ABSTRACTS

The following abstracts and title references represent material published from the Yale University School of Medicine during the fourth quarter (October, November, and December) of 1948.

Adams, E.: A method of counting blood platelets in small animals. Yale J. Biol. & Med., 1948, 21, 17-20.

Brody, E. B.: Psychiatric problems of the German occupation. Am. J. Psychiat., 1948, 105, 286-91.

A description with illustrative case histories is presented of some of the types of neurotic reaction to occupation life, and the sociological and psychological factors stimulating such reactions.

R. D. O.

Bunting, H.: Kidney alkaline phosphatase of rats following alloxan induced diabetes and acute hypo- and hyperglycemia. Proc. Soc. Exper. Biol. & Med., 1948, 67, 370-72.

The alkaline phosphatase activity of rat kidney, reflecting the enzyme content of the proximal convoluted tubule, was not changed by varying the amount of glucose available for reabsorption for short periods. The kidneys of rats suffering from chronic alloxan diabetes contained low amounts of alkaline phosphatase. The values were lowest one week after the treatment with alloxan and still had not returned to normal in six weeks. Tubules regenerating after alloxan injury were slow in regaining phosphatase activity.

W. P. McN.

Bunting, H.: Apocrine sweat gland structures in the human mammary gland. Bull. Internat. Asso. Med. Museums, 1948, 28, 48-54.

Structures resembling apocrine sweat glands present in the human mamma were found to stain for lipid and iron in a manner characteristic for axillary apocrine sweat glands rather than for true mammary tissue. These mammary glands are assumed to be normally occurring instances of arrest of differentiation or of dedifferentiation.

W. P. McN.

Bunting, H., G. B. Wislocki, and E. W. Dempsey: The chemical histology of human eccrine and apocrine sweat glands. Anat. Rec., 1948, 100, 61-78.

The following properties are shared by eccrine and apocrine sweat gland epithelia: cytoplasmic basophilia abolished by ribonuclease, the presence of small amounts of alkaline phosphatase, and the absence of acid phosphatase. Four distinct types of lipids are present in both varieties of glands, though predominating in the apocrine type. Glycogen and inorganic iron are found only in the apocrine glands.

W. P. McN.
ABSTRACTS

Burdette, W. J.: The inheritance of susceptibility to tumors induced in mice. III. Tumors induced with methylcholanthrene in the backcross of C3H and JK mice. J. Nat. Cancer Inst., 1948, 9, 105-10.

Tumor induction times intermediate to those of the F1 hybrids and the parent strains were found. Induction times nearer those of the more susceptible parent were found in the backcross mice.

M. A. B.

Clark, D. G. C., E. E. Clifton, and B. L. Newton: Antiproteolytic activity of human serum with particular reference to its changes in the presence and considerations of its use for detection of malignant neoplasia. Proc. Soc. Exper. Biol. & Med., 1948, 69, 276-79.

A non-specific antiproteolytic reaction is discussed, the results of which when statistically analyzed give a high correlation between a positive test reaction and the presence of malignancy in the patient whose serum is tested.

J. B. LeR.

Clifton, E. E., and S. Pan: Effect of a progesterone compound on growth of a transplanted granulosa cell tumor. Proc. Soc. Exper. Biol. & Med., 1948, 69, 516-18.

A crude progesterone preparation was found greatly to enhance the number of "takes" and the growth rate of granulosa cell tumor transplants.

M. A. B.

Hales, M. R., and A. A. Liebow: Collateral circulation to the lungs in congenital pulmonic stenosis. Bull. Internat. Asso. Med. Museums, 1948, 28, 1-22.

A study of vinylite corrosion casts made at autopsy of five patients with tetralogy of Fallot showed greatly enlarged bronchial arteries and gross anastomoses of bronchial arteries with pulmonary arteries. The anastomoses are much nearer the hilum than those described in bronchiectasis. Thrombi in the pulmonary vessels were seen microscopically in 11 of 20 cases of pulmonic stenosis. Frequent and extensive pulmonary thrombi may be associated with further enlargement of bronchial collaterals.

W. P. McN.

Hurwitz, A.: Critique on vagotomy. Conn. State Med. J., 1948, 12, 1136.

The values, limitations, and complications of vagotomy are presented in this excellent review.

J. B. LeR.
Hurwitz, A., and R. Yesner: A report of a case of localized bronchopulmonary moniliasis successfully treated by surgery. J. Thoracic Surg., 1948, 17, 826-31.

The first case of primary bronchopulmonary moniliasis successfully treated by surgical excision is reported.

J. B. LEr.

Lindskog, G. E.: Cancer of the lung. Conn. State Med. J., 1948, 12, 1091.

Primary carcinoma of the lung is discussed from the viewpoints of differential diagnosis, diagnostic procedures, and therapy.

J. B. LEr.

Mylon, E., and P. Goldstein: Influence of protein reserves on nephrectomized and renal artery ligated dogs. Proc. Soc. Exper. Biol. & Med., 1948, 69, 198-200.

Renal artery ligation and nephrectomy were performed on two groups of dogs, one on high, one on low protein diet prior to operation. Survival times were longer and the NPN rises slower in the nephrectomized animals as compared to the ligated, and on the low protein diet as compared to the high protein intake. It may be concluded that substances liberated from the ischemic kidney stimulate protein catabolism and that toxicity following ligation is associated with increased protein catabolism.

W. P. MCN.

Nahum, L. H., and H. E. Hoff: Nature of the precordial electrocardiogram. Am. J. Physiol., 1948, 155, 215-25.

The precordial electrocardiogram represents the interference of opposing electrical forces developing with the excitation and recovery of specific regions which are proximal and distal with respect to the position of the chest electrode. Potentials developed from the excitation of the rather large intermediate zone of each lead fail to be reflected in the precordial electrocardiogram. The down-strokes as well as the upstrokes of Q, R, and S are caused by preponderance of excitation in distal areas.

W. F. S.

Paul, J. R.: Changing aspects of poliomyelitis. Trans. Asso. Am. Physicians, 1948, 61, 301.

Based on epidemiological studies, the author suggests that poliomyelitis has shifted from an endemic to an epidemic disease during the past 50 to 60 years. Another important change has been in the clinical picture of poliomyelitis wherein the abortive or non-paralytic cases appear to be on the increase, or at least the recognition of them. During some epidemics the abortive cases outnumber the paralytic forms by 2 to 4 times.

J. B. LEr.

Pfeiffer, C. A.: Development of bone from transplanted marrow in mice. Anat. Rec., 1948, 102, 225-43.

Bone marrow from the femur was transplanted homologously into the anterior chamber of the eye, into the ear, and in the testis of the mouse. Organized bone developed in the eyes and testes, but not in the ears. The relation of bone development to androgen and estrogen is discussed.

M. A. B.
Rabe, E. F.: Infectious croup. II. "Virus" croup. Pediatrics, 1948, 2, 415-27.
   The so-called virus croup is the most frequently occurring type in this study.
   The pathology is similar to viral influenza in man and viral laryngotracheitis in
   chickens. Clinically, virus croup is a progressive disease with downward spread
   of the infection in the respiratory tract. The mortality increases as the disease
   spreads down the respiratory tract. There is no well-founded specific treatment.
   However, sulfadiazine should be given to all severe cases and to all patients until
   cultures assure the absence of H. influenzae type B.

R. T. M.

Rabe, E. F.: Infectious croup. III. Hemophilus influenzae type B croup. Pediatrics, 1948, 2, 559-66.
   Croup due to H. influenzae type B occurred in 8 per cent of 347 cases of
   infectious croup. Clinically this form of croup is characterized by the extreme
   rapidity of onset and the severity of symptoms. Treatment consists of relief of
   respiratory obstruction and of the accompanying bacteremia and toxemia. This
   includes early tracheotomy when required, antiserum, sulfadiazine, streptomycin,
   and whole blood transfusions.

R. T. M.

Redlich, F. C., R. H. Dunsмор, and E. B. Brody: Delays and errors in the
   diagnosis of brain tumor. New England J. Med., 1948, 239, 945-50.
   In a review of 100 proved cases of brain tumor it was found that approxi-
   mately half of these cases had symptoms for a year before the correct diagnosis
   was made and in almost one-fourth of these cases the delay was more than two
   years. The low percentage of correct diagnoses by general practitioners was strik-
   ing. This was considered to be due in part to the failure to carry out satisfactory
   neurologic examination and a tendency to attribute symptoms to psychoneurotic
   disorders.

R. D. O.

Salter, W. T., and MacA. W. Johnston: Tracing the thyroid hormone in
   peripheral tissues. J. Clin. Endocrinol., 1948, 11, 911-33.
   The peripheral tissues, as well as blood plasma, contain organically bound
   iodine which fluctuates with thyroid activity and its resultant effects on metabo-
   lism. This organic iodine is unevenly distributed among the several protein
   fractions. The activity of radio-iodide administered in tracer doses resides at first
   chiefly in the inorganic fraction but later a portion becomes attached to protein.

W. F. S.

Strong, L. C.: Genetic changes in gastric lesion and fibrosarcoma suscepti-
   bilities. Proc. Soc. Exper. Biol. & Med., 1948, 69, 521-24.
   A difference in susceptibility to gastric tumors in the NHO strain following a
   mutation of coat color from brown to dominant black is described. The mean
   latent period for gastric lesions in the black descent was 434.4 days in contrast
   to 335.8 days in the brown descent.

M. A. B.
Strong, L. C.: A new influence on chemically induced sarcomata. Science, 1948, 108, 688-89.

The susceptibility of F1 mice from reciprocal NHO x C57 crosses to local tumors induced by methylcholanthrene was inversely proportional to the litter number. The first litters were less susceptible than were the last.

M. A. B.

Tarail, R.: Relation of abnormalities in concentration of serum potassium to electrocardiographic disturbances. Am. J. Med., 1948, 5, 828-37.

Electrocardiograms and blood samples for simultaneous chemical analyses were taken from patients who either had elevated or depressed serum potassium levels. The most marked changes in those patients with hyperkalemia were peaked T waves and increase in duration of the QRS complex. In hypokalemia, on the other hand, low amplitude of the T wave and prolonged electrical systole were the most frequent findings.

J. B. LeR.

von Magnus, H., and J. L. Melnick: Antibody response in monkeys following oral administration of poliomyelitis virus. J. Immunol., 1948, 60, 583.

The authors fed poliomyelitis virus to several species of monkeys and then tested their sera for neutralizing antibodies. Since the monkeys’ sera were negative for such antibodies before the virus feedings, and neutralizing antibodies were detectable in 77 per cent of the paralyzed animals on the first day of paralysis, the authors conclude that it is possible that “early antibody production as well as antibody production in asymptomatic monkeys fed poliomyelitis virus is the result of infection of tissue outside the central nervous system.” Further in support of their conclusion, the authors report that feeding of a mouse with encephalomyelitis virus which is non-pathogenic for primates failed to elicit an antibody response to this virus; also, the antibody response following oral administration is much more rapid than is that observed in monkeys inoculated intracerebrally with the virus.

J. B. LeR.

Wilhelmi, A. E., J. B. Fishman, and J. A. Russell: A new preparation of crystalline anterior pituitary growth hormone. J. Biol. Chem., 1948, 176, 735-45.

Yields of 3 gm. of nearly pure crystalline growth hormone per kilo of fresh bovine anterior pituitary glands are reported. The general procedure parallels the alcohol fractionation method described by Cohn for the separation of plasma proteins. Details of the method are described. Identification by electrophoretic analysis and by bio-assay is possible.

M. A. B.

Wilhelmi, A. E., and G. Sayers: Corrections of published electrophoretic mobilities of adrenocorticotropic and parathyroid hormones. J. Biol. Chem., 1948, 176, 175.

Power supplied by the electrophoresis apparatus was found to be 3.4 times that indicated by the milliammeter. Previous publications by Sayers et al. and L’Heureux et al. must be corrected.

M. A. B.