SCIENCE

VOL. LXXI

FRIDAY, JANUARY 24, 1930

No. 1830

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MEDICAL AND OTHER SCIENCES¹

AN INQUIRY OF WHAT IS SCIENCE WHEN IS IT TAUGHT SCIENTIFICALLY

By Dr. A. J. GOLDFORB

PROFESSOR OF BIOLOGY, COLLEGE OF THE CITY OF NEW YORK

SCIENCE to-day plays an intricate, permeating and dominant rôle in our lives. It is not my intention to weary you with evidence in support of this thesis, to list the names of the various agencies engaged in science or the numbers of men and women so engaged or the ever-increasing millions of dollars expended, or to name the institutions, industries, occupations, mental attitudes and thoughts profoundly modified by science. Nor will I cite the figures of the ever-increasing numbers of "students" or numbers of hours or increasing budgets for science teaching from kindergarten to university. Nor is it necessary to list the amazing increase in the number of journals of science or the bewildering increase in the number of published

¹ Address of the retiring vice-president and chairman of Section N-Medical Sciences, American Association for the Advancement of Science, Des Moines, Iowa, December, 1929. manuscripts, the despair of the librarian as well as of the scientist. There is to-day probably no field of human endeavor which is not affected by the advances in science. Truly may it be said that science plays a dominant rôle in our lives.

It might then be assumed that the meaning of science, its essential characteristics, the tests by which it may be distinguished from pseudoscience or nonscience, the methods of teaching science scientifically would be widely and clearly understood. The startling fact, however, is that science is probably more widely not understood or misunderstood than in any previous period of history. Misunderstood not only by the armies of schooled (so-called educated) masses, but by the teachers and practitioners of science. The extent to which unscientific science is taught in our schools is amazing.

INFECTION

With a Virulent Culture

Suppressed by Vitamine-B Feeding

Very remarkable experiments were recently conducted at Yale University Med. School, by Drs. Rose & Cowgill. (Soc. for Exp. Biol. & Med. May.)

A series of healthy animals were injected with living cultures of Bacillus Welchii. When the animals received a regular diet, low in vitamine-B, bacteria developed, pus areas were established and B. Welchii were found in the blood stream.

But, when an adequate amount of Yeast Vitamine-B Concentrate (Harris) was added to the diet, negative blood cultures were obtained. The authors state: "—This procedure was repeated a number of times over a period of 15 months and the same results obtained."

This is the first instance in the chemistry of immunity, where a factor of the diet has shown such importance in establishing anti-bodies or in combating infectious disease.

Obviously-

YEAST VITAMINE-HARRIS (Tablets)

and

BREWERS' YEAST-HARRIS

(Medicinal Powder)

are indicated in such infections as-Hidden Foci (Suspected or known)

GRIPPE—INFLUENZA—PNEUMONIAS

and isolated puscareas, which often follow these

Are Pellagra and Herpes Related?

Since Dr. Goldberger (U. S. P. H. Service) cured cases of pellagra with Brewers' Yeast-Harris and Dr. Gerstenberger (Lakeside Hosp. Cleveland) successfully treated Herpes with Yeast Vitamine Tablets (Harris), are these diseases similar in origin and were they cured by "immunity building" or by supplying Vitamine-B deficiency?

BREWERS' YEAST-HARRIS

AND

YEAST VITAMINE-HARRIS (TABLETS)

are indicated in both.

Brewers' Yeast-Harris is biologically assayed, by the white rat method, offering a yeast of known Vitamine-B content.

We also supply Casein and Lactalbumin, highest chemical purity, for researches of precision.

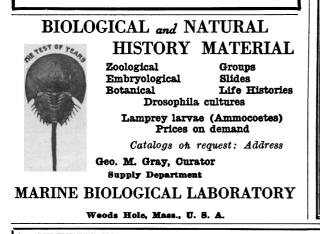
THE HARRIS LABORATORIES

Tuckahoe, New York

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DURHAM, N. C.

On October 1, 1930, carefully selected first and third year students will be admitted. Applications may be sent at any time and will be considered in the order of receipt. Catalogues and application forms may be obtained from the Dean.



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The School of Medicine is an Integral Part of the University and is in the Closest Affiliation with the Johns Hopkins Hospital.

ADMISSION

Candidates for admission must be graduates of ap-proved colleges or scientific schools with two years' instruction, including laboratory work, in chemistry, and one year each in physics and biology, together with evidence of a reading knowledge of French and

with evidence of a reading knowledge of French and German. Each class is limited to a maximum of 75 students, men and women being admitted on the same terms. Applications may be sent any time during the aca-demic year but not later than June 15th. If vacancies occur, students from other institu-tions desiring advanced standing may be admitted to the second or third year provided they fulfill the requirements and present exceptional qualifications. INSTRUCTION INSTRUCTION

The academic year begins the Tuesday nearest Oc-tober 1, and closes the second Tuesday in June. The course of instruction occupies four years and es-pecial emphasis is laid upon practical work in the laboratories, in the wards of the Hospital and in the dispense. dispensary.

TUITION

The charge for tuition for 1930-31 will be \$600 per annum, payable in two installments. There are no extra fees except for certain expensive supplies, and laboratory breakage. Inquiries should be addressed to the

Assistant Dean of the School of Medicine, Johns Hopkins University, Washington and Monument Sts., Baltimore, Md.

Graduates in Medicine who satisfy the require-ments of the heads of the departments in which they desire to work are accepted as students for a period not less than three quarters. Tuition charge is \$50 a quarter a quarter.

NATIONAL RESEARCH LABORATORIES OF CANADA

The National Research Council of Canada will, in the near future, make the following appointments to the staff of the Division of Pure and Applied Physics of the National Research Laboratories:

- (1) A Junior Physicist or Engineer whose aptitude and training qualify him to undertake research work on problems of heat conduction and insulation.
- (2) A Junior Physicist or Engineer whose aptitude and training qualify him to undertake research work in the field of aeronautics.
- (3) A Junior Physicist whose aptitude and training qualify him to undertake reseach work in the field of electrostatics.
- A Junior Physicist whose aptitude and training qualify him to undertake research work (4) in the field of X-rays.
- (5) A Junior Physicist whose aptitude and training qualify him to undertake research work in the field of photo-electricity and television.
- (6) A Junior Physicist whose aptitude and training qualify him to undertake research work in the field of ultrasonics.
- (7) A Junior Physicist or Physical Chemist whose aptitude and training qualify him to undertake research work in the field of radioactivity.
- (8) A Research Engineer whose aptitude and training are for work in the field of electrical engineering.
- (9) A Research Mathematician whose aptitude and training have been in the field of mathematics, and who is competent to assist and advise in problems of aerodynamics and hydrodynamics.
- (10)A Research Mathematician whose aptitude and training have been in the field of mathematical or theoretical physics, and who is competent to assist in connection with problems in the field of mathematical physics.

The salaries of the above positions vary upward from \$2,100 per annum, according to the quali-fications and experience of the persons appointed. Interested applicants should apply immediately giving references and full particulars as to their scientific training, professional experience, and enclosing a recent photograph. Applications should be addressed to: S. P. Eagleson, Secretary, National Research Council, Ottawa, Canada.

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