

1931

1930-1931

The Rockefeller University

Follow this and additional works at: <https://digitalcommons.rockefeller.edu/semiannual-publications-rockefeller-institute>

---

#### Recommended Citation

The Rockefeller University, "1930-1931" (1931). *Semiannual List of the Publications of the Staff of the Rockefeller Institute*. 10.  
<https://digitalcommons.rockefeller.edu/semiannual-publications-rockefeller-institute/10>

This Book is brought to you for free and open access by the Campus Publications at Digital Commons @ RU. It has been accepted for inclusion in Semiannual List of the Publications of the Staff of the Rockefeller Institute by an authorized administrator of Digital Commons @ RU. For more information, please contact [mcsweej@mail.rockefeller.edu](mailto:mcsweej@mail.rockefeller.edu).

*Results of the investigations conducted at The Rockefeller Institute for Medical Research, or elsewhere under its grants, are first reported in a variety of journals and publications. The Semiannual List, of which this is No. 30, gives the place of publication of the most recent reports of these investigations. It will be sent regularly upon request.*

---

SEMIANNUAL LIST OF THE PUBLICATIONS OF  
THE STAFF OF THE ROCKEFELLER  
INSTITUTE FOR MEDICAL  
RESEARCH

NOVEMBER 1, 1930, TO MAY 1, 1931

THE DEPARTMENT OF THE LABORATORIES

*Pathology and Bacteriology*

CASEY, ALBERT E. Further note on the enumeration of blood platelets and red blood cells. *Proc. Soc. Exp. Biol. and Med.*, February, 1931, 28, pp. 523-524.

— and ROSAHN, PAUL D. Delayed differential counting of the white blood cells by a modified supravital technique. *Proc. Soc. Exp. Biol. and Med.*, March, 1931, 28, pp. 658-659.

CASH, J. R., and DOAN, CHARLES A. Spontaneous and experimental infection of pigeons with *B. aertrycke*. *Proc. Soc. Exp. Biol. and Med.*, December, 1930, 28, pp. 235-238.

\*DOAN, CHARLES A. The newer aids to diagnosis and prognosis in tuberculosis. *Med. Clin. North America*, September, 1930, 14, pp. 279-299.

†— and MOORE, DOROTHEA M. The theory of the mechanism underlying the phosphatide precipitin test in tuberculosis. With a study of two BCG-vaccinated children. *Am. Rev. Tuberc.*, April, 1931, 23, pp. 409-421.

DURAN-REYNALS, F. The effect of testicle extract and normal serum on the growth of a transplantable epithelial tumor of the rabbit. *Science*, December 12, 1930, 72, pp. 608-609.

FLEXNER, SIMON. The Rockefeller Institute for Medical Research, New York, in Brauer, L., Bartholdy, A. M., and Meyer, A., *Forschungsinstitut, ihre Geschichte, Organisation und Ziele*, Hamburg, Paul Hartung, 1930, pp. 458-490.

---

\* To be published in *Studies* 77.

† To be published in *Studies* 78.

- \*GILDING, H. P. The relative reaction within living mammalian tissues. XII. The fixation for histological purposes of erythrolitmin after vital staining, with a note on the distribution of the indicator. *Jour. Exp. Med.*, December 1, 1930, **52**, pp. 949-952.
- \*——. The relative reaction within living mammalian tissues. XIII. The reaction prevailing during the autolysis *in vivo* of small tissue masses. *Jour. Exp. Med.*, December 1, 1930, **52**, pp. 953-961.
- †HAWKINS, JAMES A. The skin reactions produced by alternations of heat and x-ray at various time intervals. *Jour. Exp. Med.*, March 1, 1931, **53**, pp. 405-411.
- \*HOFFMAN, DONALD C. The effect of testicular extract on filterable viruses. *Jour. Exp. Med.*, January 1, 1931, **53**, pp. 43-50.
- and DURAN-REYNALS, F. The mechanism of enhancement of infections by testicle extract. *Science*, November 14, 1930, **72**, p. 508.
- †—— and ——. The influence of testicle extract on the intradermal spread of injected fluids and particles. *Jour. Exp. Med.*, March 1, 1931, **53**, pp. 387-398.
- †LANDSTEINER, K. Individual differences in human blood. *Science*, April 17, 1931, **73**, pp. 403-409.
- and LEVINE, PHILIP. Note on individual differences in human blood. *Proc. Soc. Exp. Biol. and Med.*, December, 1930, **28**, pp. 309-310.
- †—— and ——. The differentiation of a type of human blood by means of normal animal serum. *Jour. Immunol.*, February, 1931, **20**, pp. 179-185.
- MURPHY, JAMES B., HELMER, O. M., CLAUDE, ALBERT, and STURM, ERNEST. Observations concerning the causative agent of a chicken tumor. *Science*, March 6, 1931, **73**, pp. 266-268.
- OLITSKY, PETER K. Relation of *Bacterium granulosis* to trachoma. *Rev. Trachome*, October, 1930, **7**, pp. 173-189.
- . Studi recenti sul *Bact. granulosis*: suo significato nel tracoma umano. *Gior. batt. immunol.*, March, 1931, **6**, pp. 225-235.
- PEARCE, LOUISE, and ROSAHN, PAUL D. The cellular reaction in experimental syphilis. Supravital and fixed material. *Proc. Soc. Exp. Biol. and Med.*, March, 1931, **28**, pp. 654-656.
- RHOADS, C. P. Immunization with aluminum hydroxide mixtures of poliomyelitis virus. *Science*, December 12, 1930, **72**, p. 608.
- \*——. Immunity following the injection of monkeys with mixtures of poliomyelitis virus and convalescent human serum. *Jour. Exp. Med.*, January 1, 1931, **53**, pp. 115-121.

\* To be published in *Studies 77*.

† To be published in *Studies 78*.

- \*RHODS, C. P. Experimental study of a horse antipoliomyelitic serum. *Jour. Exp. Med.*, January 1, 1931, 53, pp. 123-135.
- \*——. Reinforcement of convalescent antipoliomyelitic serum in the monkey. *Jour. Exp. Med.*, January 1, 1931, 53, pp. 137-142.
- †——. Immunization against vaccinia by non-infective mixtures of virus and immune serum. *Jour. Exp. Med.*, February 1, 1931, 53, pp. 185-193.
- †——. Immunization with mixtures of poliomyelitis virus and aluminum hydroxide. *Jour. Exp. Med.*, March 1, 1931, 53, pp. 399-404.
- ROSAHN, PAUL D. A new capillary hematocrit. *Proc. Soc. Exp. Biol. and Med.*, February, 1931, 28, pp. 491-492.
- †ROUS, PEYTON, and SMITH, FREDERICK. The gradient of vascular permeability. III. The gradient along the capillaries and venules of frog skin. *Jour. Exp. Med.*, February 1, 1931, 53, pp. 219-242.
- \*SABIN, FLORENCE R., DOAN, CHARLES A., and FORKNER, CLAUDE E. Studies on tuberculosis. *Jour. Exp. Med.*, December 1, 1930, 52, No. 6, Supplement No. 3, 152 pages and 10 plates.
- , MILLER, FRANKLIN R., DOAN, CHARLES A., and WISEMAN, BRUCE K. The biological reactions of the carbohydrates of the tubercle bacillus (abstract). *Tr. Nat. Tuberc. Assn.*, May 8, 1930, 26th Annual Meeting, pp. 184-187.
- \*——, ——, ——, and ——. A study of the toxic properties of tuberculo-proteins and polysaccharides. *Jour. Exp. Med.*, January 1, 1931, 53, pp. 51-80.
- †SMITH, FREDERICK, and ROUS, PEYTON. The gradient of vascular permeability. II. The conditions in frog and chicken muscle, and in the mammalian diaphragm. *Jour. Exp. Med.*, February 1, 1931, 53, pp. 195-217.
- †STEWART, FRED W., and DOAN, CHARLES A. An analysis of the lymphadenopathy question with special reference to Hodgkin's disease and tuberculosis. *Ann. Surg.*, January, 1931, 93, pp. 141-152.
- TILDEN, E. B. Dissociation of *Bacterium granulosis* Noguchi and identification of the organism by means of rabbit immune sera. *Science*, January 2, 1931, 73, p. 18.
- \*WEBSTER, LESLIE T. The rôle of microbic virulence, dosage, and host resistance in determining the spread of bacterial infections among mice. I. *Pasteurella lepiseptica* and *Pasteurella aviseptica* infections. *Jour. Exp. Med.*, December 1, 1930, 52, pp. 901-907.
- \*——. The rôle of microbic virulence, dosage, and host resistance in determining the spread of bacterial infections among mice. II. *B. fried-*

\* To be published in *Studies 77*.

† To be published in *Studies 78*.

*laenderi*-like infection. *Jour. Exp. Med.*, December 1, 1930, 52, pp. 909-929.

\*WEBSTER, LESLIE T. The rôle of microbic virulence, dosage, and host resistance in determining the spread of bacterial infections among mice. III. *B. enteritidis* infection. *Jour. Exp. Med.*, December 1, 1930, 52, pp. 931-948.

†— and HUGHES, THOMAS P. The epidemiology of pneumococcus infection. The incidence and spread of pneumococci in the nasal passages and throats of healthy persons. *Jour. Exp. Med.*, April 1, 1931, 53, pp. 535-552.

†WISEMAN, BRUCE K. The induction of lymphocytosis and lymphatic hyperplasia by means of parenterally administered protein. *Jour. Exp. Med.*, April 1, 1931, 53, pp. 499-510.

#### *Biophysics*

\*PATTERSON, A. L. Glucose and the structure of the cycloses. *Nature*, December 6, 1930, 126, pp. 880-881.

†—. Methods in crystal analysis. I. Fourier series and the interpretation of x-ray data. *Z. Krist.*, December, 1930, 76, pp. 177-186.

†—. Methods in crystal analysis. II. The enhancement principle and the Fourier series of certain types of function. *Z. Krist.*, December, 1930, 76, pp. 187-200.

\*WYCKOFF, RALPH W. G. The killing of colon bacilli by x-rays of different wave lengths. *Jour. Exp. Med.*, November 1, 1930, 52, pp. 769-780.

\*—. A powder spectrometric study of the structure of urea. *Z. Krist.*, November, 1930, 75, pp. 529-537.

#### *Chemistry*

†LEVENE, P. A., and MARKER, R. E. The configurations of the secondary carbinols of the isopropyl and of the isobutyl series. *Jour. Biol. Chem.*, March, 1931, 90, pp. 669-675.

†— and —. On Walden inversion. XV. The influence of substituting groups on optical rotation in the series of disubstituted propionic acids containing a methyl group. *Jour. Biol. Chem.*, April, 1931, 91, pp. 77-103.

†— and —. Configurational relationship of hydrocarbons. I. Optically active methane derivatives containing propyl, isopropyl, isobutyl, isoamyl, and isohexyl groups. *Jour. Biol. Chem.*, April, 1931, 91, pp. 405-418.

---

\* To be published in *Studies 77*.

† To be published in *Studies 78*.

- LEVENE, P. A., MEYER, G. M., and RAYMOND, ALBERT L. On the mono-methyl-glucose of Pacsu. *Science*, March 13, 1931, **73**, pp. 291-292.
- \*— and RAYMOND, ALBERT L. Hexosemonophosphates. Glucose-3-phosphate, glucose-6-phosphate and their bearing on the structure of Robison's ester. *Jour. Biol. Chem.*, November, 1930, **89**, pp. 479-499.
- †— and —. Note on the preparation of bromoacetyl sugars and of acetoglucals. *Jour. Biol. Chem.*, January, 1931, **90**, pp. 247-250.
- \*— and ROTHEN, ALEXANDRE. Optical activity and salt effect. *Jour. Physic. Chem.*, November, 1930, **34**, pp. 2567-2581.
- \*— and STEVENS, P. G. The hydrogenation of methylphenyl and methylbenzyl carbinols. With a note on the reduction of phenylated carbinols. *Jour. Biol. Chem.*, November, 1930, **89**, pp. 471-477.
- †— and TIPSON, R. STUART. Acetyl monoses. VI. The ring structure of the mannose pentacetates. *Jour. Biol. Chem.*, January, 1931, **90**, pp. 89-98.
- †— and WALTI, A. Configurational relationships of phenylated carbinols. III. *Jour. Biol. Chem.*, January, 1931, **90**, pp. 81-88.

#### *Chemical Pharmacology*

- †JACOBS, WALTER A., and FLECK, ELMER E. Strophanthin. XIX. The dehydrogenation of strophanthidin and gitoxigenin. *Science*, January 30, 1931, **73**, pp. 133-134.

#### *Experimental Surgery*

- †CARREL, ALEXIS. De l'étude simultanée de la morphologie des cellules et des conditions de leur milieu. *Compt. rend. Soc. biol.*, January 8, 1931, **105**, pp. 826-829. (Séance du 20 décembre 1930.)
- †—. Maintien de la constance du milieu dans les cultures de tissus. *Compt. rend. Soc. biol.*, January 16, 1931, **106**, pp. 7-10. (Séance du 10 janvier 1931.)
- †—. The new cytology. *Science*, March 20, 1931, **73**, pp. 297-303.
- PARKER, RAYMOND C. Structural and functional variations of fibroblasts in pure cultures. *Science*, April 10, 1931, **73**, pp. 401-402.

#### *General Physiology*

- \*ANSON, M. L., and MIRSKY, A. E. The reversibility of protein coagulation. *Jour. Physic. Chem.*, January, 1931, **35**, pp. 185-193.
- IRWIN, MARIAN. On the nature of the dye penetrating *Nilella* from cresyl blue. *Proc. Soc. Exp. Biol. and Med.*, December, 1930, **28**, pp. 329-331.

---

\* To be published in *Studies 77*.

† To be published in *Studies 78*.

- \*JACQUES, A. G., and OSTERHOUT, W. J. V. The accumulation of electrolytes. III. Behavior of sodium, potassium, and ammonium in *Valonia*. *Jour. Gen. Physiol.*, November 20, 1930, 14, pp. 301-314.
- KRUEGER, ALBERT P. The quantitative determination of bacteriophage. *Science*, November 14, 1930, 72, pp. 507-508.
- †——. The sorption of bacteriophage by living and dead susceptible bacteria. I. Equilibrium conditions. *Jour. Gen. Physiol.*, March 20, 1931, 14, pp. 493-516.
- \*—— and NORTHROP, JOHN H. The kinetics of the bacterium-bacteriophage reaction. *Jour. Gen. Physiol.*, November 20, 1930, 14, pp. 223-254.
- \*NORTHROP, JOHN H., and KUNITZ, M. Swelling and hydration of gelatin. *Jour. Physic. Chem.*, January, 1931, 35, pp. 162-184.
- and —— . Isolation of protein crystals possessing tryptic activity. *Science*, March 6, 1931, 73, pp. 262-263.
- \*OSTERHOUT, W. J. V. The kinetics of penetration. III. Equations for the exchange of ions. *Jour. Gen. Physiol.*, November 20, 1930, 14, pp. 277-284.
- \*——. The accumulation of electrolytes. II. Suggestions as to the nature of accumulation in *Valonia*. *Jour. Gen. Physiol.*, November 20, 1930, 14, pp. 285-300.
- . Electrical phenomena in the living cell. *Harvey Lectures*, 1929-30, 25, pp. 169-181.
- †—— and HILL, S. E. The death wave in *Nitella*. III. Transmission. *Jour. Gen. Physiol.*, January 20, 1931, 14, pp. 385-392.
- †—— and —— . Electrical variations due to mechanical transmission of stimuli. *Jour. Gen. Physiol.*, March 20, 1931, 14, pp. 473-485.

#### *Physical Chemistry*

- †FRIEDHEIM, E., and MICHAELIS, L. Potentiometric study of pyocyanine. *Jour. Biol. Chem.*, April, 1931, 91, pp. 355-368.
- †MACINNES, DUNCAN A., and COWPERTHWAIT, IRVING A. Differential potentiometric titration. IV. (a) An adaptation of the method to the use of hydrogen electrodes. (b) A test of standards for precise acidimetry. *Jour. Am. Chem. Soc.*, February, 1931, 53, pp. 555-562.
- †—— and DOLE, MALCOLM. The transference numbers of potassium chloride. New determinations by the Hittorf method and a comparison with results obtained by the moving boundary method. *Jour. Am. Chem. Soc.*, April, 1931, 53, pp. 1357-1364.

---

\* To be published in *Studies 77*.

† To be published in *Studies 78*.

- †MICHAELIS, L. Rosinduline as oxidation-reduction indicator. *Jour. Biol. Chem.*, April, 1931, 91, pp. 369-372.
- †— and FRIEDHEIM, E. Potentiometric studies on complex iron systems. *Jour. Biol. Chem.*, April, 1931, 91, pp. 343-353.
- \*— and SCHUBERT, MAXWELL P. Cobalt complexes of thioglycolic acid. *Jour. Am. Chem. Soc.*, November, 1930, 52, pp. 4418-4426.
- †SMYTHIE, C. V. The mechanism of iron catalysis in certain oxidations. *Jour. Biol. Chem.*, January, 1931, 90, pp. 251-265.

THE DEPARTMENT OF THE HOSPITAL

- \*BABERS, FRANK H., and GOEBEL, WALTHER F. The molecular size of the Type III specific polysaccharide of pneumococcus. *Jour. Biol. Chem.*, November, 1930, 89, pp. 387-394.
- COLE, RUFUS. The Hospital of The Rockefeller Institute, New York, in Brauer, L., Bartholdy, A. M., and Meyer, A., *Forschungsinstitute, ihre Geschichte, Organisation und Ziele*, Hamburg, Paul Hartung, 1930, pp. 491-501.
- ‡EHRICH, WILHELM. Studien über das lymphatische Gewebe mit besonderer Berücksichtigung der Lymphopoëse und der Histogenese der Sekundärknötchen, ihres Schicksals und ihrer Bedeutung. (V. Mitteilung), *Beitr. path. Anat. u. allg. Path.*, March 12, 1931, 86, pp. 287-368.
- \*GOEBEL, WALTHER F. The preparation of the type-specific polysaccharides of pneumococcus. *Jour. Biol. Chem.*, November, 1930, 89, pp. 395-398.
- †JOHNSTON, CHRISTOPHER. The relationship of blood uric acid content to the state of renal function in nephritis. *Jour. Clin. Inv.*, February 20, 1931, 9, pp. 555-559.
- MIRSKY, A. E., and ANSON, M. L. Protein sulphhydryl groups. *Proc. Soc. Exp. Biol. and Med.*, November, 1930, 28, pp. 170-171.
- \*MOORE, NORMAN S., and STEWART, HAROLD J. The variations of the specific gravity of the plasma of the blood and the means available for altering it. *Jour. Clin. Inv.*, December 20, 1930, 9, pp. 423-442.
- PETERS, JOHN P., and VAN SLYKE, DONALD D. *Quantitative clinical chemistry. Interpretations.* Baltimore, The Williams and Wilkins Company, 1931, 1264 pages.
- †PITTMAN, MARGARET. Variation and type specificity in the bacterial species *Hemophilus influenzae*. *Jour. Exp. Med.*, April 1, 1931, 53, pp. 471-492.

\* To be published in *Studies 77*.

‡ To be published in *Studies 79*.

† To be published in *Studies 78*.



- RHOADS, C. P. A method for explanting the kidney. *Science*, April 17, 1931, **73**, p. 417.
- , VAN SLYKE, DONALD D., HILLER, ALMA, and ALVING, A. A. Studies of renal metabolism. *Proc. Soc. Exp. Biol. and Med.*, April, 1931, **28**, pp. 776-777.
- RIVERS, T. M. Spontaneous generation and filterable viruses. *Northwest Med.*, December, 1930, **29**, pp. 555-561.
- †SENDROY, JULIUS, JR. Manometric determination of hemoglobin by the oxygen capacity method. *Jour. Biol. Chem.*, April, 1931, **91**, pp. 307-323.
- \*— and LIU, S. H. Gasometric determination of oxygen and carbon monoxide in blood. *Jour. Biol. Chem.*, November, 1930, **89**, pp. 133-152.
- \*STEWART, HAROLD J., and MOORE, NORMAN S. The number of formed elements in the urinary sediment of patients suffering from heart disease, with particular reference to the state of heart failure. *Jour. Clin. Inv.*, December 20, 1930, **9**, pp. 409-421.
- SWIFT, HOMER F. Rheumatic fever (abstract). *New York State Jour. Med.*, January 1, 1931, **31**, p. 15.
- †—, HITCHCOCK, C. H., DERICK, C. L., and MCEWEN, CURRIER. Intravenous vaccination with streptococci in rheumatic fever. *Am. Jour. Med. Sc.*, January, 1931, **181**, pp. 1-11.
- \*TILLET, WILLIAM S., GOEBEL, WALTHER F., and AVERY, OSWALD T. Chemical and immunological properties of a species-specific carbohydrate of pneumococci. *Jour. Exp. Med.*, December 1, 1930, **52**, pp. 895-900.

THE DEPARTMENT OF ANIMAL PATHOLOGY

- BEACH, J. R. The virus of laryngotracheitis of fowls. *Science*, December 19, 1930, **72**, pp. 633-634.
- †GOWEN, JOHN W. On chromosome balance as a factor in duration of life. *Jour. Gen. Physiol.*, March 20, 1931, **14**, pp. 447-461.
- †—. Metabolism as related to chromosome structure and the duration of life. *Jour. Gen. Physiol.*, March 20, 1931, **14**, pp. 463-472.
- \*NELSON, JOHN B. The reaction of the albino rat to the intraaural administration of certain bacteria associated with middle ear disease. *Jour. Exp. Med.*, December 1, 1930, **52**, pp. 873-883.
- †—. The biological characters of *B. actinoides* variety *muris*. *Jour. Bact.*, March, 1931, **21**, pp. 183-195.
- \*ORCUTT, MARION L. A study of *Bacillus necrophorus* obtained from cows. *Jour. Bact.*, November, 1930, **20**, pp. 343-360.

\* To be published in *Studies* 77.

† To be published in *Studies* 78.

\*SEIFRIED, OSKAR. Infektiöse Paralyse bei Hühnern. *Arch. wissenschaft. u. prakt. Thierheilk.*, November 3, 1930, 62, pp. 209-222.

†— . Histological studies on hog cholera. I. Lesions in the central nervous system. *Jour. Exp. Med.*, February 1, 1931, 53, pp. 277-287.

— . Pathologie neurotroper Viruskrankheiten der Haustiere (mit Berücksichtigung der vergleichenden Pathologie). *Ergebn. allg. Path. u. path. Anat.*, 1931, 24, pp. 554-676.

†— . Zur histologischen Klassifikation nichteitriger Encephalitisformen der Haustiere. *Arch. wissenschaft. u. prakt. Thierheilk.*, April 2, 1931, 63, pp. 167-180.

SHOPE, RICHARD E. "Mad itch" of cattle. *Science*, November 28, 1930, 72, p. 559.

— . The etiology of swine influenza. *Science*, February 20, 1931, 73, pp. 214-215.

SMITH, THEOBALD. The Department of Animal Pathology of The Rockefeller Institute, Princeton, N. J., in Brauer, L., Bartholdy, A. M., and Meyer, A., *Forschungsinstitute, ihre Geschichte, Organisation und Ziele*, Hamburg, Paul Hartung, 1930, pp. 502-505.

†TENBROECK, CARL, LI, C. P., and Yü, H. Studies on paratyphoid C bacilli isolated in China. *Jour. Exp. Med.*, March 1, 1931, 53, pp. 307-315.

---

\* To be published in *Studies 77*.

† To be published in *Studies 78*.

The papers marked \*, †, and ‡, and all similar reports from the Institute, are ultimately assembled in a series of volumes entitled **Studies from The Rockefeller Institute for Medical Research**. The price is \$2.00 per volume. A special rate of \$1.00 per volume is made to those who subscribe to *The Journal of Experimental Medicine*, or *The Journal of General Physiology*.

Other publications of The Rockefeller Institute are:

**The Journal of Experimental Medicine**, edited by **Simon Flexner, M.D.**, and **Peyton Rous, M.D.**

**The Journal of General Physiology**, edited by **W. J. Crozier, W. J. V. Osterhout**, and **John H. Northrop**.

**Monographs of The Rockefeller Institute for Medical Research**.

---

All correspondence should be addressed to the

DIVISION OF PUBLICATION  
THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH  
YORK AVENUE AND 66TH STREET  
NEW YORK, N. Y.

Results of the investigations conducted at The Rockefeller Institute for Medical Research, or elsewhere under its grants, are first reported in a variety of journals and publications. The Semiannual List, of which this is No. 31, gives the place of publication of the most recent reports of these investigations. It will be sent regularly upon request.

---

SEMIANNUAL LIST OF THE PUBLICATIONS OF  
THE STAFF OF THE ROCKEFELLER  
INSTITUTE FOR MEDICAL  
RESEARCH

MAY 1, 1931, TO NOVEMBER 1, 1931

THE DEPARTMENT OF THE LABORATORIES

*Pathology and Bacteriology*

- \*CASEY, ALBERT E. Studies in the blood cytology of the rabbit. VI. Blood cell relationships in groups of normal rabbits with respect to time. *Jour. Exp. Med.*, May 1, 1931, 53, pp. 695-714.
- † — and PEARCE, LOUISE. Studies on the blood cytology of the rabbit. VIII. The blood of normal rabbits as an index of their resistance to a transplantable neoplasm. *Jour. Exp. Med.*, October 1, 1931, 54, pp. 475-492.
- ‡ CASH, J. R., and DOAN, C. A. Spontaneous and experimental infection of pigeons with *B. aertrycke*. *Am. Jour. Path.*, July, 1931, 7, pp. 373-398.
- † DURAN-REYNALS, F. On the spontaneous immunization of rabbits to vaccine virus. *Jour. Immunol.*, May, 1931, 20, pp. 389-391.
- . Estudios experimentales sobre el efecto de unos ciertos nuevos factores de origen tisular sobre las infecciones y el cáncer. *Rev. Méd. Barcelona*, August, 1931, 16, pp. 120-141.
- . Estudios experimentales sobre el efecto de unos ciertos nuevos factores de origen tisular sobre las infecciones y el cáncer. *Rev. Méd. Barcelona*, September, 1931, 16, pp. 209-225.
- † — . The effect of testicle extract and of normal serum on a transplantable epithelial tumor of the rabbit. *Jour. Exp. Med.*, October 1, 1931, 54, pp. 493-498.
- § — and STEWART, FRED W. The action of tumor extracts on the spread of experimental vaccinia of the rabbit. *Am. Jour. Cancer*, October, 1931, 15, pp. 2790-2797.

---

\* Published in *Studies 78*.

† Published in *Studies 79*.

‡ To be published in *Studies 80*.

§ To be published in *Studies 81*.

- LEVENE, P. A., and HELBERGER, J. H. Crystalline pepsin of Northrop. *Science*, May 8, 1931, **73**, p. 494.
- †— and MARKER, R. E. On Walden inversion. XVI. The influence of substituting groups on optical rotation in the series of disubstituted propionic acids containing an ethyl group. *Jour. Biol. Chem.*, May, 1931, **91**, pp. 687-704.
- †— and —. Configurational relationship of hydrocarbons. II. Optical rotations of hydrocarbons of the normal series. *Jour. Biol. Chem.*, May, 1931, **91**, pp. 761-772.
- †— and —. Configurational relationship of hydrocarbons. III. The optical rotations of the hydrocarbons of the series methylisobutyl-methane. *Jour. Biol. Chem.*, July, 1931, **92**, pp. 455-460.
- ‡— and —. Chemical structure and optical rotation. I. The configurational relationship of disubstituted propionic acids containing a phenyl group. II. On the optically active trisubstituted methanes containing a phenyl group. *Jour. Biol. Chem.*, October, 1931, **93**, pp. 749-774.
- †— and MEYER, G. M. The ring structure of diacetone galactose. *Jour. Biol. Chem.*, July, 1931, **92**, pp. 257-262.
- †—, —, and RAYMOND, ALBERT L. On the monomethyl glucose of Pachu. *Jour. Biol. Chem.*, May, 1931, **91**, pp. 497-504.
- †— and RAYMOND, ALBERT L. Hexosemonophosphate (Robison). Natural and synthetic. *Jour. Biol. Chem.*, May, 1931, **91**, pp. 751-760.
- ‡— and —. Hexosemonophosphates. Synthetic Robison ester. *Jour. Biol. Chem.*, August, 1931, **92**, pp. 757-763.
- ‡— and —. Hexosemonophosphates. Galactose-6-phosphate. *Jour. Biol. Chem.*, August, 1931, **92**, pp. 765-768.
- ‡— and SCHORMÜLLER, A. Chemistry of chromoproteins. I. On the chromophoric group of the *Rhodymenia palmata*. *Jour. Biol. Chem.*, October, 1931, **93**, pp. 571-579.
- ‡— and STEIGER, ROBERT E. The action of acetic anhydride on tertiary amino acids and dipeptides. On catalytic effects. The hydrolysis of acetyl-dipeptides. *Jour. Biol. Chem.*, October, 1931, **93**, pp. 581-604.
- ‡—, —, and MARKER, R. E. Studies on racemization. X. Action of alkali on ketopiperazines and peptides. *Jour. Biol. Chem.*, October, 1931, **93**, pp. 605-621.
- †— and TIPSON, R. STUART. Acetyl monoses. VII. The isomeric triacetyl-1-methyl-*D*-ribosides. *Jour. Biol. Chem.*, June, 1931, **92**, pp. 109-115.

† Published in *Studies 79*.

‡ To be published in *Studies 80*.

- †LEVENE, P. A., and TIPSON, R. STUART. The ring structure of normal methylriboside. *Jour. Biol. Chem.*, October, 1931, **93**, pp. 623-630.
- ‡— and —. The action of benzoic peracid on substituted glucals. II. *Jour. Biol. Chem.*, October, 1931, **93**, pp. 631-644.
- ROTHEN, ALEXANDRE. The use of a hot cathode helium lamp as a source of monochromatic light for the polariscope. *Science*, August 21, 1931, **74**, pp. 204-205.

#### *Chemical Pharmacology*

- †JACOBS, WALTER A., and ELDERFIELD, ROBERT C. Strophanthin. XXI. The correlation of strophanthidin and periplogenin. *Jour. Biol. Chem.*, May, 1931, **91**, pp. 625-628.
- †— and —. Strophanthin. XXII. The correlation of strophanthidin and periplogenin with digitoxigenin and gitoxigenin. *Jour. Biol. Chem.*, July, 1931, **92**, pp. 313-321.
- †—, —, GRAVE, THOMAS B., and WIGNALL, ERNEST W. Strophanthin. XX. The conversion of isostrophanthidic acid into the desoxo derivative. *Jour. Biol. Chem.*, May, 1931, **91**, pp. 617-623.
- ‡—, —, HOFFMANN, ALEXANDER, and GRAVE, THOMAS B. Strophanthin. XXIV. Isomeric hexahydrodianhydrostrophanthidins and their derivatives. *Jour. Biol. Chem.*, September, 1931, **93**, pp. 127-138.
- ‡— and FLECK, ELMER E. The partial dehydrogenation of ursolic acid. *Jour. Biol. Chem.*, August, 1931, **92**, pp. 487-494.
- †— and GUSTUS, EDWIN L. Strophanthin. XXIII. Ring II of strophanthidin and of related aglucones. *Jour. Biol. Chem.*, July, 1931, **92**, pp. 323-344.
- ‡— and SCOTT, ALBERT B. The hydrogenation of unsaturated lactones to desoxy acids. II. *Jour. Biol. Chem.*, September, 1931, **93**, pp. 139-152.
- †RIGAKOS, D. RIGAS. A note on a modification of Pregl's micro-methoxyl apparatus. *Jour. Am. Chem. Soc.*, October, 1931, **53**, pp. 3903-3904.

#### *Experimental Surgery*

- †Apparatus to circulate liquid under constant pressure in a closed system. *Science*, May 22, 1931, **73**, p. 566.
- PARKER, RAYMOND C. Human serum, age and multiplication of homologous fibroblasts. *Science*, August 14, 1931, **74**, pp. 181-182.

† Published in *Studies 79*.

‡ To be published in *Studies 80*.

### General Physiology

- †ANSON, M. L., and MIRSKY, A. E. Protein coagulation and its reversal. The identity of normal hemoglobin with the hemoglobin prepared by the reversal of coagulation, as determined by solubility tests. *Jour. Gen. Physiol.*, May 20, 1931, 14, pp. 597-604.
- †— and —. Protein coagulation and its reversal. Globin. *Jour. Gen. Physiol.*, May 20, 1931, 14, pp. 605-609.
- †— and —. Protein coagulation and its reversal. Serum albumin. *Jour. Gen. Physiol.*, July 20, 1931, 14, pp. 725-732.
- HILL, SAMUEL E. Use of an improved null instrument for glass electrode or other high resistance circuits. *Science*, May 15, 1931, 73, pp. 529-530.
- †NORTHROP, JOHN H. Crystalline pepsin. III. Preparation of active crystalline pepsin from inactive denatured pepsin. *Jour. Gen. Physiol.*, July 20, 1931, 14, pp. 713-724.
- †—. The presence of a gelatin-liquefying enzyme in crude pepsin preparations. *Jour. Gen. Physiol.*, September 20, 1931, 15, pp. 29-43.
- OSTERHOUT, W. J. V. Physiological studies of single plant cells. *Biol. Rev.*, October, 1931, 6, pp. 369-411.
- †— and HILL, SAMUEL E. The production and inhibition of action currents by alcohol. *Jour. Gen. Physiol.*, May 20, 1931, 14, pp. 611-616.

### Physical Chemistry

- †FRIEDHEIM, ERNST A. H. Pyocyanine, an accessory respiratory enzyme. *Jour. Exp. Med.*, August 1, 1931, 54, pp. 207-221.
- †MACINNES, DUNCAN A., and BELCHER, DONALD. Further studies on the glass electrode. *Jour. Am. Chem. Soc.*, September, 1931, 53, pp. 3315-3331.
- and SHEDLOVSKY, THEODORE. The ionization constant of acetic acid. *Jour. Am. Chem. Soc.*, June, 1931, 53, pp. 2419-2420.
- †MICHAELIS, L. Der Acetat-Veronal-Puffer. *Biochem. Z.*, May 5, 1931, 234, pp. 139-141.
- . Die Existenz wahrer Semi-Chinone. *Naturwissenschaften*, May 29, 1931, 22, p. 461.
- †—. The formation of semiquinones as intermediary reduction products from pyocyanine and some other dyestuffs. *Jour. Biol. Chem.*, July, 1931, 92, pp. 211-232.

---

† Published in *Studies 79*.

‡ To be published in *Studies 80*.

- †MICHAELIS, L. A potentiometric study of Wurster's red and blue. *Jour. Am. Chem. Soc.*, August, 1931, **53**, pp. 2953-2962.
- †——. Nachtrag zu der Arbeit: Methämoglobinbildung und Atmungssteigerung durch organische Farbstoffe. *Biochem. Z.*, August 31, 1931, **239**, pp. 186-188.
- †—— and SALOMON, K. Methämoglobin-Erzeugung und Atmungssteigerung durch organische Farbstoffe. *Biochem. Z.*, May 5, 1931, **234**, pp. 107-115.
- §—— and STERN, KURT J. Über den Einfluss von Schwermetallen und Metallkomplexen auf proteolytische Vorgänge. *Biochem. Z.*, September 30, 1931, **240**, pp. 192-217.
- †SALOMON, K., and MICHAELIS, L. The nature of the respiratory supplement. *Proc. Soc. Exp. Biol. and Med.*, June, 1931, **28**, pp. 966-968.
- †SCHUBERT, MAXWELL P. Cobalt complexes of cysteine. *Jour. Am. Chem. Soc.*, October, 1931, **53**, pp. 3851-3861.
- †SMYTHE, C. V. The titration of hydroxy organic acids in the presence of ferric and cupric salts. *Jour. Biol. Chem.*, July, 1931, **92**, pp. 233-244.
- †STERN, KURT G. Über die autolytische Wirksamkeit der tierischen Gewebsproteinasen und ihre Beeinflussung durch Schwermetalle. *Biochem. Z.*, May 5, 1931, **234**, pp. 116-138.
- †——. Edestin als Substrat für die nephelometrische Bestimmung proteolytischer Enzyme. *Biochem. Z.*, July 6, 1931, **236**, pp. 464-473.
- †——. Über die Tryptase farbloser Blutzellen. *Z. physiol. Chem.*, July 22, 1931, **199**, pp. 169-183.

#### *Biophysics*

- †MORTON, G. A. Atomic scattering power of copper and oxygen in cuprous oxide. *Phys. Rev.*, July 1, 1931, **38**, pp. 41-44.
- †WHITE, T. N. The x-ray investigation of certain derivatives of cyclohexane. IV. *i*-Inositol dihydrate. *Z. Krist.*, September, 1931, **80**, pp. 1-4.
- †——. The x-ray investigation of certain derivatives of cyclohexane. V.  $\alpha$ - and  $\gamma$ -cyclohexandiol 1.2,  $\beta$ -cyclohexandiol 1.4 (trans-quinitol), and  $\beta$ -cyclohexandiacetate 1.4. *Z. Krist.*, September, 1931, **80**, pp. 5-17.
- WYCKOFF, RALPH W. G. The structure of crystals. American Chemical Society Monograph Series, No. 19, New York, The Chemical Catalog Company, Inc., 2nd edition, 1931, 497 pages.

---

† Published in *Studies 79*.

§ To be published in *Studies 81*.

‡ To be published in *Studies 80*.

‡WYCKOFF, RALPH W. G., and TER LOUW, ADRIAN L. Some ultraviolet photomicrographs of *B. subtilis*. *Jour. Exp. Med.*, September 1, 1931, 54, pp. 449-451.

THE DEPARTMENT OF THE HOSPITAL

†AVERY, OSWALD T., and DUBOS, RENÉ. The protective action of a specific enzyme against Type III pneumococcus infection in mice. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 73-89.

‡— and GOEBEL, WALTHER F. Chemo-immunological studies on conjugated carbohydrate-proteins. V. The immunological specificity of an antigen prepared by combining the capsular polysaccharide of Type III pneumococcus with foreign protein. *Jour. Exp. Med.*, September 1, 1931, 54, pp. 437-447.

BENJAMIN, BERNARD, and RIVERS, T. M. Regeneration of *Virus myxomalosum* (Sanarelli) in the presence of cells of exudates surviving *in vitro*. *Proc. Soc. Exp. Biol. and Med.*, May, 1931, 28, pp. 791-792.

COHN, ALFRED E. Medicine, science, and art. Studies in interrelations. Chicago, The University of Chicago Press, July, 1931, 212 pages.

†DUBOS, RENÉ, and AVERY, OSWALD T. The decomposition of the capsular polysaccharide of Pneumococcus Type III by a bacterial enzyme. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 51-71.

\*FINKLE, PHILIP. Metabolism of S and R forms of pneumococcus. *Jour. Exp. Med.*, May 1, 1931, 53, pp. 661-676.

†FRANCIS, THOMAS, JR., and TILLET, WILLIAM S. Cutaneous reactions in rabbits to the type-specific capsular polysaccharides of pneumococcus. *Jour. Exp. Med.*, October 1, 1931, 54, pp. 587-596.

‡GOEBEL, WALTHER F., and AVERY, OSWALD T. Chemo-immunological studies on conjugated carbohydrate-proteins. IV. The synthesis of the *p*-aminobenzyl ether of the soluble specific substance of Type III pneumococcus and its coupling with protein. *Jour. Exp. Med.*, September 1, 1931, 54, pp. 431-436.

†HILLER, ALMA. Identification of reducing substances in nephritic urine. *Jour. Biol. Chem.*, May, 1931, 91, pp. 735-744.

†RHOADS, C. P., and GOODNER, KENNETH. The pathology of experimental dermal pneumococcus infection in the rabbit. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 41-50.

†RIVERS, T. M. Cultivation of vaccine virus for Jennerian prophylaxis in man. *Jour. Exp. Med.*, October 1, 1931, 54, pp. 453-461.

---

\* Published in *Studies 78*.

‡ To be published in *Studies 80*.

† Published in *Studies 79*.



- †RIVERS, T. M., and BERRY, G. P. Psittacosis. II. Experimentally induced infections in mice. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 105-117.
- †— and —. Psittacosis. III. Experimentally induced infections in rabbits and guinea pigs. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 119-128.
- †— and —. Psittacosis. IV. Experimentally induced infections in monkeys. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 129-144.
- †—, —, and SPRUNT, D. H. Psittacosis. I. Experimentally induced infections in parrots. *Jour. Exp. Med.*, July 1, 1931, 54, pp. 91-103.
- ‡STILLMAN, ERNEST G. Duration of demonstrable antibodies in the serum of rabbits immunized with heat-killed Type I pneumococci. *Jour. Exp. Med.*, October 1, 1931, 54, pp. 615-621.
- ‡— and BRANCH, ARNOLD. Localization of pneumococci in the lungs of partially immunized mice following inhalation of pneumococci. *Jour. Exp. Med.*, October 1, 1931, 54, pp. 623-627.
- †SWIFT, HOMER F. Factors favoring the onset and continuation of rheumatic fever. *Am. Heart Jour.*, June, 1931, 6, pp. 625-636.
- ‡WILSON, MAY G., and SWIFT, HOMER F. Intravenous vaccination with hemolytic streptococci. Its influence on the incidence of recurrence of rheumatic fever in children. *Am. Jour. Dis. Child.*, July, 1931, 42, pp. 42-51.

THE DEPARTMENT OF ANIMAL AND PLANT PATHOLOGY

- GLASER, R. W. The cultivation of a nematode parasite of an insect. *Science*, June 5, 1931, 73, pp. 614-615.
- . The "Rickettsiae" and the intracellular "Symbionts." *Science*, September 4, 1931, 74, p. 243.
- †GOWEN, JOHN W. Genetic non-disjunctional forms in *Drosophila*. *Am. Naturalist*, May-June, 1931, 65, pp. 193-213.
- ‡—. Body pattern as related to mammary gland secretion. *Proc. Nat. Acad. Sc.*, September, 1931, 17, pp. 518-523.
- ‡— and TOBEY, ELMER R. Studies on milk secretion. The influence of inanition. *Jour. Gen. Physiol.*, September 20, 1931, 15, pp. 45-66.
- ‡— and —. On the mechanism of milk secretion. The influence of insulin and phloridzin. *Jour. Gen. Physiol.*, September 20, 1931, 15, pp. 67-85.
- †JONES, F. S., and LITTLE, RALPH B. The etiology of infectious diarrhea (winter scours) in cattle. *Jour. Exp. Med.*, June 1, 1931, 53, pp. 835-843.

† Published in *Studies 79*.

‡ To be published in *Studies 80*.

- †JONES, F. S., and LITTLE, RALPH B. Vibrionic enteritis in calves. *Jour. Exp. Med.*, June 1, 1931, 53, pp. 845-851.
- †—, ORCUTT, MARION, and LITTLE, RALPH B. Vibrios (*Vibrio jejuni*, n. sp.) associated with intestinal disorders of cows and calves. *Jour. Exp. Med.*, June 1, 1931, 53, pp. 853-863.
- ‡LEWIS, PAUL A., and SHOPE, RICHARD E. Swine influenza. II. A hemophilic bacillus from the respiratory tract of infected swine. *Jour. Exp. Med.*, September 1, 1931, 54, pp. 361-371.
- SEIFRIED, OSKAR. Intranuclear inclusions in laryngotracheitis of chickens. *Science*, May 29, 1931, 73, pp. 594-595.
- ‡—. Die Hortegaschen Zellen im „entzündlichen Reaktionskomplex“ der Bornaschen Krankheit. *Arch. wissenschaft. u. prakt. Thierheilk.*, June 18, 1931, 63, pp. 294-306.
- ‡SHOPE, RICHARD E. An experimental study of “mad itch” with especial reference to its relationship to pseudorabies. *Jour. Exp. Med.*, August 1, 1931, 54, pp. 233-248.
- ‡—. Swine influenza. I. Experimental transmission and pathology. *Jour. Exp. Med.*, September 1, 1931, 54, pp. 349-359.
- ‡—. Swine influenza. III. Filtration experiments and etiology. *Jour. Exp. Med.*, September 1, 1931, 54, pp. 373-385.
- SMITH, THEOBALD. The agglutinating action of agar on bacteria. *Science*, July 3, 1931, 74, p. 21.
- §—. The general problem of respiratory diseases as illumined by comparative data. First Lecture. William Henry Welch Lecture. *Internat. Clin.*, September, 1931, 3, series 41, pp. 254-275.
- §—. Spontaneous and induced streptococcus disease in guinea-pigs: an epidemiologic study. Second Lecture. William Henry Welch Lecture. *Internat. Clin.*, September, 1931, 3, series 41, pp. 276-297.
- TENBROECK, CARL. A simple grinder for soft tissues. *Science*, July 24, 1931, 74, pp. 98-99.

† Published in *Studies 79*.

§ To be published in *Studies 81*.

‡ To be published in *Studies 80*.

The papers marked\*, †, ‡, and §, and all similar reports from the Institute, are ultimately assembled in a series of volumes entitled **Studies from The Rockefeller Institute for Medical Research**. The price is \$2.00 per volume. A special rate of \$1.00 per volume is made to those who subscribe to *The Journal of Experimental Medicine*, or *The Journal of General Physiology*.

Other publications of The Rockefeller Institute are:

**The Journal of Experimental Medicine**, edited by **Simon Flexner, M.D.**, and **Peyton Rous, M.D.**

**The Journal of General Physiology**, edited by **W. J. Crozier, John H. Northrop**, and **W. J. V. Osterhout**.

**Monographs of The Rockefeller Institute for Medical Research.**

All correspondence should be addressed to the

DIVISION OF PUBLICATION  
THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH  
YORK AVENUE AND 66TH STREET  
NEW YORK, N. Y.