only in regard to the variations which occur in the same specimen, but even in absolute amounts for the variations between the individuals which are quite considerable.

The localization of choline esterase and its correlation with the electromotive force appeared to be specific. Other enzyme systems and substances studied so far—the investigations are still in progress—do not show a similar distribution nor a parallelism with the electromotive force.[18,19] An exception is the localization of vitamin B_1, determined as diphosphothiamin, which is considerably more concentrated in the sheath of the giant axon than in its axoplasm.[19] This again appears significant. Since the breakdown of pyruvic acid, which requires vitamin B_1, is probably important for the formation of acetylcholine, the high concentration of this coenzyme is in agreement with the assumption of a high rate of acetylcholine metabolism at or near the surface. On the other hand, since pyruvic oxidation is of general importance it could not be expected that the vitamin is concentrated at the surface as exclusively as is choline esterase.

The new concept removes the chief difficulty for conciliating the "electrical" and "chemical" theories of transmission of nerve impulses. For it was not the question whether the process is chemical or electrical, but whether there is or is not a special mechanism at the synapses different from that in the axon, which was the basis of the controversy. A satisfactory answer has now been found to this question. There are certainly other factors and reactions involved in the propagation of nerve impulses, but the new investigations indicate that acetylcholine in any case is an essential link in the generation of the electrical changes recorded during activity. Since $V = E - IR$ the ester may act on the surface by producing E.M.F. or decreasing the resistance, or by both. Resistance and electromotive force are closely related properties of the membrane. If an impulse reaches the polarized surface the resistance breaks down. The resting potential disappears or is even reversed. It can easily be envisaged that a polarizing or depolarizing substance which appears and disappears within milliseconds is responsible for these changes.

[19] Nachmansohn and Steinbach, *Jour. Neurophysiol.*, 5: 499, 1942.

OBITUARY

MONT ROGERS REID

THE untimely death of Mont Reid on May 11, 1943, is mourned by the community in which he lived and by his many friends throughout the country. Rarely has a man so universally won the love and affection of his fellow citizens. That, during his illness, those in higher walks of life should have awaited daily reports of his progress; that telephone operators, taxicab drivers, hotel clerks and news-stand attendants should have inquired how he fared; that churches should have invoked special prayers for his recovery; that, on his death, the flag on the City Hall of Cincinnati should have been flown at half-mast for one not connected with government; that civic organizations should have attended his funeral services in a body; that the American Surgical Association, meeting at the time in Cincinnati, should have interrupted its scientific program to do him honor—these are but a few of the indications of the extraordinary hold he had established upon his fellows. He was in a true sense the beloved physician.

Mont Reid was born on a farm near the small town of Oriskany, Virginia, on April 7, 1889. His elementary education he obtained largely from his father, who acted as schoolmaster for his six sons and daughter. He attended the Daleville Normal School for two years, then entered Roanoke College, from which he graduated with an A.B. degree in 1908. He entered the Johns Hopkins Medical School in the fall of that year and on graduating in medicine in 1912 was appointed an intern in surgery by Dr. W. S. Halsted, the distinguished chief of the surgical department of the Johns Hopkins Hospital and professor of surgery in the Johns Hopkins Medical School. The following year, 1913 to 1914, he was an assistant resident in pathology, then returned to surgery and held the position of assistant resident surgeon from 1914 to 1918. In 1918 he was appointed resident surgeon of the Johns Hopkins Hospital, a post he occupied for three years. Following this period he was an associate surgeon of the hospital until his departure from Baltimore in 1922. Academically, he was successively instructor in pathology, instructor in surgery and associate in surgery in the Medical School.

In 1922 he accompanied the writer to Cincinnati as his associate in the newly organized department of surgery of the University of Cincinnati Medical College. It was a period of transition with all the difficulties inherent in such a period; and there is little doubt that his loyalty, sound judgment and winning personality contributed greatly to such success as was achieved in the development of the department. He became active and successful in practice and quickly won a host of friends. In 1925 he was appointed visiting professor of surgery to the Peking (later Peiping) Union Medical College of China and spent a

year there, among his other activities being the organization of a medical unit which saw active service in war. He returned a victim of malaria which, for a time, considerably impaired his health; then assumed his usual work in the department. In 1931 he was appointed professor of surgery and head of the department of surgery in the Medical College and director of the Surgical Service of the Cincinnati General Hospital. These positions he occupied at his death.

Such, in bald outline, is a statement of his career. But it conveys little of his distinction as a surgeon, as a teacher of surgery, as a contributor to the art and science of surgery, as a citizen and as a man. For it can be said of Mont Reid that he won distinction in many fields. His long training under Halsted, whose principles and methods of surgery but few of his pupils better understood or more carefully followed, made him a careful, meticulous surgeon of unusually sound judgment. As a teacher he was not a brilliant lecturer nor an inspiring master of the clinic method of instruction. But at the bedside his kindness to patients, his attention to the salient facts of history, his careful physical examinations, his interpretation of clinical data, his technic in the operating room and his good judgment were an example to his students, both undergraduate and advanced, which stimulated them to do sound medicine. In his association with Halsted, whose assistant he was during his experimental work on vascular surgery, Mont Reid early in his career became interested in the surgery of the vascular system and some of his most important research lies in this field. He was also particularly interested in the surgery of the thyroid gland and contributed importantly to this subject. For the rest he was, like his distinguished teacher, concerned with the fundamental principles of surgery such as the healing of wounds and the control of infection. As a citizen he was not only interested in the development of the Medical College with which he was identified but in the affairs of his city generally; and to the Commercial Club of which he was a member he brought, no doubt, the same good judgment he exhibited in his chosen field. As a man he was tolerant, kindly, patient, and possessed an unusually winning personality which won him a host of friends and the esteem of those in all walks of life. He seems peculiarly to have fitted into his environment, a community of citizens who have an enduring memory for those who serve them well. By them, particularly, Mont Reid will not soon be forgotten.

GEORGE J. HEUER

RECENT DEATHS

DR. HERMON CAREY BUMPUS died on June 21 at the age of eighty-one years. Dr. Bumpus was from 1902 to 1911 director of the American Museum of Natural History in New York, and from 1914 to 1919 president of Tufts College.

DR. ARTHUR DEAN BEVAN, professor of surgery at the Medical School of the University of Chicago, died on June 10 at the age of eighty-two years.

SCIENTIFIC EVENTS

RULES FOR AFFILIATED HOSPITAL UNITS OF THE OFFICE OF CIVILIAN DEFENSE

REGULATIONS were issued on June 8 for Affiliated Hospital Units of the Office of Civilian Defense, of which Dr. George Baehr is the chief medical officer.

One hundred and ninety-one hospitals and medical schools have been invited by the Surgeon General of the U. S. Public Health Service to organize affiliated hospital units of the Emergency Medical Service of the U. S. Office of Civilian Defense. The invitation was extended to so large a number of civilian hospitals because each unit will be called upon for service only in a war emergency affecting its own region. Units will be activated only in event of a grave military disaster affecting the civilian population or military personnel in the area in which the parent hospital is located. Activation of a unit will take place only upon recommendation of the State Chief of Emergency Medical Service and the Office of Civilian Defense Regional Medical Officer, subject to certain limitations imposed by the Surgeon General and the Chief Medical Officer of the Office of Civilian Defense and by agreements with the invited hospitals.

Because these limitations may not as yet be understood by all physicians and hospitals which have been invited to participate in the Emergency Medical Service, the rules governing activation of affiliated units are set down as follows:

(1) Members of the staffs of affiliated units are commissioned in the inactive reserve of the U. S. Public Health Service, generally with the rank of Passed Assistant Surgeon, Surgeon or Senior Surgeon (equivalent, respectively, to Army ranks of Captain, Major or Lieutenant Colonel). They will remain on inactive status for the duration of the war unless urgent need for their services should arise in their region because of an air raid or other grave wartime disaster. When activated under such circumstances, these officers will receive the pay and allowances of officers of equivalent grades in the armed forces.

(2) The two specific purposes for which a unit may be activated are: