

carefully executed arrangements for the comfort and success of the entire series of meetings.

CHAS. W. GREENE,  
General Secretary

### THE THIRTEENTH ANNUAL MEETING OF THE AMERICAN PHYSIOLOGICAL SOCIETY

THE thirtieth annual meeting of the American Physiological Society was held with the Federation of American Societies for Experimental Biology, at the University of Minnesota, December 27 and 28, and at The Mayo Foundation, December 29, 1917. The program of the physiologists was crowded from beginning to end, in fact this is the only criticism to be offered upon the success of the meeting. The time allotted did not allow adequate time for discussion. The scientific papers were of widely distributed interest, but special mention may be made of the series of investigations on the subject of surgical shock, and papers on the physiological, clinical and chemical studies and the identification of the active iodine-containing principle of the thyroid. Dr. Kendall reported the synthetic production of this substance.

The attendance of the meeting was good though not large, about twenty per cent. of the total membership. However the attendance was very representative of both the varied scientific interests of the society and of the extremes of territory. Some thirteen were present from the Atlantic coast, four from the Pacific slope. Canadian representatives were present from Toronto to Manitoba. On the whole the meeting was voted one of the most successful ever held by the society.

The following new members were elected: Walter C. Alvarez, M.D., instructor in research medicine, University of California Medical School, Hooper Foundation; A. M. Bleile, M.D., professor of physiology, Ohio State University; Montrose T. Burrows, associate professor of physiology, Washington University Medical School; E. B. Forbes, B.S., Ph.D., chief in nutrition, Ohio Experiment Station; Maurice H. Givens, Ph.D., fellow and assistant in physiological chemistry, Yale University; Alfred E. Livingston, associate in physiology, University of Illinois, College of Medicine; Fred T. Rogers, Ph.D., instructor in physiology, University of Chicago; R. W. Scott, A.B., M.D., associate in physiology, Western Reserve University Medical College; James R. Slonaker, B.S., Ph.D., assistant professor of physiology, Leland Stanford Jr. University; Frank W. Weymouth, A.B., Ph.D., assistant professor of physiology, Leland Stanford Jr. University.

The officers elected for the ensuing year were Frederic S. Lee, Columbia University, President; Charles W. Greene, University of Missouri, Secretary; Joseph Erlanger, Washington University, Treasurer, and J. J. R. Macleod, Western Reserve University, Councilor for the 1918-1921 term.

The program presented is given below:

#### SCIENTIFIC PROGRAM AT MINNEAPOLIS

*Hunger, appetite and gastric juice secretion in man in prolonged fasting (15 days):* A. J. CARLSON, University of Chicago.

*On so-called "fatigue-toxin":* FREDERIC S. LEE and B. ARONOWITCH (by invitation), Columbia University.

*Some phases of industrial fatigue:* FREDERIC S. LEE (for the Committee on Industrial Fatigue).

*The quantitative measure of general fatigue:* A. H. RYAN, Tufts Medical College.

*Strength tests in industry:* E. G. MARTIN, Stanford University.

*Nutritive factors in some animal tissues:* LA-FAYETTE B. MENDEL and THOMAS B. OSBORNE, Yale University and Connecticut Experiment Station.

*Experimental mammalian polyneuritis:* CARL VOEGTLIN and G. G. LAKE (by invitation), Hygienic Laboratory, Washington, D. C.

*Further observation on the production of lactic acid following alkaline injections:* J. J. R. MACLEOD, Western Reserve University.

*The isolation and identification of the thyroid hormone:* E. C. KENDALL, The Mayo Foundation.

*Some problems of nutrition of the army, the work of the food division of the Surgeon General's Office:* JOHN R. MURLIN, U. S. Sanitary Corps, Washington, D. C.

*The influence of music on cardiograms and blood pressure:* IDA H. HYDE, University of Kansas.

*A simple method for the resuscitation of the human heart:* A. D. HIRSCHFELDER, University of Minnesota.

*Regulation of venous blood pressure:* D. R. HOOKER, Johns Hopkins Medical School.

*Blood pressure in sharks and the shock problem:* E. P. LYON, University of Minnesota.

*Observations in shock:* C. C. GUTHRIE, University of Pittsburgh.

*Shock and its control.* (Paper from France presented by Dr. Lee.) W. B. CANNON.

*Observations on the volume flow of blood of the submaxillary gland:* ROBERT GESELL, Washington University.

*The rôle of the central nervous system in shock:* F. H. PIKE, Columbia University.

- Some reactions in the development of shock by diverse methods:* J. ERLANGER, ROBT. GESELL, H. S. GASSER and B. L. ELLIOTT (by invitation), Washington University.
- A method for the determination of blood volume:* WALTER J. MEEK and HERBERT S. GASSER, University of Wisconsin.
- The blood volume changes in shock and the modification of these by Acacia:* H. S. GASSER, W. J. MEEK and J. ERLANGER.
- A study in Acacia in view of its use in perfusion solutions:* WALTER J. MEEK and HERBERT S. GASSER.
- Diet experiments bearing on carbohydrate luxury consumption and wasteful eating:* ADDISON GULICK, University of Missouri.
- The physiological action of the thyroid hormone:* E. C. KENDALL, The Mayo Foundation.
- Effects of salts on the metabolism of nerves:* L. K. RIGGS (by invitation), University of Chicago.
- Test of methods of control of the clothes louse:* WM. MOORE, University of Minnesota.
- The tension of the respiratory gases in the afferent and the efferent blood of the lungs:* ROY G. PEARCE, Lakeside Hospital, Cleveland.
- Graphic records of reflexes and clonus:* R. E. MORRIS (by invitation), and L. G. ROWNTREE, University of Minnesota.
- The cerebral center of mastication:* F. R. MILLER, Western Reserve University.
- Relation of lesions of the optic thalamus to nystagmus, body temperature and spinal reflexes in the pigeon:* FRED R. ROGERS (by invitation), University of Chicago.
- Comparison of the rhythm of the respiratory center and trapped wave in Cassiopea:* J. F. MC-CLENDON, University of Minnesota.
- Some points in the nervous regulation of respiration in the cat:* C. C. GAULT (by invitation), University of Minnesota.
- The effect of alteration of blood pressure on the blood of the rabbit:* F. H. SCOTT, University of Minnesota.
- Adrenalin vasodilator mechanisms in the cat at different ages:* FRANK A. HARTMAN, University of Toronto.
- Vasodilator nerves of the skin:* H. RICHARDSON and O. WYATT (by invitation), University of Minnesota.
- A note on the mechanism of heart muscle contraction:* MONTROSE T. BURROWS (by invitation), Washington University.
- Evidence of toxic action of the ovaries of the gar:* CHAS. W. GREENE, ERWIN E. NELSON (by invitation), and EDGAR D. BASKETT, University of Missouri.
- Some electrical phenomena of the submaxillary gland:* ROBERT GESELL, Washington University.
- Vagotonic and sympathetic-tonic effects on gastric motility:* T. L. PATTERSON (by invitation), Queen's University.
- A new factor in the control of the pylorus:* ARNO B. LUCKHART, University of Chicago.
- The rôle of catalase in shock:* W. E. BURGE, University of Illinois.
- Studies on gastric secretion and urine ammonia:* A. C. IVY (by invitation), University of Chicago.
- The effects of alkalis on gastric secretion:* CHAS. E. KING, University of North Dakota.
- The influence of water on gastric secretion:* G. F. SUTHERLAND (by invitation), University of Chicago.
- The cause of the chill and febrile reaction following transfusion of citrated blood:* CECIL K. DRINKER and HAROLD H. BRITTINGHAM (by invitation), Harvard University.
- Further evidence of the mechanism of the production of the sounds of Korotkoff:* A. M. BLEILE (by invitation), and CLYDE BROOKS, University of Ohio.
- Duration of the systole and diastole of the human heart:* W. P. LOMBARD, University of Michigan.

## JOINT DEMONSTRATIONS AT MINNEAPOLIS

- A new diastolic criterion in oscillatory blood pressure registration in the human:* BERNARD FANTUS (by invitation), Chicago.
- The mechanical factors influencing the cerebrospinal fluid:* H. C. BECHT, Northwestern University.
- An automatic and bloodless method of recording the volume flow of blood:* ROBERT GESELL.
- Stimulation under increased intra-cranial pressure:* A. S. LOEVENHART and MESSRS. MARTIN and MALONE (by invitation), University of Wisconsin.
- On a uniformly satisfactory method of collecting urine separately from each ureter in acute experimental work on dogs:* ARNO B. LUCKHART, University of Chicago.
- Demonstration of the pre-anacrotic phenomenon and its relation to the arterial compression sounds of Korotkoff:* JOSEPH ERLANGER, Washington University.
- An apparatus for the determination of the tension of the alveolar gases in arterial and venous blood:* ROY G. PEARCE and W. W. YORK (by invitation), Western Reserve Medical College.

*Colorimeter and tubes for  $P_h$  of sea water:* J. F. MCCLENDON, University of Minnesota.

*Electrometric titration of blood plasma:* J. F. MCCLENDON.

*Some uses of wire in the laboratory:* A. D. HIRSCHFELDER, University of Minnesota.

*Simple valves for respiration experiments:* A. D. HIRSCHFELDER and E. D. BROWN.

*A simple method of making stalagmometers:* A. D. HIRSCHFELDER.

*An experiment for affording training in intravenous and intraspinal injections:* A. D. HIRSCHFELDER and E. D. BROWN.

*Demonstration of a new form of colorimeter:* JOSEPH C. BOCK and S. R. BENEDICT, Cornell Medical College.

*Method of recording reflexes:* R. E. MORRIS and C. E. NIXON, University of Minnesota. (By invitation.)

*A simple pneumograph:* E. D. BROWN, University of Minnesota.

#### JOINT PROGRAM AT ROCHESTER

8:00-10:00. Surgical Clinics, St. Mary's Hospital.

8:00-10:30. Experimental and Clinical Laboratory Demonstrations, Mayo Clinic Building.

10:30-12:30. Joint Scientific Session Federated Societies, Assembly Room, Mayo Clinic Building.

*Comparative measurements of new-born babies:* ROOD TAYLOR (by invitation), The Mayo Foundation.

*Blood-cholesterol in malignancy and the effect of radium on blood-cholesterol:* G. M. LUDEN (by invitation), The Mayo Foundation.

*The normoblast crisis; its place, significance and duration in blood regeneration:* CECIL K. DRINKER, KATHERINE R. DRINKER and HENRY A. KURTZMAN (by invitation), Harvard Medical School.

*The rôle of afferent impulses in the control of respiratory movements:* H. C. COMBS (by invitation), and F. H. PIKE, Columbia University.

*Parallel determinations of amylase and dextro-glycogen of the blood, liver and kidney after feeding:* E. EUGENE BROWN (by invitation), and CHAS. W. GREENE, University of Missouri.

*Note on psychic secretion from the sight and smell of food in man:* ARNO B. LUCKHARDT, University of Chicago.

*Brain changes associated with pernicious anemia:* H. W. WOLTMANN (by invitation), The Mayo Foundation.

*Effects of cytolytins on the rabbit in relation to inheritance:* M. F. GUYER, University of Wisconsin.

*Bio-pathological standardization:* W. C. MACCARTY (by invitation), The Mayo Foundation.

*A study of the comparative anatomy of the biliary tract and the Sphincter of Oddi with special reference to animals without a gallbladder:* F. C. MANN, The Mayo Foundation.

*Some further notes on the detoxification of potassium chloride in the guinea-pig:* SAMUEL AMBERG and P. E. HELMHOLTZ (by invitation), Children's Memorial Hospital, Chicago.

*Physiological function of the thyroid:* H. S. PLUMMER (by invitation), The Mayo Foundation.

*Development of certain types of malignant tumors of the thyroid:* LOUIS B. WILSON (by invitation), The Mayo Foundation.

*Blood regeneration after simple anemia. Curve of regeneration influenced by dietary factors:* C. W. HOOPER and G. H. WHIPPLE (by invitation), Hooper Institute.

*Blood regeneration after simple anemia. Curve of regeneration influenced by starvation, sugar, amino acids and other factors:* G. H. WHIPPLE and C. W. HOOPER (by invitation), The Hooper Institute.

*Fat embolism:* W. W. BISSELL (by invitation), The Mayo Foundation.

*Lipemia (20 minutes):* W. R. BLOOR, Harvard University Medical School.

*The action of light in injuring the eye:* W. E. BURGE, University of Illinois.

*Changes in reflex thresholds following intestinal manipulation:* EUGENE L. PORTER, University of Pennsylvania.

*Lipase and fat variations in the blood as a result of muscular work:* DUDLEY A. ROBNETT (by invitation), and CHAS. W. GREENE, University of Missouri.

*Simultaneous measurements of the lipase and fat of the blood, liver and kidney during digestion and absorption:* GEORGE G. HARVEY (by invitation), and CHAS. W. GREENE.

*Note in regard to the amount of sugar normally in blood of cats:* E. L. SCOTT, Columbia University.

*On the comparative absorption power for drugs of the bladder and urethra (male):* DAVID I. MACHT, Johns Hopkins Medical School.

*On the relation of the chemical structure of opium alkaloids to their action on smooth muscle structures:* DAVID I. MACHT, Johns Hopkins.

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