands that are accompanied by changes in weight.

DR. JOHN N. LINDQUIST, Assistant Professor of Clinical Medicine (Jefferson, 1943), appeared on a Philadelphia radio program on July 9 participating in a series of discussions on "Senior Citizens of Philadelphia."

Dr. Lindquist recently was named Vice-Chairman of the 1964 United Fund Torch Drive in Philadelphia, for the section covering hospitals and health services.

DR. HERMAN L. RUDOLPH, Assistant Professor of Physical Medicine (Jefferson, 1935), was elected President-Elect of the American Academy of Physical Medicine and Rehabilitation at the group's annual meeting and scientific session in Dallas, Texas, in August.

DR. EDMUND L. Housel, Associate in Clinical Medicine (Jefferson, 1935), has accepted the post of Chairman of the 1964 Philadelphia United Fund Torch Drive and will be responsible for organizing the campaign in 32 hospitals and 36 associated health agencies.

MISS MARY EICHMAN, Research Associate, Cardeza Foundation, was the recipient of a Past-President's Gavel from the American Society of Medical Technologists at the group's meeting held in Denver, Colo. in June.

Earlier this year, Miss Eichman served as recorder for a discussion on "Blood Banking," on the occasion of the Regional Seminar on Teaching Methods sponsored by the Board of Continuing Education in Medical Technology of the American Society of Medical Technologists and the American Society of Clinical Pathologists. The seminar was held at the University of Pennsylvania School of Allied Medical Professions, Philadelphia.
DR. GEORGE F. GRANNIS, Research Associate in Biochemistry (Medicine), Cardeza Foundation, presented a paper on September 13 at the New York meeting of the American Chemical Society. The paper, titled "The Kinetics of Thrombin Activity in Recalcified Blood Plasma," was authored by Dr. Grannis. DR. LOUIS A. KAZAL, Associate Professor of Research Hematology and Assistant Professor of Physiology, and the late DR. LEANDRO M. TOCANTINS, The Thomas Drake Martinez Cardeza Professor of Clinical Medicine and Hematology in the Department of Medicine (Jefferson, 1926).

NEUROLOGY

DR. ELLIOTT L. MANCALL, Assistant Professor of Neurology, is in charge of the Department of Neurology's newly-established Laboratory of Experimental Neuropathology. The laboratory, shared with the Departments of Radiology and Radiation Physics, supplements present College facilities for the special processing of both experimental animal and human neuro-pathological material.

OBSTETRICS AND GYNECOLOGY

DR. JOHN B. MONTGOMERY, Professor of Obstetrics and Gynecology and Head of the Department (Jefferson, 1926), and DR. JOSEPH P. LONG, Assistant Professor of Obstetrics and Gynecology (Jefferson, 1939), co-authored an article on "Diagnosis and Management of Cervical Atypism" which appeared in the June issue of Clinical Obstetrics and Gynecology.

Dr. Montgomery also attended the 74th annual meeting of the American Association of Obstetricians and Gynecologists in Hot Springs, Virginia.

DR. GEORGE ALAN HAHN, Professor of Obstetrics and Gynecology, was one of several members of the Department who attended the 74th annual meeting of the American Association of Obstetricians and Gynecologists in Hot Springs, Virginia, recently.

DR. WARREN R. LANG, Professor of Obstetrics and Gynecology (Jefferson, 1943) participated in a program of "Global Gynecology" at Saigon, Vietnam, in June. Dr. Lang spoke to medical students in Saigon on "Evaluation of the Uterine Cervix" and to members of the Obstetrical and Gynecological Society of Vietnam on "Problems of the Menopause." At Tu Du Hospital, Saigon, he presented a "Review of Cytology." At Hung Vuong Hospital, he gave a series of three talks on "Review of Cytology" and spoke on "Amenorrhea, Dysfunctional Bleeding, Hirsutism," "Diseases of the Vagina" and "Precocious Puberty."

Also in June, Dr. Lang served as guest editor of that month's issue of Clinical Obstetrics and Gynecology.

Dr. Lang has been named Chairman of the Committee on Continuing Education, District III, American College of Obstetricians and Gynecologists. He attended the initial meeting of the eight Chairmen throughout the country on August 22 at the Palmer House, in Chicago.

As a guest of the American Association of Obstetricians and Gynecologists, Dr. Lang attended its 74th annual meeting in Hot Springs, Virginia.

DR. ABRAHAM E. RAKOFF, Professor of Obstetric and Gynecologic Endocrinology (Jefferson, 1937), served as guest editor of the May-June issue of Acta Cytologica-Transactions of the 10th Annual Meeting of the American Society of Cytology. He also contributed an article titled "Physiology of the Endocervix" to the June issue of Clinical Obstetrics and Gynecology.

On August 29-30, Dr. Rakoff attended and spoke at a seminar in his field at Cedars of Lebanon Hospital, Miami, Florida.

DR. ROY W. MOHLER, Clinical Professor of Obstetrics and Gynecology (Jefferson, 1921), attended the 74th annual meeting of the American Association of Obstetricians and Gynecologists at Hot Springs, Virginia, recently. DR. JAMES H. LEE, Assistant Professor of Clinical Obstetrics and Gynecology (Jefferson, 1945), also attended the meeting as a guest of Dr. Mohler.

DR. ALVIN F. GOLDFARB, Assistant Professor of Obstetrics and Gynecology, participated in the Fitkin Day Medical Symposium at Fitkin Hospital, Neptune, N. J., on July 20. He spoke on "The Uses of Progestins in Gynecology."

On July 24, Dr. Goldfarb delivered an address titled "The Selection of a Progestin in Therapeutics" to the Clinical Group of the Eli Lilly Company, Indianapolis, Indiana.

In June, Dr. Goldfarb spoke at Brunswick General Hospital, Amityville, N. Y. on "Recent Advances in Gynecology."
DR. LEON N. PRINCE, Assistant Professor of Obstetrics and Gynecology (Jefferson, 1933), collaborated with DR. WARREN R. LANG in the publication of an article on "Surgery of Benign Cervical Disease" which appeared in the June issue of Clinical Obstetrics and Gynecology.

DR. AMOS S. WAINER, Assistant Professor of Obstetrics and Gynecology, spoke to the staff of the Akron (Ohio) City Hospital and Akron Obstetrical Society earlier this year.

DR. BURTON L. WELLENBACH, Associate in Clinical Obstetrics and Gynecology (Jefferson, J-1944), spoke to the interns and residents of Albert Einstein Medical Center, Northern Division, on September 10. His subject was "Dysfunctional Uterine Bleeding."

DR. JOSEPH J. PRICE, Assistant in Obstetrics and Gynecology, recently received the rank of Diplomate of the American Board of Obstetrics and Gynecology.

ORTHOPEDIC SURGERY

DR. ANTHONY F. DEPALMA, James Edwards Professor of Orthopedic Surgery and Head of the Department (Jefferson, 1929), is one of several physicians recently honored by MEDICO for their work on behalf of the organization. Dr. DePalma's award, which was "in grateful recognition of outstanding and meritorious service to MEDICO, a service of CARE, in the advancement of world-wide medical assistance," was presented to him for his work in South Vietnam in September 1962 (article in October 1962 Bulletin).

OTOLARYNGOLOGY

DR. FRED HARBERT, Professor of Otolaryngology and Head of the Department, was named President-Elect of The American Otorhinologic Society for Plastic Surgery, Incorporated, at the group's scientific meeting in March.

PREVENTIVE MEDICINE

DR. HEINRICH BRIEGER, Professor of Occupational Medicine and Director of the Division of Occupational Medicine, DR. JAN LIEBEN, Visiting Associate Professor of Preventive Medicine (Occupational Medicine), and DR. CHARLES W. LABELLE, Assistant Professor of Industrial Medicine, attended the 14th International Congress on Occupational Health in Madrid, Spain, from September 16-21. Dr. Brieger was elected Acting Chairman of the United States Delegation to the Permanent International Commission on Occupational Health, and delivered a speech on "Genetic Bases of Susceptibility and Resistance to Toxic Agents." Dr. Lieben reported on "Some Considerations on the Roentgen Diagnosis of Pneumoconiosis in Western Pennsylvania Coal Miners" and Dr. LaBelle on "Therapeutic Elimination of Inhaled Radioactive Particles."

Dr. Brieger also visited the Silicosis Research Institute of the Max-Planck-Gesellschaft in Gottingen, Germany to discuss the work on Coesite, undertaken cooperatively by the Department of Preventive Medicine and the Silicosis Research Institute.

PSYCHIATRY

DR. FLOYD S. CORNELISON, Professor of Psychiatry and Head of the Department, participated in the program of the Third International Congress of Group Psychotherapy held in Milan, Italy, July 20-22. His paper was titled "The Audio-Visual Record in Psychiatry."

While abroad, Dr. Cornelison also attended the Fifth International Conference on Medical Electronics held in Liege, Belgium.

During the annual meeting of the American Psychological Association, held August 29 to September 4, Dr. Cornelison served as a panel member, discussing the relationships between physical symptoms and psychic conflict.

DR. JOHN E. DAVIS, JR., Professor of Psychiatry (Jefferson, 1933), was a Discussion Leader for the 15th Mental Hospital Institute held in Cincinnati, Ohio, September 23-26.

DR. ZYGMUNT A. PIOTROWSKI, Professor of Psychology, chaired a symposium on "Common Denominators and Differing Antecedents in Psychopathological and Somatic Regressions" during the annual meeting of the American Psychological Association, August 29 to September 4, in Philadelphia.

During the five days preceding the meeting, Dr. Piotrowski taught a post-doctoral course at Temple University, Philadelphia. The course, in "Clinical Psychology," was sponsored by the American Psychological Association.
DR. CLAUS B. BAHNSON, Associate Professor of Psychiatry (Psychology), discussed a theoretical model for the complementarity of somatic and psychological regression during a panel discussion held at the annual meeting of the American Psychological Association, August 29 to September 4, in Philadelphia.

DR. ABRAHAM FREEDMAN, Assistant Professor of Clinical Psychiatry, participated as a panelist in the group discussions on "Homosexuality" conducted at the International Psychoanalytic Congress held in Stockholm, Sweden, July 25 through August 1.

Prior to attending the Swedish conference, Dr. Freedman audited a course in "Compulsive-Obsessive Neuroses" at the New York Psychoanalytic Institute.

At the March and May meetings, respectively, of the Philadelphia Association for Psychoanalysis, Dr. Freedman was a journal discussant on two papers—"Intellectual Resistance" and "Snow White," a study in psychosexual development. His remarks on the latter paper were published in the June Bulletin of the Philadelphia Association of Psychoanalysis.

DR. BARRY BRICKLIN, Associate in Psychiatry (Psychology), has been elected President of the Philadelphia Society for Projective Tests, and President-Elect of the Philadelphia Society of Clinical Psychologists. This is the first time one individual has held both positions simultaneously.

DR. ROBERT S. GARBER, Instructor in Psychiatry (Jefferson, 1937), addressed the Fall meeting of the Ohio Psychiatric Association on September 23 in Cincinnati. He also served as a Group Discussion Leader at the 15th Mental Hospital Institute, held September 23-26 in Cincinnati.

Also in September, he lectured to State Police Recruits at the Police Academy, Trenton, N.J., on "How to Handle the Mental Patient."

Later that month, he addressed members of the Nebraska, North Dakota, South Dakota District Psychiatric Society at their meeting held in Omaha, Nebraska.

DR. DORIS WILLIG, Instructor in Psychiatry (Pediatrics), recently lectured in Child Psychiatry at the Puerto Rican Psychiatric Institute.

Traveling abroad this summer, Dr. Willig attended the International Seminar on Hematology held in Israel.

In October, Dr. Willig will speak at the Single Parents' Society meeting. Her topic will be "Exploring the Past Towards a Brighter Future."

DR. THOMAS F. NEALON, JR., Professor of Surgery (Jefferson, S-1944), spoke on "Pancreatitis: Diagnosis and Management" at the Williamsport (Pa.) Hospital on September 18. The following day, he visited the Wilkes-Barre (Pa.) General Hospital and delivered a talk on "Lung Cancer and Smoking."

Dr. Nealon acted as Visiting Chief at the Atlantic City (N.J.) Hospital from September 22-28.

On October 10, Dr. Nealon addressed the Pennsylvania Medical Society in Pittsburgh, Pa. on "Experiences with Blood Volume Determination and Electrolyte Changes in Transfusions with ACD Blood."

On October 17, Dr. Nealon spoke at the Halsted Society Meeting in Cambridge, Mass. on "Correction of Electrolyte Levels in Bank Blood Prior to Transfusion."

From October 28 to November 1, Dr. Nealon will attend the annual meeting of the American College of Surgeons in San Francisco.

DR. WALTER F. BALLINGER, II, Associate Professor of Surgery, with DR. FRANZ GOLDSTEIN, Assistant Professor of Medicine (Jefferson, 1953), spoke at the Ohio Valley General Hospital, McKees Rocks, Pa., on September 18. Their topic was "Medical and Surgical Management of Gastric Ulcers."

Dr. Ballinger is the first physician to be included in the Community Leadership Seminar sponsored by the Fels Foundation and the Greater Philadelphia Movement. He attended a meeting of this group at Pocono Manor, September 21-22.

On September 24, Dr. Ballinger spoke at the Philadelphia College of Surgeons. His subject was "Surgery of Peripheral Vascular Disease."

Dr. Ballinger was a delegate to the annual meeting of
the Pennsylvania State Medical Society in Pittsburgh, October 9-12.

Traveling to the West Coast, he will attend the meeting of the American Heart Association in Los Angeles, October 25-27, and the annual meeting of the American College of Surgeons in San Francisco from October 28 to November 1. At the latter meeting, Dr. Ballinger will present a paper on "Changes in the Small Intestine Following Total and Selective Vagotomy" and will speak on "Tumors of the Chest Wall and Pleura." He will participate in a panel on "Thoracic Neoplasms" and will present an exhibit entitled "Use of Gelatin Stents in Vascular Surgery."

DR. RUDOLPH C. CAMISHION, Assistant Professor of Surgery (Jefferson, 1954), will present a paper on "The Effect of Mannitol on Renal Blood Flow and Cardiac Output in Shock" at the American Heart Association Meeting in Los Angeles on October 25.

Dr. Camishion also will attend the annual meeting of the American College of Surgeons in San Francisco, October 28 to November 1.

DR. EDWARD J. BARANSKI, Resident in Surgery (Jefferson, 1959), will present a paper on "Pulmonary Hypertension Following Cardiopulmonary Transplantation" at the annual meeting of the American College of Surgeons, October 28 to November 1, in San Francisco.

UROLOGY

DR. PAUL D. ZIMSKIND, Research Associate in Urology (Jefferson, 1957), presented a paper at the Fall meeting of the American Physiological Society, Coral Gables, Florida, on August 29. The paper, authored by Dr. Zimskind, Dr. M. H. F. FRIEDMAN, Professor of Physiology and Head of the Department, and DR. DAVID M. DAVIS, Professor of Urology, Emeritus, was titled "Relation Between Bladder Filling, Urine Flow and Ureteral Peristalsis."

Third Year Anatomy Courses Suspended

The critical shortage of cadaveric in Pennsylvania has, regrettably, necessitated suspension of our Third Year courses in Applied and Topographic Anatomy and Operative Surgery on the Cadaver for the 1963-64 academic year. The possibility of its reinstatement depends upon the future supply of cadaver.

The number of bodies available for dissection in Pennsylvania has been declining steadily each year. Public assistance programs, financial interests, religious beliefs, improved economic status, governmental burial responsibilities (for Veterans), other programs and activities, and general indifference, have resulted in fewer and fewer bodies coming to the Anatomical Board of Pennsylvania for distribution to qualified medical and dental schools. The same situation prevails in most other States and presents a major challenge to basic medical education.

The careful study of the structure of the human body, through personal dissection, is not only a privilege but a universally practiced, traditional, essential segment of the education of each student, in all sound medical educational programs. But each medical and dental school in Pennsylvania receives cadaveric prorated on the basis of the number of students enrolled, not on the number of courses in Anatomy in the curriculum.

Although other schools in Pennsylvania abandoned their advanced anatomy courses years ago, largely due to reduced cadaver supply, Jefferson has managed to continue until this year. It is hoped that a way may be found to reinstate advanced anatomy in our curriculum, probably on an elective basis, whereby certain areas of the body may be studied in greater depth and in relation to established interests on the part of upperclassmen. Such reinstatement is desirable, also, so that our residents in training may continue to include anatomy in the essential basic sciences reinforcement segment of their training programs.

Alumni of Jefferson and their friends, can help to improve the supply of cadaveric in Pennsylvania by supporting a program such as that which has been signally successful in certain other states (especially in Connecticut and California) wherein the need for cadaveric for use in medical education and medical research is brought to the attention of significant, enlightened, dedicated individuals and groups who may wish to contribute to the improvement of human health and to the alleviation
of human suffering by the willing of their bodies, for use after death, in the furtherance of scientific medicine. Inquiries concerning this program, and requests for guidance, may be addressed to The Office of the Dean, to the Department of Anatomy, or to the Anatomical Board of Pennsylvania.

Jefferson graduates are in greater number and are making a greater contribution to the health of Pennsylvania citizens than the graduates of any other medical school. You have the opportunity to make the greatest impact on Pennsylvania’s medical education in this critical situation. We need your help.

Jefferson Physicians Participate In Radio Conferences

SEVERAL Jefferson Medical College faculty members and Alumni will participate in a series of Radio Conferences, sponsored by the Pennsylvania Hospital (Phila.) Continuation Education Program. The Conferences, beginning October 8 and continuing weekly until April 9, 1964, will be heard over five local radio stations. This phase of Pennsylvania Hospital’s Continuation Education Program is supported by The John A. Hartford Foundation, Inc., of New York.

Those physicians representing Jefferson are: Dr. John Y. Templeton, III, Clinical Professor of Surgery (Jefferson, 1941), who will present “Solitary Pulmonary Nodule” on October 8 and 10; Dr. Robert I. Wise, Magee Professor of Medicine and Head of the Department—“Treatment of Resistant Infection” on October 15 and 17; Dr. Hugh Robertson, Instructor in Operative Surgery (Jefferson, 1925)—“Abuses of Hospitalization” on October 22 and 24; Dr. Allen Erslev, Associate Professor of Medicine—“Bleeding Disorders” on November 19 and 21; Dr. Edward H. McGehee, Chief Hematologist and Physician to the Pennsylvania Hospital (Jefferson, 1945)—“Differential Diagnosis of Anemia” on December 3 and 5; Dr. W. Paul Havens, Jr., Professor of Clinical Microbiology and Professor of Medicine—“Hepatic Coma” on January 14 and 16, 1964; Dr. C. Wilmer Wirts, Professor of Clinical Medicine (Jefferson, 1934)—“Management of Acute Pancreatitis” on January 28 and 30, 1964; Dr. Orville C. King, Director of the Division of Surgery of Pennsylvania Hospital (Jefferson, 1927)—“Errors in the Management of Bowel Obstruction” on February 18 and 20, 1964; Dr. Rodman B. Finkbiner, Associate Physician to the Pennsylvania Hospital (Jefferson, 1953)—“Management of Gastric Ulcer” on March 24 and 26, 1964.

The programs will be presented on Tuesdays at noon on the FM station WUHY, and on Thursdays at noon on the FM stations WUHY, WFMZ, WPPA and WHP.

Faculty Members Present Postgraduate Course

FOUR members of the Jefferson faculty are presenting a course in “Continuing Education in Liver Physiology and Disease” at St. Mary’s Franciscan Hospital, Philadelphia, from September 18 through November 6. Each of the four physicians is responsible for one session of the course, which is supported in part by a grant from the Merck, Sharp and Dohme Postgraduate Program.

On September 18, Dr. F. William Sunderman, Jr., Instructor in Medicine (Jefferson, 1955), presented “Clinical Interpretation of Fractionation of Serum Proteins.” Dr. W. Paul Havens, Jr., Professor of Clinical Microbiology and Professor of Medicine, spoke on “Hepatitis” on October 1. Dr. Franz Goldstein, Assistant Professor of Medicine (Jefferson, 1953), was the lecturer on October 16, presenting “Clinical Problems in Liver Disease.” On November 6, Dr. Roy R. Greening, Professor of Radiology, will culminate the series with “Roentgen Diagnosis in Liver Disease.”

Alumni Appointed to Medical Society Posts

SEVERAL Jefferson graduates recently were appointed to posts in the Pennsylvania Medical Society. Dr. LeRoy A. Gehris, Class of ’35, and Dr. James A. Collins, ’41, are serving three-year terms as general members of the administrative councils. Appointed Chairmen of Administrative Councils for 1963-64 are Doctors Harry V. Armitage, ’43, Raymond C. Grandon, ’45, and John H. Harris, Jr., ’53, Assistant Professor of Radiology at Jefferson. Dr. Armitage is Chairman of the Council on Medical Service, Dr. Grandon of Scientific Advancement, and Dr. Harris of Governmental Relations. Dr. Park M. Horton, ‘32, was appointed a Trustee and Councilor of the Twelfth Councilor District and a Trustee of the Educational and Scientific Trust.
Dr Gibbon Heads Alumni Phase of Building Fund Campaign

PREPARATIONS for the Alumni phase of Jefferson's $7,000,000 Building Fund Campaign moved forward during September with acceptance of the position of National Chairman by Dr. John H. Gibbon, Jr., '27, The Samuel D. Gross Professor of Surgery and Head of the Department.

Also assuming posts of top leadership in the Campaign as Associate Chairmen are: Dr. Louis H. Clerf, '12, Dr. J. Wallace Davis, '42, Dr. John E. Livingood, '13, Dr. Joseph M. de los Reyes, '28 and Dr. George J. Willauer, '23.

In Dr. Gibbon, the Alumni campaign has a National Chairman who represents the fifth generation of his family to serve as physicians. Dr. Gibbon's father, Dr. John H. Gibbon, Sr., was for many years a beloved and gifted surgeon and teacher at Jefferson.

The National Chairman of the Alumni campaign has won international recognition for the first successful open cardiotomy using cardio-pulmonary bypass with an extracorporeal circulation. Dr. Gibbon devised and developed the revolutionary instrument that made possible the technique which is acclaimed as the greatest breakthrough in surgery in modern times.

For his contributions to surgical practice, Dr. Gibbon has received numerous honors including election as an Honorary Fellow of the Royal College of Surgeons of England. He has also received Honorary Doctor of Science degrees from the University of Buffalo and Princeton University. He has served as president of such distinguished surgical organizations as the American Surgical Association, the American Association for Thoracic Surgery and the Philadelphia Academy of Surgery.

Dr. Gibbon also served several terms as Chairman of the Jefferson Alumni Giving Fund Committee and he is a former president of the Alumni Association.

The five Associate Chairmen appointed by Dr. Gibbon have been continuously interested in the affairs of Jefferson since their undergraduate years.

Dr. Louis H. Clerf, is Professor of Broncho-Esophagology, Emeritus, and is internationally known in his field. He has served as President of the American Broncho-Esophagology Association, the American Laryngological, Rhinological and Otological Society, the American Laryngological Association, the Pennsylvania State Medical Society, the Philadelphia County Medical Society and the Alumni Association of Jefferson Medical College.

He was given an Honorary Doctor of Letters Degree by Jefferson in 1961.

Dr. Davis is a Diplomate of the American Board of Plastic Surgery and a member of such medical organizations as the American Society of Plastic and Reconstructive Surgery, the Philadelphia College of Physicians and the Philadelphia County Medical Society. He is a member of the Executive Committee of the Alumni Association and is Alternate Chairman of the Annual Alumni Giving Fund Committee.

Dr. John E. Livingood is a Past President of the Alumni Association and has served as a Class Agent for many years. For 25 years he was associated with the management of Wyomissing Industries, including the Textile Machine Works, the Berkshire Knitting Mills and the Narrow Fabric Company. He was President of Wyomissing Polytechnic Institute and is a Trustee of Franklin and Marshall College. He has been a member of the Board of Managers of Reading Hospital since 1931 and is a Director of a local bank. Jefferson awarded him the Honorary Degree of Doctor of Science in 1957.

Dr. de los Reyes has served as Vice President of the Alumni Association for the State of California and is a member of the Alumni Advisory Council. He is a member of the State Board of Medical Examiners, having been its President in 1958. He is a Fellow of the American College of Surgeons, a member of the Board of Regents, a Fellow and Vice President of the International College of Surgeons and Director of Pan American Medical Association.

Dr. Willauer, who served as President of the Alumni Association for the 1962-63 term, is a former Director of the Department of Anesthesia at the Jefferson Medical College Hospital, a Founder and former President of the Jefferson Society for Clinical Investigation, Founder and former President of the Ex-Residents' Association of the Jefferson Medical College.

As the campaign organization is extended throughout the country during the immediately succeeding weeks, other chairmen will be asked to serve in areas where there exist concentrations of Alumni.

In a statement accepting the national chairmanship, Dr. Gibbon outlined Jefferson's needs and expressed confidence that the Alumni would be quick to provide substantial support.

"To prepare students in the skills demanded by medi-
"Jefferson must have new laboratories, new teaching clinics and new classrooms. Jefferson Alumni can well appreciate that medical diagnosis and treatment can be only as good as the medical education that precedes them. For this reason I am certain that Jefferson's graduates will respond generously to their school's urgent appeal for help."

Expansion projects for Jefferson provide for the redevelopment of a block area south of Walnut Street between Tenth and Eleventh Streets extending across Locust Street to include one half of the block between Locust and Spruce Streets. Further expansion of Jefferson's projected campus will extend eastward from Tenth Street between Walnut and Locust Streets.

Construction is scheduled first for a large building designed to house the Basic Science Departments and, in addition, all facilities of a Student Commons. Although the General State Authority of Pennsylvania will appropriate more than $16,000,000 for this structure, laboratory equipment alone in excess of $500,000 must be acquired through funds made available by private sources of support.

Jefferson's over-all development program involves an expenditure of $41,000,000. Funds in the amount of $7,000,000 must be obtained from private sources if Jefferson is to qualify for Federal and State grants aggregating more than $34,000,000.

Members of the Faculty actively participated in the planning of the new building projects and Jefferson's new campus.

Included in the new building will be ample space for the Alumni Office, so that Alumni returning to the College may make it their headquarters for meetings, visits with classmates and other activities.

The Alumni Campaign will be inaugurated against a background of support that already has propelled the Building Fund well along the way to complete success. Since the start of active fund-raising in the interest of Jefferson during the fall of 1962, subscriptions have climbed to more than $3,700,000. Before close of the organized fund-raising effort, campaign leaders express confidence that as much as $5,000,000 will be forthcoming from Philadelphia sources alone.

Financial objective for the Alumni Campaign, scheduled to be completed by June 1964, has been set at $1,250,000. All funds subscribed to the Building Fund by Alumni will be allocated to the cost of constructing and equipping new facilities for the College.

Both the Officers of the Alumni Association and those responsible for the Alumni Division of the Jefferson Medical College Building Fund are agreed that there should be no disruption of Annual Giving during the Building Fund Drive.
Results of West Virginia Alumni Questionnaire

Dr. Earl S. Phillips, '24, Vice-President of the Alumni Association for West Virginia, has sent the following "open" letter to all Jefferson graduates, as well as the results of a most interesting survey which he conducted among our Alumni in his State.

"As A STATE, West Virginia is celebrating a century of sovereignty this year. We are in a holiday mood, so come join with us in celebration. West Virginia has much to offer. It is naturally mountainous, and consequently scenic and beautiful. Mountaineers are friendly, generous, and progressive. West Virginia is first among the states for decrease in population. We are the "coal-bin" of the nation, and due to the slump in coal mining, we are bad-off industry-wise; however, we are rich in natural resources, and have great potential. Unfortunately, we have permitted out of state interests to invade, remove and profit from our holdings, rather than utilizing and developing them ourselves. That situation is changing.

"For the vacationer, we have very much to offer. White Sulphur Springs Resort Hotel is outstanding in the world, and has no peer in continental United States. For the price, you can enjoy every possible sport and relaxation through its facilities, in elite fashion, beyond your most fastidious expectation and imagination.

"Charleston, our Capital city, is quite modern, with much to offer the visitor. You will find modern and adequate facilities on all the principal highways throughout the state, with good food aplenty.

"Wheeling, in the northern panhandle, is the home of Oglebay Park with its unique Wilson Lodge, cottages and Swiss chalets, and now in year-round demand for those who like to relax in natural surroundings with all modern facilities close by.

"Morgantown, home of West Virginia University, is located on the Monongahela River, and, although the terrain is rough, it is beautiful. West Virginia University has a new campus, the site of the West Virginia School of Medicine—perhaps the finest physical plant in the U. S. A. Through forfeits from numerous other schools of Medicine, a fine faculty has been acquired, and the physical plant is functioning toward capacity. Last year, it granted its first four-year degrees in Medicine, something West Virginia has not been able to do up to this time. So, professionally, West Virginia is alive. The entire State Medical organization is alert to our needs and is doing something about it by lending all efforts to the project. We pray our efforts may bear fruit, and that West Virginia University Medical Center may become a small but bright star in the galaxy of the Medical orbit.

"We are most grateful to Jefferson for contributing to our state and to our school, directly to the teaching staff, and indirectly to the state profession, with some eighty-eight Jefferson graduates within our borders.

"After being given the office of State Vice-President, I prepared a questionnaire and mailed same to each Jefferson graduate in our state. The object was to hear from each individual and gain exact data for the ALUMNI BULLETIN, for classmates, friends, etc., to see and read, with hopes of being of some small service. The response was fair. I have heard from forty-four so far, and since it is now five months since the letter was circulated, I doubt if further response will arrive. So, here is what we summarize from our canvass.

"We find that 21 Alumni are in General Practice, seven in Surgery, four in Internal Medicine, three in EENT, two in Obstetrics and Gynecology, two in Pediatrics and the remaining five in Proctology, Orthopedic Surgery, Radiology, Allergy and Dermatology.

"To the question "What is your opinion of the future for medicine in U. S. A.?”

28 expressed concern over the growing trend toward socialization
13 felt that, under certain conditions, the future is bright
3 did not answer the question

The question "What does Jefferson mean to you today?” was answered in the following ways:

25 expressed pride in Jefferson
7 expressed gratitude to their Alma Mater
11 did not answer the question
1 remembered the College without pleasure

To the question "Do you approve of co-education at Jefferson?” we received the following answers:

29 said "yes”
6 said "no”
5 were undecided
4 did not answer the question
The question "Would you advise your son, or others to go into medicine?" was answered as follows:

13 said "no"
8 said "yes"
6 said "yes" under certain conditions
17 gave replies not truly applicable to the question

To the question "If you had the opportunity again, would you study medicine?":

33 said they would
6 said they would not
5 were undecided

To the question, "If you had it to do over, would you go to Jefferson?:

40 said "yes"
1 said "no"
1 was undecided
2 did not answer the question

Replies to the question "How often have you visited Jefferson since graduation?" were as follows:

4 never
6 once
19 several times
15 many times

The second part of the above question was "When you return to Jefferson do you visit your fraternity?"

There were the following answers:

6 said "yes"
5 said "seldom"
13 said "no"
20 did not answer the question

To the question "Do you attend your Class Reunions every five years?" was answered as follows:

18 said "yes"
15 said "no"
10 said "not always"
1 said his class had not yet had one

To the question "Jefferson remembers you; don’t you think it should be a two-way street?:

34 said "yes"
10 did not answer the question
no one said "no"

The Alumni Association is grateful to Dr. Phillips for his personal efforts to keep this two-way street open between Jefferson and her sons and will welcome comments on any portion of the questionnaire.

To assure delivery by Christmas,
orders for Jefferson chairs must be in
the Alumni Office by November 15, 1963.
We’re off and running—on the first lap of what promises to be the most challenging and exciting Annual Giving Fund Drive in our Alumni history!

The 16th Drive is a challenge for many reasons. First, another record for total amount was set last year, so we have a new target to hit and, second, there is great excitement at Jefferson these days about the progress of the Expansion Program.

We hope most sincerely that Jefferson Alumni will support the Building Fund and we hope with equal sincerity that the enthusiasm being engendered by the Development Campaign will “spill over” to our 16th Annual Giving Fund Drive.

It has been pointed out many times that Annual Giving is the financial life-blood of the College. These yearly unrestricted gifts provide the Dean with funds needed to pay competitive faculty salaries, to buy new equipment and maintain that which we have, and to pay competent personnel to keep the College Departments functioning smoothly.

Each of you, at some time in your career, has undoubtedly made a large outlay of money for a new office or new equipment and you know that, regardless of such capital expenditure, your day to day expenses continued.

So it is with Jefferson. While we build buildings we must still operate the College and Alumni Annual Giving is essential for this operation.

The Annual Giving Fund Committee is so aware of the need for operating funds that we again set a goal of $175,000 for the 16th Drive. We did this knowing full well that our Alumni will be approached for major gifts for the Building Fund. We believe that all of you will see very clearly Jefferson’s need for capital funds and her ever-increasing need for unrestricted money provided by Annual Giving. Knowing Jefferson’s Alumni well, we are convinced that you will respond generously to both appeals.

Remember that contributions to both Annual Giving and the Building Fund have this in common—both will help to build a greater Jefferson. And—you are inextricably bound to Jefferson—just as she is to you.

A wise man has said “A College is more than its trustees and board of directors, more than its faculties and student bodies, more than its buildings and curriculums, for the Alumni are forever a vital part of its breath and life—its very being.”

Let us demonstrate more clearly than ever before that we recognize our relationship to our Alma Mater and the responsibilities this relationship entails.

Let us—all of us—join forces to strengthen the College we love so well and to whom we owe so much. We can do this with generous contributions to Annual Giving.

Kenneth E. Fry, M.D.
Chairman
Puerto Rican Chapter Holds Summer Meeting

THE annual Summer meeting of the Puerto Rican Chapter of the Jefferson Medical College Alumni Association was held from July 26-28, 1963 at the beautiful Hotel El Conquistador, Fajardo, Puerto Rico.

There were thirteen members and their families present. The guest speaker, Dr. Victor Torres, Associate Professor of Dermatology at the University of Puerto Rico School of Medicine gave a most interesting lecture entitled "Cloasma, A Recently Recognized Side Effect to the Use of Enovid."

The following members were elected for the two-year period 1963-65: Dr. Luis Pio Sanchez Longo—President; Dr. Juan Veve—Vice-President; Dr. John Sanabria—Treasurer; Dr. Frank Veve—Secretary.

The Winter meeting of the Puerto Rican Chapter will be held in November 1963 in conjunction with the annual meeting of the Puerto Rican Medical Association.

All members of the Jefferson Medical College and its Alumni Association are cordially invited to attend our reunions, and at the same time, visit this Island of Enchantment in the Caribbean.

ANTONIO RAMOS BARROSO, M.D., Secretary

Pardon Our Errors

WE sincerely regret that in the August issue of the ALUMNI BULLETIN we incorrectly designated Dr. Jerome Abrams ('53) as Director of the Cytology Laboratory and Attending Physician, Department of Obstetrics and Gynecology, Plainfield (N.J.) Hospital. Dr. Abrams' title should read Director of the Plainfield Cytology Laboratory, and his wife's, Rosalyn Y. Abrams, should be Associate Director of the Plainfield Cytology Laboratory. Our apologies too, for referring to Muhlenberg Hospital as Plainfield (N.J.) Hospital.

Also in the August issue, we inadvertently omitted the name of Dr. Edwin L. Rothfeld ('56) from the list of participants in the 112th AMA meeting held during June in Atlantic City. Dr. Rothfeld and his associates contributed a scientific exhibit entitled "Preoperative Cardiopulmonary Evaluation of Geriatric Patients."

Alumni Placement Bureau

Positions Available

UNUSUAL opportunity to take over busy general practice. Present doctor is leaving for residency shortly. Modern newly-decorated offices with latest equipment. Located on main thorofare in greater Northeast Philadelphia area. No property to buy.

CITY OF Hagerstown, Maryland, needs general practitioners. Contact Alumni Office if interested.

GENERAL practitioner, Class of 1924, wishes to dispose of home and office in Ventnor, New Jersey. Property is suitable for complete doctor's offices with treatment rooms, laboratory, etc., as well as two apartments.

Position Wanted


Alumni Participate In Perinatal Mortality Institute

FOUR Jefferson alumni participated in the Fourth Institute on Perinatal Mortality and Morbidity held at Altoona (Pa.) Hospital on May 16, 1963. Sponsored by the Pennsylvania Medical Society's Commission on Maternal Welfare and Child Health in cooperation with the hospital's Commission on Medical Education on the Problems of Human Reproduction, the Institute was attended by some 70 physicians from nine Pennsylvania counties and 35 nurses.

The Jefferson representatives were: Dr. R. Marvel Keagy, Class of 1935, Director and Chief of the Department of Pediatrics at Altoona Hospital, who moderated the morning session of the all-day program; Dr. John M. Keller, '46, a member of the Commission on Maternal Welfare and Child Health, who moderated the afternoon session; Dr. Thaddeus L. Montgomery, '20, Professor of Obstetrics and Gynecology, Emeritus, who moderated a panel discussion on which Dr. Donald A. Cornely, '48, served as a panel member.
CLASS NOTES

1911
DR. FRANK W. McNAMARA, 203 Dollar Bank Building, Youngstown 3, Ohio, was honored in a recent article in the Youngstown Indicator for his fifty years of medical service in that city. Dr. McNamara was the first surgeon at St. Elizabeth Hospital, Youngstown, to perform a complete gastrectomy for malignancy of the stomach, establishing an early reputation in the field of abdominal and thyroid surgery. He served as President of the St. Elizabeth staff from 1937 to 1948, and as Chief of Surgery for five years. Known to his associates as “Dr. Mac,” he is a former Director of the Mahoning Chapter of the Red Cross, and has traveled widely throughout the United States, Europe and South America.

1917
DR. ALBERT N. REDDELIN, 22 West Catawissa Street, Nesquehoning, Pa., recently was honored by the Nesquehoning Rotary Club for his service to club and community at a surprise gathering at his home.

1919
DR. HARRY W. WEEST, Medical Director, Lawrence F. Flick State Hospital, Cresson, Pa., recently was promoted from Colonel to Brigadier General of the Pennsylvania National Guard and placed on the retired list. He began his military service in 1918, remaining active in the 110th Infantry until World War II. He served from 1941 to 1945 as Division Surgeon of the 28th Infantry here and in Europe, being discharged with the rank of Colonel. Dr. Weest was sworn in as State Secretary of Health for Pennsylvania in September 1945. He served in this post until 1947 when he became Director of the state hospital in Cresson.

1920
DR. WALTER LUSCHINSKY, Locust Mountain Hospital, Shenandoah, Pa., has been named Chief Surgeon at the institution. He served as Assistant Surgeon at Locust Mountain Hospital since 1943. A staff member at Ashland (Pa.) Hospital, Dr. Luschinsky began general practice in Shenandoah in 1923.

In addition to the AMA’s Gold Medal Award, he has received the Bell Greve Memorial Award of the National Rehabilitation Association (1962), the Distinguished Service Gold Key of the American Congress of Physical Medicine (1944), the Physician’s Award of the President of the United States (1953), the Pennsylvania Ambassador Award (1954), the Gold Medal Award of the Connecticut Society of Physical Medicine (1960), and an honorary fellowship in the Royal Society of Medicine of England (1961), an honor accorded to only 100 persons throughout the world.

Last year, Dr. Krusen was presented with the Honorary Degree of Doctor of Medicine from the Justus Leibig University in Giessen, Germany. He also was honored by the Hospital Luis Calvo MacKenna, in Santiago, Chile, which named its department of physical medicine and rehabilitation after him. Dr. Krusen has been named an honorary member of professional societies in his field throughout the world.

Frank H. Krusen, M.D.
Dr. Benjamin Halporn, 321 North Street, Millersburg, Pa., writes concerning his recent 31-month trip around the world:

"My wife, also a physician, and I have always been fond of traveling. Our past vacations have included a trip to South America where we visited almost every country on that Continent, another trip to Central America where we visited several countries, several trips to Canada, and trips to Europe and North Africa.

"After many busy years of practice, we decided to retire in 1960. We continued working at our professions until late at night on the last day of September 1960, and, a few hours later, boarded a train for New York City. From New York, we flew to the Azores, which are a group of islands with a Shangri-la atmosphere—just the ideal place for three weeks of relaxation and rest. After leaving the Azores for Lisbon, Portugal, we traveled at our own pace and with no rigid plan until May 1, 1963.

"From Portugal, we traveled to Madeira. After a delightful eighteen-day stay, we boarded a British Union Castle Line ship, and, after ten days on placid water, reached Cape Town. It is a relaxing, colonial-type city with an excellent climate, and we spent several weeks in that area, including a visit to the point where the Atlantic and Indian Oceans meet. Africa is, perhaps, the most fascinating Continent in the world. There is political unrest in many areas of Africa, but its fascinating native life and wild life, its extraordinary hospitable white minorities, its changing landscapes, deserts, mountains, rivers and forest are a rare treat to see.

"Each of our trips was packaged or planned. We tried to see the various areas during the most pleasant time of the year. We did not always succeed in this, but, for the most part, endured neither extreme of heat nor cold. Through reading and observation, we absorbed as much of the culture, history, customs, and amusements of the people as possible, and tried to learn about their habits and ways of thinking. For the most part, we traveled by plane; however, we also used ships, canal boats, buses, railroads and private cars. Just for amusement, we rode camels, elephants, donkeys and ostriches.

"In Europe we visited practically every major country. England, Scotland and the whole of Ireland with its ancient cultures and wonderful people afforded the usual inspiring experiences. We three months in Spain and learned a great deal about the fascinating Spanish people and its great history under the Moorish and Christian kings. From Spain we crossed the Straits of Gibraltar into Morocco and spent over a month visiting its principle cities and points of interest. Many of its cities are walled, and to wander about the narrow winding alleys is a startling experience to one from the West. Our visit to Morocco and to Turkey gave us a good idea of the Moslem world—altogether different from the world we know.

"In Morocco, by private car and accompanied by a guide, we crossed the beautiful Atlas Mountains, going as far south as the Sahara Desert. We saw the peoples of the Sahara with their fortified and walled mud villages, oases, palm trees, camel trains, and vast stretches of desolate sand and rock. We returned to Spain, and then went on to Holland. We were in Holland in the Spring, when the famed fields of the Low Country were full of gorgeous tulips, hyacinths, narcissi and other flowers.

"Scandinavia, particularly Finland and Lapland, are utterly absorbing. By mail steamer we sailed along the western coast of Norway and into its principal fiords. We saw the sun at midnight, and, after eight or ten days of continuous daylight, were receptive to the idea of some sleep. From Helsinki, we joined a party of Finns for a nine-day tour of Russia, including Leningrad, Moscow and Novgorod. We found the Russian people very friendly, and saw enough of that mysterious land to make us want to see and know more.

"Roman ruins were visited in Italy, various parts of Europe and North Africa, and we saw Phoenician ruins at Carthage, Sardinia, Sicily and North Africa. In Greece, we saw the remains of the glorious Greek civilization, and again realized what the modern world owes it. Similarly, we learned in Israel what our civilization owes to the land of the Bible—the land whose roots nourished three great religions. We also had the opportunity to see and learn about the ancient civilizations of the Euphrates and Indus Rivers. We learned about idol worshippers of ancient days from their descendants practicing the same worship in India, Thailand and Cambodia even to this day. These experiences made the roots and institutions of our modern life seem real and vital.

"Traveling about for long periods of time made us tired of hotel fare and hotel life. At various intervals, we rented apartments—in Cape Town, Vienna, Rome and Honolulu—and at each place stayed for four or more weeks. We kept house and prepared our own meals—a welcome relief from routine traveling. We absorbed as much of the atmosphere and environment as possible, and then renewed our journey rested and with renewed anticipation.

"We had no difficulty communicating with others. The sign language is a universal Esperanto, learned without books. It is amazing how many people throughout the world speak excellent to poor-but-understandable English, and a slight knowledge on our part of German, French, Spanish and Italian saw us through all situations. Knowing a few useful phrases is very helpful and, although foreigners were amused by our massacre of their noble languages, they gave us credit for trying.

"After eighteen delightful months in Europe, a jet transported us from London to Karachi, Pakistan, in approximately ten hours, with stops and leg-stretching at Rome and Cairo. Three months were spent in Pakistan, India and Ceylon. One cannot describe this teeming, colorful, mysterious area in a
few sentences! We witnessed the poverty of the masses and the contrasting grandeur, elegance and fabulous wealth of the maharajahs, nabobs and princes of India. There are palaces and temples in India, Cambodia, Thailand and Japan which exceed in opulence and luxury those of Europe. Comparing these to the slums of great cities, with natives sleeping on the sidewalks, such as seen in Calcutta, is startling.

"After India and friendly, attractive Thailand with its cheerful and smiling people, we went on to Cambodia, a land of equally friendly, smiling and attractive people. This is a country out of the past, one where life is lived as in the twelfth century. It is a land worth knowing and worth experiencing. From Cambodia we flew to Hong Kong by way of Saigon and thence to Japan.

"Hong Kong has a harbor setting which ranks in magnificent beauty with cities like Naples, San Francisco and Wellington. This city is a shopper's paradise with goods from all corners of the earth at bargain prices. It offers interesting experiences of all kinds.

"A walk through refugee Chinese quarters is an unforgettable experience. Chinese children are seen carrying other children of almost equal size on their backs. We went to a Chinese opera and, though understanding practically nothing, enjoyed an experience so unusual that we will never forget it. We made a trip to the borders of Red China and watched the guards pacing back and forth.

"From Hong Kong we flew to Asaka in Japan. This country offers beautiful sights like Mount Fujiama and the Inland Sea, but there are many others of almost equal rank. We visited Hiroshima and gained some first-hand knowledge of the terrible events that occurred there. We found the Japanese cordial, polite, attractive and thoughtful of others, but we cannot pretend to understand their thought processes.

"From Japan we flew to Formosa, the Philippines and Australia. Life in Formosa resembles that of old China, and is practically the only extensive area in the world where the visitor from the West can learn about the China of old. One admires the Chinese for their tolerance, good humor and dignity. Formosa is one of the countries off the beaten track that should be visited, and this also is true of the Philippines. In the latter country, one feels that he is back in part of the United States. The American idiom is spoken everywhere and people are grateful to the United States for its help and good will. At the same time, if one gets off the beaten track, many exotic people and places are to be seen.

"Australia has a sturdy and friendly people, with animals and plants seen no where else on earth. We flew on to New Zealand where the same type of hearty people are seen. The country has more natural wonders to offer than any similar area on earth. The native Maoris, like Polynesians seen in other Pacific Islands, are an attractive and likeable people.

"From New Zealand we flew on to Fiji, Tahiti and some of the adjoining islands. The South Pacific has many "enchanted evenings" and many daytime enchantments, too. One can readily understand why the Islands of the South Pacific are so attractive to writers of the present and the past.

"After five weeks in Oahu and some of the adjoining Hawaiian Islands, we boarded a jet at Honolulu, and in less than four-and-one-half hours, we were disembarking at Los Angeles—a flight of more than twenty-five hundred miles.

"After visiting on the West Coast, we decided on a change of pace, and took a two-week Greyhound trip across the country from San Francisco to Harrisburg. En route, we witnessed some of the marvelous wonders of our own country such as the western deserts, Yosemite, Grand Canyon and Carlsbad. We traversed Mississippi, visited New Orleans, and, by way of Tennessee and Virginia, arrived in Harrisburg, Pennsylvania, just thirty-one months to the day after we had left.

"We felt a bit like old Marco Polo on his return to his native Venice. Our friends, however, did recognize us, and it was good to be back in the familiar haunts of the homeland.

"We saw many lands and had many wonderful experiences. Invariably, we met interesting, unusual and friendly people. We loved it all. Even though we were older in years and poorer in purser, we were richer in spirit. We recommend this experience to everyone."

1927

DR. WALTER T. TICE, 624 Quaker Lane, High Point, N.C., recently was honored in the High Point Enterprise in the paper's column "High Pointer of the Week." Dr. Tice, a well-known civic leader in his community, is former Chief of Staff of the High Point Memorial Hospital and presently is a member of the Executive Committee of the staff. He holds membership in Hiram Masonic Lodge, Woodmen of the World, Veterans of Foreign Wars, the American Legion and the Junior Order. A past-President of the Guilford (N.C.) County Medical Society, Dr. Tice is a member of both the Blue Shield and the nominating committees of the state society. Dr. Tice has practiced in High Point since 1930. He and his wife have two children: Walter T. Tice, Jr. and John Keyser Tice.

1928

DR. WILLIAM M. CASON, 6566 Glenridge Drive, Atlanta 28, Ga., very kindly represented his Alma Mater at the 75th Anniversary Celebration of the Georgia Institute of Technology on October 7. Representing Jefferson at the request of President Bodine and Dean Sodeman, Dr. Cason participated in the academic processional and attended the ceremonies, at which President John F. Kennedy was the principal speaker. Jefferson is most grateful to Dr. Cason for giving so willingly and generously of his time.

DR. HENRY A. DAVIDSON, Essex County Hospital, Cedar Grove, N.J., spoke at a meeting of the B'nai B'rith Women of Montclair (N.J.) on September 10. His topic was "Community Responsibility Toward Mental Health." Dr. Davidson is Superintendent of Essex County Hospital, and editor of the New Jersey Medical Journal.

1930

DR. WILLIAM LEWIS BROWN, 3rd and State Streets, Gallipolis, Ohio, was kind enough to represent Jefferson Medical College at the inauguration of the new President of Rio Grande College, Rio Grande, Ohio, on September 29. Acting for Dean Sodeman and President Bodine, who were unable to attend, Dr. Brown participated in the academic processional. The College is very grateful to Dr. Brown for his willing cooperation.
1936
Dr. Peter P. Leone, 175 Lincoln Road, Westfield, N. J., has been named area Medical Director for Humble Oil and Refining Company’s expanded New York area. Dr. Leone joined the company in 1945, and since 1951 was physician for New Jersey marketing employees, providing medical direction not only for employees in the Elizabeth headquarters, but for those in the company’s other sixteen plants in the state as well. Dr. Leone served at St. Peter’s General Hospital, New Brunswick, N. J., and Roosevelt Hospital, Metuchen, N. J., before entering private practice in Philadelphia in 1939.

Dr. and Mrs. Leone have two children.

1937
Dr. James B. Goyne, Trenton State Hospital, Sullivan Way, Trenton, N. J., has been named Medical Director and Chief Executive Officer of the Hospital. Since 1955, he has served as Assistant Medical Director. Dr. Goyne has served as Instructor in Psychiatry at the University of Pennsylvania School of Medicine. He is Secretary of the Mercer (N. J.) County Medical Society, and a member of the New Jersey Neuro-Psychiatric Association.

1939
Dr. Walter S. Price, 8430 Washington Blvd., Indianapolis, Ind., writes, "After fifteen years in general practice since the war, I decided to specialize. I have just completed a two-year residency in anesthesia at the Indiana University Medical Center. This past July, I completed the oral and written examinations for the American College and have been declared a Fellow in Anesthesia. I also managed to pass the written examinations for the American Board.

"During the past two years, I reviewed anatomy, chemistry, physics, physiology, etc. At the beginning, it was tough to get back to studying subjects I had forgotten long ago.

"Actually, the experience was very stimulating and much of the work came back readily because of the basic background that I received at Jefferson.

"I have thoroughly enjoyed my work in anesthesia. I find that each day and each patient presents a challenge, and I feel more satisfied at the end of the day that I have accomplished more to aid our fellow men."

1942
Dr. Vernon R. Phillips, 2515 Market Street, Camp Hill, Pa., spoke at the August 1st meeting of the Christian Business Men’s Committee of Schuylkill Valley in Trappe, Pa. He has been engaged in general practice in Camp Hill since 1946, and serves on the staffs of Harrisburg (Pa.) General Hospital, Seidle Memorial Hospital, Mechanicsburg, Pa., and Holy Spirit Hospital, Camp Hill.

1943
Dr. Edward V. Henson, 1138 Reading Boulevard, Wyomissing, Pa., has been appointed Medical Director of The Beryllium Corporation. Before joining the firm, Dr. Henson was associated with the American Oil Company in Chicago, and also with Union Carbide Chemicals Company in South Charleston, W. Virginia. Dr. Henson was appointed to the editorial board of the Journal of Occupational Medicine in 1959, and, in 1962, was named editor. He is a member of the American Medical Association, The American Public Health Association and the American Academy of Occupational Medicine. He holds a certification in the American Board of Preventive Medicine in occupational medicine. Dr. Henson also served as a member of the Northwestern Illinois Metropolitan Area Air Pollution Control Board and on the Advisory Committee of the Chicago Board of Health.

1945
Dr. William T. Lineberry, Jr., U. S. Naval Hospital, Navy 3923, F.P.O., San Francisco, Calif., writes, "My family and I are still enjoying our duty here in Japan, and we are expecting my father (Dr. William T. Lineberry, Class of 1915) and mother to visit us in October for a couple of months.

"I have been busy professionally this past month as one of my surgeons has been on leave and I have been covering his duties as well as my own.

"We are hoping to visit Hong Kong this fall when my parents arrive. If any Jefferson Alumni are visiting Tokyo or Yokohama and would like to visit our Naval Hospital here in Yokohama, I would be glad to show them around."
1946

Dr. Dwight R. Ashbey, Eastern Pennsylvania Psychiatric Institute, Henry Avenue and Abbottsford Road, Philadelphia 29, Pa., has been chosen as the first recipient of a John Frederick Steinman Fellowship, for study in child psychiatry. Dr. Ashbey, who started a four-year residency in psychiatry in July, had, at that time, no idea that the Steinman award would be available. The Steinman Fellowship Fund was established in the Spring to encourage individuals from the Lancaster (Pa.) area to undertake advanced study in psychiatry, psychology and social case work, and to practice in these fields in Lancaster County. Dr. Ashbey had maintained a practice of pediatrics in Lancaster for twelve years, until closing it to begin his residency. His one-year fellowship amounts to $3500.

Dr. James B. Gilbert, West Virginia University School of Medicine, Morgantown, W. Va., and his wife, Dr. Enid May Gilbert, also a physician, have joined the University as Assistant Professors. The Gilberts came to Morgantown from Austin, Texas, where he was Researcher for the American Heart Association and she was an Associate Pathologist at Brackenridge Hospital.

Dr. Earl K. Sipes, 24 North 18th Street, Allentown, Pa., has been elected a Fellow of the American College of Angiology. Dr. Sipes, an attending surgeon at Sacred Heart Hospital, Allentown, became a Fellow of the American College of Surgeons four years ago. He is a Diplomate of the American Board of Surgery, and holds membership in the Association of Directors of Medical Education and the Lehigh County Medical Society.

1947

Dr. David H. Hausman, 211 Moreland Avenue, Bryn Mawr, Pa., recently became a Diplomate of the American Board of Pathology. Dr. Hausman is on the staff of Pennsylvania Hospital in Philadelphia.

Dr. Peter P. Mayock, Jr., Clinic Hospital, 309 South Main Street, Bluffton, Ind., recently joined the staff at Clinic Hospital. His wife and four children have joined him in Bluffton.

1949

Dr. Charles A. Miller, 2905 Tilghman Street, Allentown, Pa., has been named Assistant Plant Surgeon for the Bethlehem (Pa.) plant of Bethlehem Steel Company. Dr. Miller maintained a private practice until joining the medical staff of Bethlehem Steel in October 1961 as a surgeon. He became a Diplomate of the American Board of Surgery in 1960, and holds memberships in the Lehigh County Medical Society, Pennsylvania Medical Society and American Medical Association. Dr. and Mrs. Miller have four children.

Charles A. Miller, Jr., M.D.

1950

Dr. Edward J. Clark, Storey County Medical Clinic, Virginia City, Nev., recently was featured in the Reno (Nev.) Evening Gazette in the article "Virginia City Gets a Doctor." It told how Dr. Clark has become the city's first resident physician in twenty years and how he helped establish a medical clinic in the old 'ghost town'. Dr. Clark's new position resulted from a sight-seeing trip to Virginia City last winter and his chance conversation with the Chairman of the Board of Storey County commissioners. Dr. Clark 'fell in love' with the old mining town, and subsequently applied for the post of county physician.

1951

Dr. Stanley A. Capper, 16550 Ventura Boulevard, Encino, Calif., has been advanced to the rank of Assistant Professor of Ophthalmology at UCLA Medical School in Los Angeles.

1952

Dr. Albert L. Babcock, 45 Brookmoor Road, West Hartford, Conn., has opened an office at 85 Jefferson Street, Hartford, for the practice of plastic and reconstructive surgery. A Diplomate of the American Board of Surgery, Dr. Babcock has three children.

Dr. John M. Grasse, Jr., Abiriba Joint Hospital, Nigeria, West Africa, has been appointed by the Nigerian government to the office of Rural Medical Officer of the hospital. He had served as Medical Superintendent of the 80-bed Abiriba Joint Hospital since its beginning in 1960. In his new capacity, Dr. Grasse supervises health centers at Nkporo and Ebem-Ohafia. In the future, his duties will be expanded to include supervision of health centers, maternity centers and dispensaries in three rural areas.

Dr. Grasse and his family were scheduled to return to the United States this Fall for a year's furlough. They are staying, however, until next Spring in order to open this program. Dr. and Mrs. Grasse have four children—Elizabeth Ann, eight, Linda Sue, six, Sandra Ruth, three, and Martha Jane, less than a year. Dr. Grasse went to Nigeria in 1960 for the Mennonite Board of Missions and Charities, sponsor of the Abiriba Joint Hospital.

1953

Dr. David W. Kulp; Acting Superintendent, Eastern Pennsylvania State School and Hospital, Bensalem Township (Bucks County), Pa., recently was promoted from Clinical Director to Acting Superintendent of the state institution. Dr. Kulp served as Medical Director at Lancaster (Pa.) Guidance Clinic before coming to Eastern Pennsylvania State School and Hospital.
Dr. Harry G. Light, 904 Prospect Avenue, Bethlehem, Pa., has opened his office for the practice of general surgery in the Professional Building, 35 East Elizabeth Avenue, in that city. Dr. Light is certified by the American Board of Surgery, and is a member of the candidate group, American College of Surgery.

Dr. John H. Mazur, Mercy Hospital, Hillcrest Drive, San Diego 3, Calif., recently was named Director of the hospital's Cardio-Pulmonary Laboratory. He formerly served on the staff of the United States Naval Hospital in that city.

1954
Dr. Romeo A. Luongo, 2054 Locust Street, Philadelphia, Pa., was elected to a three-year term as Director-at-Large of The American Otorhinologic Society for Plastic Surgery, Incorporated, at the group's scientific meeting in New Orleans earlier this year.

Dr. Murray N. Silverstein, Mayo Foundation, Rochester, Minn., was awarded the degree of Doctor of Philosophy in Medicine from the University of Minnesota on July 18. A Consultant in Medicine in the Mayo Clinic, Dr. Silverstein was appointed to the staff in 1961.

Dr. Edward Tober, 32 Garfield Road, Portsmouth, N. H., has returned to his native city and has established his practice of general medicine and chest surgery at 461 Middle Street. Until recently, Dr. Tober served his residency in thoracic surgery at Lenox Hill Hospital and Veterans Administration Hospitals, both in New York.

1955
Dr. John M. Wapner, 202 No. 17th Street, Allentown, Pennsylvania, recently opened his office for the practice of Ophthalmology.

Dr. Domenic F. Coletta, Director of Laboratories, Woman's Hospital, Preston & Parrish Streets, Philadelphia 4, Pa., recently was appointed book review editor for J. B. Lippincott Company, Philadelphia publishers, with special interest in general pathology.

Dr. Wayne D. Stettler, 7 Old Oak Drive, Summit, N. J., has joined the Summit Medical Group, associated with the Department of Pediatrics.

Dr. James L. Stone, 833 South Newport, Tampa, Fla., 33606, has assumed a position as Assistant Pathologist in a private laboratory in Tampa. He com-
completed his residency in pathology at Reading (Pa.) Hospital earlier this year. Dr. and Mrs. Stone have five children: Mary Beth, Jimmy, Tommy, Johnny and Ann Louise.

1957

Dr. Henry C. Banks, 722 Grove Avenue, Southampton, Pa., has opened a joint practice of surgery in the Dover, New Jersey area. Dr. and Mrs. Banks have two daughters.

Dr. Richard B. Freeman, 5707 Northfield Road, Bethesda, Md., is currently a Research Fellow in the Renal Laboratory of Georgetown University Hospital, Washington, D. C. Dr. Freeman formerly served with the United States Public Health Service in San Francisco.

Dr. Alfred O. Heath, 1610 West Erie Avenue, Philadelphia 40, Pa., completed a three-year tour of duty at the United States Army Hospital in Heidelberg, Germany, and received the Army Commendation Medal for meritorious service. He has returned to Jefferson to complete his surgical residency.

Dr. H. Donald Knox, Lt., MC, USN, Quarters Five, U. S. Naval Hospital, Annapolis, Md., writes that he is practicing pediatrics at the Annapolis Naval Hospital. He recently passed the second part of his boards in pediatrics in an examination given at UCLA. Dr. and Mrs. Knox have two sons—Donnie, age three-and-a-half, and Bobby, age 21 months.

1958

Dr. Vernon F. Bradley, 1214 Thirteenth Avenue, Altoona, Pa., has opened an office at the above Altoona address and also one in Cresson, Pennsylvania. He is associated with another obstetrician and gynecologist in serving Cambria (Pa.) County residents. Dr. Bradley served his residency in obstetrics and gynecology at Cleveland (Ohio) Clinic, and is now a member of the active staff at Mercy Hospital, Altoona. Dr. and Mrs. Bradley have four children—three boys and a girl.

Dr. Robert F. Coniff, 421 Water Street, Danville, Pa., currently is serving his residency in internal medicine at Geisinger Medical Center in Danville. As part of his residency program, Dr. Coniff presently is taking one semester of graduate studies at the University of Pennsylvania, and then will return to Geisinger for the remaining year-and-a-half of his residency.

1959

Dr. Paul L. Flicker, Department of Orthopedic Surgery, Hospital for Special Surgery, 535 East 70th Street, New York 21, N. Y., recently received a training grant from the national United Cerebral Palsy Research and Educational Foundation. Dr. Flicker's $4800 clinical fellowship has made possible a year of special training, which began July 1, at the Hospital for Special Surgery in New York City.

Dr. Lawrence G. Gigliotti, USAF Hospital, Tinker Air Force Base, Oklahoma, has received his assignment as a physician with the Air Force with the rank of Captain. Dr. Gigliotti entered the service in July 1963, following a term of residency in Orthopedics at Jefferson Hospital.

Dr. Gary P. Romisher, Department of Radiology, Zurbrugg Memorial Hospital, Taylor Street, Riverside, N. J., has been appointed to the staff of Zurbrugg as Assistant Radiologist. After serving as Chief Resident Physician for three years at Philadelphia General Hospital, Dr. Romisher received a grant for further studies in lymphangiography.

1960

Dr. Robert F. Coniff, 421 Water Street, Danville, Pa., currently is serving his residency in internal medicine at Geisinger Medical Center in Danville. As part of his residency program, Dr. Coniff presently is taking one semester of graduate studies at the University of Pennsylvania, and then will return to Geisinger for the remaining year-and-a-half of his residency.

Dr. Myron G. Rosenfeld, 7011 North 15th Street, Apt. D-3, Philadelphia 26, Pa., recently was appointed Chief Resident in Dermatology at The Skin and Cancer Hospital, Philadelphia. Dr. Rosenfeld, who is serving the third year of his residency, has a two-year-old son, Edward Jay.

Dr. Robert E. McLaughlin, 65 Hobbart Street, Braintree, Mass., is now serving with a United States Air Force advisory unit assisting the armed forces of Viet Nam in their fight against Communist aggression. A surgeon with the rank of Captain, Dr. McLaughlin and other U. S. Air Force personnel train and assist Vietnamese Air Force personnel in mastering various technical specialties necessary for maintaining modern military units.

Dr. William H. Wanger, Officer in Charge, Naval Submarine School, Naval Submarine Base, New London, Conn., has been assigned to the Polaris submarine Thomas Jefferson.

Dr. Stanley Bernstein, 205 Irving Avenue, Bridgeton, N. J., has opened his office at 61 North Pearl Street in that city for the general practice of medicine. Dr. and Mrs. Bernstein have two children—Michael David, two years, and Daniel Brian, born in June.

Dr. Bert R. Estlow, Capt., USAF, Flight Physician, Forbes Field, Topeka, Kansas, recently completed an eleven-week training course with the Air Force in San Antonio, Texas. His wife, Joan, and daughter, Tracey, have joined him in Kansas.

Dr. Stephen Gosin, Jefferson Medical College, Department of Surgery, Philadelphia 7, Pa., received the Ida and Abraham Smith Annual Intern Distinguished Service Award at the Interns and Residents' banquet at Jefferson, recently. Dr. Gosin will take his residency in surgery at Jefferson.
Engagements, Weddings and Births

Engagements

1960
DR. JEROME KATCHMAN, 813 Arch Street, Norristown, Pa., to Miss Elaine Roslyn Shwartz. A November wedding is planned.

1961
DR. ARLO C. ANDERSON, Geisinger Medical Center, Department of Orthopedics, Danville, Pa., to Miss Marjorie Bate Raysor.

Weddings

1927
Marjorie, daughter of DR. JOHN H. GIBBON, JR., The Samuel D. Gross Professor of Surgery and Head of the Department, and Mr. Robert Sheppard, a student at the Philadelphia Academy of Fine Arts.

1954

1955
DR. F. WILLIAM SUNDERMAN, JR., Instructor in Medicine Jefferson Medical College, 1025 Walnut Street, Philadelphia 7, Pa., and Miss Carolyn Lambeth Reynolds, a student at the University of Pennsylvania Medical School, on August 24, 1963.

1959
DR. EDWARD J. BARANSKI, Resident in Surgery, Jefferson Medical College Hospital, Philadelphia 7, Pa. and Miss Georgine Marie Hensel, Research Assistant in Biology at Eastern Pennsylvania Psychiatric Institute, Philadelphia, in September.

1962
DR. CYRUS L. MINEO, Resident in Obstetrics and Gynecology, Philadelphia General Hospital, Philadelphia 4, Pa., and Miss Nancy R. Mullaney, Executive Director and Nutritionist of the Scranton-Wilkes-Barre (Pa.) Dairy Council, August 31, 1963.

1963
DR. JOSEPH M. JOHNSON, Queens Hospital, 1301 Punchbowl Street, Honolulu 9, Hawaii, and Miss Diane Beckel of Fremont, Nebraska, on June 22, 1963.

DR. EUGENE DONALD ANTHONY KOTCHICK, Thomas M. Fitzgerald Mercy Hospital, Lansdowne Avenue and Baily Road, Darby, Pa., and Miss Patricia Ann McCafferty, of West Collingswood, New Jersey, on October 12, 1963.

Births

1953

1957

1960

DR. AND MRS. PETER WADEWITZ, 108 Harris Drive, Fort Rucker, Ala.—daughter, Gretchen Lynne, born June 8, 1962.
Some Interesting Jefferson Alumni

The following is the second in a series of portraits of "Some Interesting Jefferson Alumni" which was introduced in the August issue and will continue to be presented in forthcoming issues of the BULLETIN. This material was compiled and written by Dr. Edward C. Britt, Class of 1933, and appeared in the 1940 CLINIC. That same year, it also was published in "The Medical Searchlight." We are deeply indebted to Dr. Britt for his keen interest in Jefferson's historical heritage and for bringing this material to our attention. This month's portrait is of Dr. Charles A. Luzenberg, Class of 1827.

Charles A. Luzenberg, M. D.

Graduating from Jefferson Medical College in 1827 was a young man born in Verona, Italy, of a German father, and destined to become famous in the State of Louisiana.

Following his graduation, Dr. Charles A. Luzenberg became the hospital pupil of Dr. Physick, then at the zenith of his career. Stimulated by this master, Dr. Luzenberg developed an intense liking for surgery, and, in 1829 he migrated to New Orleans where he soon achieved a dominant place in the medical life of that city. In the midst of a brilliant career, he felt the need for further study and spent two years—from 1832 to 1834—studying in European clinics, particularly under Dupuytren.

Upon his return, Dr. Luzenberg resumed his prominent position in New Orleans, and, in 1834, made his place in the history of medical education when he became one of the founders and the first Professor of Surgery of the Medical College of Louisiana. In 1845, this school became the Medical College of the University of Louisiana, and in 1884, following the instructions in the will of its greatest benefactor, Tulane University.

Dr. Luzenberg was only twenty-six at the time of his appointment in 1834, as were three other members of the original faculty, including the first Dean, Dr. Thomas Hunt. After four months service, Dr. Hunt resigned owing to faculty dissension, and Dr. Luzenberg replaced him as Dean.

In 1836, the first class graduated. At the exercises, Dr. Luzenberg delivered an oration in Latin and conferred the medical degrees—the first, not only in Louisiana, but in the entire Southwest as well.

He resigned his posts as Dean and Professor of Surgery shortly afterwards as a result of further faculty dissension, and accepted an appointment as Medical Director of the Charity Hospital in New Orleans. Dr. Luzenberg held this position until his death from angina pectoris in 1848 at the age of forty-three.
The names of the alumni, their widows, and faculty members who have contributed in amounts of one hundred dollars and over are listed here in grateful appreciation. Your committee for the past eleven years has invited all who could contribute in these more substantial amounts to give thoughtfully and proportionately, and has instituted the Fifty and Five Hundred group acknowledgment of these gifts. The six hundred and eighty-six alumni recorded on this roll contributed more than half of last year's Fund amount. Warm thanks are again expressed by the Alumni Fund Committee of Jefferson Medical College for all gifts, regardless of size, made to advance the progress of our Alma Mater.

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October 30, 1963
DINNER FOR ALUMNI, WIVES AND GUESTS
during Annual Meeting of American College of Surgeons
Clift Hotel
San Francisco

February 27, 1964
ALUMNI ANNUAL BUSINESS MEETING AND DINNER
(place to be announced)

June 10, 1964
CLASS REUNIONS

June 11, 1964
ALUMNI BANQUET
(place to be announced)
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