#### Calendar of Events

#### **AAAS Socio-Psychological Prize**

Through the generosity of the late Arthur F. Bentley, the AAAS offers an annual prize of \$1000 for a theoretical and experimental essay that furthers understanding of the psychological-social-cultural behavior of human beings. The prize is intended to encourage studies and analyses of social behavior based on explicitly stated assumptions or postulates leading to conclusions or deductions that are tested by systematic empirical research or, stated in other terms, to encourage in social inquiry the development and application of the kind of dependable methology that has proved so fruitful in the natural sciences.

Entries should present a completed analysis of a problem, the relevant data, and an interpretation of the data in terms of the postulates with which the study began. Unpublished manuscripts and manuscripts published after 1 January 1968 are eligible. The deadline for receipt of entries in the 1969 contest is 1 September. For instructions on how to submit an entry, write to Socio-Psychological Prize Contest, 1515 Massachusetts Ave., NW, Washington, D.C. 20005.

#### Courses

Small Computer Techniques for Molecular Models, St. Louis, Mo., 28 July–8 August. An intensive workshop on the techniques of assembly, manipulations, and display of molecular models is being planned which will include input format, matrix mathematics, Van der Waal's checking, and algorithms for line and stereo displays. Efficient algorithms for small machines will be stressed because of the widespread availability of laboratory computers. Previous experience with computers is not required. All interested individuals should submit a letter stating their potential use of these techniques as well as a curriculum vitae. Limited fellowships to defray expenses are available. Deadline for applications: 25 April. (Dr. G. R. Marshall, Computer Systems Laboratory, Washington University, 724 South Euclid Ave., St. Louis, Mo. 63110)

Mammalian Genetics, Bar Harbor, Maine, 28 July-8 August. This course is intended to stimulate investigation in mammalian genetics and to assist investigators already working in the field or on the periphery of mammalian genetics. Topics which will be discussed include the principles of genetics, linkage, quantitative inheritance, detection of mutations, mutation rate histocompatibility, protein variations, hemoglobins, cytogenetics, sex determination, hematopoiesis, developmental genetics, behavioral genetics, and regulation of gene action. Applications are invited from staff members of universities, medical schools, independent research institutions, and government laboratories. The application should contain (i) brief curriculum vitae, (ii) statement of why the applicant wishes to take the course, (iii) statement of what benefits the applicant expects to gain by taking the course, and (iv) brief outline of the applicant's background in genetics. Deadline for applications: 15 April. (Dr. Elizabeth S.

Russell, The Jackson Laboratory, Bar Harbor 04609)
Summer Institute on Computer Science in Social and Behavioral Science Research, Boulder, Colo., 16 June-18 July (funded by the National Science Foundation). Is intended for college teachers in the social and behavioral sciences. The areas to be covered are the general area of psychological processes, man-machine interaction, data analysis and quantitative methods, artificial intelligence and problem solving with computer models, computer models and simulation of personality, and social models in regional economics, urban planning, and computer-assisted instruction. In order to be eligible, an applicant must generally satisfy the following requirements: (i) must have at least a master's degree in some field of the social or behavioral sciences, or computing science (a Ph.D. is desirable); (ii) must, generally, be a teacher in a department of psychology, sociology, economics, anthropology, or a related discipline (for example, computing science). Applicants with some background in mathematics and statistics will be considered more favorably in the selection of participants. At the conclusion of the institute, each participant will receive \$500, a \$75 allowance per dependent, and a travel allowance. Deadline for applications: 15 April. (Prof. Daniel E. Bailey, Institute for Companying Science, Ketchum 8, University of Colorado, Boulder 80302)

# Treating topics of importance in Biology

#### CELL STRUCTURE AND FUNCTION, Second Edition

Ariel G. Loewy, Haverford College and Philip Siekevitz, The Rockefeller University

Expanded and revised, this best-selling text emphasizes correlating structure and function and demonstrates how the major advances in modern cell biology have been achieved through an integration of structure and function, especially at the molecular level. April 1969 / 512 pages / \$7.95 paper (tent.)

#### **GENETICS, Second Edition**

Robert Paul Levine, Harvard University

Now substantially revised and updated, this book analyzes the nature, transmission, and function of genetic material. Modern Biology Series. 1968 / 224 pages / \$3.95 paper

#### **BEHAVIOR**

William G. Van der Kloot, New York University School of Medicine

This introduction to behavior combines the different approaches used by biologists and psychologists in their experimental analyses of animal behavior. Modern Biology Series. 1968 / 176 pages / \$2.95 paper

#### ANIMAL DIVERSITY

Milton Fingerman, Tulane University

The author uses the concept of evolution as the central theme in describing the probable evolutionary relationships of the major phyla in the animal kingdom. *Modern Biology Series*. March 1969 / 224 pages / \$2.95 paper

#### MICROBIAL LIFE, Second Edition

William R. Sistrom, University of Oregon

The author's major purpose is to make the reader aware of microorganisms, especially bacteria, as living, growing creatures. In particular, he emphasizes function: what these organisms actually do and how they behave. Modern Biology Series. January 1969 / 128 pages / \$2.95 paper

#### ANIMAL STRUCTURE AND FUNCTION, Second Edition

Donald R. Griffin, The Rockefeller University, and Alvin Novick, Yale University

In this study of the structure and function of animals, particular attention is given to organ systems. Comparative material, as well as general principles, are emphasized, and much of the comparative discussion is new to this edition. *Modern Biology Series*. June 1969 / 240 pages / \$3.50 paper (tent.)

#### **EVOLUTION, Second Edition**

Jay M. Savage, University of Southern California

Using evolution as the central, unifying concept of biology, the author focuses on the changes in biological organization produced by the interaction of genetic variation and environmental selection. Modern Biology Series. June 1969 / 160 pages / \$2.95 paper (tent.)

#### **CELLS AND ORGANELLES**

Alex B. Novikoff, Albert Einstein College of Medicine, Yeshiva University, and Eric Holtzman, Columbia University

Providing the most modern approach to the study of cell structure yet available, this text is a synthesis of the diverse facts of modern cytology and cell biology. Modern Biology Series. Fall 1969 / 320 pages / \$4.25 paper (tent.)



## Holt, Rinehart and Winston, Inc.

383 Madison Avenue, New York, New York 10017



- no tuning required
- phase and gain not affected by adjustment or drift in reference frequency
- adapts automatically to virtually any reference input
- ultra stable, highly linear detector—no overload at 1,000 : 1 noise to signal ratio
- 1.0 Hz to 200 KHz operation
- plug-in construction permits addition of new or specialized features—prevents obsolescence

For further information and complete specifications contact:



413 TAUGHANNOCK BLVD., ITHACA, N.Y. 14850



can save you time, money, and a lot of grief. With a Hardco Automatic Watering System, lab animals always have a supply of fresh, filtered water. There are no bottles to refill, wash or replace. Personnel are free to do other things.

Heart of the Hardco System is a leakproof dispenser that can be easily activated by a small animal. A dispenser is installed in each cage and is connected to the water source by a network of special plastic piping.

Hardco designs and installs systems for all species of lab animals...for both planned and existing facilities. Our catalog goes into the details. Write for it today.

#### Hardco Scientific

The Fieldstone Corporation Hardco Scientific Division 6811 Grace Avenue Cincinnati, Ohio 45227

## MOLECULAR MECHANISMS OF TEMPERATURE ADAPTATION

Edited by C. Ladd Prosser Published 1967

A symposium presented at the Berkeley Meeting of AAAS, December 1965. AAAS Publication No. 84, 398 pages, 41 tables, 127 illustrations, bibliography, index. Regular Price \$12.50. AAAS Members' Cash Orders \$10.50.

Molecular Mechanisms of Temperature Adaptation is a collection of papers on the general physiology of temperature adaptation in cold-blooded animals, plants, and microorganisms. Twenty-four contributors from the Soviet Union, Germany, Canada, Denmark, and the United States report recent research findings on the diverse molecular mechanisms of response, acclimation, and adaptation to heat and cold in bacteria, plant cells and tissues, insects, fishes, amphibians, and reptiles.

AAAS 1515 Massachusetts Ave., NW Washington, D.C. 20005

## Personnel Placement

#### RATE CHANGE Effective 1 Jan. 1969

POSITIONS WANTED: 40¢ per word, minimum charge \$10. Use of Box Number counts as 10 additional words. Payment in advance is required. These rates apply to individuals only. Personnel agencies and companies take display rate for all advertising.

POSITIONS OPEN. \$7 per column line, if publisher's type is used (12 lines = 1 inch). Minimum ad is 12 lines or \$84. All ads using larger than 6 point type will be billed as display ads at \$90 per inch. No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Ads over 1 inch will be billed to the nearest half inch. Payment in advance is required except where satisfactory credit has been established.

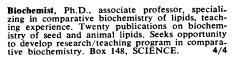
COPY for ads must reach SCIENCE 4 weeks before issue date (Friday of every week). Send copy for Personnel Placement advertising to:

> SCIENCE, Room 211 1515 Massachusetts Ave., NW Washington, D.C. 20005

Replies to blind ads should be addressed as follows:

Box (give number) SCIENCE 1515 Massachusetts Ave., NW Washington, D.C. 20005

#### POSITIONS WANTED



**Biochemist** (physical); Ph.D.; 30. Desires research/teaching position. Experienced; 18 publications. Box 150, SCIENCE. 4/4

Senior Biochemist—Ph.D. Seeks teaching-research position at university or college. Experience with publications in enzymology—nucleic acid and protein synthesis and structure. Box 163, SCIENCE.

Biophysicist, Ph.D. 1964. Interests developing in many areas of biology. Five years' teaching biology, biophysics, and physics. Biomedical research since 1967. Desires position permitting rural living. Box 164, SCIENCE.

Business Administrator, life-science research and college financial management, building, personnel, accounting. Box 165, SCIENCE. X

Cell-Biologist, Histochemist/Cytochemist, desires teaching and research position. Publications. Will teach graduate and undergraduate courses, publications. Available Fall 1969. Box 166, SCIENCE.

R&D Chemist. Materials Scientist: beverages and foods, nitrogen compounds, space project polymers, propellants, cellulose, fatty acids. Lab bench, pilot plant, or conceptual leadership. Fifteen years' experience beyond higher degree. Write: Chemist, 234 Town Creek Drive, Lexington Park, Maryland 20653. Tel. 301 863-8376. 4/4

Research Manager desires key academic or industrial position (materials science and/or geoscience). Ph.D., over 10 years' research and management experience in phase equilibrium studies, microstructural studies, chemical reactions, sintering, solidification of inorganic materials. International reputation, publications, lectures, patents, honors. Box 102, SCIENCE.

4/4; 5/2



#### POSITIONS OPEN



## UNIVERSITY OF BASEL, SWITZERLAND Professorship of Zoology

Applications are invited for the newly created second chair of Zoology, with special emphasis on experimental biology and zoology. A working knowledge of the German language is desirable. Salary and further particulars to be negotiated. Please apply (with curriculum and list of publications) before 31 May 1969, to:

Prof. M. Staehelin c/o Erziehungsdepartement Münsterplatz 2 4000 Basel, Switzerland

#### ION SOURCE ENGINEERING PHYSICIST

An Engineering Physicist or Physicist with experience in the design and development of ion sources and beam transport systems is required to join the ion source group of TRIUMF. The successful applicant will work on the design, construction and installation of the negative hydrogen ion axial injection system for the 500 MeV isochronous cyclotron. The design aim is to achieve an average accelerated beam at 500  $\mu$ A (unpolarized H-) and 1  $\mu$ A (polarized H-). Appointment will be at the rank of Research Appointment will be at the rank of Research Associate, with salary in the range \$10,000 to \$14,000 depending on experience. The appointment will be at the University of Alberta, Edmonton, Alberta. The appointee will be required to work at the cyclotron site in Vancouver, British Columbia. Apply to:

Dr. G. C. Neilson, Director Nuclear Research Centre The University of Alberta Edmonton, Alberta, Canada

#### BIOLOGISTS

Applications are invited for positions in teaching undergraduate biology. Candidates must have a Ph.D. degree and will be expected to teach and develop a research program.

Please send résumé to:

Dr. Sheila A. Moats Chairman, Life Science Department Federal City College 425 Second Street, NW Washington, D.C. 20001

Career openings are now available for College Grads with a degree in a Physical Science or Engineering with starting salaries from \$7,000 to \$8,400, in the exciting and interesting field of environmental health, New York City Health Department. Openings exist for public health saniarian trainee (no experience required) starting at \$7,000 a year, public health santiarian at \$8,150, and junior civil engineer at \$8,400 with promotional advancement to \$16,000 and higher. For further information or an interview, write Mr. John McHugh, Office of Professional Education, New York City Health Department, 125 Worth St., New York 10013. Inquires from college seniors welcome. seniors welcome.

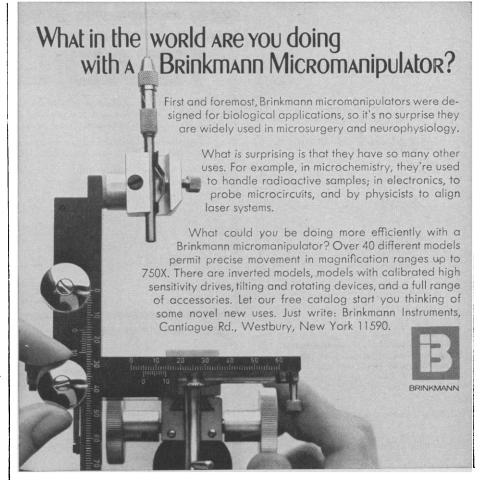
Chairman, Biology Department, on rapidly developing campus. Specialty not critical but must have broad biological experience, proven research capability, and desire to supervise departmental growth and development. Salary and rank open, many fringe benefits. Inquiries invited for additional biology staff positions. Contact Dr. Allen Benton, Department of Biology, State University of New York, College at Fredonia, New York 14063.

CHAIRMANSHIP POSITION with teaching-research appointment in the University teaching program and the Experiment Station, six professional staff, secretary, technician for media, and so forth, for classes, eight graduate student appointments, twelve undergraduate majors, well-equipped facilities, minimum salary \$15,000, 1 month paid vacation, TIAA/CREF and other retirement, Ph.D., some experience, preferably in administration. Contact Dr. J. L. Parsons, Bacteriology Department, North Dakota State University, Fargo, North Dakota.

#### MICROBIOLOGIST

B.S. with experience in cell culture production. To work on tissue culture vaccines as assistant to laboratory director. Salary negotiable. Excellent opportunity with good fringe benefits. Please send résumé with salary requirements to

Box 161 SCIENCE



## New 2 Kg optical projection balance ...0.1g accuracy, fast, rugged

New Torbal PL-12 top loader (2000g capacity, tare to capacity plus 325g, 0.1g accuracy) provides optical projection readout... fast, easy-to-read, foolproof weighing.

Easy reading of optical projection with high-quality optics, coated first-surface mirrors, high illumination.

Easy-to-operate internal weight handling to achieve weighing by substitution with 100 gram increments to 1 kilogram.

Long-lasting accuracy—rugged, thanks to superior friction-free torsion-band weighing

mechanism; no knife edges to dull or chip.

Fast weighing—with no friction to overcome or to build up over the life of the balance, dash pot can be adjusted to attain rest point immediately without undue oscillation.

As is twiced in Torbal original balance.

point immediately without undue oscillation.
As is typical in Torbal optical balances, minor changes in level do not change the zero point. Long-lasting accuracy of the Torsion construction has been proved by continuous weighings (over 1,750,000 operations) 24 hours a day for 6 months. Also available in an explosion proof model.



THE TORSION BALANCE CO. Dept. S Main Office and Factory: Clifton, N. J.; Sales Offices: Birmingham, Ala.; Chicago, Ill.; San Mateo, Cal.; Pittsburgh, Pa.; Plants and Offices in Montreal, Quebec; London, England and Waterford, Ireland



## **TRAINING**

For Careers in

## **HEALTH SCIENCE**

ADMINISTRATION

Through the PHS Grants Associates Program

Scientists interested in the administrative challenge implicit in Federal programs supporting training, research, and services in health related fields are urged to con-

sider opportunities in the Grants Associ-

ates Program of the Public Health Serv-

The program provides a unique educational experience designed to prepare each associate for a career in health science administration. For a 12 month period the grants associate participates in an individually structured program. He has the opportunity of working with senior scientist administrators, attending seminars, visiting project sites, attending scientific meetings and taking part in evaluation and analysis of grant supported programs.

The nature of the biomedical and health services programs in the Public Health Service affords many opportunities for exceptionally well qualified Scientist Administrators.

If you hold a doctorate or equivalent in a discipline related to the biomedical sciences, including the behavioral sciences, have some post doctoral research experience, and are motivated toward the administration of federally supported programs in the biomedical and behavioral sciences, you should investigate the opportunities offered by the Grants Associates Program. The beginning salaries for these Civil Service appointments range up to \$16,946. U.S. citizenship

For more information write: The Executive Secretary, Grants Associates Program. The Executive Secretary will be available for interviews at the FASEB meeting in Atlantic City, April 13-17.

## NATIONAL INSTITUTES OF HEALTH

Westwood Building, Room 5A03 Bethesda, Maryland 20014

An equal opportunity employer, M&F



#### EAD **BIOCHEMISTRY** RESEARCH DEPARTMENT

We have an excellent opportunity for a scientist of proven ability in natural product isolation and biochemical characterization to lead multiple project activities directed toward new drug products.

Experience in the biochemical aspects of new drug development is required and industrial experience is desirable, but not essential.

This position offers opportunities for personal and scientific achievement, managerial responsibilities, and appropriate compensation.

If you are qualified, submit your curriculum vitae in complete confidence to: E, J, KIEL



#### ARMOUR PHARMACEUTICAL COMPANY

P.O. Box 511

Kankakee, Illinois 60901

An Equal Opportunity Employer

Our laboratories are located in Kankakee, Illinois (60 miles south of Chicago). Ample housing is available locally and in suburban Chicago.

## BIOSTATISTICIAN

Excellent opportunity for a person qualified to develop the Statistics Operation in our Medical Department. Re-sponsibilities include:

**Experimental Design** 

Consultation

 Analysis EDP Applications

REQUIREMENTS: Several years pharmaceutical or medical experience or educational equivalent.

We are located in the Princeton area, one hour from New York City and Philadelphia. Our benefits are substantial. Salary commensurate on qualifications.

Send details of experience and education including salary requirements, to Personnel Manager

#### CARTER-WALLACE, Inc. New Jersey

Cranbury

An equal opportunity employer

## NEW FACULTY POSITION, teaching-research NEW FACULTY POSITION, teaching-research appointment, teaching of bacterial viruses and microbial genetics, research in Experiment Station, six professional staff members, 12-month appointment with month paid vacation, sick leave, TIAA/CREF and other retirement. Ph.D. in bacteriology or microbiology with emphasis in areas of phage and microbial genetics, salary \$12,000. Contact Dr. J. L. Parsons, Bacteriology Department, North Dakota State University, Fargo. North Dakota. Department, North Fargo, North Dakota

#### RESEARCH SCIENTIST, Ph.D.

Biochemistry or Organic Chemistry, interested in developing the use of GLC for clinical chemistry. Emphasis on applications for steroid analysis but not limited to this area. Publication of work encouraged. Salary commensurate with experience and qualifications, Please send résumé to:

V. J. Pileggi, Ph.D. BIO-SCIENCE LABORATORIES 7600 Tyrone Avenue Van Nuys, California

#### TEACHERS and ADMINISTRATORS NEEDED

For Universities and Colleges throughout the U.S. Our Nationwide Academic Placement Service Since 1890 offers excellent opportunities to qualified individuals in higher education. Send résumé to E. E. Hansbrough, President, American College Bureau and University and College Staffing Center, 28 E. Jackson Blvd., Chicago, Ill. 60604.

#### GRADUATE STUDY

## PREDOCTORAL ASSISTANTSHIPS AND TRAINEESHIPS IN PHYSIOLOGY

Excellent opportunities for graduate students leading to the Ph.D. Ample stipends and free tuition. Training and research in endocrinology, gastrointestinal, water and electrolyte metabolism cardiovascular, sensory physiology, energy metabolism and bioengineering. Write for details to Head Department of Physiology University of Illinois at the Medical Center P.O. Box 6998
Chicago, Illinois 60680

POSTDOCTORAL TRAINING PROGRAM IN IMMUNOPHYSIOLOGY. Applications are being accepted for postdoctoral traineeships in Immunophysiology, Applicants must be U.S. citizens and holders of doctorate in Chemistry, Biology, or one of the Medical or Veterinary sciences. Successful applicants will be expected to begin their training in September 1969. For details write to: Dr. G. A. Feigen, Department of Physiology, Stanford University, Stanford, California 94305.

MEDICAL COLLEGE OF GEORGIA: Graduate programs in the basic Health Sciences, 1969-70 academic year leading to the Ph.D. (or M.S.) in Biochemistry, Endocrinology, Microbiology, Anatomy, Physiology, and Pharmacology, NSF, NDEA, NIH, and institutional fellowships, traineeships, and assistants for qualified students, with dependency and tuition allowance in many cases. For details of the graduate program in each field and financial assistance write to: Dean F. J. Behal, School of Graduate Studies, Medical College of Georgia, Augusta 36902.