Meetings and Elections

The annual meeting of the **American Academy of Forensic Sciences** will be held Mar. 6–8 at the Biltmore Hotel, Atlanta, Ga. All those interested in presenting papers are urged to submit titles immediately to the program chairman, A. W. Freireich, 180 Hempstead Ave., Malverne, N. Y. Orders for the printed proceedings of the 1950 annual meeting may be filed with Ralph E. Turner, Department of Police Administration, Michigan State College, East Lansing.

The **British Commonwealth Scientific Official Conference,** first to be held outside the United Kingdom, will open in Canberra on Feb. 18 and close in Melbourne on Mar. 7. Leaders in the fields of industrial agricultural, and medical research will attend and plan collaboration in civil scientific work. The formal sessions will be broken by visits to enable delegates to study developmental problems. CSIRO is in charge of local arrangements.

The **Colston Research Society** will hold a Symposium on the Suprarenal Cortex at Bristol, Eng., Mar. 31–Apr. 4. The provisional list of speakers includes F. Verzar (Basle), George W. Thorn (Harvard), C. H. Li (Berkeley), Harry Robinson (Merck), Dwight J. Ingle (Upjohn), and Hudson Hoagland (Worcester Foundation). Those interested in attending should write to J. M. Yoffey, Department of Anatomy, The University, Bristol, 8.

Conveyor Equipment Manufacturers Association, at its annual meeting in Hot Springs, Va., elected G. Walter Ostrand president to succeed L. B. McKnight. R. C. Sollenberger, staff head of the association since 1945, was re-elected executive vice president. Harry C. Davis was elected vice president, R. F. Tomlinson treasurer, and Lee Sekulski secretary for a second term. J. A. Jeffrey, J. E. McBride, and Mr. McKnight were elected to the Executive Committee.

Heinz Hartmann, of New York, succeeds Leo Bartemeier as president of the **International Psychoanalytic Congress,** which met in Amsterdam in August. Ruth Eissler succeeds Grete Bibring as secretary, and Max Gitelson was elected treasurer. The 18th congress will be held in England in 1953.

At the AAAS meeting in Philadelphia, **Sigma Delta Epsilon,** national fraternity for graduate women in science, announced that its 1951 Research Award had been given to Margaret Green, of Ohio State, for a paper published in the *Journal of Morphology.* Marie Farnsworth won the Home Research award, established last year, for a paper on ancient pigments that appeared in the *Journal of Chemical Education.* Jay Traver won honorable mention. SDE, which is celebrating its 30th anniversary this year, presented certificates of outstanding service to Martha Doan (chemist), Sophia H. Eckerson (microchemist), Stella Hague (botanist), Rosalie Parr (chemist), Laetitia M. Snow (bacteriologist and botanist), and Bertha Van Hoosen (surgeon).

The **Sociedad Cubana de Psicoterapia** has elected José A. Bustamante president, Oscar Sagredo president-elect, José Perez Villar and Francisco Aguero secretaries, and Armando Cordova and Carlos Acosta treasurers. Miguel A. Nin was elected secretary.

Technical Papers

The Inhibition of the Development of Histamine Sensitivity in Mice Immunized with *Hemophilus pertussis*

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Parfentjev and Goodline (*1*) and, later, Halpern and Roux (*2*) showed that mice immunized against *Hemophilus pertussis* concurrently became hypersensitive to histamine. They showed further that this increase in sensitivity to histamine, which is of a 100- to 200-fold magnitude, can be blocked effectively by injection of antihistaminic drugs such as Bromothen or Phenergan given 15 min prior to the injection of a lethal shocking dose of histamine.

This communication expands the above observations by the examination of the action of another type of compound, described by Martin *et al.* (*3*) and Moss *et al.* (*4*) as capable of inhibiting histidine decarboxylase. These authors found that certain aglycone flavonoid compounds of the Vitamin P group, including quercitin and D-catechin, possess this ability, and the latter, when given prophylactically for 19 days, prevented guinea pigs from becoming sensitized to horse serum but did not protect nonsensitized, normal animals challenged with histamine.

By using the method of Parfentjev and Goodline for increasing the sensitivity of mice to histamine, it has been found that repeated treatment with quercitin (*5*) during the period between immunization and histamine challenge could inhibit the development of histamine hypersensitivity, though this compound was unable to block the lethal action of histamine when given immediately prior to histamine challenge. In contrast to this, the antihistaminic Chlorotrimeton was found to be effective as a blocking agent but was not able on repeated administration to inhibit the develop-

ment of histamine sensitivity. The following experiments illustrate the results obtained.

The inability of quercitin to block the lethal action of histamine is demonstrated in the experiment outlined below. One hundred and fifty mice were immunized intraperitoneally with 2 billion cells of an antigenic *H. pertussis* vaccine, and 4 days later 100 of them received 1 mg quercitin intraperitoneally, the remainder serving as sensitized controls. Two groups of the treated mice were challenged with graded doses of histamine, using 10 mice/histamine dose, one group 2 hr after quercitin, the other 6 hr after quercitin. The LD_{50}, calculated by the method of Reed and Muench (*6*), was 0.08 mg for both groups, and for the 50 sensitized controls 0.07 mg. In this experiment quercitin exhibited no histamine-blocking properties. The possibility that these findings could be explained by the lack of absorption of quercitin seems unlikely in view of the following experiment, which can be explained only by the absorption of quercitin from the peritoneal cavity.

The experiment was for the purpose of demonstrating the ability of quercitin to inhibit the development of histamine hypersensitivity. Two groups of mice were immunized as before. The animals of Group I received daily intraperitoneal injections of 1 mg quercitin suspended in propylene glycol, and the animals of Group II received only propylene glycol and served as sensitized controls. After 4 days and approximately 17 hr after the last injection of quercitin, the mice of each group were challenged with graded doses of histamine. The LD_{50} for Group I was 1.2 mg of histamine, for Group II, 0.06 mg. Nonimmunized normal mice gave an LD_{50} of 12.5 mg. These results indicated that quercitin-treated mice would tolerate approximately twenty times more histamine than the immunized controls, although histamine hypersensitivity was not obliterated completely.

Chlorotrimeton, as an example of an antihistaminic, was tested both for its blocking properties and for its ability to inhibit the development of histamine sensitivity. These properties were demonstrated in the following manner: On the fourth day following immunization, half of a group of 100 immunized mice received an intraperitoneal injection of 0.3 mg Chlorotrimeton. Two and one-half hr later these mice and the immunized controls were challenged with graded doses of histamine. The LD_{50}s were 0.96 mg and 0.07 mg, respectively. When Chlorotrimeton was given in this dosage daily during the period of histamine-sensitivity development as in the quercitin experiment described above, it was found that histamine gave an LD_{50} of 0.12 mg in both the treated and the control groups. Thus, Chlorotrimeton, though capable of blocking hypersensitivity to histamine, would not prevent such hypersensitivity from developing.

Since previous workers (*1*) have shown that the ability to cause histamine hypersensitivity is a property of pertussis vaccines of demonstrable antigenicity, it was of interest to determine whether the inhibition of the development of histamine hypersensitivity would influence immunity. Mice were immunized as before and divided into two groups, one of which received daily injections of quercitin; the other group, serving as sensitized controls, received daily injections of the propylene glycol solvent. On the seventh day mice from each group were challenged with graded doses of histamine; it was found that in the quercitin-treated mice the LD_{50} was 1.02 mg, and in the controls it was 0.08 mg. The remaining mice from each group were challenged by intracerebral injections with approximately 100 LD_{50}s of pertussis organisms. Thirteen out of 15 (87%) survived in the quercitin-treated mice, and 19 out of 19 (100%) survived in the immunized controls. These results suggest that the suppression of the development of histamine sensitivity had not interfered seriously with immune phenomena. It should be noted that the mice under quercitin treatment were sickly and showed signs of toxicity, some dying before completion of the experiment. The toxicity was traced, in part, to the amount of propylene glycol used in the suspending menstruum and, in part, to the quercitin.

The data presented indicate the possibility that the diminution of hypersensitivity to histamine may be achieved by the inhibition of the development of such sensitivity rather than by the neutralization of the histamine reaction. It would appear further that this may be accomplished without serious interference with the development of immunity.

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Manuscript received August 6, 1951.

The Life Span of Leucocytes in the Human[1]

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The life span of leucocytes has been measured by many techniques, most of which involved unphysiological experimental conditions. Using these methods, the life span has been estimated to vary from less than an hour to 3 weeks, depending upon the method used.

Shemin and Rittenberg (*1*), using a more physiological method, estimated the life span of red blood cells by measurement of the incorporation of glycine, labeled with N^{15}, into hemin. Because of the stability

[1] Supported by Institutional Research Grant #47B of the American Cancer Society.