

Circle No. 60 on Readers' Service Card



## AAAS Annual Meeting: San Francisco

Registration

24 February-1 March 1974

**(E)** 

| ADVANCE REGISTRATION F  | FORM                 |  |   |
|---|----------------------|--|---|
| ☐ Enclosed is \$17 Registration Fe  | ee (Program and      | Convention Badge)  |   |
| ☐ Enclosed is \$22 Registration Fe  | ee (including spo    | use) (One Program and two Con  | vention Badges)   |
| ☐ Enclosed is \$8 Young People  | and Student Reg      | istration Fee (Program and Con-  | vention Badge)  |
|   | □Yes □No<br>□Yes □No |  | reason for attending the AAAS meeting.  To attend certain  general sessions |
| NOTE: PROC  | GRAMS AND B          | ADGES WILL NOT BE MAILE  | D IN ADVANCE.   |
| registrant. Plea at the San Fra Miss Ms. Mrs.   | ase present your     | gram summary and a receipt will<br>receipt at the ADVANCE REGI<br>stel to pick up your program and | STRATION DESK   |
| Dr. Mr. (Last Name)   |                      | (First)  | (Middle Initial)  |
| MULTIPLE REGISTRATION:  (List full name for spouse and other regions)  MAILING ADDRESS: | istrants)            |  |   |
|   | treet)               | (City/State)   | (Zip Code)  |
| INSTITUTION OR COMPANY:   |                      |  |   |
| (City)  |                      | (State)  | (Zip Code)  |
| CONVENTION ADDRESS:   |                      | Arrival<br>date:   | Departure date:   |

Mail to: American Association for the Advancement of Science, Dept. R, 1515 Massachusetts Ave., NW, Washington, D.C. 20005

## **OFFICE AND SESSION LOCATIONS**

San Francisco Hilton: AAAS Headquarters Office; On-Site Registration Desk; Advance Registration Desk; Information Desk; Ticket Sales Desk; Message Center; Session Aides; Press Headquarters; AAAS Sciencephere (Exhibits); Science Film Festival; Invited Lectures.

Symposia Topic Areas\*: Energy and Society; Space Technology; Health and Behavior (Neurological Systems; Function; Drug Use and Drug Abuse); Population Trends; Environmental Evolution; Species Organization; Scientists and Government; Technology Assessment.

St. Francis: AAAS Office; Session Aides.

Symposia Topic Areas\*: Mathematics; Physical Universe; Engineering; Computer Technology; Environmental Education and Assessment; Animal Behavior; Land Use and Planning.

Sheraton-Palace: On-Site Registration Desk; Information Desk; AAAS Office; Session Aides. Symposia Topic Areas\*: History; Philosophy of Science; Health Systems and Policy; Food; Control Mechanisms; Educational Policies and Trends; Minorities.

\*See Preliminary Program for the precise locations of individual symposia.

Child Care Services: Two agencies have been recommended for attendees requiring baby-sitting services. For further information contact:

Bristol Agency 540 O'Farrell Street San Francisco, CA 94102 TEL: (415) 776-9100 The French-American Agency 133 Geary San Francisco, CA 94108 TEL: (415) 781-3889

Travel: AAAS does not provide group travel arrangements for the San Francisco meeting. Please check with your travel agent or airline for the most economic air fares.

## Reservations

## **HOTEL RATES\*** (Per Day)

The American Association for the Advancement of Science will hold its 1974 Annual Meeting in San Francisco, California, 24 February–1 March. The AAAS registration desks will be located at the San Francisco Hilton and Sheraton-Palace hotels. The following hotels will be used for housing:

| Hotel   | Single                 | Double                       | Twin                         | Suites†           | Parking  |
|---|------------------------|------------------------------|------------------------------|-------------------|--|
| 1) SAN FRANCISCO HILTON<br>(Headquarters Hotel)<br>Mason and O'Farrell Stree<br>(a) Main Building Rates | 25                     | \$30<br>33<br>37<br>40<br>42 | \$30<br>33<br>37<br>40<br>42 | \$74<br>and up    | Free parking for registered guests on 5th through 11th floors in Main Building (subject to availability).  \$3.25 maximum charge for 12 hours; up to 24 hours add \$0.75.  \$4.25 24 hours with in and out privileges for regis- |
| (b) Tower Rates   | \$37                   | \$45                         | \$45                         | \$95<br>and up    | tered guests.  |
| 2) HOTEL ST. FRANCIS ★ Union Square   | \$22<br>26<br>30<br>34 | \$28<br>32<br>36<br>40       | \$28<br>32<br>36<br>40       | \$65<br>and up    | \$4.50 24 hours with in and out privileges for registered guests.  |
| 3) SHERATON-PALACE HO 639 Market Street   | ΓEL <b>¥</b> \$23      | \$27                         | \$27                         | \$43.50<br>and up | Commercial parking adjacent to hotel: \$3.75 & \$2.25 24 hours.  |
| 4) SIR FRANCIS DRAKE HC Powell and Sutter Streets   | OTEL ★ \$24            | \$29                         | \$29                         | \$66<br>and up    | \$4.50 24 hours with in and out privileges for registered guests.  |

<sup>\*</sup> San Francisco Room Tax, 6%; \$4 to \$8 additional charge for cots and rollaway beds. If rate specified is not available, the next available higher rate will be assigned.
† One bedroom parlor suites; rates for larger suites available upon request.

\*\*Up to two children accommodated at no extra charge if they occupy same room as parents.

| (No reservations by telephone              |               |  |                                  | Mail to | Mail to: AAAS Housing Bureau<br>260 Fox Plaza<br>San Francisco, CA 94102                         |  |  |  |
|--|---------------|--|----------------------------------|---------|--|--|--|--|
| CHOICE OF HOTEL:                           | First         | A talah sahiri da kasal merebagai kendilagai kenangai kalampan pelakan persenjangan pengangan pengangan pengan | _Second                          |         | Third  |  |  |  |
| ROOM:                                      | ☐ Double      | ☐ Twin   | ☐ Suite                          |         | Preferred Rate \$  |  |  |  |
| ARRIVAL: Date_                             |               |  | ;a.m                             | p.m.    | Be sure to list definite arriva<br>and departure date and time<br>Hotel reservations will be hel |  |  |  |
|  |               |  |                                  |         | only until 6 p.m. unless other   |  |  |  |
| DEPARTURE: Date_                           |               |  | ;a.m                             | p.m.    | wise specified.  |  |  |  |
| DEPARTURE: Date_ NAMES AND ADDRESSI        |               |  |                                  | p.m.    |  |  |  |  |
| NAMES AND ADDRESS                          | ES OF ALL OCC | UPANTS OF  | ROOMS                            | •       |  |  |  |  |
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8 FEBRUARY 1974



#### **Annular Stills**

The model 251 performs separations of liquids with differences in boiling points as little as 0.5°C and the model 151 separates liquids with differences in boiling points of 2 degrees or more. With the model 251 still and a boiling point difference of 5°C, the operator can recover 100 percent of sample at a rate of 100 milliliters per hour. Perkin-Elmer Corporation. Circle No. 28 on Readers' Service Card.

### Quantum Sensors

The LI-185 model senses the wavelengths of light available for photosynthesis in aquatic or terrestrial environments. The cutoff wavelengths are 400 and 700 nanometers and cutoff is sharp. The instruments are portable and they are available with pyranometric or photometric sensors also for increased capability. Lambda Instruments Corporation. Circle No. 30 on Readers' Service Card.

## Column Packing Material

Improvements in liquid chromatography column efficiency result with small-diameter packing materials. Columns packed with  $\mu$ Porasil demonstrate this. Thus, sample injections up to 100 microliters are practical with sample loads of 10 milligrams on a column. The material also contributes to lower column head pressure and recycle capability. Waters Associates. Circle No. 31 on Readers' Service Card.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by Science or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card (see pages 474A and 554C) and placing it in the mailbox. Postage is free.—RICHARD G. SOMMER

## Thin-Layer Chromatography

The model 7300 Automatic Thin-Layer Analytical System (ATLAS) can analyze from 1 to 100 consecutive samples in a single unattended operation. Spotting is automated and regulated as to location, rate, and quantity of sample. The capillary is cleaned with solvent after spotting. Plates, 5 by 20 centimeters, are fed to the spotter from a magazine. Development occurs in vertical tanks with a turntable to regulate sequential or concurrent development. The plates are automatically removed and dried after which they are scanned by a ultraviolet/visible detector. The results may be recorded via strip chart or digital devices. Lightner Instrument Company. Circle No. 29 on Readers' Service Card.

## Salt Water Aquaria

Oceanic 35 and Oceanic 55 are 35-and 55-gallon marine aquaria. They are engineered to provide a stable marine environment over a long period. Both systems incorporate systems to control circulation, aeration, temperature, and filtration. In combination with the AquaChiller unit, refrigeration of the water is also achieved in these two systems. Jewel Industries, Incorporated. Circle No. 27 on Readers' Service Card.

## Photomicrographic Camera

The Combiphot Automatic System Camera is designed for automatic exposure control in all formats from 35 millimeters to 4 by 5 inch plates, and to handle easily largefield applications as well. A single shutter system accommodates all camera bodies which are interchangeable and features interlocks for rapid change of film types. A separate control unit allows setting for film speeds from 3 to 4000 ASA

and the shutter operates from 1/125-second to almost 60 minutes. E. Leitz, Incorporated. Circle No. 26 on Readers' Service Card.

## Electron Microscopy Tissue Processor

The Reichert system automates tissue processing. A specimen rack accommodates from one to four stacked stainless steel carriers which hold up to 46 disposable porous capsules. Up to ten chemical processing cycles may be selected, each may be repeated up to three times. The processor meters the appropriate solution into the containers and drains the containers after the selected time interval. A delay control allows the operator to select the starting time anytime up to 72 hours later so that processing will be completed at a designated time, thus a sequence could be run overnight or over a weekend with the completion scheduled for the operator's return to work. American Optical Corporation, Scientific Instrument Division. Circle No. 25 on Readers' Service Card.

#### Literature

An Introduction to pH, bulletin 7222 describes in simplified terms the concept of pH and some applications. Beckman Instruments, Incorporated. Circle No. 32 on Readers' Service Card.

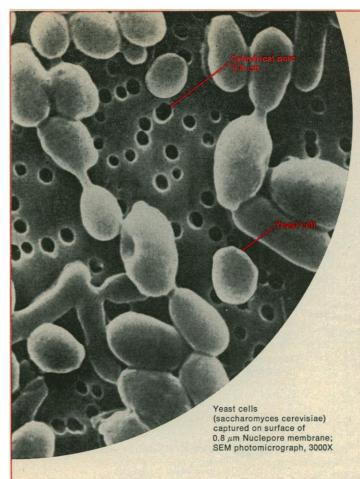
Modular System for Automatic Titrations details apparatus for a variety of applications in chemical laboratories. Mettler Instrument Corporation. Circle No. 33 on Readers' Service Card.

Guide to Dual FETS and Transistors is a 32-page summary of information on ten types of dual monolithic bipolar and field effect transistors. Analog Devices. Circle No. 34 on Readers' Service Card.

Monochromators features specifications, illustrations, and descriptions of nearly two dozen instruments and systems for wavelength selection. Schoeffel Instrument Corporation. Circle No. 35 on Readers' Service Card.

Microelectronics Microscope—Nachet 300 describes applications in qualitative and quantitative interferometry. Hacker Instruments, Incorporated. Circle No. 36 on Readers' Service Card.

Infrared Micro Sampling catalogs instruments and accessories for infrared analysis of small quantities. Barnes Engineering Company. Circle No. 37 on Readers' Service Card.



# This membrane is different

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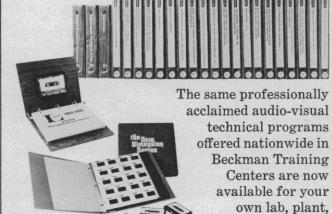
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Company

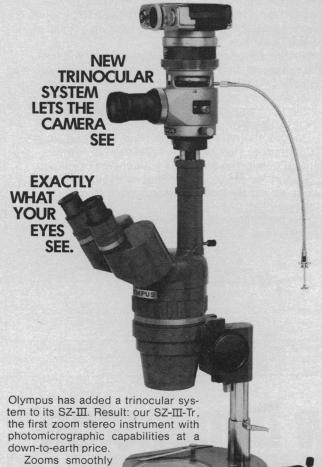
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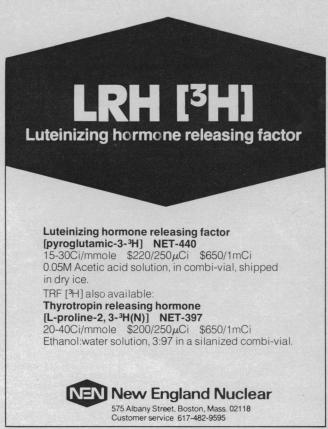
High intensity, low voltage light sources are available for reflected and transmitted light. Normally equipped for a magnification range of 7x to 40x; additional wide-field eyepieces and objectives are easily inserted to provide magnification as low as 3.5x or as high as 160x in seven magnification ranges. Fully compatible with the Olympus Photomicrographic Camera System PM-10 or other similar equipment.

Photomicrography with a stereo zoom microscope at modest prices... worth looking into! Write:

Olympus Corporation of America, Two Nevada Drive, New Hyde Park, New York 11040.

In Canada: W. Carsen Co. Ltd., 31 Scarsdale Road, Don Mills, Ontario.

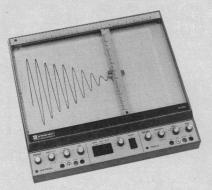




NEN Canada Ltd., Dorval, Quebec; NEN Chemicals GmbH, Dreieichenhain, Germany.

Circle No. 79 on Readers' Service Card

# Bug-less X-Y for hassle-free recording



Esterline Angus X-Y recorders do the job reliably—and they are available with the right combinations of features to suit most lab or process applications without tricky modules.

Our hard-wired X-Y recorders accurately, quickly, and simply record one variable against another—or two variables against a third—or one or two variables against time. They're built tough to stand up, and priced to sell. Get a catalog to help you shop. Or a demonstration. Box 24000, Indianapolis, Indiana 46224. Telephone: (317) 244-7611.



Circle No. 92 on Readers' Service Card

## Personnel **Placement**

It is requested that only those employers who will not discriminate on the basis of race, sex, religion, color, or national origin submit positions open advertising.

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: \$110 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 adver-

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

Administrative Aide, M.S. Zoology; 2½ years' experience. Budget planning, building program committee, teaching assistant assignment, catalogue revisions, committee to review graduate program, some bookkeeping experience. Taught 3 years invertebrate zoology labs. Could mix administration with teaching. Box 48, SCIENCE.

Anatomist-Neurobiologist-Electron Microscopist. Ph.D., 1972. Desires teaching and/or research position. Teaching credentials in zoology and anatomy departments. Research program in developmental neurobiology with adequate funding for next 2 years. Box 49, SCIENCE.

Aquatic Chemist, Ph.D. Interdisciplinary experience. Publications. Seeks research opportunity in university or research institute. Box 50, X

Biochemist, B.S. 15 years of experience in medical, pharmaceutical research, winemaking field. Desires research/industrial/teaching position overseas. Box 51, SCIENCE.

Biochemist/Organic/Physical: Ph.D. 1970, assistant professor investigating chemical and drug metabolism, enzyme isolation and assays, chemical mutagenesis. Previous research under well-known supervisors includes: membrane and protein structure using fluorescent labels, complexes, photochemistry, free radicals. Experience with common analytical and separation techniques. Some tissue culture and cell fractionation. Ten publications. Fluent German. East. Box 52, SCIENCE.

Biochemist, Ph.D. Eight years' experience in neurochemistry, toxicology, cardiovascular (enzymology, immunochemistry, TLC, radioisotopes and so forth). Teaching; postdoctoral; publications. Seeks academic/research position in industry or university. Box 53, SCIENCE. X

Biochemist. Ph.D. 1973. Four years of experience in purification, characterization, and chemical modification of enzymes and protein, enzyme mechanisms and kinetics. Chemistry and immunochemistry of glycoproteins and cell surface antigens. Excellent background in organic chemistry. Versatile in modern instrumental techniques. Seeks industrial or academic position. Box 54, SCIENCE.

Biochemist, Ph.D. 1972. Postdoctoral experience in lipid neurochemistry-metabolism. Strong analytical background in lipid methodology. Several publications. Desires academic, postdoctoral, or industrial position in New York State or New England. Box 17, SCIENCE. 2/15, 22; 3/1

Biologist, Ichthyologist. Ph.D., 10 years of college teaching. Biology, zoology, ecology, vertebrate zoology, oceanography, biology of fishes. Desires teaching position. Box 55, SCIENCE. X

## POSITIONS WANTED

Biologist, Ph.D. (genetics, 1965), postdoctoral, broad training, dedicated, excellent teacher, 15 years of professional experience. Special interest innovative undergraduate programs. Seeks academic position. 2266 Lake Circle, Jackson, Mississippi 39211.

Biophysicist/Tumor Immunologist. Ph.D., 3 years of postdoctoral research, humoral and cellular immune response to mouse tumor-associated antigens, mammalian normal and tumor cell culture, macromolecular structure, x-ray scattering, Publications. Desires appropriate research, teaching or industrial position, Box 56, SCIENCE. X

Cytogenetic Technician, B.A. One year of experience including blood and fibroblast culture, banding and fluorescence in research and clinical settings. Seeking position appropriate to experience and interest in human and comparative cytogenetics. Box 57, SCIENCE.

Ecophysicist/Theoretical Physicist doing research in ecology, book published on subject, 23 years of research and teaching, many publications, seeks research/teaching position. Wesley, Physics Department, University of Missouri, Rolla, Mo. 65401.

Environmental Scientist (Ph.D.) seeks to improve his environment. Nonurban position with industry, government or academe desired. Geoscience derees. Publications. Résumé upon request. Box 58, SCIENCE. 2/15

Environmentalist: biochemist-nutritionist with 16 years of postdoctoral experience in graduate teaching and research plus 2 years as staff scientist in national environmental organization. Would like to help organize and/or administer university interdisciplinary environmental program. Box 59, SCIENCE.

Histologist/Embryologist/Radiologist/and General Biologist. Ph.D. Young, vigorous, excellent teacher. NIH postdoctoral fellow. Numerous publications. Strong teaching experience in many aspects of biology including above. Desires primarily teaching position in college or university (small or large). Box 60, SCIENCE. X

Immunologist, Ph.D.; 3 years of postdoctoral work in cellular immunology and immunopathology. Teaching experience and publications. Seeks research/academic appointment. Box 61, SCIENCE.

Improve Your Equal Opportunity Status—employ a woman Ph.D. Biochemistry, physiology. Experienced literature searching, manuscript preparation, project coordination. Box 38, SCIENCE.

Information Dissemination Specialist. Ten years' experience in foundation and federally funded programs to reach policy-makers and potential implementers with benchwork results. Prefer agricultural, ecologic, oceanographic sciences. Will relocate. Box 62, SCIENCE.

Pharmacology, Ph.D., physiology, basic medical sciences, biology background; interested teaching, research position medical/health sciences/biology. Box 40, SCIENCE. X

Research/Development/Innovation Manager. Scientist with proven ability in research, development and new product search with industry. Wide experience: trained as a physicist, latest success—a major development in clinical microbiology. Present job a dead end; seeks stimulating senior industrial position. Box 63, SCIENCE. X

Tired of Being a Biochemistry Technician! Woman with 1973 M.A. in physiology (thesis in blood rheology), with interests in anatomy, histology, and physiology, seeks challenging and interesting career in New England. Box 64, SCIENCE.

You Name It, industrial, academic, administrative or research position. Ph.D., 16 years' experience cell biology, biomembranes, neurochemistry. Box 42, SCIENCE. X

Zoologist/Wildlife Ecologist, M.Sc., seeks research or administrative position; experience in ecological-behavioral study of an African antepope in natural environment; available immediately. Box 65, SCIENCE.



kinetic plus ultrasonic energy. And it often succeeds where other instruments fail.

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Circle No. 70 on Readers' Service Card

## POSITIONS OPEN

### AQUATIC ECOLOGIST

Appointment available at Rosenstiel School of Marine and Atmospheric Science, University of Miami, for an aquatic ecologist interested in quantitative population or community ecology with particular interest in food chain dynamics and community structure. Responsibilities will include teaching and the designing and coordination of field research. Level of appointment would be commensurate with qualifications, Inquiries should be submitted to:

James H. Carpenter
Chairman—Search Committee
RSMAS, University of Miami
10 Rickenbacker Causeway
Miami, Florida 33149

The University of Miami is an equal opportunity/

affirmative action employer.

### ASSISTANT PROFESSORSHIP

Nondepartmental, interdisciplinary, undergraduate program in science for nonscientists. Applicants holding Ph.D. in earth or life sciences preferred. Responsibility for developing courses for nonscience majors plus some teaching and research in major field. Submit résumé, three references, and statement of approach to the position to Academic Vice President, Providence College, Providence, R.I. 02918. An Equal Opportunity/ Affirmative Action Employer.

#### ASSISTANT OR ASSOCIATE PROFESSOR

University of Western Ontario. Applications are invited for the position of Assistant or Associate Professor. Responsibilities involve teaching undergraduate and graduate students and conducting a research program in Biochemistry, Ph.D. and research experience in fields of physical biochemistry, membrane biology, or related areas will be given preference. Send curriculum vitae and three references to Dr. W. C. McMurray, Secretary, Selection Committee, Department of Biochemistry, University of Western Ontario, London, Ontario, Canada, N6A 3K7.

## ASSISTANT PROFESSORSHIP IN MEDICINAL CHEMISTRY SCHOOL OF PHARMACY, UNIVERSITY OF MARYLAND AT BALTIMORE

OF MARYLAND AT BALTIMORE

Position open 1 July 1974, involving teaching of Medicinal Chemistry and participating in research efforts of the department. Requirements include training as a medicinal chemist, preferably with B.S. in pharmacy, 1 year of postdoctoral experience, ability to do and to direct synthesis of labeled compounds and experience with spectroscopic instrumentation, including mass spectrometry and nuclear magnetic resonance. Please send three professional references together with your most significant publications by 28 February 1974 to Dr. Nicolas Zenker, Chairman, Department of Medicinal Chemistry, 636 West Lombard Street, Baltimore, Maryland 21201.

An equal opportunity/affirmative action employer.

## ASSISTANT RESEARCH BIOPHYSICIST

To study primary processes in bacterial photosynthesis. Applicant must have at least 3 years of postdoctoral experience in the isolation of membrane proteins and a strong background in physical techniques, especially magnetic resonance. Send curriculum vitae and have three letters of recommendation sent to: Chairman, Physics Department, University of California, San Diego, La Jolla, California 92037.

Equal Opportunity-Affirmative Action Employer

## **BIOLOGISTS**

Positions available for 1 September 1974 in the Department of Biology at the rank of Assistant or Associate Professor. Earn Ph.D. with teaching and research experience; postdoctoral experience in research highly desirable; areas involved are physiology (vertebrate and invertebrate and comparative); genetics (microbial and mammalian); biochemistry (proteins and nucleic acids). Candidates seriously considered will be invited to give a seminar and be interviewed by staff of department and deans. Equal opportunity employer; salary open. Send résumé to: Dr. Alfred V. Liberti, Chairman, Department of Biology, St. John's University, Queens, N.Y. 11439.

## RIOLOGIST

Ph.D., with training in ecology/botany or ecology/invertebrate biology Emphasis on teaching in Biology/Ecology major. Rank and salary negotiable.

Dr. Walter Chizinsky Academic Dean Briarcliff College Briarcliff Manor, N.Y. 10510

## POSITIONS OPEN

## **BIOLOGICAL** OCEANOGRAPHER-MARINE BIOLOGIST

Brookhaven National Laboratory, located on Long Island about 65 miles east of New York City, seeks a marine biologist with Ph.D. or equivalent and outstanding record of research to initiate a program in biological oceanography in the northeastern coastal zone. Successful candidate will be expected to play a major role in making further appointments in this area. Send curriculum vitae, list of publications, reprints of two recent papers, and three professional references to Dr. John M. Olson, Search Committee Chairman, Biology Department,

## **Brookhaven National** Laboratory

Associated Universities Inc. Upton, New York 11973.

An Equal Opportunity Employer M/F

Applications are invited for the position of ASSISTANT PROFESSOR IN THE DEPART-MENT OF BIOLOGY at the University of California, San Diego. Candidates should have demonstrated the capacity to do meritorious research and be prepared to participate in the teaching of developmental physiology and comparative zoology at the introductory and advanced levels. Candidates should submit their curriculum vitae, including a list of publications, and three letters of recommendation. The position is open 1 July 1974, and applications or requests for further information should be sent to Dr. Richard W. Dutton, Chairman of the Biology Department, University of California at San Diego, P.O. Box 109, La Jolla, Calif. 92037. The University of California is an equal opportunity employer.

## UNIVERSITY OF LEICESTER SCHOOL OF BIOLOGICAL SCIENCES **Botany Department**

Applications are invited for a Senior Lectureship or Readership (within the scale £4368 to
£5496 per annum) in Plant Taxonomy to take
up appointment from 1 October 1974 or as soon
thereafter as possible. The person appointed will
be responsible for the teaching of taxonomy in
the School and for the supervision of the Herbarium (approaching 10,000 specimens), and will
be expected to help in the development of the
University Botanic Garden.
Applications should reach the Registrar, University of Leicester, by 23 February 1974, from
whom further particulars may be obtained.

## CHAIRMAN

Position available in the Department of Physical Medicine & Rehabilitation, University of Michigan Medical School. Candidate must be Board certified Physiatrist and have administrative experience in managing varied health personnel. Code #100E. Send résumé to

## Box 66, SCIENCE

A Nondiscriminatory Affirmative Action Employer

## DEAN SCHOOL OF NATURAL RESOURCES THE UNIVERSITY OF MICHIGAN

The University OF MICHIGAN

The School of Natural Resources of the University of Michigan is seeking candidates for the position of Dean. Individuals with strong scholarly ability and potential for effective administrative leadership are desired.

Applications and nominations should be directed in writing, by I March, to Professor Richard N. L. Andrews, Search Chairman, School of Natural Resources, The University of Michigan, Ann Arbor, Michigan 48104.

\*\*Nondiscriminators.\*\* Affirmative Action Employer\*

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## DEVELOPMENTAL BIOLOGIST

DEVELOPMENTAL BIOLOGIST

The Department of Biology invites applications from Developmental Biologists for a permanent faculty position (Assistant or Associate Professor). Candidates should be prepared to teach in undergraduate and graduate courses, to develop an independent research program, and supervise graduate students. Rank and salary are open and commensurate with experience. Applicants are requested to submit a curriculum vitae and at least three letters of recommendation by 20 February 1974 to Chairman, Department of Biology, University of South Florida, Tampa, Florida 33620. An equal opportunity/affirmative action employer.

## POSITIONS OPEN

MEMORIAL UNIVERSITY
OF NEWFOUNDLAND
FACULTY OF MEDICINE
Director of Multidiscipline Teaching
Laboratories and Faculty Member

A vacancy exists for the above position to be filled effective 1 September 1974. This post is suited to basic medical scientists with experience and interests in medical education, in particular, laboratory work including projects and electives in the cell sciences, physiology, and pharmacology. The Director will be responsible for the administration of the Laboratories and will actively participate in the planning and execution of the Laboratories have recently been built as part of the new Health Sciences Complex. There is an associated Director's research laboratory and administrative offices; the technical and support staff is of high calibre.

Rank and salary will be according to qualifications. Send application and curriculum vitae as soon as possible and, in any case, not later than 28 February 1974, to Dr. K. B. Roberts, Associate Dean, Faculty of Medicine, Memorial University of Newfoundland, St. John's, Newfoundland.

## DIRECTOR OF ELECTRON MICROSCOPY FACILITY

Applications are invited for appointment as Director of new high resolution electron microscopy facility serving several active research groups in the areas of cell and molecular biology. Joint appointment in Departments of Microbiology and Physiology with rank of Assistant Professor. Opportunities for both collaborative and independent research and for graduate and medical student teaching. Experience with both conventional and specialized techniques of electron microscopy, including freeze-etching, is desirable.

sirable.
Please send complete curriculum vitae, list of publications, and names and addresses of three references to:

Dr. Lawrence Rothfield or Dr. Richard Berlin
University of Connecticut
Health Center
Farmington, Connecticut 06032
Applications from women and members of minority groups are welcomed.

minority groups are welcomed.

The National Commission on Water Quality, a federal agency, is soliciting applications for staff positions within the Environmental Sciences Program. Necessary qualifications include an earned graduate degree or equivalent training in some area of freshwater or marine ecological sciences. Special consideration will be given to those applicants who possess expertise, training or experience in ecosystem level studies. Demonstrated in-depth knowledge of current aquatic ecological literature is a necessary prerequisite. Successful applicants must be capable of reviewing pertinent literature and data, and in summarizing information and writing reports on specified topics. Other duties will include working with and assisting personnel in other sections of the Commission staff. Applicants will be requested to relocate to the Washington, D.C., area soon after acceptance as a staff member. Salary negotiable, but commensurate with training and experience. Interested persons should submit a detailed curriculum vitae and three letters of recommendation as soon as possible directly to: Dr. Harold Allen, Director, Environmental Sciences Program, National Commission on Water Quality, P.O. Box 19266, Washington, D.C. 20036.

## EXPERIMENTAL PSYCHOLOGIST-RESEARCH ASSOCIATE

RESEARCH ASSOCIATE

Ph.D. 1 June or about. Salary competitive. Acquaintance with operant conditioning and laboratory procedures with animals will be helpful. Responsibilities: manage a substantial laboratory; conduct sponsored research; conduct own research. Equipment and personnel support for original research available. Interested persons should request particulars from Dr. F. C. Clark, Department of Psychology, University of Mississippi, University, Miss. 38677.

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## FACULTY POSITION IN BIOLOGY

Retirement of a senior member will create a vacancy for September 1974. Applicants at any level will be considered. Priority will be given to senior applicants who are interested in teaching a modern undergraduate course in anatomy or histology, as well as sharing graduate courses and directing graduate students. Research should complement that of the existing faculty in cell and developmental biology, neurobiology, or physiology. For further information, please write to S. T. Takats, Chairman, Department of Biology, Temple University, Philadelphia, Pa. 19122, or send curriculum vitae and names of references directly.

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Openings are available on the Research and Development Systems staff for the following: SYSTEMS ANALYST/PROGRAMMERS and

SENIOR ANALYST; For systems design and implementation in areas related to pharmaceutical research (clinical data analysis, pharmacology and chemistry data, statistical techniques, experimental design techniques, toxicology). A bachelor's degree in a medical or scientific discipline is preferred. The hardware environment is IBM 370/158 (HASP-

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## **New York University** Dean

## **Graduate School of Arts & Science**

New York University invites nominations and applications for the position of Dean of the Graduate School of Arts and Science, the appointment to become effective 1 September 1975 or earlier.

The Graduate School of Arts and Science has an enrollment of approximately 4,000 Full and Part Time students. Its faculty of more than 600 includes many prestigious scholars. It is one of 12 schools that comprise New York University—one of the largest private universities in the world.

Applicants should have achieved sufficient stature in an academic discipline to be eligible for a tenured appointment and should be able to provide leadership in shaping and meeting the goals of a graduate school of arts and science in a comprehensive urban university.

Salary to be determined, depending upon qualifications and experience. Letters of application, with vita and lists of publications and references, should be sent to the chairman of the search committee:

Professor H. W. Janson Department of Fine Arts 914 Main Building

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### FACULTY POSITION

Assistant Professor, Oral Biology Section, School of Dentistry and Microbiology, and Immunology Department, School of Medicine, commencing 1 July 1974. Participate in teaching dental, medical, and graduate students microbiology and immunology and oral biology. Expertise is required in virology. Must have research experience in the area of viral and/or ulcerative diseases of the oral cavity.

Women and minority candidates are encouraged to apply.

Applicants should submit a curriculum vitae (including publication list), a summary of any teaching and postdoctoral experience, a statement of short- and long-range research plans, and the names of three persons qualified to assess the candidate's research and teaching potential.

To ensure consideration, the application and accompanying documentation should be received by either the Chairman, Oral Biology Section, School of Dentistry, or the Chairman of the Department of Microbiology and Immunology, School of Medicine, Center for the Health Sciences, University of California, Los Angeles, Calif. 90024, by 28 February.

#### GEOGRAPHER

GEOGRAPHER

ASSISTANT PROFESSOR. Permanent position. Fall 1974. Ph.D. must be completed or immediately pending. Undergraduate and graduate teaching in applied man-environment problems in developed societies. Contemporary analytical and theoretical competence is essential. Pennsylvania State offers special opportunities for those who wish to work closely with scholars in related earth, biological, and social sciences as well as in interdisciplinary institutes. Inquiries should be accompanied by résumés, statement of teaching and research interests, and names of three referees. Apply: Wilbur Zelinsky, Head, Department of Geography, Pennsylvania State University, University Park, Pa. 16802. Telephone 814/865-3433.

## HERPETOLOGIST

Ph.D., to teach and conduct research in herpetology, systematics, and evolutionary biology. Position available 1 July 1974 or 15 August 1974. Send complete résumé with three letters of recommendation to Search Committee, Department of Zoology, Clemson University, Clemson, S.C. 20631 S.C. 29631.

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## LIMNOLOGIST

International consulting firm specializing in the development of water resources invites applications for the position of limnologist in its Department of Environmental and Recreation Studies. Applicants should possess an advanced degree. Submit résumé to: Mr. Saletta, Harza Engineering Co., 150 S. Wacker Dr., Chicago, Ill. 60666. III. 60606.

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## L'UNIVERSITE DE MONTREAL

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## PROFESSEUR D'ECOLOGIE VEGETALE

Qualités requises: Ph.D. ou D.Sc. et expérience de recherche en écologie végétale, de préférence sur les plantes supérieures et avec aspects physiologiques ou génétiques plutôt que phytosociologiques. Possession de la langue française parlée et écrite.

Fonctions: Enseignement de la botanique et plus particulièrement de l'écologie végétale. Recherches. Direction d'étudiants à la maîtrise et au doctorat. Participation à la vie du département.

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Toute personne intéressée à poser sa candidature

Professeur Pierre Policoeur, Directeur Département des Sciences biologiques Université de Montréal Case postale 6128 Montréal 101, Québec, Canada

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Postdoctoral position available in the area of mitochondrial membrane enzymology and transport. Starting date flexible. Salary \$9000 per 12 months with possibility for renewal. U.S. citizen or permanent resident, Send curriculum vitae and names of referees to: Dr. Ronald R. Fisher, Department of Chemistry, University of South Carolina, Columbia, South Carolina 29208. An Equal Opportunity/Affirmative Action Employer.

## FACULTY OPENING IN NEUROANATOMY

The successful applicant will be expected to develop a research program in neuroanatomy The successful applicant will be expected to develop a research program in neuroanatomy relevant to some aspect of sensory systems and to participate in graduate education in the Neurosciences Program. Either established investigator or highly promising recent Ph.D. Send curriculum vitae and brief description of career objectives to Dr. H. G. Sperling, Director, Sensory Sciences Center, The University of Texas, Graduate School of Biomedical Sciences, Texas Medical Center, Houston, Texas 77025.

#### **PHYSIOLOGIST**

Assistant Professor level. To join existing research operation. Limited medical and graduate school teaching responsibilities. Prefer persons in microcirculation, circulation or pulmonary function. Contact: Dr. Charles H. Wells, Shriners Burns Institute, The University of Texas Medical Branch, Galveston, Texas 77550. (713) 765-2058.

# PLANT PHYSIOLOGIST PLANT DEVELOPMENT BIOLOGIST NEUROPHYSIOLOGIST OR BEHAVIORAL BIOLOGIST ECOLOGIST (SYSTEMS, POPULATION, OR COMMUNITY) PHYSIOLOGIST (MEMBRANE OR CARDIOVASCULAR)

Faculty positions are available to teach courses and develop graduate and undergraduate programs in each of the above subdisciplines in a Biology Department which encompasses botany, microbiology, and zoology. Rank and salary dependent on qualifications of candidate.

Applications must include curriculum vitae, list of publications, areas of research interest, and names of three referees. This information should be sent to:

be sent to:

Albert Siegel, Chairman Department of Biology Wayne State University Detroit, Michigan 48202

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## POPULATION BIOLOGIST WITH EMPHASIS ON PLANTS

Faculty position in strong undergraduate department. Duties include teaching ecology, coteaching organismal biology, and probable involvement in related courses. Ph.D. required. Applications accepted until 1 March. Send curriculum vitae, transcripts, and three letters of recommendation (or write for further information) to: Dr. JoAnn S. Jensen, Chairman, Department of Biology, Pacific Lutheran University, Tacoma, Washington 98447. An equal opportunity employer.

## PUBLIC HEALTH NUTRITIONISTS

Ph.D. or equivalent. Responsibilities include both teaching and research. Please send inquiries to

Head
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## POSTDOCTORAL POSITION

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Dr. LeRoy Kuehl Department of Biochemistry University of Utah Salt Lake City, Utah 84132

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Science and engineering for industry. Salary up to \$14,000 or negotiable. Background preferred in fluid mechanics and/or heat and mass transfer and/or reaction kinetics; with future interests in fuels, flames, furnaces, gas, oil, and coal combustion and gasification. Replies to:

Dr. R. H. Essenhigh
Combustion Laboratory
The Pennsylvania State University
University Park, Pa. 16802
Telephone (814) 865-4802

## POSITIONS OPEN

#### POSTDOCTORAL RESEARCH ASSOCIATE IN CANCER BIOLOGY

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206 Animal Industries Bldg.
The Pennsylvania State University
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#### RESEARCH ASSOCIATE

Coronary Circulation Physiology. Candidates with a Ph.D. or M.D. please write:

Dr. Eric O. Feigl
Department of Physiology & Biophysics SJ-40
University of Washington Medical School
Seattle, Wash. 98195

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#### RESEARCH INVESTIGATOR

Ph.D. in biochemistry, preferably with experience in protein chemistry and purification to work on activation and properties of proteolytic enzymes. Position available immediately. Salary \$9,000 to \$12,000 depending on experience. Send résumé and two letters of reference to: Dr. R. W. Colman, Maloney 573, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, Pa. 19104.

#### SENIOR FACULTY POSITION Department of Physics and Astronomy University of Iowa

Applications are invited from persons with demonstrated originality and substantial achievement in theoretical plasma physics/astrophysics as relevant to planetary magnetospheres, solar and interplanetary phenomena. Undergraduate and graduate teaching. Personal research and guidance of graduate student research.

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Write: Prof. J. A. Van Allen
Department of Physics and Astronomy
University of Iowa
Iowa City, Iowa 52242

## DEPARTMENT CHAIRMAN

Applications or nominations are sought for the position of Chairman of the Department of Zoology and Entomology. The Department comprises 22 faculty with interests in environmental and population biology, behavior, comparative physiology, toxicology, parasitology, vertebrate and invertebrate zoology and biological control. Applications should be received by 1 March 1974. The appointment is effective 1 July 1974. Letters of inquiry, curriculum vitae, and names of suggested references should be sent to the Chairman of the Search Committee, Dr. Norman R. French, GERL, Colorado State University, Fort Collins, Colorado 80521.

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## COURSES

#### MARINE SCIENCE DUKE UNIVERSITY MARINE LABORATORY

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## MOLECULAR TECHNIQUES IN DEVELOPMENTAL BIOLOGY

Seventh Annual Summer Workshop to be held 8 July to 27 July 1974 at the San Diego (La Jolla) campus of the University of California. Lecture and laboratory instruction will present molecular and biochemical techniques useful to developmental biologists, plant and animal physiologists. Enrollment restricted to 22 participants. Limited travel and subsistence funds available. Workshop sponsored by National Science Foundation and UCSD. For further information and application forms write to Dr. Stephen H. Howell, Department of Biology, University of California, San Diego, La Jolla, Calif. 92037. Deadline for applications: 1 April 1974.

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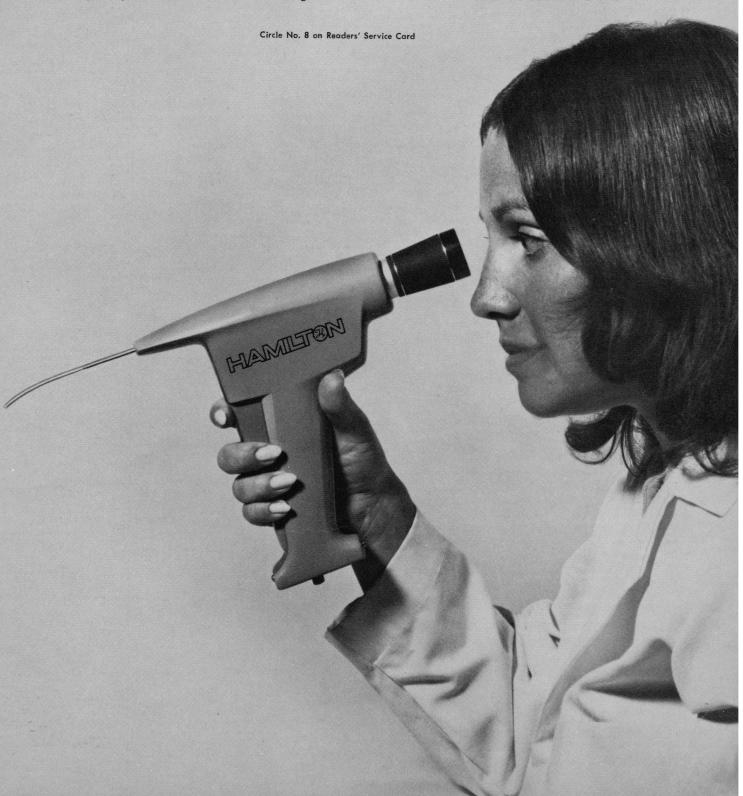
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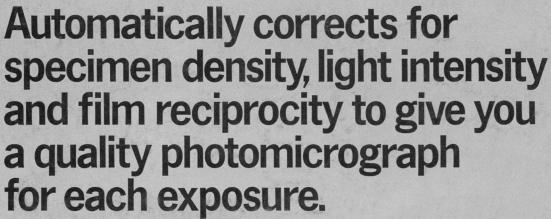
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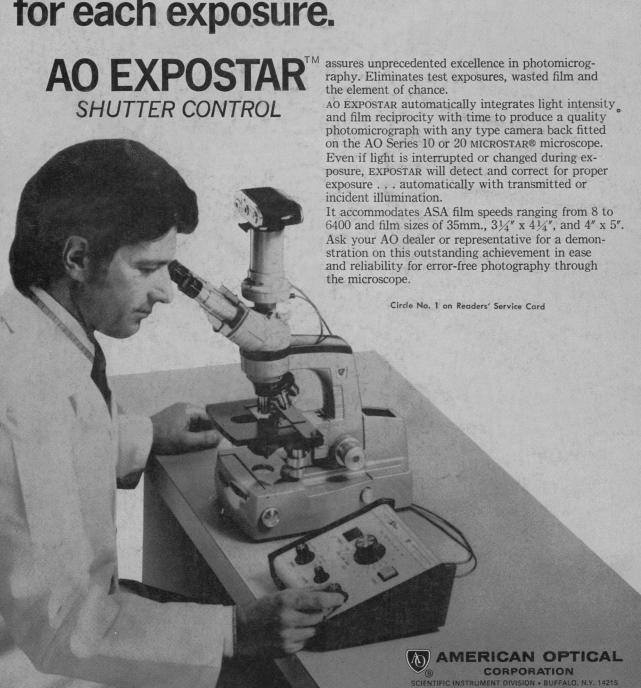
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