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in the DECEMBER, 1963 Issue

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VOLUME XIII
Number 5

Mrs. Joseph J. Mulone, Editor
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Alumni Office of The Jefferson Medical College
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CEREBRAL vascular diseases and the many aspects of abnormal cerebral blood circulation have been the areas of major investigation in the Department of Neurology for the past fifteen years. The initial study was a careful dissection of the circle of Willis from about fifteen hundred normal brains to determine the most significant vascular anomalies that exist in this group of arteries at the base of the brain. Although this examination was done principally by Dr. Bernard J. Alpers, Professor of Neurology and Head of the Department, and Dr. Richard G. Berry, Professor of Neuropathology, it required six years to complete and utilized many of the staff and residents who worked in the neuropathology laboratory during this period. They found that the normal polygon configuration of the circle of Willis existed in only 50% of the specimens examined and that the most common variation (26%) was absent or string-like caliber of posterior communicating arteries. Other abnormalities included duplication of vessels in 18% of the circles of Willis and embryonic origin of the posterior cerebral artery from the internal carotid artery in 15% of the circles of Willis. The conclusion seems inescapable that the anatomical variations in the circle of Willis are important in occlusive vascular disease for the establishment of compensatory blood flow through the circle itself.

In another study by Drs. Berry and Alpers, 194 brains with brain softenings were examined to establish relationship between the incidence of brain softening and anomalies of the circle of Willis. Only one-third of the specimens had normal circles of Willis, as compared to 50% in normal brains. String-like vessels were observed in 43% (normal 26%) and duplicated vessels, in 19% (normal 18%). A third study of cerebral softening which developed after occlusion of the internal carotid revealed that maximal extent of softening was in the distribution of the middle cerebral artery and the brain supplied by the anterior cerebral artery escaped involvement in most instances. In other instances of internal carotid artery occlusion, there was no softening whatever or incomplete softening. It became apparent that these variations in the case of occlusion of any cerebral vessel are part anatomical and are dependent on the efficacy and extent of the compensatory circulation.

At the present time, the main investigation of the cerebral vascular disease problems is aimed at the study of the compensatory circulation of the brain. Dr. Alpers and Dr. Philip Hodes, Professor and Head of the Department of Radiology, are co-investigators in a research project of "Compensatory Brain Circulation in Vascular Occlusions," which is supported in part by a grant from the National Institutes of Health. The study is in its third year and includes the clinical examinations and arteriographic studies of about 250 patients.

Patients admitted to Jefferson Medical College Hospital with cerebral vascular disease, particularly occlusive disease, are studied with total cerebral angiography and followed in the out-patient clinics for evaluation of the degree of recovery from the cerebral infarction. The angiographic evidence of collateral cerebral circulation is correlated with the degree of recovery of the neurological defect. The second stage of the project is the examination of the cerebral vascular system by microangiographic techniques. At autopsy of patients with cerebral vascular disease, the entire cerebral blood supply is injected with a barium suspension and allowed to fix. Low-voltage, long duration x-ray studies are made on thin slices of the whole brain to delineate the capillary bed in the margin of the areas of known softening and necrosis from the vascular occlusion. Again this data is correlated with the clinical history of the patient's illness and recovery. The true value of this project rests with the careful follow-up and pathological examination of patients studied in detail at the onset of their occlusive cerebral vascular disease.

Other areas of research in the Department of Neurology included biological and pathological studies of medulloblastomas, as compared with cerebellar sarcomas. This study is being conducted by Dr. Richard Berry. A group of patients with Cushing's Syndrome associated
Dr. Bernard J. Alpers (left) and Dr. Richard G. Berry carefully dissect the vascular system of a brain in an effort to determine the source of an intracerebral hemorrhage in an autopsy specimen.
with chromophobe adenoma is being studied in conjunction with Dr. Richard Rovit, Associate Professor of Neurosurgery.

The recent expansion of the Department of Neurology with laboratories for neurochemistry and experimental neuropathology has stimulated research into other aspects of disease of the nervous system. Dr. Elliott Mancall, Assistant Professor of Neurology, and Dr. Luis Garcia-Bunel, Instructor in Neurology, are actively studying Neuromuscular Diseases with financial support from the National Foundation for Neuromuscular Diseases. Biopsy material from patients with neuromuscular disease is closely examined by histological technique and by quantitative determination of enzymatic activity in the diseased muscle. Dr. Mancall is also investigating glycogen storage diseases, using newly developed histochemical methods.

Investigation into the mechanisms of seizures is being done by Dr. Joseph C. White, Assistant Professor of Neurology, and Dr. Richard Rovit, Associate Professor of Neurosurgery. Multiple epileptogenic foci in experimental animals and in man are being studied to determine their influence in the production of clinical seizures. Dr. White and Dr. Winslow J. Borkowski, Associate Professor of Neurology, are examining the feasibility of using the electroencephalogram following pneumoencephalography to localize seizure activity in otherwise normal electroencephalograms.

Utilization of a new chelating agent, diethylthiocarbamate, in patients with hepato-lenticular degeneration (Wilson's Disease) has been a joint project of Dr. White and Dr. William Sunderman, Sr. and Dr. William Sunderman, Jr. from the Metabolic Research Division of the Department of Medicine.

Although these areas of major investigation depend on a diversity of basic scientific backgrounds, the research in the Department of Neurology rests firmly on a base of understanding of fundamental neuropathology which was brought to Jefferson Medical College twenty-five years ago by Dr. Bernard J. Alpers. It is a strong belief of the Department of Neurology that good clinicians and careful investigators in neurology are built on a foundation of adequate preparation in the morphological aspects of diseases of the nervous system.

**RESEARCH IN THE DEPARTMENT OF MICROBIOLOGY**

The Department of Microbiology carries out investigative work in several broad fields. In the area of viruses, Dr. W. Paul Havens, Professor of Clinical Microbiology and Professor of Medicine, is interested in hepatitis and Dr. Paul B. Johnston, Assistant Professor of Microbiology, is interested in the "foamy" viruses. In clinical microbiology Dr. R. J. Mandle, Associate Professor of Microbiology, and Gerard J. McGarrity, B.S., Teaching Fellow in Microbiology, are studying staphylococcal typing; Dr. Eileen L. Randall, Assistant Professor of Microbiology, is studying the gonococcus; and Dr. Carl F. Clancy, Associate Professor of Microbiology, is engaged on improvements in general technical methods. The interests of Dr. Kenneth Goodner, Professor of Microbiology and Head of the Department; Dr. Rolf Freter, Associate Professor of Microbiology; Dr. Harry L. Smith, Jr., Assistant Professor of Microbiology; Dr. M. Ataur Rahman, Research Fellow in Microbiology; Dr. Vu Qui Dai, Research Fellow in Microbiology; and Dr. Do Thi Nhuan and Mr. Keshab Pant, graduate student trainees, are centered on the acute enteric infections with particular emphasis on cholera. Here close contact is maintained with workers in Japan, Formosa, Hong Kong, Philippines, Thailand, India and Pakistan. The Jefferson laboratory has become a reference point for many difficult problems and a training site for workers from many countries. The Department has been fortunate in receiving financial support from the Public Health Service, the Army, the Navy, and the Atomic Energy Commission.
NOAH WEBSTER designates medicine as that part of the science and art of restoring and preserving health which is the province of the physician. Although this province has been continuously changing it has always added up to quite an undertaking. This is enough to explain why the Department of Medicine is the largest department at Jefferson Medical College. The subject matter is broad and the Department, under the direction of Dr. Robert I. Wise, Magee Professor of Medicine and Head of the Department, is composed of 12 divisions and 204 members whose job it is to cover the field. In addition, the Department is affiliated with eight other hospitals in the Philadelphia area.

The most important mission of the Department is teaching. The members of the Department teach approximately 40,000 man hours per year at Jefferson alone. This figure neither takes into consideration the immeasurable amount of time of teaching between physician and student as they meet at the bedside on the wards nor the private services of the eight hospitals in which the teaching of internal medicine is a continuous process.

The Department is organized into divisions for administrative reasons. Having divisions of one department, as opposed to separate departments, allows for coordination of teaching, research and training. It also serves to bring together those of similar medical interests. For while the members of the various divisions are engaged in different projects, the subject matter is interrelated. All are working toward the same goal—the prevention and cure of disease by precept and example.

Research is one means to this end, and at Jefferson, research is an important part of the Department’s day-to-day activities. The following examination of the research programs being undertaken in the various divisions presents a representative picture of the scope of activity in the Department of Medicine.

DIVISION OF ALLERGY

HOWARD C. LEOPOLD, M.D., Assistant Professor of Clinical Medicine, and Samuel E. Ryne, M.D., Instructor in Medicine, are engaged in a twofold project entitled "Studies in Autoimmunity in Chronic Bronchial Asthma," which entails investigation of the existence of antinuclear antibodies in chronic bronchial asthma and studies for the existence of antilung antibodies in cases of chronic bronchial asthma.

Under the former heading, samples of blood are being obtained from a number of cases of chronic bronchial asthma and samples of blood are being obtained as controls from a number of patients with pollen hay-fever but without asthma. Using the fluorescent antibody technique, blood from the patients with asthma and those with hayfever will be tested against a preparation of DNA to determine if antinuclear antibodies are present in asthmatics or not and whether any antinuclear antibodies are present in allergic patients without asthma.

In the latter part of the study dealing with the existence of antilung antibodies in cases of chronic bronchial asthma, lung tissue obtained from human lung from a case of bronchiectasis will be used as an antigen. Allergenic extracts of human lung will be then used for skin testing three groups of patients. Patients with chronic bronchial asthma, patients with other forms of allergy such as hayfever and normal non-allergic persons will be skin tested with human lung antigen. These tests will be done to determine the presence or absence of skin sensitizing antibodies against human lung in chronic asthmatics. If any patients give positive skin reactions indicating the existence of a skin sensitizing antibody, passive transfer tests will be performed with serum from these patients into the skin of normal individuals. These test sites will then be tested to determine the presence or absence of reagins against human lung. If patients with chronic asthma give positive evidence of circulating antibodies against lung, then the fluorescent antibody technique will be used, using the serum of the patient with antilung reagins against human lung as the antigen using the fluorescent antibody technique.
WILLIAM FRAIMOW, M.D., Assistant Professor of Medicine; Richard Cathcart, M.D., Associate Professor of Medicine; Peter A. Theodos, M.D., Assistant Professor of Clinical Medicine; and Irving L. Stoloff, M.D., Associate in Medicine, are studying "The Role of Auto-immunity in the Production of Conglomerate Fibrosis in Anthracosilicosis" with funds obtained from the Pennsylvania Thoracic Society.

This study was undertaken to evaluate the presence of an accelerated autoimmune mechanism in the production of conglomerate lesions in anthracosilicosis. In the initial phase of the study the degree of anthracosilicosis present was correlated with abnormalities in the plasma proteins as determined by protein electrophoresis. This was done in 292 consecutive patients of whom 28 had stage 0 or 1 anthracosilicosis, 40 had stage 2 lesions and 198 had third stage lesions with 92 of these coalescent nodular and 106 conglomerate lesions.

The results indicated a direct correlation between the advanced stage of anthracosilicosis and the number of patients in those groups having abnormally elevated gamma globulin levels. There also appeared to be an increased incidence of elevated alpha globulin in third stage conglomerate disease.

In the second phase of the study 34 anthracosilicotic patients with negative Schick tests were given a special diptheria toxoid and antibody titers were determined at weekly intervals for four weeks. These patients were grouped according to the height of their antibody response as well as the degree of anthracosilicosis present. The results indicated there was an increased level of antibody response with advanced degrees of anthracosilicosis. In the group with third stage coalescent nodular disease 47% had peak values greater than 160,000 when this was expressed as the reciprocal of the highest positive dilution. Sixty-four per cent of those with third stage conglomerate anthracosilicosis had values greater than 160,000.

The results of their studies to date indicate that advanced stages of anthracosilicosis are associated with increased amounts of gamma globulin. There also appears to be an accelerated immune response present as denoted by the high antibody response to a non-specific antigen.
THE most significant research project of the Cardeza Foundation for the fiscal year ending July, 1963, is probably that of Daniel L. Turner, Ph.D., Associate Professor of Medicine (Research Hematology) and Associate in Biochemistry, and M. J. Silver, D.Sc., Associate Professor of Pharmacology, who are investigating the role of phospholipids in blood coagulation, fibrinolysis and hemostasis.

Phospholipids are fatty substances of great structural importance for cell membranes and present in large amounts in brain tissue, hens' eggs, red cells and, most important, in platelets. Platelets have been found to have a profound influence on blood coagulation, and it is widely believed that clotting is initiated by phospholipids released from the blood platelets at the site of a vascular injury. Biochemical analysis of the phospholipids from platelets have revealed that they consist of two distinct but closely related substances, one, phosphatidylethanolamine and the second, phosphatidylserine. It has been shown in many laboratories that the naturally occurring phosphatidylethanolamine has clot-accelerating activity, and this substance alone has been considered of importance in the production of a clot. The function of phosphatidylserine has not been well understood although Dr. Leandro M. Tocantins for many years insisted it was an important anticoagulant and that it was necessary in the homeostatic balance between procoagulant and anti-coagulant activities so vital to maintaining the blood in a fluid state. This suggestion has now received powerful experimental support by Dr. Silver's work in which he found that well solubilized phosphatidylserine is an anti-coagulant both in the test tube and when injected intravenously into the dog. This work has then established that phosphatidylethanolamine isolated and purified from organic material has a clot-accelerating activity, and phosphatidylserine isolated and purified from the same kind of materials has an anti-coagulant activity. These naturally occurring substances are, however, not one hundred per cent pure, and trace contamination with other substances has made it difficult to clarify the exact biochemical action of these lipids.

Recently Dr. Turner has achieved the total synthesis of both phosphatidylethanolamine and phosphatidylserine and has provided the biologist with chemically pure material. These substances have now been examined by Dr. Silver and found to have exactly the same activity in in vitro clotting tests as the corresponding naturally occurring phospholipids. This chemical breakthrough holds the promise that we soon will be able to
deal with the complex coagulation system in exact chemical terms and with exact chemical understanding.

Allan J. Erslev, M.D., Associate Professor of Medicine and Acting Director, Cardeza Foundation, is investigating "Hormonal and Feedback Mechanisms of Erythropoiesis" with funds provided by the Cardeza Foundation and an NIH Grant. He is studying the production, metabolism and mode of action of erythropoietin, a hormone involved in the physiological control of red cell production in the body. These studies are specifically aimed at determining the mechanisms responsible for the production and release of erythropoietin, the site of production of erythropoietin in the body and improvement of the biological assay.

LOUIS A. KAZAL, Ph.D., Associate Professor of Medicine (Research Hematology) and Associate Director, Cardeza Foundation, is engaged in a study of "Plasma Fractionation" with funds obtained from the Cardeza Foundation and an NIH Grant. He is investigating methods for the isolation of plasma proteins concerned with the coagulation of blood of normal, hemophilic and arteriosclerotic subjects. Pure fibrinogen has been prepared by a new method involving precipitation with glycine, and the role of lipoproteins in the clotting of normal and hemophilic blood by thromboplastic agents has been partly elucidated. Joint studies with Dr. G. F. Grannis on the mechanism of precipitation of fibrinogen by certain amino acids and on the purification of fibrinogen are in progress.

Farid I. Haurani, M.D., Associate in Medicine, Associate Member, Cardeza Foundation, is investigating "1) The Utilization of Iron. Mechanism of Anemia Complicating Cancer or Inflammation 2) Acute Leukemia Cooperative Group B." His project is being financed by the Cardeza Foundation and two NIH Grants. He is studying erythrokinetics in anemia, the reutilization of iron in the anemia complicating neoplasms and chronic inflammatory disease, the use of purine nucleosides in the mobilization of iron and the distribution of iron in the reticulocytes and organs of patients with anemia. He is also participating in the Acute Leukemia Cooperative Study of the National Cancer Institute.

Philip H. Geisler, M.D., Assistant Professor of Pathology, Assistant Member, Cardeza Foundation, is working on a project entitled "Factors of Coagulation and Investigation of Human and Canine Hemophilia" made possible by funds from the Cardeza Foundation and NIH. He is investigating the preservation of platelets in the frozen state with dimethylsulfoxide added. He is studying various biological activities as well as survival in vivo of such platelets after thawing. Dr. Geisler is also supervising the establishment of a colony of beagle dogs with Hemophilia A in order to study this disease and its treatment in animals.

Ioulios Iossifides, M.D., Assistant Professor of Pathology, Associate Member, Cardeza Foundation, is studying "Bone Marrow Preservation" with funds obtained from the Cardeza Foundation and an AEC Grant. His research involves studying the protective action of frozen bone marrow on lethally irradiated mice. He is also investigating the factors which influence the lethal effects of homologous spleen in mice.

George F. Grannis, Ph.D., Research Associate in Medicine (Biochemistry), Assistant Member, Cardeza Foundation, is engaged in research in "Coagulation Mechanisms" with funds from the Cardeza Foundation and an NIH Grant. He has contributed significantly to methodology in determining thrombin, antithrombin and fibrinogen in normal and pathological subjects. He is studying protein-protein interactions of albumin and of blood clotting protein systems and the factors which influence them. An unusual approach to the study of crevices and the topography of proteins has been established on the basis of interaction of fibrinogen, alphalysopalmitic acid and various proteins. His interests also extend to amino acid interactions with proteins.

WILLIAM O. REID, M.D., Research Associate in Medicine, Assistant Member, Cardeza Foundation, is studying "Physiologic and Patho-physiologic Mechanisms of Spontaneous Fibrinolysis." His research is supported by funds from the Cardeza Foundation and an NIH Grant. In recent investigations, he has found that platelets (at the time of viscous metamorphosis) release an activator of the blood fibrinolytic system. This work is being pursued to try to determine the nature of active material released by the platelets. The thrombelastograph has been used extensively in this work.

Patrick J. McKenna, Jr., M.D., Assistant in Medicine, Assistant Member, Cardeza Foundation, is engaged in a study of "The Etiologic Factor in Rat Chloroleukemia." His study is being financed by the Cardeza Foundation and an NIH Grant. He is involved in cytochemical studies on normal and pathological peripheral bloods, marrows, and lymph nodes.

Ruth R. Holburn, Ph.D., an Assistant Member of the Cardeza Foundation is engaged in "Studies in vitro and in vivo on the Mechanisms Involved in the Coagulation of Blood," sponsored by the Cardeza Foundation and an NIH Grant. Dr. Holburn is studying the mechanism of action of the anti-coagulant activity of phosphatidylserine in vitro and in vivo.
罗伯特·H·施瓦布，M.D.，助理医学，D·W·刘易斯，M.D.，助理教授临床医学和J·H·基洛格，M.D.，副教授医学和助理院长，正在研究"基底层心脏杂音的起源"，并从心脏协会东南部宾夕法尼亚州获得资金。

他们发现，通过使用频率滤波的phonocardiographic装置，可以在基底层的心脏可以被识别为是否由主动脉或肺动脉引起。在过去的几年中，已经发现许多Graham-Steel杂音实际上是主动脉的。最近的观察，始于一个患者在杰斐逊地区，并扩展到包括所有已知的亲属，表明以前接受的诊断实验室程序，这些程序对这种遗传疾病的诊断不可靠。已超过100人被看作和研究通过访问他们家中和工作地点。超过30的这个家族有疾病，但并不知道。因此，一些有趣的临床观察已经产生。

施瓦布、刘易斯和基洛格正在研究"心脏对低温的反应"，并从心脏协会东南部宾夕法尼亚州获得资金。许多和奇怪的心律失常发展在低温诱导为心脏手术。最终心脏停止，通常因为心室纤颤，但有时因为心脏静止。这项研究的两个目标是试图预测心室纤颤的即将来临和推断专门的传导机制在不寻常的温度梯度下行为。其前者目标是可能，以利于技术规划。

威廉·伊莱德博士测量心脏病人的心率。
nical maneuvers in the conduct of open heart surgery. The latter objective would lead to a greater understanding of cardiac arrhythmias in general.

J. Hess, M.D., Resident in Anesthesiology, and Dr. Killough are studying "Reflex Shock" with funds obtained from the Baxter Fund. This is an animal study being carried out in dogs to try to identify some of the causes of sudden drops in blood pressure during anesthesia and during various surgical procedures.

Dr. Killough, Richard T. Cathcart, M.D., Associate Professor of Medicine, Dr. Lewis, and W. Eliades, M.D., Instructor in Medicine, are engaged in the "Cardiac Disability Program" under the auspices of the Pennsylvania Department of Health. The program is an extended effort to perform physiologic studies on patients while they are exercising in an effort to develop objective criteria for the evaluation of cardiac disability. This will be helpful in providing guide lines regarding the amount of physical activity possible in specific cardiac situations, the amount of improvement to be expected following cardiac surgical procedures, and the prognosis of heart disease in general.

Drs. Killough, Aaly Tambe, M.D., former Fellow in Cardiology in the Department of Medicine, and Dr. Lewis have been investigating "Post-Operative Cardiac Arrhythmias" with funds obtained from the Heart Association of Southeastern Pennsylvania. This study utilizes the electronic monitor electrocardiograph device which can take short runs of electrocardiograms as a result of pre-selected signals from the monitor from the patient. This is an outgrowth of our interest in the surprisingly large number of usually undetected arrhythmias that occur before, during and after cardiac and other chest surgery.

Louis A. Kazal, Ph.D., Associate Professor of Medicine (Research Hematology) and Associate Director of the Cardesa Foundation, and Dr. Lewis are investigating "Abnormalities in the First Stage of the Coagulation Process in Atherosclerotic Disease" with funds obtained from Hoffman-LaRoche. In addition to organic changes within the blood vessels and modifications of blood lipids, it appears that hypercoagulability of the blood may be a factor in the precipitation of thrombotic phenomena in atherosclerotic disease. Previous studies have suggested that the site of the defect resulting in hypercoagulability may be in the first phase of the coagulation process. This possibility is being systematically investigated in patients with known atherosclerotic disease and also in non-atherosclerotic patients who have defects in blood lipids.

Drs. Lewis and Kazal are also studying "Relationship of the Alpha Beta Lipo Protein Ratio to Defects in the First Stage of Coagulation" under the auspices of Hoffman-LaRoche. This is another approach to the problem of accelerated thrombotic formation in patients with atherosclerotic disease.

Drs. Schwab, Lewis, and Killough are engaged in "A Study of Altered Left Ventricular Hemodynamics Using the Apex Cardiogram in Patients Who Have Had Starr Edwards Valve Replacements" with funds obtained from the Heart Association of Southeastern Pennsylvania. This is a technical study to find out just how differently the heart functions after an artificial valve has been substituted for the diseased valve. Significant measurements of cardiac function can be made by this technique without the introduction of catheters or the use of intravascular needles.

DIVISION OF LABORATORY MEDICINE

RECENT research procedures under the direction of John H. Hodges, M.D., Professor of Clinical Medicine, have been aimed principally at testing various methods for their suitability for use for student instruction. This work has been performed principally by Miss Jane Kirk, Instructor-Technician (M.T.) and Mrs. Nancy Harkness, Technician.

Their research activities have been the following:
1. The perfection of a dialysing concentration technique for the electrophoretic analysis of cerebrospinal fluid protein by student Jerome Klinman.
2. The study of methods for the detection of nonspherocytic hemolytic anemia by Miss Kirk and student Thomas Jackson.
3. The study of the hematologic manifestations of cat scratch disease and their mimicry of blood diseases by all members of the Division.
DIVISION OF ENDOCRINOLOGY

ABRAHAM CANTAROW, M.D., Professor of Biochemistry and Head of the Department, and Joseph J. Rupp, M.D., Associate Professor of Clinical Medicine are engaged in an "Attempt at a Rational Approach to Combination Cancer Chemotherapy" with funds obtained from NIH and NCI.

Their project involves a study of the possibility that certain differences in metabolic responses of tumor and host tissue to induced alterations in endocrine and nutritional status might be utilized to advantage in chemotherapy of the tumor.

Previous studies gave rise to the impression that utilization of uracil for nucleic acid synthesis in the rat may be a metabolic characteristic of rapidly growing tissue, non-neoplastic as well as neoplastic. However, these tissues may exhibit differences in incorporation of uracil in RNA under certain experimental conditions, suggesting the existence of metabolic differences not apparent under ordinary conditions.

It would appear (a) that the activity of this metabolic pathway may be conditioned by a variety of factors, including hormonal and nutritional influences, and the presence and nature of the tumor and (b), that neoplastic and non-neoplastic tissues may not always be influenced similarly or equally by such factors.

The metabolism of 5-fluorouracil parallels that of uracil. It is probable, although not established, that the extent of its incorporation into nucleic acids has a bearing on its tumoristatic effect and also on its toxicity.

Conceivably, therefore, the therapeutic effectiveness of FU might be increased, and its toxicity decreased, if one could increase its incorporation into the tumor nucleic acids relative to that into the host tissue nucleic acids. Certain observations suggest that this may be possible. This is the central plan of these studies.

John J. Schneider, M.D., Assistant Professor of Medicine, and Marvin L. Lewbart, M.D., Research Associate in Medicine, are studying "Chromatography of Steroid Glycols Epimeric at C-20 on Paper Pretreated with Boric Acid or Borate Buffers" with funds obtained from the United States Public Health Service Grant Am 01255.

The enzymatic or chemical reduction of 20-keto steroids usually gives a mixture of glycols epimeric at C-20, and the resolution of such mixtures by paper chromatography is therefore an important practical consideration. We have sought to improve such separations by taking advantage of the fact that boric acid complexes only with those glycols which have a planar (cis) rela-

Photo shows (from left) Dr. Joseph Curti, Dr. Stephen Defelice and Mrs. Lysiak, technician, measuring rat BMR's.
The results were of both practical and theoretical interest. In general, the separations obtained were somewhat better than twice those obtained in the controls. Guided by Dr. R. H. Barton of England, who is an authority on conformational analysis, the relationships between the occurrence and degree of complexing and the steric possibilities have been worked out.

Ralph A. Carabasi, M.D., Associate in Medicine, has received funds from the NIH enabling him to participate in a group study of Cancer Chemotherapy National Service Center to evaluate newer steroids in the therapy of advanced carcinoma of the breast. Such participation is in accordance with the protocol prepared by the breast group itself and approved by the Cancer Chemotherapy National Service Center.

HYPERTENSION CLINIC

IN THE Hypertension Clinic, 20 to 40 patients are studied and treated weekly by Edmund L. Housel, M.D., Associate in Clinical Medicine; John J. Kelly, M.D., Instructor in Medicine; and James W. Daly, M.D., Associate in Clinical Medicine. Most of the antihypertensive drugs have been evaluated clinically. Their medical records are coded on IBM cards, so that many aspects of hypertension can be studied. A grant from the Abbott Company supplies funds for the clinical evaluation of Enduron-Eutonyl. A cooperative study with Dr. Wesson to obtain urinary excretory curves from hypertensive patients is just getting under way.

DIVISION OF INFECTIOUS DISEASES

W. PAUL HAVENS, JR., M.D., Professor of Clinical Microbiology and Professor of Medicine, is engaged in "Serologic Studies in Viral Hepatitis." His work is being sponsored by Contract No. DA-49-193-MD-2079 (Contract listed under the Department of Microbiology), Office of the Surgeon General, Department of the Army. The hemagglutination test for viral hepatitis devised in this laboratory has been simplified and shortened by using a method of extraction with distilled water (suggested by McCollum) and testing in disposable plastic plates after an incubation period of 2-3 hours at room temperature. This puts the test within the realm of practicability for use in diagnostic laboratories. Under these conditions, large groups of serums were tested, and 70 per cent of serums obtained in the acute phase of viral hepatitis were positive in dilutions of 1:40 or greater, while only 4 per cent of serums obtained from normal persons and persons with a variety of degenerative diseases contained hemagglutinins in these titers.

Robert I. Wise, Ph.D., M.D., Magee Professor of Medicine and Head of the Department, and Frank J. Sweeney, Jr., M.D., Assistant Professor of Medicine, are engaged in a "Study of the Epidemiology of Staphylococcal Infections." Their study is being supported by U.S. Public Health Grant #E 1293. A study of the ecology and epidemiology of the staphylococcus at Jefferson Medical College Hospital began in August 1959 and has continued to the present. This study has involved the day-to-day evaluation of every case of staphylococcal disease reported in the hospital, as well as the evaluation of every staphylococcal isolate reported from
the diagnostic bacteriology laboratory. All cases have been evaluated according to age, race, sex, disease, type of operation, if any, occupation, and hospital service. The type of antimicrobial therapy and the results of antibiotic sensitivity studies and bacteriophage typing have also been recorded. Monthly infection rates have been calculated by total population, as well as by individual service. During this period of time, an isolation ward was established and all communicable cases of staphylococcal disease have been isolated in this unit.

Dr. Sweeney and Eileen L. Randall, Ph.D., Assistant Professor of Microbiology, are involved in a "Study of the Epidemiology of Salmonella Infections." A recent outbreak of Salmonella derby infections occurring in the Northeastern United States has allowed an opportunity to study the ecology, nosology, and epidemiology of salmonella disease. The epidemic began in March of 1963 and continues to the present, although it appears to be on the decrease. Intensive studies carried out with the local health officials and the Communicable Disease Center of the U.S. Public Health Service have demonstrated that the infection began early in the year in a large number of hospitals throughout the Northeastern United States and was probably introduced by contaminated eggs. The disease has spread rapidly in the hospital by a variety of demonstrated means and involved not only patients but all types of hospital personnel, as well as fomites. Attack rates and epidemiological data are being evaluated at the present time. An evaluation of individual cases is being made to determine the efficacy of treatment in this type of salmonella disease.

Drs. Wise, Sweeney, Gow Thue Lam, Ph.D., Research Associate in Medicine, and Charlotte M. Witmer, M.S., Research Assistant in Medicine, are engaged in a "Study of Abscess-producing Factor(s) Produced by the Staphylococcus" under U.S. Public Health Grant # E 1293. The study concerning the abscess-forming factor(s) of Staphylococcus aureus has been conducted during the past three years, utilizing the collodion bag implantation technique, as well as immunological procedures. The abscess-forming factor(s) has been tentatively located and appears to be closer related to, or a component of, the outer part of the cell. Work is in progress to fractionate, isolate and purify the abscess-forming principle. In addition, three mutants of Staphylococcus aureus have been derived from a virulent parent strain by ultraviolet irradiation. Studies with these mutants suggest that coagulase plays an important role in abscess formation.

Drs. Wise, Sweeney, and Joseph F. Rodgers, M.D., Instructor in Medicine, are all participating in the "Investigation of New Antimicrobial Agents in the Treatment of Infection." Their investigations are sponsored by Bristol Laboratories, Johnson & Johnson Laboratories, Warner-Chilcott Laboratories, and Lilly Laboratories. The evaluation of many new antimicrobial agents is carried out by the Department during the clinical investigation phase of the drug. Before a drug is employed clinically, it is evaluated in their laboratory and all pertinent data from the manufacturer is reviewed by the investigators. At the present time, a number of semi-synthetic penicillin compounds are being investigated.

Dr. W. Paul Havens (left) and Clair McGorgall, technician, perform inoculations of tubes containing cultures of living cells with materials suspected to contain hepatitis viruses in the course of experiments to isolate these viruses in tissue culture.
DIVISION OF MEDICAL ONCOLOGY

SEVERAL areas concerned with neoplastic diseases have been under study in the Division of Medical Oncology under the direction of Arthur J. Weiss, M.D., Assistant Professor of Medicine, during the past year.

Irwin L. Stoloff, M.D., Associate in Medicine, has been studying the ability of the foreign tissue to react antigenically against a host. He has noted that when lethally irradiated mice are given bone marrow from a foreign strain, at the time of death, host anti-graft antibodies dominate. In several of the strain combinations, however, it appeared that the graft retains its ability to develop antibodies against the host until the time of death. The latter strain combinations seem to be those with the best ability to form antibodies.

Panagis Kokolis, M.D., Research Associate in Medicine, has been studying the degradation of various normal and abnormal pyrimidines. He has found that a common degradative pathway exists for uracil, thymine, and the fluorinated pyrimidines. The simultaneous administration of a normal pyrimidine with one of the fluorinated pyrimidines causes marked retention in the body of the fluorinated compound and increases the lethal effect of the fluorinated compound. At the present time he is attempting to clarify the mechanism of death in those animals receiving fluorinated pyrimidines and thymidine.

Laird G. Jackson, M.D., Instructor in Medicine, and Carl W. Groppe, M.D., NIH Postdoctoral Fellow, are studying chromosomal function as reflected by the uptake and release of tritiated ribonucleotides on chromosomes. They have discovered that tritiated uridine remains on a chromosome for a prolonged period of time, as long as 24 hours in some instances. Parallel biochemical studies suggest that the material is in RNA. Their preliminary studies suggest that differences in the uptake and release of RNA by the chromosome may be present when normal bone marrow is compared to leukemic bone marrow.

Dr. Jackson in cooperation with the Department of Radiology has continued his studies on the lymphatic system by means of lymphangiography. The value of the procedure in the head and neck and its use in clarifying function and abnormalities of the thoracic duct were studied.

Clinical investigations include the evaluation of several new drugs in the therapy of various types of malignancy. Several of the drugs tested were in Phase I studies, that is, this was their first trial in patients with cancer. While none of the drugs appeared to be especially effective in cancer, several interesting effects were seen. Thus, drugs were found that had minimal antitumor effect without depressing the bone marrow, the type of toxicity that has been common to most of the anticancer drugs used to date.

Work in this division is being sponsored by NIH and AEC.
DIVISION OF
METABOLIC RESEARCH

WILLIAM SUNDERMAN, M.D., Clinical Professor of Medicine and Director of the Division of Metabolic Research, is engaged in "Studies on Nickel Metabolism" and "Dithiocarb—Mechanism of Action." His research is being financed by the AEC and Rohm & Haas Company.

The usefulness of sodium diethyl dithiocarbamate (Dithiocarb) as a therapeutic agent in the treatment of persons exposed to nickel carbonyl was discovered in 1958. Since that time more than 250 exposed workmen have received this medication. There have been no fatalities among the workmen poisoned by nickel carbonyl who received Dithiocarb. All of the treated workmen made uneventful recoveries. There is little doubt that without treatment with Dithiocarb, a number of persons exposed to nickel carbonyl would not have survived.

In addition to the treatment of nickel poisoning, Dithiocarb has proved to be dramatically effective in the treatment of hepato-lenticular degeneration (Wilson's Disease). One paper on this subject appeared in the June issue of the American Journal of Medicine. Dithiocarb medication has also been found to be effective in the treatment of certain types of porphyria.

The long-range studies on the experimental induction of cancer of the respiratory tract are being continued. These studies have been directed toward determining the possible efficacy of Dithiocarb in the prevention of pulmonary cancer from nickel inhalations.

Current studies of the biochemistry of nickel are concerned with the subcellular localization of nickel and the binding of nickel to ribonucleic acids. It has been shown that nickel in normal rat lung and liver is principally located in the microsomal and supernatant fractions of the cell, as determined by differential centrifugation. Following the inhalation of nickel carbonyl, increases in the cellular content of nickel are found predominantly in the microsomal and supernatant fractions. In both of these fractions, a major portion of the nickel is firmly bound to ribonucleic acids. In vivo interactions of nickel with RNA are attended by alterations in the physical-chemical properties of the RNA as manifested by changes in the thermal phase-transition curves and electron paramagnetic resonance patterns.

SARCOID CLINIC

The Sarcoal Clinic has approximately 300 patients with diagnosis of Sarcoiosis. Under the direction of Harold Israel, M.D., Professor of Clinical Medicine, and Maurice Sones, M.D., Visiting Associate Professor of Medicine, it is one of few such clinics in the world where this disease is being studied.

Drs. Israel and Sones have reported an analysis of 533 biopsy specimens in 325 cases of sarcoiosis (Arch. Int. Med., in press). Biopsies of palpable lymph nodes, (epitrochlear, cervical, axillary and inguinal) yielded epithelioid granulomas in more than 85 per cent of instances. Lung biopsies were positive in 99 per cent of specimens, liver in 80 per cent, and scalene fat pads in 74 per cent. Gastrocnemius muscle biopsies were positive in 90 per cent of patients presenting with erythema nodosum, but were infrequently positive in other cases.

Dr. Israel, John R. Patterson, M.D., Instructor in Medicine, and Nathan M. Smukler, M.D., Assistant Professor of Medicine, reported a preliminary study of the latex fixation test in sarcoiosis. (Acta Med., Scand., to be published.) Elevated titres were found in 19 per cent of males and 60 per cent of females, with greater frequency in chronic cases. The demonstration of this high frequency of increased titres of anti-gamma globulin antibody is of considerable interest as an indication of hypersensitivity in sarcoiosis.

Sigmund R. Greenberg, M.D., Instructor in Medicine, and Dr. Israel have completed a study of the frequency of hemoglobinopathies in sarcoiosis. Abnormal hemoglobins were found on electrophoretic study in 18 per cent of 100 sarcoiosis patients, compared to a frequency of 12 per cent reported in surveys of American Negroes.
MEDICAL OUTPATIENT CLINIC

JOHN N. LINDQUIST, M.D., Assistant Professor of Clinical Medicine, and Mrs. Jean Fisher, Executive Director of the Philadelphia Center for Older People, are engaged in studying ways of "Expediting Care of the Aging." They are studying methods of expediting care of the older patient in the community. There is a mutual referral system between the Medical-Geriiatrics Clinic of the Jefferson Medical College Hospital and the Philadelphia Center for Older People. Patients attending the Medical and Geriatrics Clinic who are in need of recreation are referred to the Philadelphia Center for Older People and members of the Center who do not have physicians and require medical care are referred to the Medical-Geriiatrics Clinic at Jefferson. They are making use of a questionnaire developed by the Director of the Clinic, extending services of the Medical-Geriiatrics Clinic into the community, and using a recently devised short form social history in an effort to expedite the care of the aging person. The Director of the Clinic also writes "Health Hints" for a monthly newspaper for the members of the Philadelphia Center for Older People.

Dr. Lindquist and Helen Hair, M.S., Nutritionist, are engaged in the "Teaching of Nutrition in Medical Outpatient Clinic and Community Center," with funds provided by the Department of Health, Division of Chronic Diseases, Commonwealth of Pennsylvania. The Nutritionist is studying dietary habits of patients attending the Medical Outpatient Clinic and the Philadelphia Center for Older People. She provides instruction in nutrition to the senior medical students, residents, and physicians of the Staff of the Department of Medicine, and to the patients—emphasizing the importance of nutrition. And she guides elderly people at the Philadelphia Center for Older People in good nutritional habits. In addition, the Director of the Clinic together with the Nutritionist are preparing a brochure on good nutrition for the elderly.

DIVISION OF RENAL DISEASES

THE Division of Renal Diseases under the direction of Laurence Wesson, M.D., Professor of Medicine, has an extensive research program. Through collaborative associations the program relates intimately to other Divisions and to other Departments. Phases of work are at every stage, from nearly complete or completed to the early planning stage.

Nearing completion are "Studies of Mercurial Effects on PAH Transport," "Measurement of Glomerular Activity in Congestive Heart Failure," and "Measurement of Renal Function during Fluid Balance Changes." The first of these was accidental. Dr. Joseph Letteri, formerly associated with Jefferson, gave Mercaptomerin to PAH-loaded anesthetized dogs to see whether mercury would depress the rate of active renal secretion of this substance. To his surprise, secretion increased under mercury. Working back, he found that PAH secretion slowly decreased under pentobarbital anesthesia and that the effect of the mercury was to reverse the anesthetic depression. The restorative effect of mercury is blocked by dimercaprol, but the mechanism of this "beneficial" action of mercury remains a mystery. The second of these was undertaken by Dr. Letteri to determine whether any measurable redistribution of glomerular filtrate occurs in the nephron population of patients with congestive heart failure. Some redistribution would not be surprising in view of the rather substantial depression of renal blood flow in congestive heart failures and a certain type of redistribution could account for salt retention. The method used consists of plotting the slope of the glucose "titration curve" against filtered load of glucose. Perhaps because of its tediousness, this is the first use of the method for research purposes in man since the original description by Homer Smith and his collaborators in 1943. The results show separation of the nephron population congestive heart failures into major and minor divisions with each subpopulation maintaining a normal distribution of glomerular activity. The data fail to support the redistribution theory of salt retention. The third program nearing completion is a
study of renal function during fluid loading and salt deprivation. These studies are primarily observational because, since they have never been done before, we did not know what to expect. Healthy subjects on normal diets were fluid loaded in various ways or else salt was removed from their diets. Glomerular filtration rate, renal blood flow and excretion rates of sodium, chloride, potassium, calcium, magnesium, phosphate and ammonium were measured on a round-the-clock basis before and during the loading or deprivation. In a few cases aldosterone secretion was measured around the clock. Among many interesting observations are marked 24-hour cyclical patterns to filtration rate, renal blood flow and aldosterone secretion. These do not parallel each other, however, and particularly interesting is independence of filtration rate from blood flow. These three studies have been supported by the U.S. Public Health Service and the American Heart Association.

Study of functional rhythms in normals suggests innumerable further questions to be answered. The Division is well started in a program to conduct similar studies in patients with hypertension, in collaboration with Dr. Edmund L. Housel, Associate in Clinical Medicine. Preliminary studies supported by the American Heart Association on 12 hypertensive patients indicates that roughly half exhibit marked departures from the normal pattern. Research to delineate and possibly learn something of the nature of this disturbance will continue. Other continuing research programs are the renal transplant program in collaboration with the Departments of Radiology, Surgery and Urology, and the study of exteriorized jejunal loops for control of uremia in collaboration with the Department of Surgery. These researches, conducted by Dr. James E. Clark, Associate in Clinical Medicine, and supported in part by the National Kidney Disease Foundation are so well known that little need be said of them apart from its having been shown that the methods have promise but much more work is needed. It is worth noting, however, that virtually nothing is known of the physiology of human
small intestine. Consequently, an intensive series of experiments will be performed to measure quantitatively the transport characteristics of jejunum to many substances of physiological and clinical importance. Anatomical studies by students with the support of the General Research Grant program of the Public Health Service have demonstrated remarkable integrity of the vascular system of the mucosa and submucosa of chronic human intestinal loops, in contrast to reports from experimental animals. Dr. Miles H. Sigler, Instructor in Medicine, with the support of the General Grant Program is undertaking to discover by direct assay of blood for vasopressin the role this hormone may play in various disturbances of water excretion.

Concerning other research now in the planning stage, it is enough to mention a few directions and intentions. The Division plans to expand their study of rhythmicity of renal function to other pathological states; to test in man the hypothesis of angiotensin control of aldosterone secretion; to investigate the mechanism of "vasopressin escape"; and to study renal metabolism in pathological states.

DIVISION OF RHEUMATOLOGY

NATHAN M. SMUKLER, M.D., Assistant Professor of Medicine, and John R. Patterson, M.D., Instructor in Medicine, are engaged in "A Study of Plasma Viscosity as an Index of Disease Activity in Patients with Rheumatoid Arthritis." Their work is being sponsored by an NIH Small Grant.

Their studies involve the attempt to determine if the plasma viscosity is an efficient test to indicate disease activity in patients with rheumatoid arthritis. Numerous parameters are being utilized in an effort to evaluate activity in patients with rheumatoid arthritis and these include the duration of morning stiffness, the number of aspirin tablets utilized per day, the sedimentation rate, and also the number of active joints determined by the presence of tenderness and pain on motion of these joints. All of these methods have their shortcomings and the present investigation is being made in an effort to see if plasma viscosity gives more significant information along this line. They are particularly interested in learning if the plasma viscosity parallels the sedimentation rate and if they are not controlled by exactly the same factors. Studies completed during the year of 1962 indicate that this work should be followed up. The doctors are presently determining the plasma viscosities in a series of patients with rheumatoid arthritis and will relate the plasma viscosity to other parameters.

Photo shows (from left) Dr. John R. Patterson, Miss Linda Skidmore, technician, and Dr. Nathan M. Smukler observing an experiment on plasma viscosity in the Division of Rheumatic Disease Research Laboratory.
Drs. C. Wilmer Wirts, John Y. Templeton III, Clinical Professor of Surgery, Charles Fineberg (in photo), Assistant Professor of Surgery, and Franz Goldstein presented the above exhibit at the Annual Meeting of the Pennsylvania State Medical Society in October. This exhibit deals with features of the current investigations in the gastrointestinal research laboratories of post-gastrectomy malabsorption and steatorrhea, and the recently employed jejunal interposition operation which is proving effective in relieving these symptoms.

C. WILMER WIRTS, M.D., Professor of Clinical Medicine, and Franz Goldstein, M.D., Assistant Professor of Medicine, are engaged in "A Study of Afferent Loop Stasis and Bacterial Flora and Its Relationship to Malabsorption of Fat." Their research is being financed by PHS National Institute of Arthritis and Metabolic Disease.

The aim of their work is to continue and expand the study of postgastrectomy steatorrhea which has been in progress since May 1, 1959. The initial aim of the project was to test the hypothesis that the afferent loop of the gastrojejunostomy, in patients with steatorrhea, may be the site of stagnation and bacterial outgrowth. Work done so far in our laboratory tends to confirm this hypothesis. Future work is proposed along two lines; first, to continue the study of patients with postgastrectomy steatorrhea and of control patients in an attempt to correlate afferent loop stasis and bacterial growth with intestinal absorption of fat, and second, to explore the mechanisms by which bacteria interfere with absorption. Studies are planned to investigate (a) the effects of bacterial growth on the integrity of pancreatic enzymes, and (b) the effects of bacterial growth on the state of conjugation of bile acids in the duodenum.

Work has also been done, and is being pursued at present, related to perfection of pancreatic function tests, gastrointestinal tract cytology, biliary kinetics with special reference to studies of partial obstruction of the cystic duct ("cystic duct syndrome"), malabsorption in small bowel diverticulosis, and the bacterial flora of the small bowel in health and in a variety of disease states including pernicious anemia.
RESEARCH IN THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

THERE are now more than 40 research projects being conducted in the Department of Obstetrics and Gynecology. For convenience of description these may be grouped under the following major headings.

FETAL RADIOELECTROCARDIOGRAPHY (FRECG) RESEARCH PROJECT

DR. DAVID M. FARELL, Professor of Obstetrics and Gynecology, Dr. Benjamin Kendall, Assistant in Obstetrics and Gynecology, and Marian Beyer, Technical Assistant, are engaged in the study of the electrocardiogram of the unborn infant as detected and recorded by radio telemetry, which is now in its third year. The major goal continues to be to establish more effective and rapid means to detect fetal distress by changes in the FRECG complex, as well as fetal rate and rhythm.

At the last annual meeting of the A.M.A., a paper demonstrating the potential value of fetal complex changes in the detection of fetal distress was presented. These changes consist mainly of prolongation of conduction time through the fetal heart, which may be the first indication of fetal distress. More data to permit wider recognition of these events is being collected.

During the next two years, approximately 1,000 additional patients will be studied. All stages of pregnancy, labor and delivery with all manner of complications are being studied and classified. The obstetric situation, the FRECG, and the status of the newborn are being correlated. The newborns are being evaluated by Apgar score, newborn ECG, and in some instances cord blood pH, oxygen and carbon dioxide determinations.

One of the obstetric situations now under study is Cesarean section. There soon will be a sufficient number of cases to evaluate the results of FRECGs taken throughout this entire procedure. To this date, no such study has appeared in the literature. Apparently, many variations in fetal heart rate occur throughout Cesarean section with eventual delivery of normal infants.

In addition to the usual abdominal electrodes, we continue to do some cases with vaginal electrodes. Besides the routine scalp electrode, we are attempting to develop a vaginal lead that can be used with intact membranes and with a closed cervix. Because they permit elimination of the maternal complex from the tracings, vaginal leads facilitate the use of automatic counting devices to monitor fetal rate. We are now working on a technique to eliminate electronically the maternal complex from the FRECG taken abdominally and thus permit a wider use of automatic monitoring systems. Recently we have added a fetal phonocardiograph to our program.

Selected FRECG readings are placed on a magnetic tape. Through the cooperation of the computer service of the Johnson Foundation of the Hospital of the University of Pennsylvania, the tracings are converted to digital signals and presented to a computer. In this way, a mean response signal will be obtained and an extremely refined fetal complex will be seen.

FRECGs on unborn rabbits near term are being done, through the intact exteriorized uterus, before and after ligation of the umbilical cord. Rate changes and complex changes are noted prior to death. Other fetuses will be "protected" with atropine to see if the bradycardia and the conduction delay are altered and thus mediated in some way through the vagus nerve.

This study will continue under an N.I.H. grant for two more years.

RESEARCH IN HUMAN REPRODUCTION

THIS department has been actively engaged in projects relating to the many new advances in the physiology of human reproduction and its relationship to problems of infertility and, also, the control of fertility.

Dr. A. E. Rakoff, Professor of Obstetrics and Gynecologic Endocrinology, is continuing a project on "Hormonal Patterns in Anovulatory Women," which was initiated with the help of the National Research Council Grant. Dr. Thomas A. Loftus, psychiatrist, formerly associated with Jefferson, and various members of the Department of Psychiatry—Dr. Zygmunt Piotrowski, Professor of Psychology, and Dr. Howard Field, Associate in Clinical Psychiatry—have also been associated with this psycho-endocrine evaluation of amenorrheic and infertile patients, certain aspects of which have now been published.

Dr. Rakoff and Dr. Alvin F. Goldfarb, Assistant Professor of Obstetrics and Gynecology, have reported on
the effects of a remarkable new ovulation promoting agent, Clomiphene citrate (MRL-41). They are also studying the effects of a new gonadotrophin derived from human menopausal urine (Pergonal) which stimulates ovarian function.

Agents to inhibit ovulation, with particular reference to fertility control, are also being investigated. Drs. Rakoff, Goldfarb, and Leopold S. Loewenberg, Instructor in Obstetrics and Gynecology, are each evaluating new progestational hormones for this purpose. In addition Dr. Goldfarb is making a comparative study of various new progestogens with regard to their effect on various endocrine parameters, while Dr. Rakoff has a grant to study their effect on cervical cytology.

A family planning clinic has been organized by Dr. Loewenberg to provide facilities for those patients who request contraceptive advice.

Dr. A. T. Gregoire, Assistant Professor of Physiology and Obstetrics and Gynecology, has been engaged for several years in a comprehensive study of the biochemical constituents of various reproductive fluids of the human and rabbit, including those from the vagina, cervix, uterus and fallopian tubes, and has reported a number of fundamental observations in this area. At present Dr. N. Dusitsin, a Population Council Research Fellow, is completing his thesis for the Master of Medical Science under Dr. Gregoire’s supervision on the Histidine content of the vaginal fluid of normally menstruating, menopausal and pregnant women. Other investigations in the endocrine field which are being conducted in the Strickler-Root Laboratories of the Department by Dr. Rakoff, Dr. Goldfarb and Mr. Lakritz include the development of a chromatographic method for the determination of urinary estrogens, quantitation
of serum chorionic gonadotrophin by immunologic assay, and fractionations of the 17 ketosteroids in hirsute women.

Dr. Atef H. Moawad, Resident, in collaboration with members of the Department of Physiology, has been conducting in vitro studies on the contractility of human myometrium obtained at operations from pregnant and non-pregnant women with particular reference to spontaneous activity and the effects of isoxuprine hydrochloride. Dr. Moawad also recently completed a study in association with Dr. Rakoff and Dr. Simon Kramer, Professor of Radiology, on the influence of low dosage irradiation on the ovaries of the rabbit.

Studies on sex chromosome and sex chromatin patterns in various gynecologic endocrinopathies have been under investigation by Dr. Rakoff and Dr. E. Arampatzi, a research fellow in gynecic endocrinology. The results of a current study on changes of the sex chromatin body in various phases of pregnancy was presented at the recent meeting of the American Society of Cytology.

During the past summer a number of students have also engaged in research projects in the Strickler-Root laboratories as part of a three year student program made available to the Jefferson Medical College by the Ford Foundation for Research in reproductive physiology.

GYNECOLOGIC CANCER

Dr. R. John B. Montgomery, Professor of Obstetrics and Gynecology and Head of the Department, and Dr. Joseph Long, Assistant Professor of Obstetrics and Gynecology, are engaged in a long term study of patients with cervical atypisms and have reported an initial review of their findings.

Problems relating to chemotherapy of ovarian carcinoma are being studied by Dr. George Hahn, Professor of Obstetrics and Gynecology, and Dr. Long.

In collaboration with Dr. A. Weiss, Assistant Professor of Medicine, and Dr. L. Jackson, Instructor in Medicine, Dr. Farell and Dr. J. Riggs, resident, have been exploring the value of tissue culture methods for evaluating chemotherapy for ovarian carcinoma.

Dr. Hahn has been engaged in a study of the anatomy of the pelvic lymphatics and, in association with the Department of Radiology, is continuing his observations of lymphangiography in pelvic cancer.

Dr. Warren Lang, Professor of Obstetrics and Gynecology, is studying the effect of estrogens applied locally to the cervix on radiation changes as evidenced on cytology smears.

Drs. J. B. Montgomery and Van Ostrand, resident, are collaborating with Dr. Kramer in a study on the use of renograms for the evaluation of kidney function in patients with cervical carcinoma.

The use of massive doses of long-acting progesterational agents for the treatment of metastatic carcinoma of the endometrium is under investigation by Drs. Montgomery, Rakoff, Farell, and Hahn.

STUDIES ON AMNIOTIC FLUID, PLACENTA, AND MEMBRANES

Studies on the bacteriology of the amniotic fluid of patients who have been in labor for more than six hours are being conducted by Dr. Warren Lang.

Spectrophotometric analysis of amniotic fluid obtained by transabdominal amniocentesis as a means of detecting intrauterine fetal hemolysis and fetal distress is a current project which is being carried out by Drs. Arthur Lee, Assistant in Obstetrics and Gynecology, A. Moawad, and J. Hillig, resident. In association with Dr. Grafton Chase, Associate Professor of Chemistry at the Philadelphia College of Pharmacy and Science, Dr. Lee has also been studying the relationship of placental alkaline phosphatase and the kinetics of intervillous and stromal calcification as an index of placental function. Using radioactive tagged hemoglobins they have also been studying the transplacental transfer rate of various therapeutic agents.

INFECTIONS IN GYNECOLOGY AND OBSTETRICS

VARIOUS aspects of the problem of bacteriuria in pregnancy have been studied by Dr. J. B. Bernstine, Clinical Professor of Obstetrics and Gynecology, with the assistance of several of the residents including Dr. Riggs and Dr. Barry Montgomery. At present Dr. Bernstine and Dr. Moawad are evaluating the effect of E. coli endotoxin on isolated strips of myometrium from pregnant and non-pregnant women.

Dr. Leon Prince, Assistant Professor of Obstetrics and Gynecology, working in association with Dr. Eileen Randall, Assistant Professor of Microbiology, has been engaged in an extensive N.I.H. supported investigation of the cervical flora in pregnancy. They have been especially interested in the incidence of gonococci and microorganisms significant in neonatal infections. Bacterial studies are also being done in patients with ruptured membranes with relationship to perinatal mortality.

Dr. Warren Lang, working in a special clinic devoted to vaginitis, is continuing his long term studies on various physiologic factors which influence specific vaginal infections, and also various new modes of therapy. Dr. Lang is also in the midst of collecting the results of his studies on epithelial regeneration of the cervical
portio to be presented as a major paper before the next annual meeting of the American Association of Obstetricians and Gynecologists. Dr. J. Riggs and Dr. W. Delaney, Assistant Professor of Pathology, are also collaborating with Dr. Lang, in a cervical biopsy study of the antepartum and postpartum cervix.

DYSMENORRHEA

In a special clinic devoted to the study of the dysmenorrhea problem, Dr. Leib Golub, Assistant Professor of Obstetrics and Gynecology, and Dr. Joseph Long, with the assistance of Dr. H. Menduke, Professor of Preventive Medicine (Biostatistics) are making a statistical evaluation of their clinical observations in a large group of patients. Dr. Golub is also evaluating data concerning special exercises which he has developed and introduced in the Philadelphia High Schools for the relief and prevention of dysmenorrhea.

RESEARCH IN THE DEPARTMENT OF DERMATOLOGY

The Department of Dermatology, under the leadership of Dr. Herbert A. Luscombe, Professor of Dermatology and Head of the Department, has just completed work on two projects and has submitted papers for publication on each of these. These projects are:

1. A clinical study of occlusive dressings techniques in the treatment of Psoriasis. With this treatment, we have shown that most cases of Psoriasis can be cleared in about two or three weeks. The unfortunate factor in this form of treatment is that there is a tendency for the disease to recur soon after it is stopped.

2. A study of Nodular Granulomatous Perifolliculitis due to an unusual fungus. This work and the result on paper stem from a case of skin lesions on the thigh of a young boy. We subsequently studied the boy and proved that he had an inflammation of the hair follicles of his thigh due to a fungus infection with an organism that has never previously been reported to produce such changes.

Our current research projects include the following:

1. A histologic study of Urticaria because there are reports of so many varying histologic pictures in this condition, we are trying to define the histologic picture more accurately by a study of a large group of cases.

2. A study of the speed of nail growth as influenced by various drugs. This study stemmed from the fact that many patients with toenail fungus infections do not respond, as well as might be expected, from the oral antifungal agents, Griseofulvin. This drug is deposited in newly formed skin, nails, and hair and inhibits the growth of fungi in these structures. Consequently, it requires prolonged treatment, particularly, in the case of nail infections. Griseofulvin must be given to these cases for a period of one to two years. In spite of this some cases do not respond. It has been our feeling that Griseofulvin may in some way slow down the growth of nails. Therefore, by use of a caliper, under magnification, we have been studying the speed of growth of nails in patients who have been receiving Griseofulvin and in some patients on other types of drug therapy. Since nail growth proceeds at such a slow rate, this project will probably require one to two years to reach any very definite conclusions. At this time, we have about 30 cases whom we have been following for a number of months.

3. We have been studying the effect of certain antimetabolic drugs, particularly, 5-florouracil in the treatment of common warts. Warts have always been a difficult problem, particularly, when the lesions are multiple. The simple method of removing a wart by fulguration is quite satisfactory but when dealing with multiple lesions, it is difficult and sometimes almost impossible to destroy every lesion, since warts are a viral infection and can spread while some of them are being removed. Consequently, we have used florouracil, topically, in the treatment of some cases of multiple warts with a fair degree of success. We have also used the drug in small amounts by injecting it under the wart. This also has been somewhat effective in clearing rather stubborn lesions. We are planning to carry this work further in the very near future when we hope to be able to set up a small tissue lab for the growth of wart tissue and wart virus, and study the effect of these drugs on such artificial cultures.
DEPARTMENT OF PREVENTIVE MEDICINE

THE Division of Occupational Medicine, Department of Preventive Medicine, has been engaged for eight years in a systematic study of the fate and the effects of inhaled particles. This work has been supported by the U. S. Public Health Service because of the need for fundamental knowledge in the field of air pollution. The U. S. Atomic Energy Commission has aided the investigation of the behavior of inhaled radioactive particles, with the ultimate goal of developing a procedure to decontaminate lungs in which radioactive particles have been deposited. The grants given by the U. S. Public Health Service over a period of six years amounted to $80,933.00, and the grants given by the U. S. Atomic Energy Commission over a period of six years to $164,000.00.

When this work was begun, very little was known about deposition, retention, transport, and elimination of inhaled particles. Hence, gross deposition in the body was made the first object of an experimental study in rats. Following inhalation of a water-insoluble dye (FDA D & C Green No. 6), the intestinal burden far exceeded the lung burden and remained larger than the latter for several days.

The next step was the investigation of the differential deposition in lungs and intestinal tract. It could be shown that the large intestinal burden was not only due to ingestion during exposure but that over a period of approximately five to seven days following exposure a rapid removal of inhaled material from the lungs to the intestinal tract took place.

It was established that, during the early post-exposure period, lung clearance did not depend on the solubility of the particles, but that the size of the particles constituted an important factor in so far as larger particles (6μ) were removed more rapidly than smaller particles (2μ). An entirely new observation was that the degree of elimination from the lungs depended upon the size of the lung burden. Only when this lung burden increased so much that the air passages were obstructed and a variety of reactions occurred, lung clearance was severely impeded.

The mechanism by which the particles are removed from the lungs was studied in further experiments. It was shown by special histologic procedures that, following exposure, the pulmonary macrophages significantly increased in number. Of primary interest, however, was the question whether an increase in motile phagocytes could be demonstrated. A method was developed by which these cells could be washed out from the alveoli and counted. The coefficient of correlation between clearance and cell-frequency was 0.87, and the coefficient of determination was 76%. In addition, it could be demonstrated that the rate at which particles left the lung was identical with the rate at which phagocytes collected. Therefore, it was concluded that the particles and the phagocytes leave the lung together and that the function of the phagocytes is transport from the alveolar spaces to the bronchial passages rather than transport into the lung tissue as previously assumed.

It was mentioned above that the total lung burden is a decisive factor in the removal of particles from the lungs. Increase of a small lung burden to an optimum
(1500 μg in the rat, given by intratracheal injection) led to a corresponding increase of free phagocytic cells and lung clearance. Various materials of different physical and chemical properties acted fundamentally in the same way although in different degree. Carbon particles were most effective.

This observation has been utilized to develop a procedure for the decontamination of the lungs that can be applied to human beings who have inhaled radioactive particles. In such cases, the lung burden, though perhaps highly dangerous, is relatively small. Inhalation of certain nonirritating and nontoxic, especially non-carcinogenic, carbons increases the lung burden and thus pulmonary clearance. A description of this induced clearance will be presented at the XIVth International Congress on Occupational Health in September, 1963.

In the course of these studies, the behavior of activated uranium dioxide particles (5 μg, 6 μ) deposited in the lungs by intratracheal injection has been studied. An initial period of rapid clearance with a half-life of 17 hours and a second period of slow clearance with a half-life of 73 days were identified. With a specific activity of 10,000 dpm integrated radiation exposure during the first year (15 rep/year), no pathologic changes attributable to radiation were found in the lungs in more than two years of observation.

Epidemiologic studies have suggested an etiologic correlation between sarcoidosis and the inhalation of pine pollen. A long-extended inhalation experiment conducted in this laboratory has not given evidence of such correlation.

A project dealing with the developmental mechanism of silicosis is in progress; it is executed in cooperation with the Silicosis Research Institute of the Max Planck Society in Gottingen, Germany. The material used for inhalation and intratracheal injection is Coesite, a high-pressure polymorph of silica found at the Barringer Meteor Crater in Arizona. This rare material has been donated by Mr. Brandon Barringer. The project is financially supported by a grant in the amount of $25,000.00 from the Anthracite Health and Welfare Fund, United Mine Workers of America. It is hoped that these studies will elucidate the presently very uncertain genesis of silicosis.

**PUBLICATIONS**


Basic physiologic mechanism in the pulmonary response.


**RESEARCH IN THE DEPARTMENT OF PHYSIOLOGY**

Members of the Department of Physiology are engaged in investigative studies which cover a wide variety of interests and which are of both theoretical and practical importance. Research interests of the staff members frequently overlap and since studies often are initiated from leads and concepts gained from work already in progress, it is difficult to place the research efforts in closely defined areas. A feature in the Department of Physiology is the participation of medical students in most research work. The following briefly summarizes some of the research presently under active prosecution.

**Fetus and Newborn.** Several important studies are being conducted by Dr. June N. Barker, Assistant Professor of Physiology, and her associates on problems of prenatal and neonatal physiology. A variety of severe neurologic and cardiac deficiencies ranging from mental retardation and cerebral palsy to the Tetralogy of Fallot have their origins in utero. In most cases, neither cause, diagnosis, nor cure are known. In Dr. Barker’s laboratory, the circulatory, respiratory, metabolic, and intraterine environmental conditions necessary for normal development are being defined for the period from implantation until birth. It is hoped that a 6-year study on fetal fluid and acid-base environment (with NIH support) will culminate in a useful isotopic test of placental transfer efficiency. Fetal cerebral circulation and oxygenation as well as means of preventing fetal cerebral asphyxia by adjustment of maternal respiration are being investigated (with support of the Federal Aviation Agency). Dr. Barker’s assistants, M. Gracias, M.S., L. Flynn, R. Porcellini, and O. Zulak are highly trained in the ultramicrochemistries required for this work on small animals. Two medical students, P. Goodritz and S. Pazner, have participated in some of these studies.

In this general area of development and growth may also be placed the study of Constance Biddle, B.A., M.B., Graduate Teaching Fellow, on comparative responsiveness to motor stimuli of the gastrointestinal tract in the newborn, young adult and the aged.

**Lymphatic System:** The importance of the lymphatic system in metastasis and the spread of infection is well known, but it is only recently that interest has focused on the role of the lymphatics in normal bodily functions. Dr. Donald B. Doemling, Assistant Professor of Physiology, developed a surgical technique for establishing thoracic duct fistulas which permit study in the “chronic” unanesthetized animal. By means of this technique he has carried out an extensive series of experiments on dogs to determine the effect of motility of various regions of the small intestine on the rate of thoracic duct lymph flow. Other experiments are concerned with the role of the lymphatic system in the transport of hormones. Medical student Gerson Rothman participated in some phases of these studies.

**High Altitude Physiology:** A high altitude chamber which can accommodate small animals under atmospheric conditions simulating altitudes up to 100,000 feet has been used by Dr. Dominic DeBias, Assistant Professor of Physiology, and associates to study endocrine functions under altitude stress. It has been concluded that both barometric pressure and oxygen tension are important factors in the homeostatic hormonal mechanisms which are important in high altitude tolerance. The endocrine activities under altitude stress apparently differ from those under other stress conditions, such as cold and intoxication.
Sleep. An investigation is being conducted by Dr. Eugene Aserinsky, Associate Professor of Physiology, and his colleagues on the nature of the respiratory and electroencephalographic changes occurring during the various stages of sleep in human subjects. This study, financed by a N.I.H. grant, is being carried out in the Eastern Pennsylvania Psychiatric Institute in close collaboration with Dr. T. R. Houseknecht, Research Resident in Psychiatry. The respiratory parameters include the oxygen saturation of the blood, the carbon dioxide concentration of the expired air, and chest movements. The brain waves are being subjected to Fourier analysis by means of an LGP-30 Computer. Results to date suggest an etiology for the so-called “Cheyne-Stokes” breathing which frequently occurs during the sleep of normal individuals. Another phase of the study deals with correlating eye-movements during sleep with the depth and duration of sleep. Participating in this research is medical student Edward Carden.

Cardiovascular System. The major interest of Dr. Francis J. Sullivan, Instructor in Physiology, deals with pressor and positive chronotropic activities of the vagus nerve. Under certain experimental conditions electrical stimulation of the vagus nerve appears to accelerate rather than depress heart rate. With Dr. R. San Martin, Dr. Sullivan has also studied the dynamics of constructing a coronary artery bypass.

Dissociation of the electrical and mechanical events of the heart beat may be demonstrated readily under certain experimental conditions, such as overdosage with barbiturates. This work is being done by medical students Steven Friedman, Michael Strong, and Robert Mackowiak under direction of Dr. Friedman. Intraatrial and intraventricular pressures, strain gauge measurements of ventricular muscle contractions and cardioelectrograph recordings from heart surface show that electrical activity, often closely resembling normal patterns, may persist in the absence of mechanical activity of the ventricles.

The blood flow requirement to maintain active secretion of gastric juice is under study by medical student Robert Mackowiak and graduate students Zalmon Pober and Martin Tansy. The mode of excitation of secretion appears to play an important part in the flow rate. In a similar study on the blood flow to the stomach carried out by graduate student Ann Ambromovage and Dr. DeBias, an attempt has been made to correlate the decreased potassium level of gastric juice during histamine-induced gastric secretion with adrenocortical activity.

Reflexes: One system of classification divides reflexes according to the arc of the afferent-efferent paths. Short-arc reflexes, like those involved in some entero-enteric responses to stimuli, are being studied by graduate student Zalmon Pober. He finds that local application of surface anesthetics to the intestine or stomach may abolish reflex-induced secretory activity, but not motility. The possibility of depressing acid secretion without interfering with gastric evacuation is being investigated.

Dr. Aserinsky and Dr. DeBias are resuming their studies on the so-called “oculo-cardiac” reflex. They found that cardiac depression and arrest may result not only from pressure applied to the eyeballs but also from stimuli applied elsewhere. Of interest and practical importance is the finding that this reflex may be prevented or aborted by insufflation of the lungs as in positive pressure artificial respiration.

Dr. DeBias and Dr. Friedman have also found that deleterious effects of high altitude may be ameliorated by specific diets. Thus, prefeeding of certain substances for 5 days enables rats to survive maintenance at 27,000 feet for periods of at least 24 hours, whereas with ordinary chow diets the rats almost invariably succumb to this altitude within 5 hours.

Gastrointestinal Tract: In progress in the Department of Physiology are several studies on gastrointestinal functions. An investigation of the response of the gastrointestinal tract to normal and abnormal stimuli revealed that animals may be maintained for periods of months and even years on diets high in content of inert materials. Hypertrophy of the small intestinal mucosa occurs to a marked degree in rats kept for 8 months on diets of 30% talc or cellulose. Dr. M. H. F. Friedman with graduate students Leonard Rosenfeld and Martin Tansy, in cooperation with Dr. Simon Kramer of the Department of Radiology, are also studying the intestinal effects of lethal doses of total body ionizing radiation from a Cobalt 60 source and the possibility of radiation protection by diet. Chemical and physiological alteration of the gastrointestinal tract occur promptly following such radiation. Mr. Rosenfeld has been tracing water content, plasma and tissue magnesium levels and intracellular enzyme activity as affected by radiation. Mr. Tansy has been assaying the motor and secretory reactivity of the intestine in radiated animals and the alterations in adrenal and parathyroid glands. Pancreatic functions and intestinal absorption in radiated animals have been studied by several medical students. A diet has been developed which, under experimental conditions, affords a high degree of prophylactic protection against total body radiation but to date this diet and other measures have failed to be of therapeutic benefit.
Miss Roseann Kaufman, Mrs. Alexandra Janson and Mr. Frank Campalone rendered skilled technical assistance in this study which was supported by the U.S. Army.

The presence in the intestinal mucosa of a third hormone (other than secretin and pancreozymin) which excites pancreatic secretion was confirmed by medical student John Maylock during a year's tenure of a NIH post-sophomore fellowship. This work also had the assistance of medical student Frank Viozzi. The effective stimulus for elaboration of the hormone (first reported in 1903 and subsequently forgotten until rediscovered by Dr. J. Earl Thomas and Dr. Friedman in 1945) is the soap formed from digestion of dietary fat.

Application of the "stop-flow" technique to the study of pancreatic secretion is being attempted by Albert H. Pearce, D.V.M., Instructor in Physiology. This method, originally used in renal physiology, remains of limited use for the pancreas until the ramifications of the pancreatic duct system are better understood.

Wound Healing: Experiments have been in progress for several years to develop a procedure which may be used to determine quantitatively the efficacy of agents which affect healing processes. (An assay procedure for this purpose is needed by the Food and Drug Administration.) A standard type of incision is made in the anterior surface of the gastric antrum and the resistance to digestion by gastric juice which is applied under standard pressures is then determined. In 50% of mice so tested, healing is maximum by the sixth day. This defines a healing unit used to measure either healing delay (contisone, low protein diet) or acceleration (tissue extracts). The work is being carried out by Dr. Friedman with Dr. Eugene Zachariasewycz, medical students Henry Hood and Steven Friedman, and technical assistants Gretchen Herpel and Alton Roberts.

In another investigation Dr. Francis Sullivan with medical students Barton Hodes and Frank Viozzi have been studying the usefulness of a monomer resin-type glue to replace the process of either suturing or stapling incisional wounds. Undertaken at the suggestion of Dr. Robert Johnson, the experiments show that the glue holds promise when used on organs such as the stomach and urinary bladder, but not organs such as the bronchus and trachea.

PROMOTIONS, NEW APPOINTMENTS, AND RESIGNATIONS

PROMOTIONS

ABRAHAM COHEN, M.D., from Associate in Clinical Medicine to Assistant Professor of Clinical Medicine.

JOSEPH KIRBY CORSON, A.B., M.D., from Associate in Dermatology to Assistant Professor of Dermatology.

F. WILLIAM SUNDERMAN, JR., B.S., M.D., from Instructor in Medicine to Associate in Medicine.

ROBERT C. BROAD, A.B., M.D., from Assistant in Medicine to Instructor in Medicine.

RACHMEL CHERNER, B.A., M.D., from Assistant in Medicine to Instructor in Medicine.

NEW APPOINTMENTS

RALPH E. DWORK, B.S., M.P.H., Visiting Associate Professor of Preventive Medicine.

KAY A. O. ELLEM, B.S., M.B.B.S., Ph.D., Associate Professor of Pathology.

RUHERI PEREZ-TAMAYO, M.D., Associate Professor of Radiology.

JOHN T. MILLINGTON, B.S., M.D., M.P.H., Visiting Lecturer in Preventive Medicine.

ROBERT SNYDER, B.S., Ph.D., Assistant Professor of Pharmacology.

STANLEY RALPH HARRIS, M.D., Research Associate in Radiology (Radiation Therapy).

DAVID B. KUSNER, B.A., Associate in Radiology (Radiation Physics).

SUNIL KUMAR NIYOGI, B.S., Ph.D., Instructor in Pharmacology.

RESIGNATIONS

SEYMOUR PARKER, B.A., Ph.D., Assistant Professor of Psychiatry (Cultural Anthropology).

EUGENE ALEXANDER GILLIS, M.D., M.P.H., Visiting Lecturer in Preventive Medicine (Public Health).

ANNE MARIE AMBROMOVAGE, B.A., Assistant in Physiology.

GILBERT A. MARTIN, JR., M.D., Assistant in Orthopedic Surgery.

EDGAR CHARLES SMITH, M.D., Assistant in Medicine. WANG YEN, M.D., Research Fellow in Radiology.
Rehabilitation Center
Enlarges Facilities

The expanded Jefferson Medical College Hospital Rehabilitation Center was dedicated at ceremonies on October 20. The enlarged facilities will increase the chances of reaching the national goal of 200,000 rehabilitations for 1964 set by Miss Mary E. Switzer, U. S. Commissioner of Vocational Rehabilitation. Ten per cent of the total 110,000 Americans rehabilitated last year were rehabilitated in Pennsylvania.

President William W. Bodine, Jr., presided at the dedication ceremonies. Dr. John H. Gibbon, Jr. introduced Dr. Frank H. Kruisen (Jeff '21), Professor of Physical Medicine and Rehabilitation, Temple University School of Medicine, who outlined Temple's plans for such a center. Dr. Sodeman introduced Miss Switzer. And Jefferson Board Chairman James M. Large introduced The Honorable Lister Hill as the "son of a son of Jefferson Medical College," referring to the Senator's father, the late Dr. Luther L. Hill, an 1882 Jefferson graduate and distinguished Montgomery, Ala., surgeon.

Two decades ago, Senator Hill co-sponsored the Hill-Burton Act, which has provided matching funds for more than 5,000 hospitals in need of new or improved facilities. In rehabilitation centers alone, 226 facilities, of the 250 existing ones in the U.S., have received funds through the program. About half of the $884,000 spent on modernization and expansion of the rehabilitation facilities at Jefferson was provided by a Hill-Burton Grant. The remaining balance was raised through other channels including $270,000 by the Women's Board.

Under the direction of Dr. John W. Goldschmidt (Jeff '54), the Rehabilitation Center is equipped to work with virtually all types of disabilities. A vocational evaluation and training area, a gymnasium, and other physical therapy rooms, hydrotherapy facilities, a specially-designed therapeutic kitchen, occupational therapy areas, recreation and dining facilities, a conference room, and a 32-bed inpatient section are all housed within the 23,800 square foot Jefferson Rehabilitation Center, located on the third floor of Main and Thompson Buildings.
MORE than 138 years ago the opening exercises of the newly formed Jefferson Medical College were held in the reconverted Winter Tivoli Theatre located at 518 and 520 Locust Street. In November 1825, the first class of 106 students began studying medicine in the theatre under the supervision of George McClellan, the founder, and five faculty associates. The College was then located in an interesting section of the city. As John Chalmers Da Costa pointed out: "Directly across the street from the College was the Walnut Street Prison for criminals and debtors,—on the east of the College was the burial ground of the Free Quakers,—on the western side was Washington Square, then used as the Potter's Field. Directly back of the College was a popular ale house and within a block or so were several churches. In other words, there were crime and misery in front, death on either side and consolation in the rear."

Jefferson moved from these stimulating surroundings, further west and north into a remodeled church on the southwest corner of 10th and Sansom Streets in August, 1828. In this neighborhood the College has continued to operate for 135 years. Since 1911 the teaching of anatomy and related subjects has been carried on at the Daniel Baugh Institute of Anatomy at 10th and Delancey Streets. Thus, the Department of Anatomy has been working in its present quarters for more than half a century, and is bulging its seams. The present College building was completed in 1929 and dedicated in 1930, and all the other departments of the Medical College have functioned in this building for 34 years. As the clinical departments have grown, they have exceeded the capacity of the College building to house them and have overflowed into the Curtis Clinic building.

For the first time in 135 years, a major expansion of The Jefferson Medical College is planned. This expansion will increase the area occupied by the buildings of The Jefferson Medical Center from a little more than one half a city block (Walnut to Sansom and 10th to 11th Streets) to approximately an area of three city blocks (a 600 per cent increase). For the first time, Jefferson will have a campus and green grass. For the first time, it will have a student commons housed in the
Basic Science-Student Commons building to be known as Jefferson Hall. For the first time, there will be dining and recreational facilities for students in Jefferson Hall. The Alumni offices will be located in this building and bedrooms will be available where alumni and visiting lecturers can be put up for the night. On the new campus residential quarters will be built for medical students, married and unmarried. The medical library will have greatly expanded facilities when it moves into the existing building standing at the southeast corner of 10th and Walnut Streets.

The entire expansion program of The Jefferson Medical Center will cost 41 million dollars. To qualify for help from Federal, State and City sources, seven million dollars must be raised from private sources. Close to four million dollars has already been subscribed from private sources and we are now turning to our alumni to raise $1,250,000. This is five times the amount which the Executive Committee of the Alumni Association of The Jefferson Medical College on March 10, 1873, voted to recommend to the Alumni Association to be raised by private subscriptions "for a new site and for the erection thereon of a College Building with an hospital attached." Of course in those days the purchasing power of the dollar was considerably more than it is today.

The present plans for allocation of the funds, which will be raised by the Alumni Division of the Drive, have been agreed upon by the President of Jefferson, Mr. Bodine, myself, the Associate Chairmen of the Drive and by the Campaign Committee whose plans are as follows: $500,000 of the amount raised by the Alumni Division will be used toward the cost of equipping and furnishing the Basic Science-Student Commons Building which will be known as Jefferson Hall. $300,000 will be applied toward the cost of renovating and equipping areas in the old College Building which will be used to expand research activities in the clinical departments after the basic science departments have moved to Jefferson Hall. $250,000 will be used toward the cost of acquiring and equipping the existing building on the southeast corner of Tenth and Walnut Streets.

A CAMPUS FOR JEFFERSON
Entrance to the auditorium, which can be seen as a rounded mass in the right of the photograph

for Jefferson's Medical Library. Finally, $200,000 will be applied toward the cost of purchasing the sites and furnishing the new structures for residential accommodations for medical students.

Since the October issue of the Alumni Bulletin went to press Dr. Willard H. Parsons of Vicksburg, Mississippi, has agreed to become one of the Associate Chairmen of the Alumni Drive joining in this capacity Drs. Clerf, Davis, de los Reyes, Livingood and Willauer. Dr. Parsons is Chief of Staff and Director of Surgery at the Vicksburg Hospital and Vicksburg Clinic and Clinical Associate Professor of Surgery, School of Medicine, University of Mississippi. He holds the important position of Vice Chairman of the Board of Regents of the American College of Surgeons and is a nationally and internationally known surgeon.

In addition to the Associate Chairmen, the following eight Jefferson Alumni have agreed to serve as a Campaign Committee: Abraham Cantarow, Mario A. Castallo, Samuel S. Conly, Jr., Theodore R. Fetter, Kenneth E. Fry, Benjamin Haskell, Louis Merves and Thomas F. Nealon, Jr. The Associate Chairmen, living in or near Philadelphia, and the Campaign Committee have been meeting weekly to select Area Chairmen first in Pennsylvania and New Jersey and then in the other states to assist in pushing the Alumni Drive to a successful conclusion.

Talks explaining the Alumni Drive were given by the National Chairman to more than 50 Alumni and their wives at a dinner in Pittsburgh on 10 October 1963, and to more than 80 Alumni and their wives in San Francisco on 30 October 1963, and by Dr. T. Burritt Mervine to Alumni in Denver, Colorado. These talks were illustrated with Kodachrome slides showing the buildings which would be torn down to make room for the new Jefferson campus, and also showing models of the proposed new structures. Further talks explaining the purpose of the Drive will be held in the future.

The National Chairman, and all who are associated with him in this endeavor, are sure that the Alumni will wholeheartedly support this effort to build a greater Jefferson and that the Alumni Drive will unquestionably go over the top by the conclusion of the Campaign, June 1, 1964.

JOHN H. GIBBON, JR., M.D.
National Chairman
Alumni Division
Pennsylvania Medical Society Holds 113th Annual Session

PAPERS, exhibits, discussions, dinners—all the ingredients necessary to a successful medical convention—were present in abundance when the 113th Annual Session of the Pennsylvania Medical Society convened in Pittsburgh on October 9-12, at the Penn-Sheraton Hotel.

During the first evening of the convention Dr. C. Wilmer Wirts ('34), Professor of Clinical Medicine, and Dr. Charles Fineberg, Assistant Professor of Surgery, discussed the new operation for correction of Post-Gastrectomy Syndromes on a news broadcast over Pittsburgh television station WTAE. Their television appearance was in conjunction with an exhibit presented by Dr. Wirts, Dr. Fineberg, Dr. John Y. Templeton, III ('41), Clinical Professor of Surgery, and Dr. Franz Goldstein ('53), Assistant Professor of Medicine. Their exhibit was entitled "Jejunal Interposition for Post-Gastrectomy Malabsorption and Dumping." Dr. Templeton and Dr. Fineberg also delivered a paper, "Repair of Strictures of the Common Bile Ducts," at the Friday morning session of the Surgery Section.

OTHER Jefferson faculty members and alumni who actively participated in the convention included Dr. Robert C. Eyerly ('52) who, together with an associate, presented a paper entitled "A Five-Year Survey of 1035 Consecutive Patients with Extrahepatic Biliary Tract Disease" at the Friday morning session of the Surgery Section. Dr. Patrick J. McKenna ('58), Assistant in Medicine, presented a paper "Allergic Transfusion Reactions," at the Thursday morning session of the Allergy Section. Dr. Thomas F. Nealon, Jr. (S '44), Professor of Surgery, delivered a paper "Experiences with Blood Volume Determinations and Electrolyte Changes in Transfusion with ACD Blood," and participated in a Round Table Discussion at the Thursday morning session of the Blood Banks Section.

EXHIBITS...

Dr. EDMUND L. HOUSEL ('35), Associate in Clinical Medicine, Dr. John W. Kelly, Instructor in Medicine, and Dr. James W. Daly ('48), Associate in Clinical Medicine, collaborated on an exhibit entitled "Essential Hypertension/Today's Prognosis." Dr. J. Montgomery Deaver, Assistant Professor of Clinical Surgery, and Dr. Malcolm W. Miller, Assistant Professor of Clinical Medicine, together with an associate, presented an exhibit "Enigma in Medical Practice: Rectal Stasis." Dr. Victor P. Satinsky ('47) was responsible for an exhibit entitled "Creation of a Third Coronary Artery." And Dr. Nicholas T. Zervas, Associate in Surgery, presented, "Sterotaxic Surgery."

AND DINNER

One of the social highlights of the convention was the dinner for Jefferson Alumni, family, and guests at the Dusquesne Club on October 10, arranged by Dr. T. Ewing Thompson, Jr. ('33), secretary-treasurer of the Southwest Chapter. The Alumni are very grateful to Dr. William W. Lerman ('16) for permitting them to make use of his club membership, even though he was unable to be present. Dr. Benjamin F. Haskell ('23), president of the Alumni Association, presided during the dinner and introduced the speakers. Dean William A. Sodeman discussed curriculum changes and the general progress of the college. Dr. John H. Gibbon, Jr. ('27), National Chairman of the Alumni Phase of the Building Fund Drive, told the guests about Jefferson's expansion plans, illustrating his talk with slides of the areas where the new buildings will be erected.

Many of the alumni also found time to participate in another social highlight—the Eighth Annual Tournament of the Pennsylvania Golfing Association at the Oakmont Country Club. The ingredients all added up to a very educational and enjoyable four days.
MEDICAL MEETINGS

“JOGERS”

"JOGERS" (Jefferson Obstetrics and Gynecology Ex-Residents Society) held its annual meeting October 25-26. Dr. C. B. Bland, Assistant Professor of Obstetrics and Gynecology and Dr. Burton L. Wellenbach, Associate Professor in Obstetrics and Gynecology, handled arrangements for the annual dinner on Friday evening at the Vesper Club in Philadelphia. Dr. Benjamin Kendall, Assistant in Obstetrics and Gynecology, acted as Moderator during the scientific meeting on Saturday.

Papers presented on Saturday included the following: "Paracervical Blocks in Labor," Dr. Leopold S. Loewenberg, Instructor in Obstetrics and Gynecology, discussant was Dr. Vincent McPeak (Jeff ’51); "Thiotepa Castration in Patients with Mammary Carcinoma," Dr. Joseph Stella, discussant was Dr. Alvin F. Goldfarb, Assistant Professor of Obstetrics and Gynecology; "The Evaluation of Oxytetracycline in the Treatment of Gonorrhea in the Prenatal Patient—A Preliminary Report," Dr. Leon N. Prince (Jeff ’33), Assistant Professor of Obstetrics and Gynecology, discussant was Dr. Eileen Randall, Assistant Professor of Microbiology; and "Cytology as a Prognostic Tool in Early Pregnancy," Dr. Jerome Abrams, discussant was Dr. Leon A. Peris (Jeff ’55), Instructor in Obstetrics and Gynecology.

Clinical demonstrations included "Transabdominal Amniocentesis and Intrauterine Pressure Recordius," Dr. Arthur B. H. Lee (Jeff ’57), Assistant in Obstetrics and Gynecology, and Dr. Atef Moawad; "Fetal Radiocardiography and Phonocardiography," Dr. Kendall; "Chromosomal Counting and Chromatin Body Demonstration," Miss Norma Ermler, Miss Elly Triandafilliaou and Dr. Goldfarb.

A luncheon and business meeting followed the scientific session, during which new officers were elected. The new slate includes President, Dr. Joseph Stella; Vice President, Dr. Howard E. First; and Secretary-Treasurer, Dr. Benjamin Kendall.

JEFFERSON ORTHOPAEDIC SOCIETY

The Fourth Annual Meeting of the Jefferson Orthopaedic Society was held in McClellan Hall October 25-26, Dr. Everett Gordon (Jeff ’37) presiding.

The program, consisting of clinical papers, research projects, scientific movies, and presentation of live patients, was enthusiastically received by the 35 members and guests who attended. The Annual Banquet at Old Bookbinders on October 25 drew 75 members, wives and guests.

Officers elected for the year 1963-64 include President—Dr. Joseph Flynn (Jeff ’51), Vice-President—Dr. John J. Gartland (Jeff S’44), and Secretary-Treasurer—Dr. Richard Cautilli (Jeff ’58).

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS

The American College of Obstetricians and Gynecologists, District III, held a conference October 11-12 at the Hotel Hershey in Hershey, Pennsylvania. Faculty and Alumni who participated included the following: Dr. Paul A. Bowers (Jeff ’37), Assistant Professor of Obstetrics and Gynecology, and Dr. Frank E. Schramm (Jeff ’46) participated in a panel on "Problems of Urinary Tract"; Dr. John J. Brogan (Jeff ’40) participated in a panel on "Operative Deliveries and Cesarean Section"; Dr. George A. Hahn, Professor of Obstetrics and Gynecology, participated in a panel on "Carcinoma of the Endometrium"; Dr. Herbert Bowman (Jeff ’47), Assistant Professor of Medicine, was a panelist on "Thromboembolic Disease in Obstetrics and Gynecology"; and Dr. Warren R. Lang (Jeff ’43), Professor of Obstetrics and Gynecology, moderated a panel on "Vulvo-Vaginitis."
JEFFERSON was well represented by faculty and alumni at the 49th Annual Clinical Congress of the American College of Surgeons in San Francisco, October 28-November 1.

Dr. John H. Gibbon, Jr. (Jeff '27), The Samuel D. Gross Professor of Surgery and Head of the Department, participated in a panel discussion on "Dysphagia" and moderated a postgraduate course on "Fundamentals of Thoracic Surgery." Dr. Walter F. Ballinger, Associate Professor of Surgery, presented a paper entitled "Tumors of Chest Wall and Pleura" at a postgraduate course on Thoracic Neoplasms. He also participated in a forum on Physiology of the Small Bowel, where he delivered a paper entitled "Changes in the Small Intestine Following Total and Selective Vagotomy," authored by Dr. Ballinger, Dr. Junzo Iida, Research Fellow in Surgery, and Dr. Gonzalo E. Aponte (Jeff '52), Associate Professor of Pathology.

Dr. Edward J. Baranski (Jeff '59) delivered a paper entitled "Pulmonary Hypertension Following Cardiopulmonary Transplantation" at a forum on Organ Transplantation. The paper was the work of Dr. Baranski, Dr. R. C. Camishion (Jeff '54), Assistant Professor of Surgery, Dr. Ballinger, and an associate. Dr. Oscar Creech, Jr. (Jeff '47) moderated a postgraduate course on Thoracic Injuries, and was also one of two discussors of a motion picture entitled "Thrombectomy for Iliofemoral Venous Thrombosis."

Dr. William L. Glenn (Jeff '38) was moderator of a forum on Cardiac Surgery. Dr. Willard H. Parsons (Jeff '20) presided over the Tuesday morning session of The Ciné Clinics. Dr. Howard E. Snyder (Jeff '27) presented a paper entitled "Combination of Irradiation and Surgery" at a postgraduate course on Cancer of the Cervix Uteri.

Scientific exhibits at the Congress included presentations by Dr. Ballinger and an associate, "Repair of Small Blood Vessels"; Dr. Edward J. Berk (Jeff '36) and an associate, "Tetracyclineinduced Fluorescence Test for Gastric Cancer"; and Dr. John Halff (Jeff '47) and an associate, "Percutaneous Transnepatic Cholangiography."

THE Annual Meeting of the Kentucky State-Medical Association of 1963 held in Lexington, Ky., September 24-26, was entitled "The James William Holland Memorial Meeting" in tribute to the late Dr. James William Holland (Jeff 1868), former President of the Association and past Professor of Chemistry and Dean of the Faculty at Jefferson Medical College.

David M. Davis, M.D., Professor of Urology, Emeritus and Robert I. Wise, M.D., Magee Professor of Medicine and Head of the Department were guest speakers at the meeting. Dr. Davis discussed "Uro-dynamics" before the Kentucky Urological Society and Dr. Wise discussed "A Rational Approach to the Selection of Antibiotics in Bacterial Diseases" before the Kentucky Chapter of the American College of Physicians. Both Dr. Davis and Dr. Wise participated in a panel discussion on "The Etiologic and Therapeutic Aspects in Pyelonephritis."

THE Potomac Shenandoah Valley Postgraduate Institute, together with the West Virginia Chapter of the AAGP, held its Eighth Postgraduate Institute in Martinsburg, West Virginia, October 25-27. The Institute is made up largely of men who have been voted best lecturer in their field and/or best all-round lecturer at a given school.

Jefferson faculty who delivered papers include Dr. Bernard J. Alpers, Professor of Neurology and Head of the Department, "Management of Carcinoma of the Nervous System"; Dr. John H. Hodges, Professor of Clinical Medicine, "Hematology" and "Recent Advances in Clinical Medicine"; Dr. Hans G. E. Keitel, Professor of Pediatrics and Head of the Department, "Effective Immunization of American Children"; and Dr. Warren R. Lang, Professor of Obstetrics and Gynecology, "Vaginitis in the Adult Female."
News of College Departments

ADMINISTRATION
Dr. William A. Sodeman, Dean and Vice-President for Medical Affairs, was a guest speaker at the 39th annual convention of the Woman’s Auxiliary to the Pennsylvania Medical Society in Pittsburgh.

ANATOMY
Dr. S. A. D’Angelo, Professor of Histology and Embryology and Research Career Award investigator recently returned from a tour of the European continent during which he participated in various scientific meetings and visited several prominent institutions of endocrinology. He spoke before the French National Center of Scientific Research in Paris on “Histophysiology of TSH Secretion,” and also presented seminars at the Institute of Pathology in Medicine, University of Rome, Italy, on “The Functional Significance of TSH Levels in Endocrinopathy,” and at the Institute of Pharmacology and Therapy, University of Milan, Italy, on “Hypothalamic Regulation of Thyroid Function.”

MEDICINE
Dr. Robert I. Wise, Magee Professor of Medicine and Head of the Department, participated in the program of the National Conference on Institutionally Acquired Infections held at the University of Minnesota during September. Dr. Wise also spoke at a postgraduate medical symposium on infectious diseases conducted by the University of Missouri Medical School and Missouri Academy of General Practice.

Dr. Joseph W. Spelman, Visiting Professor of Legal Medicine, delivered a talk entitled “Violent Deaths” at the 12th annual Scientific Symposium of the Connecticut Academy of General Practice on October 3.

Dr. Laurence G. Wesson, Jr., Professor of Medicine, was Chairman of the morning session on “Arterial Disease of the Kidney and Hypertension” at the 2nd Annual Symposium on Renal Disease in Philadelphia on October 16.

Dr. C. Wilmer Wirtz, Professor of Clinical Medicine, addressed the staff of the Englewood Hospital, Englewood, N.J., on September 5, on “Postgastrectomy Steatorrhea,” and on September 18, participated in the Continuing Medical Education Program at the Williamsport Hospital, discussing “The Management of Acute and Chronic Pancreatitis.” On September 26, he spoke at a meeting of the Academy of General Practice in Evansville, Indiana, on “The Management of Complicated Peptic Ulcer.” On October 12, Dr. Wirtz participated in the 14th Annual Scientific Assembly of the Florida Academy of General Practice in Lakeland, Florida. He spoke on the “Evaluation and Treatment of Non-Calculus Gallbladder Disease.”

Dr. Harold L. Israel (Jeff ’34), Clinical Professor of Medicine, was a speaker at the Ciba Foundation on “Immune Mechanisms in Sarcoidosis” in London on September 7; at the International Conference on Sarcoidosis at Stockholm, September 11-14; and at the International Conference of Tuberculosis in Rome on September 26.

Dr. John H. Killough, Associate Professor of Medicine and Assistant to the Dean, discussed “Medical Emergencies following Surgery” at a Symposium on Medical and Surgical Problems in Adolescents in Duluth, Minnesota, on October 19. On November 8, Dr. Killough and Dr. William H. Mahood (Jeff ’60), former Resident in the Department of Medicine, gave a paper at the Regional Meeting of the American College of Physicians in Philadelphia on the “Pitfalls in the Diagnosis of Porphyria.” Also on November 8, Dr. Killough, Dr. John H. Hess, Resident in Anesthesiology, and Mr. Edward Nowicki, member of the sophomore class, had their paper on “Reflex Hypoten-
sion from Stimulation of the Abdominal Wall” read by title at the Regional Meeting in Philadelphia of the American College of Physicians.

DR. JOHN N. LINDQUIST (Jeff ’43), Assistant Professor of Clinical Medicine, has been appointed Representative of the United Community Funds and Councils of America, National Council on Aging.

DR. HERMAN L. RUDOLPH (Jeff ’35), Assistant Professor of Physical Medicine, was chosen president-elect of the American Academy of Physical Medicine and Rehabilitation at its 25th Assembly held in Dallas, Texas, in October.

DR. ARTHUR J. WEISS, Assistant Professor of Medicine, participated in a medical symposium on hematology held by the New Hampshire Chapter, American Academy of General Practice, at Manchester, N.H., on October 16.

DR. EDMUND L. HOUSEL, Associate in Clinical Medicine was re-elected as an Alternate Delegate to the A.M.A. at the recent annual meeting of the Pennsylvania Medical Society. He also serves as Chairman of the Blue Cross-Blue Shield Committee of the Pennsylvania Medical Society. He is a delegate to P.M.S. representing the Philadelphia County Medical Society.

DR. F. WILLIAM SUNDERMAN, Jr., (Jeff ’55), Instructor in Medicine, was elected Vice President of The Association of Clinical Scientists at the annual meeting in Washington October 24-29. He also presented two papers at the meeting entitled “The Nitrogen Content of Serum Proteins” and “Clinical Interpretation of Electrophoretic Fractionation of the Serum Proteins.”

ORTHOPEDIC SURGERY

DR. JOHN J. DOWLING (Jeff ’47), Assistant Professor of Clinical Orthopedic Surgery, attended the 1963 course in the Management of Mass Casualties at Brooke Army Medical Center, Fort Sam Houston, Texas.

OTOLARYNGOLOGY

DR. FRED HARBERT, Professor of Otolaryngology and Head of the Department, gave a course in Clinical Audiology at the annual meeting of the American Academy of Ophthalmology and Otolaryngology in New York City, October 20-25. Other members of the Department who participated include DR. KELVIN KASPER, Professor of Clinical Otolaryngology, with a course on “Dacryocystorhinostomy”; DR. AUGUST CEIL, Assistant Professor of Clinical Otolaryngology, with a course on “Hypnosis in Otolaryngology”; and DR. JOSEPH SATALOFF, Associate Professor of Otolaryngology, DR. STANLEY FARBI, Assistant in Otolaryngology, and DR. HYMAN MENDEK, Professor of Preventive Medicine (Biostatistics), who presented a paper on “Sensorineural Hearing Loss in Clinical Osteosclerosis.”
DR. JOSÉPH SATALOFF, Associate Professor of Otolaryngology, spoke before the Northern New Jersey Association of Industrial Nurses in Newark, N.J., on October 15. The subject of his talk was "Hearing Problems in Industry."

DR. SEYMOUR WAGNER, Assistant in Otolaryngology, has been certified a Diplomate of the American Board of Otolaryngology.

PATHOLOGY

DR. G. E. APONTE (Jeff '52), Associate Professor of Pathology, was visiting physician at York Hospital, York, Pa., on October 10. In addition to the discussion of clinical cases presented, he lectured on "Present Concepts of the Pathology of Collagen Diseases." On October 26, he spoke on "Tumors which Produce Abnormal Serum Proteins" at the Seminar on Serum Proteins and Dysproteinemias held at Washington Hospital Center in Washington, D.C.

DR. ERICH A. EERTS (Jeff '50), Assistant Professor of Pathology, collaborated with DR. WILLIAM J. TOWNISH (Jeff '28) on a paper entitled "Vascular Ring Malformation of the Aortic Arch Associated With Stenosis of the Second Portion Duodenum," which Dr. Everts presented before the Fifth International Congress of Clinical Pathology in Mexico City recently.

PREVENTIVE MEDICINE

DR. HEINRICH BRIEGER, Professor of Occupational Medicine and Director of the Division of Occupational Medicine and Hygiene, has been appointed a member of the Governor's Advisory Committee on Establishing Threshold Limits in Places of Employment. In his capacity as Chairman of the Occupational Health Section of the American Public Health Association, Dr. Brieger presided at several meetings of the Section at the Annual Meeting of the Association in Kansas City, November 10-15.

DR. J. WOODROW SAVACOOL, Associate Professor of Preventive Medicine and Director of the Division of Clinical Preventive Medicine, delivered a talk entitled "Prevention and Treatment of Disabling Respiratory Diseases" on September 12, before the Delaware County Medical Society.

Several foreign guests visited the Department during the month of October: Professor Lars Friberg and Dr. Bo Holma of the Karolinska Institutet, Stockholm, Sweden, Dr. J. H. Chesterfield of the British Imperial Tobacco Company, and Dr. D. G. Felton of the British Tobacco Research Council.

PSYCHIATRY

DR. PAUL J. POINSARD, Clinical Professor of Psychiatry, served as Program Director of a Regional Mental Health Conference which was held in Scranton, Pa., on November 6, under the joint auspices of The Pennsylvania Medical Society, The Lackawanna County Medical Society, and Pennsylvania Mental Health, Inc.

DR. H. H. BRUNT, JR., Assistant in Psychiatry, was elected Secretary of the Association of Medical Superintendents of Mental Hospitals at the organization's annual meeting in Cincinnati, Ohio.

RADIOLOGY

DR. PHILIP J. HODES, Professor of Radiology and Head of the Department, moderated a panel discussion on services at the 10th annual conference of the Volunteer Service Organization, Philadelphia Division of American Cancer Society on September 25. He also spoke at the Nurses Cancer Conference on October 16 in Philadelphia.

DR. ROY R. GREENING, Professor of Radiology; DR. GERALD D. DODD, Clinical Professor of Radiology; and
Dr. Laird Jackson, Instructor in Medicine, participated in an instructional course for physicians on Lymphangiography conducted at the International Meeting of The North American Roentgen Ray Society in Montreal, October 8-11. Dr. Greening also delivered a talk entitled "Aortography and Peripheral Vascular Radiography in the Small Hospital" at the Veterans Administration Hospital in Fayetteville, Arkansas, on October 16.

Dr. Ruheri Perez-Tamayo, Associate Professor of Radiology, has attacked the problem of determining, with electronic digital computers, the exact dosage of radiation when administered to the cancer patient. With his techniques all the pertinent information can be kept in the memory section of the computer and additional entries made for the individual under treatment. These calculations take longer than a month to perform by hand, and with the computer the results are ready in ten minutes. Such a computer installation is being placed into the Radiation Therapy Department of Jefferson Hospital, under the direction of Dr. Perez-Tamayo and his associates to be used in patient care.

Surgery

Dr. John H. Gibbon, Jr. (Jeff '27), The Samuel D. Gross Professor of Surgery and Head of the Department, was elected President of the newly formed Pennsylvania Association of Thoracic Surgeons at the Association's first meeting.

Dr. David J. La Fia (Jeff '47), Instructor in Surgery (Neurosurgery), has been appointed to the staff of Community Hospital, Sunbury, Pa. Dr. La Fia will serve as a consultant in neurology and neurosurgery.

Alumni Placement Bureau

Positions Available

Five-Hundred bed General Hospital in up-state New York has an unexpected opening for Chief Resident in Obstetrics-Gynecology, beginning July 1, 1964. The hospital has a fully approved three year program in Obstetrics-Gynecology, plus rotating internships and residencies in the other major services. The Ob-Gyn Department is fully equipped and residents, after completing their training programs at the hospital, have found that the specialty board examination poses no problem.

Three physicians in Dallas, Texas, are interested in locating a young doctor to join them in the clinical practice of medicine. The position will be available around July 1, 1964.

Positions Wanted

Obstetrician-Gynecologist, Board eligible, completing four year residency in June 1964, wishes to locate in Pennsylvania, or nearby state. Interested in solo, group, and partnership opportunities. Service obligations already fulfilled.

Obstetrician-Gynecologist, completing residency in June 1964, wishes to locate in Pennsylvania, Maryland, Delaware, or New Jersey.

Obstetrician-Gynecologist, Board eligible, 32 years old, Protestant, married. In the summer of 1964 will complete obligated service with U. S. Navy and am seeking an association with one or more obstetricians in southeastern Pennsylvania or New Jersey.
Under the auspices of the World Health Organization, a Scientific Group convened in Geneva, Switzerland, from August 20-26, 1963, to discuss Histopathologic Nomenclature and Classification of Bone Tumors. The group, selected from prime medical centers throughout the world including Russia, consisted entirely of pathologists with the exception of Dr. Philip J. Hodes, Professor of Radiology at Jefferson. The photograph, taken during one of the sessions, shows (from left) Professor R. W. Scarff, Director, Bland-Sutton Institute of Pathology, Middlesex Hospital, W. 1., United Kingdom; Dr. Philip J. Hodes; Professor E. A. Ueblinger, Pathologisches Institut der Universität, Kantonsspital Zurich, Zurich, Switzerland; and Dr. H. A. Sissons, Department of Morbid Anatomy, Institute of Orthopedics, Royal National Orthopedic Hospital, London, W. 1., United Kingdom.

Two Trustees Receive Honors

Richard C. Bond and William F. Kelly, members of the Board of Trustees of Jefferson Medical Center, were honored recently.

Mr. Bond, president of John Wanamaker, was named to receive the 1963 National Human Relations Award of the National Conference of Christians and Jews. The citation is given each year to a business leader of metropolitan Philadelphia for setting an outstanding example in increasing the well-being of all people in the community and for strengthening human relations in the Philadelphia area.

Mr. Kelly was elected president of the American Bankers Association at their annual convention held in Washington, D.C., during October. He is president of the First Pennsylvania Banking & Trust Co., Philadelphia's largest bank.
VICE ADMIRAL James Laurance Kauffman, USN (Ret.) who, in 1949 became Jefferson's first full-time President, died at his home in Washington, D.C. on October 21, 1963. He had retired from the Presidency of the College and Medical Center in 1959.

Admiral Kauffman was graduated from the Naval Academy in 1912 and had a brilliant career in the Navy until his retirement in 1949 after 35 years of active service. His assignments included that of Commander of Destroyers, Support Force, Atlantic Fleet in 1941, for which he received a Citation, Commander, Gulf Sea Frontier, for which he received the Legion of Merit, and Commander of Destroyers and Commander of Cruisers, Pacific Fleet, for which he received the Gold Star in lieu of a second Legion of Merit. At the time of his retirement he was Commandant of the Fourth Naval District, Philadelphia, with the additional duty of Commander of the Philadelphia Naval Base.

In addition to the Navy Cross, Distinguished Service Medal, Legion of Merit with Gold Star and the Commendation Ribbon, Admiral Kauffman was awarded the Mexican Service Medal, the Victory Medal with bronze star, the American Defense Medal with Bronze "A", the World War I Medal (with star), Defense, European, Atlantic and Pacific (3 star) area ribbons, Philippine Distinguished Service Order, Brazilian Order, Southern Cross, the European-African Middle Eastern Area Campaign Medal, the American Area Campaign Medal, the Asiatic-Pacific Area Medal with two bronze stars, the Belgian Order of Leopold, the Philippine Liberation ribbon with one bronze star, and Knight Commander, Order of Falcon (Iceland). For service in the Second World War he was also awarded the Victory Medal, the Cuban Order of Merit, the Brazilian War Service Medal and the Philippine Distinguished Service Star.

Admiral Kauffman is survived by his wife, the former Elizabeth Draper, a son and a daughter.
Faculty Wives Hold Elections

Mrs. Herbert Luscombe was elected President of the Jefferson Medical College Faculty Wives Club at a meeting held September 25, in McClellan Hall of the College.

Mrs. Thaddeus Montgomery, outgoing president, presided over the meeting. Also elected were Mrs. John Y. Templeton, III, president-elect; Mrs. Elmer Funk, first vice-president; Mrs. Floyd Cornelison, second vice-president; Mrs. Warren Goldburgh, recording secretary; Mrs. John Griffith, corresponding secretary; Mrs. Daniel Lewis, assistant corresponding secretary; Mrs. Peter A. Herbut, treasurer; Mrs. John Dowling, assistant treasurer.

The standing committees chairmen are Mrs. Carroll R. Mullen, constitution and by-laws; Mrs. Peter A. Theodos, publicity and archives; Mrs. John J. O'Keefe, program; Mrs. Thomas B. Mervine, membership. And appointed committees chairmen include Mrs. Sherman Eger, printing; Mrs. Reynolds Griffith, hostesses; Mrs. C. W. Wirts, arrangements, and Mrs. Thomas Nealon, registrar.

Physician to the Governor

When Dr. Meyer A. Kline (Jeff ’19) set up practice in August 1923 as Dalton’s (Pa.) only physician, little did he realize that his clientele would include a future governor.

Forty years ago the large estates of wealthy Scrantonians, which surrounded Dalton, were occupied only during the summer months. But shortly before Dr. Kline began practicing, the Lackawanna Trail was completed, and several other roads paved—opening up the Abingtons for year round living. This, together with his close association with some of Scranton’s most prominent doctors during his two years as chief resident at Scranton State and Hahnemann Hospitals, was responsible for Dr. Kline finding himself with what he considers to be the nicest practice of any doctor in Lackawanna County.

Dr. Kline first treated Governor William W. Scranton when the latter was “still in knee pants” at Marworth, the home of the late Worthington and Marion Margery Scranton. Governor Scranton’s wife, Mary, also was among Dr. Kline’s early patients. The doctor-patient relationship has endured down through the years to the degree that Governor and Mrs. Scranton today have no supporter more devoted than the physician who treated their childhood ills.

Mary Scranton, to illustrate the mutual admiration between the Scrantons and Dr. Kline, spearheaded a movement back in 1956 which resulted in $3,300 being voluntarily contributed to help the doctor purchase new equipment for his Dalton office. She took it upon herself to influence “around 40 people” to leave contributions at the Dalton Bank.

Commenting on the fund, Dr. Kline explains that apparently “Mary Scranton started it instead of having people just send flowers for the new office because she knew I came out of the army (after World War II) darn near bust.” The $3,300 happened to be the exact cost of X-ray equipment still being utilized by Dr. Kline and his son, Dr. Ben Kline (Jeff ’55) who has been associated with his father since 1957.

After devoting four decades to his busy practice, Dr. Kline still describes himself as “just a plain plug practitioner who has never done anything to merit an award.” He won’t find many of his patients who will agree with that modest evaluation. Certainly not Governor Scranton and his wife Mary.

The Jefferson Medical College Faculty Wives Club entertained at tea in McClellan Hall on November 9, honoring women medical students and wives of first year medical students. Photo shows Mrs. Luscombe serving tea to first year student Mrs. Claire Langston Culp (left) and Mrs. Barry Silver, wife of first year student.

The news of Dr. Kline’s death came to us as the BULLETIN was going to press. We regret his passing and hope that this article will serve as a fitting memorial.
Dr. George J. Willauer Receives Honorary Degree

Dr. GEORGE J. WILLAUER, Clinical Professor of Surgery (Honorary), was awarded the honorary degree, Doctor of Science, at the 177th annual Founders’ Day Convocation of Franklin and Marshall College on October 10. The degree was presented by College President Keith Spalding.

The citation, read by Elias H. Phillips, Secretary of the Faculty, said of Dr. Willauer, “After his preparatory here and at Jefferson (Class of 1923), he engaged in post-graduate study abroad in Vienna, Munich, and Leeds as a preliminary to entering upon a field of surgery new to this country—thoracic surgery.

“As a pioneer teacher and a leading authority in this highly specialized area, he organized thoracic surgery services at Philadelphia General Hospital, Jefferson Medical College Hospital, and Eagleville Sanatorium. “Active member of major medical societies, author of numerous articles in the leading professional journals, he shares his experience, findings, and wisdom freely with his associates and students. The example of his own career, the strict standards he maintains, the great importance he attaches to excellence in his profession, mark him as a determined advocate of rigorous medical training. His many articles and his active participation in post-graduate seminars in the leading medical colleges and in the assemblies of state societies attest to his firm conviction that medical education is a continuing experience throughout a medical career.

“The profound respect for life and human beings that his training and practice exemplify, the clear perspective of the role of medicine and surgery in combating the scourges that plague and terrify mankind that his researches, teachings and writings reveal—together with the special skills and wisdom he displays—together with the special skills and wisdom he displays assure him an eminent position among the distinguished members of his profession.”

Photograph shows (from left) Norman Cousins, editor of SATURDAY REVIEW; Franklin and Marshall College President Keith Spalding; Raymond L. Garman; Dr. Willauer; Walter E. Hoadley, Vice President and Treasurer of the Armstrong Cork Company; and Dr. Roger L. Shinn, Professor of Applied Christianity at Union Theological Seminary.
Nominations for State and Service Vice Presidents

At the Executive Committee Meeting May 28, 1953, by resolution it was decided that the Nominating Committee would offer names for election of Vice Presidents by States, Territories, Foreign Countries and Services, the list of names to be presented and voted on by all qualified members of the Alumni Association at the Annual Business Meeting in February. Nominations from the floor will also be accepted at that time.

Alabama ............. Thomas B. Patton '41
Alaska ................. Chester L. Schneider '47
Arizona ............... Blair W. Saylor '40
Arkansas .............. Charles M. Wallis '18
California ............ Clyde C. Greene, Jr. '41
Colorado .............. Heman R. Bull '35
Connecticut ........... Morris M. Mancoll '28
Delaware .............. A. Gerald Lessey '40
District of Columbia ... Adolph Freidman '43
Florida ............... John Cheleden '32
Georgia ............... Albert S. Johnson, Jr. '41
Hawaii ................ Albert K. T. Ho '42
Idaho .................. Darrell C. Stoddard '50
Illinois ............... Walter S. Wiggins '41
Indiana ............... Charles F. Abell '35
Iowa .................... Fred H. Beaumont '28
Kansas ............... John F. Barr '28
Kentucky .............. Stuart P. Hemphill '31
Louisiana .............. Frank L. Bryant '27
Maine .................. Frederick C. Emery '42
Maryland ............. Wyllys Royce Hodges '31
Massachusetts ........ Eugene W. Beauchamp '23
Michigan ............. Joseph W. Eschbach '28
Minnesota ............. David A. Boyd '30
Mississippi .......... Noel C. Womack '47
Missouri .............. Rollin H. Smith '31
Montana ............... Philip A. Smith '43
Nebraska .............. Stanley F. Nabity '49
Nevada ................ Charles J. Kilduff '45
New Hampshire .. Philip M. L. Forsberg '36
New Jersey ............ Lee W. Hughes '16
New Mexico ........... Randolph V. Seligman '40
New York .............. Frederick C. Freed '13
North Carolina ....... George W. Paschal, Jr. '31
North Dakota ......... Neil S. Williams '49
Ohio .................... Anthony Ruppersberg, Jr. '33
Oklahoma .............. Joe H. Coley '34
Oregon ................ Howard E. Carruth '10
Pennsylvania ......... John E. Livingood '13
Rhode Island ........ Henri E. Gauthier '23
South Carolina ....... Joseph Hodge '52
South Dakota ......... Wayne A. Geib '39
Tennessee ............ David B. Karr '30
Texas .................. Truman N. Morris '27
Utah ................... James W. Webster '44
Vermont ............... George J. RAIT '31
Virginia .............. Walter J. Brennan '44
Washington .......... Walter S. Shepherd '38
West Virginia ......... Earl S. Phillips '24
Wisconsin ............. Peter V. Hulick '36
Wyoming .............. Theodore L. Holman '45
U.S. Air Force ........ R. Howard Lackay '38
U.S. Army ............. Howard M. Snyder '05
U.S. Navy ............. William T. Lineberry '45
U.S. Public Health Service ... Herman C. Rogers '32
Veterans Administration ... Robert T. Findlay '25
Africa ................ Alexander J. Orenstein '05
Australia .............. Frederick C. Turnbull '12
Bolivia ................ Heriberto Mercado '20
Canada ................ Hoichiro Uchiyama '29
Canal Zone ............ I. Robert Berger '36
China ................... Chin Wen Low '18
Costa Rica ............ Albert Oreamuno '29
Honduras .............. Angel A. Ulloa '26
India ................... Lowell D. Mann '57
Indonesia ............. Samuel L. Stover '59
Japan ................... Jo Ono '28
Lebanon ............... Frank J. Zukoski '42
Mexico .................. Pastor Molina-Castilla '18
Netherlands West Indies .... John N. Borbonus '31
Nicaragua .......... Buenaventura Rappaccioli '26
Peru ................... Rodrigo Franco-Guerra '26
Puerto Rico ........... Antonio Navas '20
Sweden ................. Gerhard H. Fromm '53
Thailand .............. Pyn Noyes Muangman '26
Are you brimming over with Christmas spirit? Is your heart swelling with generous impulses and the desire to make everyone—or at least someone—happy during this Yuletide season? If you are, we have a suggestion. Be a Santa Claus to your Class Agent!

We are sure that you look forward to receiving his letters each year—even though they do ask you to empty your pockets. They also bring news of your classmates and the College. They represent a lot of thought and work and we believe they deserve an answer—an answer and a check.

All of us are grateful to these loyal Class Agents whose hard work and leadership have insured the success of our Drives. We’d like them to have a Merry Christmas, wouldn’t you?

Your check to Alumni Annual Giving will gladden your Agent’s heart and assure him that you appreciate his efforts. He provides the leadership and the cohesive element which makes your class an active, effective entity. Won’t you thank him by responding promptly and generously to his appeals?

The magnitude of the results achieved in Annual Giving through our Class Agents is impressive. One-sixth of a million dollars sounds like a great deal of money—as does the income from a $4 million endowment. Yet the total for our 15th Drive approximated these amounts. This is a record of which we can all be proud but we are hoping that it will be exceeded in the 16th Drive.

Change is constant and we believe that at Jefferson it has been for the better. The Administration is making a constant effort to improve the quality of our academic program, our faculty, our facilities and post graduate education. Improvements in these areas have been, and will continue to be, possible only through Alumni support. To continue this growth and progress, we invite your financial aid—so that all Jeffersonians will have a part in her excellence.

We have increasing pride in our Alma Mater; let’s keep Jefferson moving forward among other first-rate medical colleges.

If you send your check now it will accomplish two purposes; it will help your College and it will make your Class Agent’s Christmas a merrier one!

We wish—for all of you—and for Jefferson—a full measure of success and achievement in 1964.

Kenneth E. Fry, M.D.
Chairman
Annual Giving Fund Committee
1900
Dr. Charles J. Stybr, 1310 Bennington Ave., Pittsburgh 17, Pa., has retired from the active practice of medicine due to a long illness.

1909
Dr. George F. Lull, 942 Lake Shore Drive, Chicago 11, Illinois, writes, "I am still Medical Director of the Cook County Department of Public Aid, where we have a medicine program with expenditures of over two million dollars per month."

1913
Dr. Frederick C. Freed, 59 East 54th St., N.Y., N.Y., writes that he enjoyed a memorable summer vacationing in Europe.

1918
Dr. James H. Mason, III, 1616 Pacific Avenue, Atlantic City, N.J., has led a life which is legend to many of the inhabitants of this resort city. On Nov. 14, 1893, he was born on South Michigan Ave., in a house which was destined to be torn down to make room for a hospital. And as a youngster, he used to play hide-and-seek among the piles of bricks and lumber that were being used to construct the hospital. In 1918 upon his graduation from Jeff, he returned to Atlantic City Hospital—the hospital that stands where his home once stood—to intern. After 15 months as an intern, Dr. Mason became a member of the Hospital’s Surgical Staff and in 1931 was named one of its Surgical Chiefs. He later became Director of Surgery, retiring in 1960 to accept the Chairmanship of its Board of Governors and Consultant in Surgery, both positions which he continues to hold. And now after 45 years, Dr. Mason has retired from the active practice of surgery. He holds membership in various medical societies, and is the only doctor in New Jersey who is an honorary member of the N.J. State Dental Society. He is also an honorary member of the Atlantic County Dental Society.

Medical affiliations account for only part of Dr. Mason’s varied interests. Today, he has his own printing shop in his Absecon home, and provides stationery and other items for friends and for charitable institutions and organizations. And sports rank high with Dr. Mason, who plans to spend much of the leisure time retirement provides traveling to sports events throughout the country.

1920
Dr. William B. Clendenning, 230 East High Street, Waynesburg, Pa., represented Jefferson at the Inauguration of a new President and the installation of a new Chancellor of Waynesburg College on October 12. Dr. Clendenning is an Alumnus of Waynesburg and has acted as the official College Physician since the program was set up several years ago.

1921
Dr. W. B. Atkinson, Campbellsville, Kentucky, has been elected to the position of County Health Officer of Taylor County. He has retired after 41 years of private practice, in order to devote his full time to his new duties.

1923
Dr. John M. Brewster, 311 Hilldale Road, Villanova, Pa., presented a paper, "The Folly of Lump Sum Settlements," at the 14th International Congress on Occupational Health in Madrid, Spain, in September. Dr. Brewster, Medical Director for the Pennsylvania Railroad, also participated in discussions on transport medicine with physicians from all over the world.

1928
Dr. James W. Boyle, 277 Bennet St., Luzerne, Pa., was honored at a testimonial dinner given him on October 16. The dinner commemorated Dr. Boyle’s completion of 35 years of service as a physician. He is a past president of the Luzerne County Medical Society and is Chief of Surgery at the Nesbitt Memorial Hospital. He is also physician for the Luzerne public schools, St. John’s and Sacred Heart school in Luzerne.

Dr. William M. Cason, 6566 Glenridge Drive, Atlanta 19, Georgia, represented Jefferson at the Seventy-fifth Anniversary Celebration of Georgia Institute of Technology. President Bodine and Dean Sodeman were unable to attend, and Dr. Cason graciously accepted their invitation to be present.
France, Germany, and Scandinavia. He reports, "The new shopping center in central Stockholm is fantastic. Cherry Hill won't touch it!"

1932

Dr. Lewis C. Manges, former Pennsylvania resident, has accepted a position on the staff of Read Memorial Hospital in Hancock, N.Y. Dr. and Mrs. Manges have five children. Two of their four daughters are married, one is a hostess for Trans-World Airlines, and the fourth is a student at Pennsylvania State University. Their son, Lewis Jr., is a freshman at Gettysburg College.

1933

Mrs. F. Foster Dye, 1239 Anastasia Ave., Coral Gables, Florida, writes that her husband, Dr. Dye, died on May 16: "I am enclosing a poem which my husband wrote to greet his classmates on the night of their 30th Reunion this past June. He had been looking forward to attending the Reunion, and died quite unexpectedly a few weeks after he wrote the following greeting."

"We're thirty tonight and to those who are here
A greeting from one who holds you most dear,
There's a note in my voice, and a tear in my eye
When 'Hello' can be said, thank God, and not a goodbye.

"While the years do not falter, we hasten the chase
And the sinews grow older, as we quicken the pace,
So the Reaper continues to have and to hold
As a Doctor is needed to care for his fold.

"For some who aren't here, He has opened a door
Where an Angel stood by while He tallied the score
'Your credits are many—your debits are thin'
And his voice without ceasing said, 'Come sir within.'"

Dr. Anthony Ruppersberg, Jr., 336 E. State Street, Columbus 15, Ohio, presented a paper entitled "Rare and Common Causes of Maternal Death" at the Alumni Clinics in June. A condensed version of the paper was published in the September issue of The Ohio State Medical Journal. Dr. Ruppersberg is Chairman of the Committee on Maternal Health of the Ohio State Medical Association.

1936

Dr. Robert T. Wong, 3777 Diamond Head Circle, Honolulu, Hawaii, has been elected President of the Honolulu County Medical Society.

1938

Col. A. W. Frediani, USAF, MC, McGuire Air Force Base, N.J., was recently transferred here from Beirut, where he attended classes at the School of Public Health, University of Beirut. Mrs. Frediani writes, "The new assignment is McGuire Air Force Base, where Alex will be EASTAF Surgeon. It is the first time in 15 years that we have been stationed so close to Philadelphia."

1939

Dr. William M. Bush, 39 Mendota Ave., Rye, N.Y., has been appointed Chairman of the Rye Draft Goldwater Committee. As Chairman of the Rye group, he will serve on the Board of Directors of the Westchester County Draft Goldwater Committee. Dr. Bush is the organizer and adviser of both the Rye Teenage Republican Club and the Rye College Republican Club, and is also Vice President of the Rye Republican Club in Charge of Youth. He has also addressed various youth groups on subjects such as teenage smoking, alcoholism, narcotic experimentation, and the case against the King-Anderson Bill.

In addition to his active participation in youth groups, Dr. Bush has served as a member of the Human Relations Committee of the Rye Interchurch Council, a Board Member of the Mental Health Committee, and a Vice Chairman of the American Red Cross Fund Drive.

Dr. Bush is also credited with the discovery of skippers—a group of small rapidly flying butterflies. He made the discovery while participating in an expedition into Puerto Rico, Santo Domingo, and Haiti, in conjunction with the American Museum of Natural History. Dr. Bush made this trip before entering Jefferson, but the specimen he discovered is still on display in the Museum.

1940

Dr. Hubert McN. Poteat, 416 S. Second St., Smithfield, N.C., was recently installed as President of the Bowman Gray School of Medicine Alumni Association.

Dr. Roger B. Thomas, 8 Vining Lane, Wilmington 79, Delaware, reports that his eldest son, Roger Jr., is a second year student at Dartmouth Medical College and plans to take his last two years at Johns Hopkins. His second son, Robert L., will enter Dickinson College in the fall.

1944-J

Dr. John B. Movelle, 457 River Road, Fair Haven, N.J., has been named chairman of the medical staff solicitation in the Riverview Hospital's fund-raising campaign for construction of a new wing. Dr. Movelle is President of the Medical Staff and Chief of Medicine at the hospital.

1945

Dr. H. Blake Hayman, 81 Crabtree Drive, Levittown, Pennsylvania, is presently practicing at Lower Bucks Hos-
Dr. Robert E. Rowand, 419 Hamden Court, Wyckoff, N.J., writes, "I retired from the Navy on September 1, after 20 years service, and am now employed by Lederle Laboratories (Division of American Cyanamid Corp.) as Assistant Director of Regulatory Agency Relations at the Pearl River, N.Y. Office. I assist in handling liaison with the U.S. Government (NIH, FDA), Canada, and also the AMA."

1947

Dr. William Coughlan, Patterson Heights, Beaver Falls, Pa., is practicing in Beaver Falls, where he does general and thoracic surgery. Dr. and Mrs. Coughlan have four children—Ann, 17, a student at Mt. Mercy Academy in Pittsburgh; Patrick, 13, a student at Gilmore Academy, Cleveland; Matthew, 11, and Kevin, 9, both students at Mt. Golistin Academy in Baden, Pa.

Dr. Clarence Cohn, 1428 Scott Ave., Winnetka, Ill., recently delivered a speech entitled "Think Big, Eat Small, Be Small" at a luncheon meeting of Hadassah Winnetka. Dr. Cohn, engaged in the field of nutrition, has been serving as director in the department of biochemistry of Michael Reese Hospital for the past 17 years.

1948

Dr. Charles H. Loomis, 1702 Market St., Harrisburg, Pa., and Dr. R. C. Buckingham announce the association of Dr. Henry A. Greenwald, ('59), 4516 Coventry Road, Harrisburg, for the general practice of medicine at 42 N. 18th St., Harrisburg.

Dr. Raymond E. Silk, 8305 Gilbert Ave., Philadelphia, Pa., has been named General Chairman of the 56th Annual Convention of Phi Lambda Kappa National Medical Fraternity. Mrs. Silk has been named Chairman of Women's Activities for the affair. Dr. Silk is Head of the Department of Surgery at Broad Street Hospital and on the staffs of the Southern Division of Einstein Medical Center and Woman's Hospital. For the past 15 years he has served as Chief Medical Advisor for the Golden Slipper Square Club Camp.

1949

Dr. Irwin S. Smith, 176 Ramblewood Road, Moorestown, N.J., has opened an office for the practice of orthopedic surgery at 123 N. Church St., Moorestown. Dr. Smith is on the staffs of Einstein Medical Center, the Philadelphia General Hospital, and Rancocas Valley General Hospital, where he maintains an office. He is also a member of the Burlington County and New Jersey State Medical Societies, member of the New Jersey Orthopedic Society and a Fellow in the American Academy of Orthopedic Surgery.

1951

Dr. Paul F. Crutchlow, 559 Broadway, Paterson, N.J., was recently appointed Assistant Medical Coordinator of the Passaic County Civil Defense and Disaster Control Unit by Passaic County Freeholders.

Dr. Victor F. Greco, E-Z Acres, R.D., Drums, Pa., recently participated in a meeting with some 70 statewide thoracic surgeons at Pocono Manor Inn for the purpose of founding an organization to be known as the Pennsylvania Association of Thoracic Surgeons. Dr. Greco, Chief of Surgery at St. Joseph Hospital, is affiliated with the Hazleton State and Coaldale General Hospitals.

1952

Dr. Edward P. Chappen, 476 Hamilton Ave., Trenton, N.J., served as Chairman of the Trenton Committee for the Observance of United Nations Week and Day. Dr. Chappen is a charter member of the Trenton Chapter of the American Association for the United Nations.

Dr. Allen Bryant Gould, R.R. #2, Rochester, Minn., has been appointed an Instructor in Anesthesiology in the Mayo Foundation, Rochester. The Mayo Foundation is part of the Graduate School of the University of Minnesota.

Dr. James C. Hutchison, 2073 Parkview Avenue, Abington, Pa., spoke at the Newtown, Pa., Rotary Club recently. The topic of his talk was "Hypertension." Dr. Hutchison is Director of Clinical Research, Section of Hypertension at Abington Memorial Hospital. He is a member of the Montgomery County Medical Society, the New York Academy of Science, the American Federation for Clinical Research, and a fellow of the American College of Angiology.

Dr. William F. Lynch, 682 Palisado Ave., Windsor, Conn., was a featured speaker at a program held on Mental Health at the East Tennessee State University on October 7. Dr. Lynch is on the staff of the 400 bed Institute of Living in Hartford. He addressed the audience on the various phases of a community Mental Health program.

1953

Dr. Harold Y. Allen, 619 Hill Top Drive, Cumberland, Md., presented a paper entitled, "Tetanus Toxoid Immunization in Industry" at the annual fall seminar of the Pittsburgh-Cleveland Area Industrial Medical Association held September 27 in Youngstown, Ohio. Medical directors, industrial physicians, and nurses attended the seminar, which was hosted by the General Fireproofing Company. Dr. Allen is Medical Director of the Allegany Ballistics Laboratory, Hercules Powder Co., Cumberland.
1954

Dr. Murray N. Silverstein, Mayo Clinic, Rochester, Minn., has been appointed an Instructor in Medicine in the Mayo Foundation, Rochester.

Dr. Eugene G. Stec, R.D. #2, Dalton, Pa., has been promoted to major in the Air Force Reserve.

Dr. E. Franklin Stone, Jr., 4115 15th Ave., N.E., Seattle, Washington, writes that he has joined the full-time staff of the Department of Pediatrics, University of Washington School of Medicine, as instructor, and will be working for the most part with neurologically handicapped children in the School’s Child Health Center.

1955

Dr. Arthur C. Huntley, 4809 Mckean Ave., Philadelphia 44, Pa., was Guest Speaker at a recent meeting of the Exchange Club of Plymouth-White marsh. Dr. Huntley, Director of the Eastern Pennsylvania Psychiatric Institute, delivered a talk entitled, "Basic Concepts of Psychiatry in Treatment of Mental Illness in a Day Program Setting."

Dr. Allan Lazar, 8310 12th Avenue, Silver Spring, Md., is currently finishing his tour of active duty with the Air Force Medical Corps. He is stationed at The Armed Forces Institute of Pathology in Washington, D.C., where he has served as Chief of the Office of Research and Training in The American Registry of Pathology. He has been certified by The American Board of Pathology in anatomical pathology and elected to Membership in The College of American Pathologists. Dr. Lazar writes that he, his wife, and four children are enjoying their stay in the Nation’s Capital.

1956

Dr. Robert M. Pearl, 8303 Gulf Freeway, Houston 17, Texas, has been appointed Chief of Otolaryngology of the Southeastern Branch of Memorial Hospital in Houston. Dr. and Mrs. Pearl also announce the birth of their third child, a son, Mitchell Stuart.

1957

Dr. Max M. Koppel, 775 Jenkintown Road, Elkins Park, Philadelphia 17, Pa., has been awarded a $4,800 fellowship from the American Cancer Society. A Resident in Urology at Jefferson, he has done research on cancer of the colon and rectum. Dr. and Mrs. Koppel have three daughters.

1958

Dr. Charles M. Kipp, 123 Herrick St., Athens, N.Y., has been appointed an Associate in the Section of Anesthesiology of the Packer Hospital—Guthrie Clinic in Sayre, N.Y. He is also a member of the American Society of Anesthesiologists, Inc.

1959

Dr. Thomas F. Gumina, Apt. 2-6, St. Bernard Hall, Darby, Pa., has joined Dr. E. W. Tobia, (’46) 747 Louise Drive, Springfield, Pa., in the practice of general medicine. Dr. Tobia maintains his office at 614 Clifton Avenue, Collingdale, Pennsylvania.

Dr. Paul I. Nelson, 24 Summer Street, Passaic, N.J., has opened an office at 100 Paulison Ave., Passaic, for the practice of dermatology. Dr. Nelson is on the medical staff of New York University Post Graduate Medical Center, Bellevue Hospital of New York City and Beth Israel and Passaic General Hospitals in Passaic.

1960

Dr. Charles T. Newton, 1902 Green Ridge St., Dunmore, Pa., has opened an office for the general practice of medicine at the above address. He is married to the former Constance Rallicke, and they have two sons—David and Robert.

1961

Dr. Robert E. McLaughlin, 65 Hobart St., Braintree, Mass., is presently serving as a Captain in the U.S. Air Force. He is stationed in Viet Nam, where he is with an advisory unit helping to train Vietnamese personnel.

Dr. William H. Wanger, Naval Submarine Base, New London, Conn., is presently stationed aboard the Thomas Jefferson Polaris Submarine. On dry ground, Dr. Wanger enjoys speleology (cave exploring). He and his wife, Laura Elise, have one child.
Engagements, Weddings and Births

Engagements

1959

Dr. Gerald Alan Perch, Duval Manor Apts., No. 514, Johnson and Greene Streets, Philadelphia 44, Pa., will marry Miss Merle Elizabeth Greenfield of Wyncote, Pa. Miss Greenfield is a senior at the College for Women of the University of Pennsylvania. Dr. Perch is presently Chief Resident of Urology at Philadelphia Veterans Administration Hospital.

1962

Dr. Richard J. Hamburger, Department of Medicine, Jefferson Medical College, Philadelphia 7, Pa., will marry Miss Mary Jane Murphy this winter. She was graduated from Mater Misericordiae Academy and Immaculata College.

1963

Dr. Elliot Martin Heiman, Presbyterian Hospital, 51 No. 39th Street, Philadelphia 4, Pa., will wed Miss Sandra H. Rovner of Wynnewood, Pa. Miss Rovner is an alumna of the University of Pennsylvania.

Weddings

1954

Dr. Robert Lee, 1122 Koko Head Ave., Honolulu, Hawaii, and the former Roberta Ching were married in August. Mrs. Lee is a graduate of Punahou School, Honolulu; the University of the Pacific, Stockton, California; and the Tobe-Coburn School of Fashion Careers in New York City. Mrs. Lee is presently teaching at Mokulele School, Hickam Air Force Base.

1956

Dr. Thomas D. Stine, Akron City Hospital, Akron, Ohio, and the former Pamela Ruth Smith were married September 14 in Akron. Mrs. Stine is an X-ray technician at Akron City Hospital.

1958

Dr. Austin P. Murray, Jefferson Medical College Hospital, Philadelphia 7, Pa., and the former Joan Mae Vercusky were married October 19 in Philadelphia. Dr. John T. Murray (Jeff '60) served as best man for his brother. Among the ushers were Dr. Robert W. Connor (Jeff '60) and Dr. William Stecher (Jeff '58). Mrs. Murray, a faculty member of the Bryn Mawr (Pa.) Elementary School, is a graduate of Chestnut Hill College and a candidate for a Master Degree in Education at the University of Pennsylvania.

1963

Dr. Marshall Thomas Bagley, 6415 Willston Drive, Falls Church, Va., and the former Miss Georgia Lee Hoaster were married on June 1. Mrs. Bagley is a graduate of the Reading Hospital School of Nursing and is presently a nurse at the George Washington University Hospital.
Births

1957

DR. PENN SHELLEY, 36 High Ave., Mt. Fern, Dover, N.J., and Mrs. Shelley announce the arrival of their first child, Mark Steven, on October 16, 1963.

DR. WILLIAM F. WOLFE, U.S.N. Hospital, Annapolis, Md., and his wife, Mary Lou, announce the birth of a son, William Franklin, Jr., on August 30, 1963. The Wolfes have two other children, Mary Beth, 3½, and Susan Carol, 2½. Dr. Wolfe is a surgeon at the Navy Hospital and will complete his service time in July 1964.

1959

DR. RONALD E. COHN, 11814 Woodland Avenue, Cleveland 20, Ohio, and his wife welcomed the birth of a daughter, Debra Lee, on May 17, 1963.

DR. DAVID GETTER, 65 E. Robbins Ave., Newington 11, Conn., and his wife, Joan, announce the birth of a daughter, Erika, on October 1. Erika is their second daughter.

1961


1962

DR. HENRY GELBAND, 2727 Calle del Comercio, San Clemente, Calif., and Mrs. Gelband welcomed the birth of a son, Craig Harris, on August 30. Dr. Gelband is presently attached to the U.S. Marine Corps as a medical officer, stationed at Camp Pendleton.

CALENDAR OF FUTURE EVENTS

February 27, 1964
ALUMNI ANNUAL BUSINESS MEETING AND DINNER
Williamson Dining Room atop the Barclay Building
Belmont and City Line Avenues

June 10, 1964
CLASS REUNIONS

June 11, 1964
ALUMNI BANQUET
(place to be announced)
Washington Lemuel
Atlee, M. D.

Among the graduates of the Class of 1829 was a young man destined to become a pioneer in Gynecology, Washington Lemuel Atlee. Dr. Atlee was born in Lancaster, Pennsylvania, where he practiced for a number of years. In 1845 he accepted the chair of Medical Chemistry at the University of Pennsylvania, but he resigned after a short service to devote himself to his growing practice.

His name is important in the establishment of ovariotomy as a recognized procedure, but his early advocacy of treating uterine fibromata by surgery represents real pioneer work. Dr. J. Marion Sims, himself a monumental figure in gynecologic history, said of him, "The name of Atlee stands without a rival in connection with uterine fibroids. No man has yet dared to imitate him. Generations have passed since he gave to the world his valuable essay on the subject, but it is only within the past five years that the profession has come to realize the great truths he labored to establish." A transcription of his celebrated essay, "Surgical Treatment of Certain Fibrous Tumors of the Uterus, Heretofore Considered Beyond the Resources of Art" which shows in a fine way his clearness and precision of thought can be found in "Classic Contributions to Obstetrics and Gynecology" by Herbert Thoms, M.D.

While doing one of his early ovariotomies on the second floor of a building in Williamsport, the floor collapsed, precipitating everyone, surgeon, assistants, patient, and spectators, to the floor below. Fortunately, no one was injured and Dr. Atlee proceeded calmly to complete the operation. It was Dr. Atlee who saved the day for George McClellan, on the latter's famous ride to Harrisburg to secure Jefferson's charter, by supplying him with fresh horses when his own became exhausted in Lancaster.
To All Jefferson
Alumni and Their Dear Ones—

Greetings:

Because we hold you in deep affection and good fellowship, we are sending you this message to let you know that we are thinking of you at this Christmas Season. Even those who are very far away seem near to us at this time, so feeling your presence we want to wish you and yours a Very Merry Christmas and a Happy New Year, which we trust will bring you everything good and all your hearts’ desire. God bless you every one.