

SCIENCE

12 September 1958

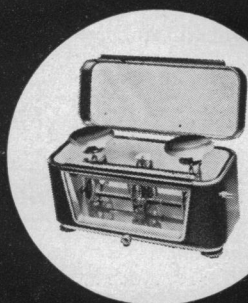
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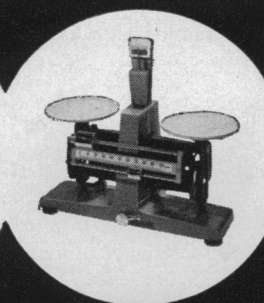
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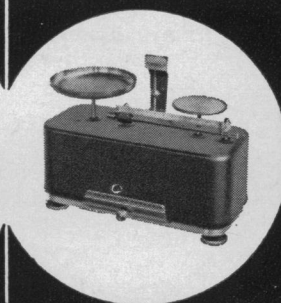
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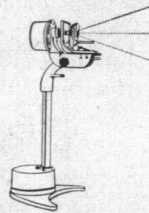
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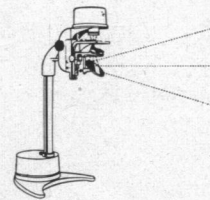


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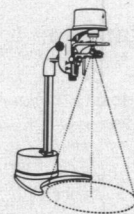
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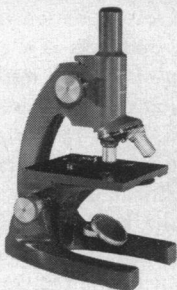
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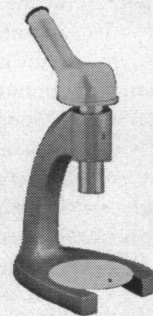


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Program content

1. The two-session general symposium, "Moving Frontiers of Science III: The Structure of Science and Scientific Organizations Abroad," arranged by the Committee on AAAS Meetings.
2. The six sessions of the Conference on Scientific Communication Problems.
3. Programs of the 18 AAAS sections (symposia and contributed papers).
4. Programs of the more than 90 participating societies.
5. The Special Sessions: AAAS, Academy Conference, Conference on Scientific Manpower, National Geographic Society, Phi Beta Kappa, Sigma Xi, RESA.
6. Details of the Sheraton-Park Hotel—center of the Meeting—and of the other hotels and session sites.
7. Titles of the latest foreign and domestic scientific films to be shown in the AAAS Science Theatre.
8. Exhibitors in the 1958 Annual Exposition of Science and Industry and descriptions of their exhibits.

Directory content

1. AAAS officers, staff, committees for 1958.
2. Complete roll of AAAS presidents and their fields.
3. The 279 affiliated organizations.
4. Historical sketch and organization of the Association; the Constitution and Bylaws.
5. Publications of the Association.
6. AAAS Awards—including all past winners.
7. Membership figures by sections.
8. Section committees (Council members) in detail.
9. Local committees.
10. Future Meetings of the AAAS through 1962.
11. New and current activities of the AAAS.

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have been demonstrated which cannot synthesize protein from hydrolyzed protein. These protein mutant effects can be demonstrated by analysis of the hemolymph.

Carroll Williams discussed the hormonal regulation of metamorphosis. Experiments with the pupation of the moth suggest that specific cells appear to be programmed for various stages through which the organism develops and that certain hormonal stimuli accelerate or induce the growth of the organism along these programmed paths. As an exam-

ple, cuticle formation by the epidermal layer was cited, as well as experimental evidence developed on the basis of the movement of areas of color, hairiness, and intersegmental membranes. The prothoracic gland apparently controls the conversion of pupa to adult. The hormone isolated from the prothoracic gland of the silkworm by Karlson and Butenandt has been named by them "ecdysone." This appears to be the growth hormone for all arthropods, which comprise more than 90 percent of the animal kingdom. Ecdysone, alone, stimulates both growth

and differentiation of all tissue except muscle. Growth and differentiation of muscle requires a neurohormone apparently secreted by neurosecretory cells in the brain. Both the medial and lateral neurosecretory cells of the brain are needed to produce brain hormones. Pilocarpine can block the neurosecretory effect. This has been shown to be due to the imidazole ring structure. The brain hormone is a trophic hormone for the prothoracic gland. The diapause begins when the brain "shuts off." "Low temperature" starts the brain again. Therefore, the brain appears to be itself subject to neuronal stimuli. The slowing down of differentiation is due to another hormone called the "juvenile hormone," found in the corpora allata. The hormone of the corpora allata has been concentrated and seems to be a steroid. Beef adrenal cortical extract has the capacity to do the same thing as the juvenile hormone, but none of the known steroids has been identified as the juvenile hormone.

A report by André Glinos on the mechanism of liver growth and regeneration demonstrates that in normal serum there is an inhibitor to the mitotic activity of the liver. This inhibitor has been related to the albumin concentration of the serum. Even a small increase in the albumin content of the extracellular fluid of the liver inhibits the formation of albumin by liver cells and actual growth of liver tissue as determined by mitotic counts. On the other hand, diminution of albumin content of the extracellular fluid stimulates growth, mitosis, and albumin formation by the liver cells. This feedback mechanism is concerned solely with albumin synthesis and growth. Since albumin synthesis occurs only in the liver, there is no relation of this effect to the growth of any other tissues.

A detailed report of the proceedings of this symposium, edited by McElroy and Glass, will be published by the Johns Hopkins Press.

SAMUEL P. BESSMAN

*School of Medicine,
University of Maryland, Baltimore*

Weak Interactions

The American Physical Society and the Oak Ridge National Laboratory are sponsoring a Conference on Weak Interactions to be held in Gatlinburg, Tenn., 27-29 October. Although as planned the specialty of the conference will be β -decay, it will also be concerned with π - and μ -decay, as well as strange particle decay. There will be invited speakers at each session to review the subject for the session. Each session will also have contributed papers.

Summaries of contributed papers

SCIENCE, VOL. 128

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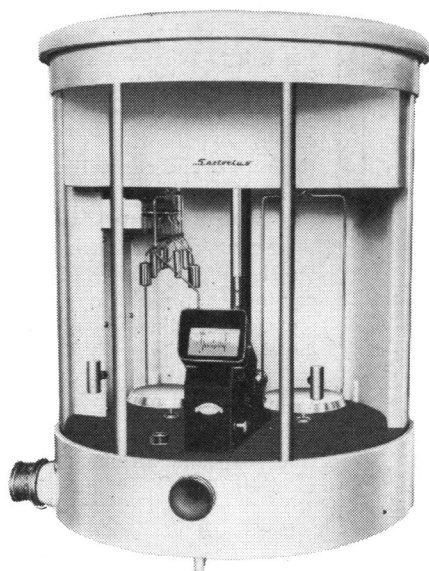
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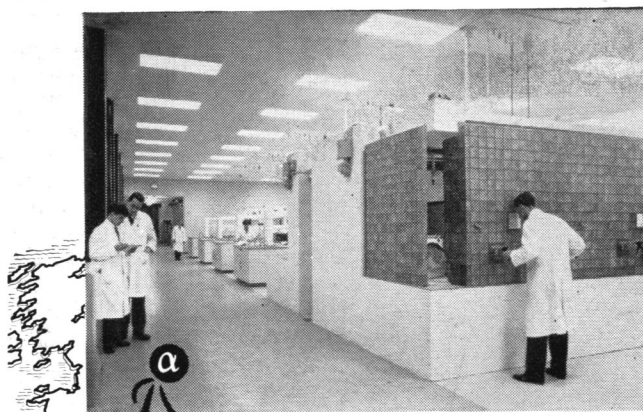
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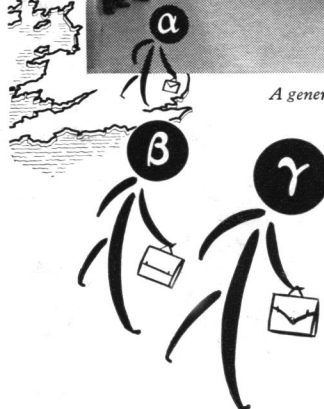
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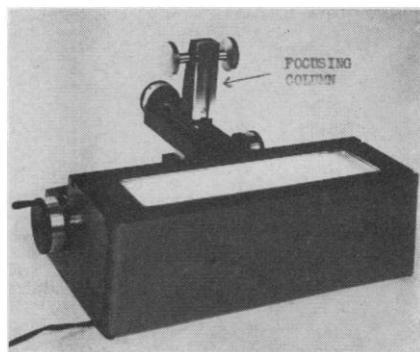


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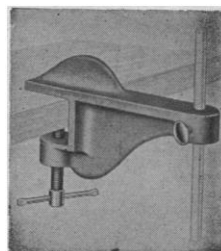
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should be sent to J. L. Fowler, Oak Ridge National Laboratory; the deadline date is 24 September. These summaries may be, but do not necessarily have to be, somewhat longer than the 200-word abstract customarily used by the Physical Society, and may also include a few figures somewhat in the style of Letters to the Editor. They should not, however, exceed 600 words in length. Standard 200-word abstracts should also be submitted, for these will be published in the *Bulletin* of the American Physical Society.

Medicine and Biology

The eleventh annual Conference of Electrical Techniques in Medicine and Biology will be held in the Niccollet Hotel, Minneapolis, Minn., 19-21 November, under the sponsorship of the American Institute of Electrical Engineers, the Institute of Radio Engineers, and the Instrument Society of America. The meeting will be chiefly devoted to the use of computers in medicine and biology.

One special session will be on the possibility of applying computers to the theoretical and clinical problems of electrocardiography. Another session will deal with computers in electroencephalography. A third special session will be on the inverse problem of developing computer application on the basis of biological coding, biological transducer designs, and biological logic. The meeting is open to all scientists, engineers, and physicians. Abstracts, 250 words, should be sent before 1 October to Mr. Robert Erskine, Minneapolis-Honeywell, 2753 4th Ave. S., Minneapolis, Minn.

Mental Health Seminars

"Implications for Psychiatry of Recent Researches on Animal Behavior" will be the general topic of the second International Seminars on Mental Health to be presented in October by the Post-graduate Center for Psychotherapy. Konrad Z. Lorenz, director of the Max Planck Institute of Westphalia, Germany, will address a series of conferences on his recent findings in the field of ethology which will help throw new light on man's behavior.

Lorenz's schedule follows: 10 October, evening panel discussion, "Social Aggression and its Inhibition in Animals: Implications for Psychoanalytic Theory," New York Academy of Medicine; 12-15 October, Josiah Macy, Jr. Foundation conference, Princeton, N.J.; 16 October, research seminar, Yale University School of Medicine, New Haven, Conn.; 20 October, 1958-59 Downey seminars on "Modern Concepts in Psychiatry," Veterans Administration Hospital, Downey,

Ill., Northwestern University Medical School VA Training Program; 21-24 October, Menninger Foundation, Topeka, Kan. (including Menninger Forum, 22 October); 26 October, all-day conference (by invitation only), "Unlearned Communicative Processes Between Animals: Implications for Bio-social Adaptation Theory," Postgraduate Center for Psychotherapy, New York; 30 October, evening panel discussion, "Physiological and Psychological Aspects of Unlearned Motor Patterns: Afferent Control, Spontaneity and Relations to Learning," American Museum of Natural History (cosponsor), New York.

The Postgraduate Center for Psychotherapy has established the International Seminars on Mental Health to present at the Postgraduate Center and throughout the United States distinguished scientists from abroad to introduce new ideas and approaches that may be integrated into American psychiatric theory and practice. The seminars, which are sponsored by the World Federation for Mental Health, are underwritten by a grant from the Samuel Rubin Foundation.

Air Pollution

At a meeting in Washington in August a group of specialists in air pollution control met with Public Health Service officials to discuss plans for the first national conference on air pollution to be held 18-20 November at the Sheraton Park Hotel, Washington, D.C. The plans call for plenary sessions—with addresses by scientists, industrialists, and government officials—and group meetings in which recommendations will be formulated for future action. Subjects to be considered will include effects of air pollution on health, control methods, economic factors, and so forth.

The planning group that met in Washington included the chairmen and co-chairmen of six discussion panels: Arie J. Haagen-Smit, Division of Biology, California Institute of Technology, and H. C. McKee, Southwest Research Institute, San Antonio, Tex.; S. L. Hanauer, Department of Air Pollution Control, City of New York, and Leslie Chambers, Los Angeles County Air Pollution Control District; John T. Middleton, Citrus Experiment Station, University of California, and Arthur Crago, American Cyanamid, Brewster, Fla.; Malcolm H. Merrill, California Department of Public Health, and James P. Dixon, Commissioner of the City of Philadelphia; Leslie Silverman, Harvard University School of Public Health, and W. C. L. Hemeon, Hemeon Associates, Pittsburgh, Pa.; Louis C. McCabe, Resources Research, Inc., Washington, D.C., and Harold W. Kennedy, County Counsel of Los Angeles.



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Forthcoming Events

October

12-17. American Acad. of Ophthalmology and Otolaryngology, Chicago, Ill. (W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn.)

13-15. Association of American Medical Colleges, 69th annual, Philadelphia, Pa. (W. Darley, AAMC, 2530 Ridge Ave., Evanston, Ill.)

13-15. National Electronics Conf., Chicago, Ill. (L. W. Von Tersch, Michigan State Univ., East Lansing.)

13-16. Society of Exploration Geophysicists, 28th annual intern., San Antonio, Tex. (C. C. Campbell, Box 1536, Tulsa 1, Okla.)

13-17. American Soc. of Civil Engineers, annual conv., New York, N.Y. (W. H. Wisely, ASCE, 33 West 39 St., New York 18.)

14-15. National Acad. of Economics and Political Science, fall annual, Washington, D.C. (D. P. Ray, George Washington Univ., Washington 6.)

15-17. American Ceramics Soc., Glass Div., Bedford, Pa. (C. S. Pearce, 4055 N. High St., Columbus 14, Ohio.)

19-22. Land and Water, Soil Conservation Soc. of America, 13th annual, Asheville, N.C. (H. W. Pritchard, 838 Fifth Ave., Des Moines 14, Iowa.)

19-24. American Soc. of Anesthesiologists, Pittsburgh, Pa. (J. E. Remlinger, 802 Ashland Ave., Wilmette, Ill.)

19-26. Allergology, 3rd intern. cong., Paris, France. (S. M. Feinberg, Medical School, Ward Memorial Building, 303 East Chicago Ave., Chicago, Ill.)

19-26. Medical Hydrology, 21st intern. cong., Madrid, Spain. (Dr. Francon, 55, rue des Mathurins, Paris 8^e, France.)

20-21. Rubber and Plastics Instrumentation, natl. symp., Akron, Ohio. (D. R. Davis, General Tire and Rubber Co., Central Research Lab., Akron 9.)

20-22. American Oil Chemists' Soc., fall, Chicago, Ill. (Mrs. L. R. Hawkins, 35 E. Wacker Drive, Chicago 1.)

20-23. American Acad. of Pediatrics, Chicago, Ill. (E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill.)

20-23. American Psychiatric Assoc., Kansas City, Mo. (1700 18 St., NW, Washington 6.)

21. American Soc. of Safety Engineers, annual, Chicago, Ill. (J. B. Johnson, 425 N. Michigan Ave., Chicago 11.)

22-24. American Assoc. of Petroleum Geologists, southwestern, Mineral Wells, Tex. (R. H. Dott, Box 979, Tulsa 1, Okla.)

22-24. Aviation Medicine, 4th annual symp., Santa Monica, Calif. (T. H. Sternberg, UCLA Medical Center, Los Angeles 24, Calif.)

22-26. American Soc. for the Study of Arteriosclerosis, annual, San Francisco, Calif. (O. J. Pollak, P.O. Box 228, Dover, Del.)

23-25. National Soc. of Professional Engineers, San Francisco, Calif. (K. E. Trombley, NSPE, 2029 K St., NE, Washington 6.)

23-25. Rocket Technology and Astronautics, intern., Essen, Germany. (Deutsche Gesellschaft fuer Raketen-technik und Raunfahrt, e.v., Neunsteinerstrasse 19, Stuttgart, Zuffenhausen.)

24-25. International Conference on the Insulin Treatment in Psychiatry, New York, N.Y. (M. Rinkel, 479 Commonwealth Ave., Boston 15, Mass.)

24-25. Taxonomic Consequences of Man's Activities, symp., Mexico, D.F. (H. C. Cutler, Missouri Botanical Garden, St. Louis.)

24-28. American Heart Assoc., San Francisco, Calif. (J. D. Brundage, 44 E. 23 St., New York 10.)

27-28. Child Research in Psychopharmacology, conf., Washington, D.C. (S. Fisher, Psychopharmacology Service Center, Natl. Inst. of Mental Health, Bethesda 14, Md.)

27-28. Plant Physiology, 9th annual research cong., Saskatoon, Saskatchewan, Canada. (D. T. Coupland, Plant Ecology College of Agriculture, Univ. of Saskatchewan, Saskatoon.)

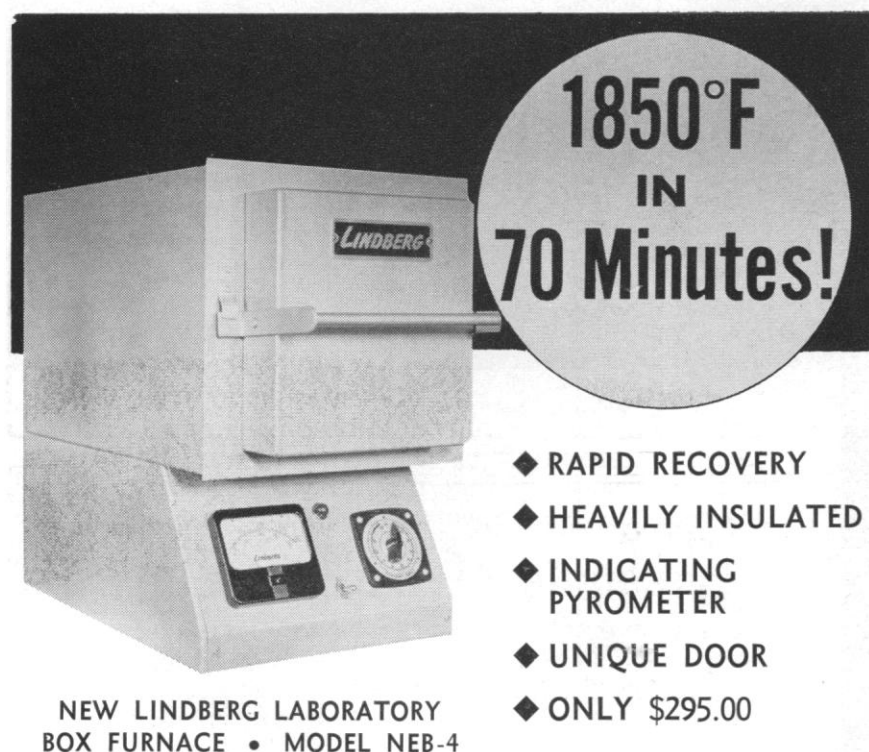
27-29. Radio, Institute of Radio Engineers, fall meeting, Rochester, N.Y. (V. M. Graham, EIA, 11 W. 42 St., N.Y.)

27-29. Weak Interactions, APS conf. (by invitation), Gatlinburg, Tenn. (J. L. Fowler, ORNL, P.O. Box X, Oak Ridge, Tenn.)

27-31. American Inst. of Electrical Engineers, fall general, Pittsburgh, Pa. (N. S. Hibshman, AIEE, 33 W. 39 St., New York 18.)

27-31. American Public Health Assoc., St. Louis, Mo. (B. F. Mattison, 1790 Broadway, New York 19.)

(See issue of 15 August for comprehensive list)



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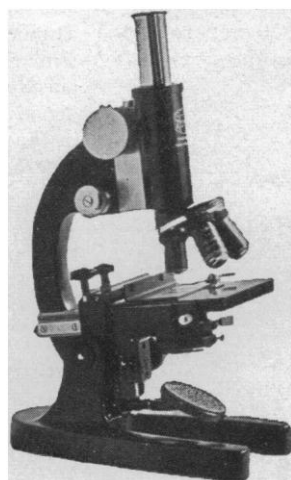
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ESTERONE (pfs) 200 mg **3.00** 1 g **7.75**

ETHINYL ESTRADIOL (pfs) 100 mg **3.00** 1 g **12.75**

ETHISTERONE (pfs) 1 g **2.00**

ETHYLHYDROCUPREINE HCL (pfs) 5 g **5.00**

ETHYL 3-INDOLE ACETATE (pfs) 1 g **4.50** 10 g **30.00**

N-ETHYLMALIMIDE (pfs) 1 g **3.20** 5 g **13.50**

ETHYL N-ACETYL-3,5-DINITRO-L-TYROSINATE (pfs) 1 g **5.00**

FAD—See Flavin Adenine Dinucleotide

FMN—See Flavin Mononucleotide

FIBRINOGEN, BOVINE (pfs) Approx. 60% Clottable Protein 10 g **6.50** 50 g **21.00** 100 g **35.00**

FICIN, 2 x Cryst. (pfs) Cysteine Suspension. Subject to availability. 100 mg **10.00** 1 g **75.00**

FLAVIN ADENINE DINUCLEOTIDE—Note: Lower purities extracted from liver and yeast are still available at higher cost. (For new co-factors or comparisons). 80-90% 25 mg **9.00** 1 g **150.00**

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FLAVIN MONO NUCLEOTIDE, Synthetic Commercial Riboflavin Phosphate Sodium (pfs) 5 g **1.50**

To Non-Profit Institutions. 5 g **Gratis**

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o-FLUOROPHENYL ALANINE HCl (2-) } 500 mg **6.00**

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FRUCTOSE 1,6-DIPHOSPHATE (pfs) Barium or Calcium (Pract.) 10 g **4.50**

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β (2-FURFURYL) α -ALANINE (DL) (pfs) 250 mg **5.00** 1 g **12.00**

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GLUCOSE OXIDASE, Purified Inquire

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