# Annual Meeting Denver 20-25 February 1977

### **Tours and Cultural Events**

For the Annual Meeting Program, please see the Preliminary Program in the 5 November issue of *Science*. Tours and special events are limited to Meeting Registrants only.

In keeping with a long and honored tradition, the forth-coming AAAS Annual Meeting in Denver (20–25 February 1977) will be graced by an exceptional set of tours and special events arranged by the Denver Advisory Committee. Advance reservations should be made at once (using the form on page 828) and tickets obtained at the AAAS Ticket Desk in the Meeting Registration area (Convention Lobby) in the Denver Hilton hotel, at least 24 hours before the tour. Further information about Denver and its environs can be obtained during the Meeting in the Welcome Center (Hospitality) area of the Convention Lobby. Handicapped persons who need assistance for the tours (or any other Meeting function) should consult the staff at the Resource Center for Disabled Persons in the Hospitality area.

#### **Special Tours and Events**

1. Martin Marietta and Johns-Manville; Tue., 22 Feb., 8:30 a.m.-noon (limit 35 persons). No Charge.

A tour of the research laboratories of both corporations, including the solar-energy and aerospace developments of the former.

2. Watershed Tour; Tue., 22 Feb., 8:30 a.m.-4:30 p.m. (limit 28 persons). \$6.50 (includes box lunch).

A tour of the Wright-Ingraham Running Creek (Box Elder) watershed and field station showing environmental characteristics and land-use potentials, as well as a visit to the world's largest feedlots, Monfort of Colorado.

3. Adolph Coors Tour; Wed., 23 Feb., 8:30 am.-1:30 p.m. (limit 30 persons). \$3.00 (includes Dutch lunch).

Tour of the world's largest brewery, including laboratory facilities and the porcelain plant.

4. Northern Colorado Tour of Industry and Agriculture; Wed., 23 Feb., 8:30 a.m.-5:00 p.m. (limit 35 persons). \$4.00 (includes lunch).

A tour of the Colorado State University, including the Rocky Mountain Forest and Range Experimental Station, the National Seed Storage Facility, and others, as well as the Kodak manufacturing facility in Windsor.

5. Tour of Solar Facilities in Denver; Thur., 24 Feb., 8:30 a.m.-12:30 p.m. (limit 35 persons). \$3.00.

Tour includes a new solar energy conservation office building (with exhibition of systems employed), the solar campus of the Community College of Denver, North, and a facility planned and constructed by the Solaron Corp. 6. Marathon Oil and Gates Research and Development Laboratories; Thur., 24 Feb., 1:00 p.m.-5:30 p.m. (limit 35 persons). No Charge.

Tour of the petroleum and petrochemical research laboratories including specialized equipment for research and development, as well as new product development.

7. **Boulder Federal and University Research Laboratories**; Thur., 24 Feb., 8:30 a.m.-5:30 p.m. (limit 35 persons). \$4.00 (lunch not included).

A tour of the facilities of the National Bureau of Standards, the National Oceanic and Atmospheric Administration, the Office of Telecommunications, the National Center for Atmospheric Research, the Laboratory for Atmospheric and Space Physics, the Joint Institute for Laboratory Astrophysics, and the Department of Molecular, Cellular, and Developmental Biology (of the University of Colorado).

8. Evening at Coors; Thurs., 24 Feb., 7:30 p.m.-midnight (limit 120 persons). \$2.50 (includes refreshments courtesy of Coors).

An opportunity to relax and socialize in a fascinating environment.



The third SCIENCE INTERNATIONAL exposition of scientific instruments and publications will be held in conjunction with the forthcoming AAAS Annual Meeting in Denver in the exhibit area of the Denver Hilton hotel, Tue., 22 Feb. through Thur., 24 Feb. This year's exposition will concentrate on scientific publications.

If your company wishes to participate in SCIENCE INTERNATIONAL in Denver, please contact:

Edward B. Ruffing SCHERAGO ASSOCIATES Room 1740, 11 West 42 Street New York, N.Y. 10036 Phone: 212-736-1858

# Reservation Form for Special Tours and Events

AAAS Meeting registrants who wish to reserve tickets for any of the special tours and events should fill out the coupon below and mail it in as soon as possible, capacities are limited. Tickets should be picked up and paid for (when fee is indicated) at the AAAS Ticket Desk in the Meeting Registration area of the Denver Hilton hotel during the Annual Meeting, about 24 hours before the scheduled tour. Do not send remittance with this coupon; it is a reservation form only.

		(No. of tickets)
1.	Martin Marietta and Johns-Manville Tour	····· ,
	Tue., 22 Feb., 8:30 a.mnoon	
2.	Watershed Tour Tues., 22 Feb., 8:30 a.m4:30 p.m.	
3.	Adolph Coors Tour Wed., 23 Feb., 8:30 a.m1:30 p.m.	
4.	Northern Colorado Tour Wed., 23 Feb., 8:30 a.m5:00 p.m.	
5.	Tour of Solar Facilities Thur., 24 Feb., 8:30 a.m12:30 p.m.	
6.	Marathon Oil and Gates R & D Laboratories Thur., 24 Feb., 1:00 p.m5:30 p.m.	
7.	Boulder Research Laboratories Thur., 24 Feb., 8:30 a.m5:00 p.m.	
8.	Evening at Coors Thur., 24 Feb., 7:30 p.mmidnight	-
9.	Thorne Ecological Institute Trip Fri., 25 Feb., 1:00 p.mSun., 27 Feb.	
10.	Colorado Springs Tour Sat., 26 Feb., 8:30 a.m4:00 p.m.	-
Tota	No. of Tickets Reserved	
	e	
	ress	
City		
State		. Zip
	Mail to: AAAS Meetings Office 1776 Massachusetts Ave., NV Washington, D.C. 20036	W,

9. Thorne Ecological Institute; Fri., 25 Feb., 1:00 p.m.-Sun., 27 Feb., 5:00 p.m. (limit 32 persons). \$100 (includes all transportation, meals, lodgings, and materials; special arrangements are possible for those with earlier flights on Sunday).

A weekend visit to Steamboat Springs, Hayden, and Craig areas (northwestern Colorado) with a staff of well-known ecologists, social-impact assessors, and decision-makers from industry and the various levels of government, to guide you in focusing on innovative assessment techniques (in the conflict between recreation, agriculture, and energy development in this region) and in appraising the role of natural science in decision-making.

10. Colorado Springs Tour; Sat., 26 Feb., 8:30 a.m.-4:00 p.m. (limit 35 persons). No Charge (lunch extra).

The Front Range highway, the U.S. Air Force Academy, and the Broadmoor Hotel.

Special Post-Meeting Tours (sponsored by the Public Affairs Committee of the Rocky Mountain Ski Association): Cross-Country Skiing (small groups, beginners, and experienced, far from the crowded slopes), "The Thursday Thing" (an introduction to ecological aspects of skiing), Snowmobiling (an outing in cooperation with the Mile High Snowmobile Association). Each activity will be at or near the Copper Mountain Ski Area and led by recognized experts; each will cost \$8.00 (not including transportation, lift fees, or equipment rental). Register early by indicating your interest to:

Marion Robles
Thorne Ecological Institute
2305 Canyon Blvd., Boulder, Colo. 80302
Phone: 303-443-7325

#### Other Activities in Denver

A calendar of activities for your leisure enjoyment. Most arrangements can be made at the Meeting; however, it would be prudent to secure concert and theater tickets in advance.

The Denver Symphony (Denver Auditorium, 13th and Champa, 303–292-1580, 1585); Mon., 21 Feb., 7:30 p.m. and Tue., 22 Feb., 7:30 p.m. \$4.00-\$12.00. Program: Mendelssohn, Haydn, Ravel.

The University of Denver GCB Auditorium (303-753-2196); Tue., 22 Feb., 8:00 p.m. No Charge: One O'Clock Jazz Ensemble; Wed., 23 Feb., 8:00 p.m. \$3: Ramon Kereilis, Clarinet; Thur., 24 Feb., 8:00 p.m. No Charge: University Symphony Orchestra.

The University of Denver Theatre (303-753-2510); Thur., 24 Feb. and Fri., 25 Feb., 8:30 p.m. \$3.50: Shakespeare's "Twelfth Night."

The University of Colorado, Boulder, Arena Theater (303-492-8181); Mon., 21 Feb. and Fri., 25 Feb., 8:00 p.m. \$1.75: Adrian Mitchell's "Tiger."

Grayline Bus Tours (pick-up at hotels; ask bell captain, agent, or call 303–825-8201): R-27, Denver Mountain Parks (approx. 4 hours, 61 miles) \$7.00 (adults) and \$3.50 (children under 12) daily at 1:30 p.m. R-28, Denver City Tour (approx. 2 hours, 23 miles) \$6.00 (adults) and \$3.00 (children under 12) daily at 9:30 a.m.

# AIR TRANSPORTATION TO DENVER

IMMEDIATE ACTION IS RECOMMENDED \*

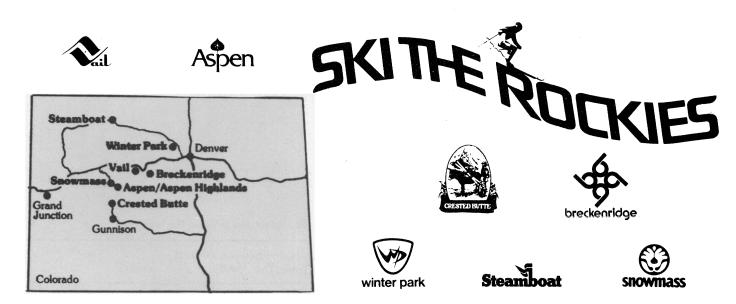
800 — 323-0639 · · · · · · · is UNITED AIRLINES special, unlisted toll-free (in Illinois only: 312-569-3375) number for those who will attend the AAAS

Annual Meeting in Denver (20-25 February 1977).

This number will bring you ski folders, reservation information, and allow you to make skivacation reservations along with your airline reservations to Denver through UNITED AIRLINES C.A.R.D. (Convention Assistance & Reservation Desk) service *even from cities not served by United.* 

\* You must act promptly because Colorado has become one of the most popular ski areas in the world, February is one of the most popular months for air travel to Denver, and the AAAS Annual Meeting dates include a popular Monday holiday (21 February). This all adds up to a crowded air-travel situation. Don't wait to make your travel plans.

MAKE THE MOST OF THIS YEAR'S ANNUAL MEETING IN DENVER



Call the UNITED C.A.R.D. service and ask for your ski folder or pick up the folder at the nearest UNITED office.

Whether you're an experienced skier, want to learn, or just observe, the Rockies have something to offer everyone. Lodge and condominium facilities are generally available on a weekly basis with some facilities offered for 4 or 5 nights. Units accommodate from 2 to 6 people each. Some dorm accommodations are also available. The choice may still be yours if you act immediately.

FOR YOUR "SKI THE ROCKIES" FOLDER AND RESERVATION REQUESTS, call the UNITED C.A.R.D. service:

800-323-0639 (in Illinois only: 312-569-3375).



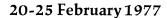
# Advance Registration Form (B)

ENCLOSED IS:				
AAAS Member:   \$20 Single	gle Registration Fee	□ \$30 Double Regi	stration Fee (attendee and spou	se)
Non-Member: ☐ \$25 Sin	gle Registration Fee	□ \$35 Double Regi	stration Fee (attendee and spou	se)
SCIENCE. Double Reg  \$45 Single Reg  \$55 Double Reg  \$30 registr  \$67 Double Reg  Student: \$10 Single Student	le membership—individual sistration and Membership	and spouse—includes of (\$20 registration and \$25 ership (name of applicant) (\$30 registration and \$3	t 7 dues) stration Fee (student attendee a	)
Note: Special one-day atten	dance registration is availa	ble at the Meeting Regis	tration Desks (\$10 regular, \$5	student).
D	rogram and badge will be n	nailad ta aach ragistrant i	n lata Tanuary	
	ions received after 30 Janua	_	<u>-</u>	
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INSTITUTION OR COM	PANY:	·	· .	
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CONVENTION ADDRESS	S:	attend		
(Where you can be reached		l or Street Address)		
☐ Please check here if you i	need special services due to	handicap. We will contac	et you prior to the meeting.	
Ma	nil to: American Association 1515 Massachusetts Av	for the Advancement of ve., NW, Washington, D.		
Your answers to the following of either return it with your registretwo forms will be processed se	Annual Meeting, I questions will help us in planni ation form or send in separately	OF ATTENDEES Denver, 20–25 Februar ng future AAAS Annual Mo (to the same address) if you	petings. Please complete the follow wish to respond anonymously (in	ing form and any case, the
Principal Professional Interd	•	ofessional Activity g, education	Institutional Affiliation Type 31 □ University, 4-year college	re
11 ☐ Physical, mathematical 12 ☐ Biological, medical	22 🗆 Health p	practice	32  Other educational	,-
13 ☐ Engineering 14 ☐ Social, behavioral		ractice, consulting th, development	33 ☐ Industrial, commercial 34 ☐ Other private	
15 □ Science policy	25 □ Adminis	stration	35 □ Government 36 □	
(other)			(other)	
Highest Educational Level	Age	Distance Traveled to Mee	eting Last AAAS Meeting At	tended
41 □ Doctoral Degree 42 □ Master's Degree 43 □ Other professional 44 □ Bachelor's Degree 45 □ (other)	51 ☐ Under 26 years 52 ☐ 26 to 35 years 53 ☐ 36 to 45 years 54 ☐ 46 to 55 years 55 ☐ 56 to 65 years 56 ☐ Over 65 years	61	71	ington co City rancisco York

### Reservations

**Hotel Rates\*** 

# Annual Meeting Denver





The American Association for the Advancement of Science will hold its 1977 Annual Meeting in Denver, 20–25 February. AAAS headquarters hotel will be the Denver Hilton; the meeting of the AAAS Southwestern and Rocky Mountain Division will be at the Executive Tower Inn, with registration and information desks located at both hotels. Sessions will also be held at the Cosmopolitan and the Holiday Inn—Downtown. The following hotels will be used for housing:

Single	Double	Twin	Suites**	Parking
\$22*** 25 29	\$32 35 39	\$32 35 39	\$104 and up	\$3 per 24 hours
\$24	\$30	\$30	\$64 and up	Free 24-hour parking for registered guests
\$18	\$26	\$26	\$125 and up	\$3 (enclosed) and \$2.50 (out-door) per 24 hrs. for registered guests
\$21	\$26	\$26	\$45 and up	Free for registered guests
\$34	\$41	\$41	\$65 and up	\$2.50 per 24 hours
	\$22*** 25 29 \$24 \$18	\$22*** \$32 25 35 29 39 \$24 \$30 \$18 \$26 \$21 \$26	\$22*** \$32 \$32 25 35 35 29 39 39 \$24 \$30 \$30 \$18 \$26 \$26 \$21 \$26 \$26	\$22*** \$32 \$32 \$104 25 35 35 35 and up 29 39 39 \$39 \$24 \$30 \$30 \$64 and up \$18 \$26 \$26 \$125 and up \$21 \$26 \$26 \$45 and up

<sup>\*\*</sup>Lowest available rate for one-bedroom/parlor suites; rates for larger suites available upon request.

**NOTE:** If room rate specified is not available, the next available higher rate will be assigned. Confirmation will come to you directly from the hotel. You should notify the hotel of any changes in your reservation. Assignment is delayed if any information is omitted.

#### HOTEL RESERVATIONS FORM Reservations received after 4 February cannot be assured. The Housing Bureau will not accept any reservations by telephone. Please type or print CHOICE OF HOTEL: First\_\_\_ \_\_ Second\_\_\_ ROOM: □ Single □ Double □ Twin SUITE: □ 1 Bedroom □ 2 Bedrooms Preferred Rate \$\_\_\_\_\_ Please indicate any special housing needs due to a handicap: Date\_\_\_\_\_; \_\_\_a.m. \_\_\_ ARRIVAL: \_\_\_p.m. Be sure to list definite arrival and departure date and time. Hotel reservations will be held only until 6 p.m. unless otherwise specified. \_\_p.m. DEPARTURE: Date\_\_\_ : \_\_\_ \_\_a.m. \_\_ NAMES AND ADDRESSES OF ALL OCCUPANTS OF ROOM Address \_\_\_\_ Address \_\_\_\_ \_\_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ City \_\_\_\_\_ Name \_\_\_ Address \_\_\_\_ Address \_\_\_\_ \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_ City \_\_\_\_\_ Hotel, confirm reservation to:

Mail to: AAAS Housing Bureau 225 West Colfax Avenue, Denver, Colo. 80202

<sup>\*\*\*</sup>One hundred "mini singles" are available at the \$22 rate.

Man in the Andes. A Multidisciplinary Study of High-Altitude Quechua. Paul T. Baker and Michael A. Little, Eds. Dowden, Hutchinson and Ross, Stroudsburg, Pa., 1976 (distributor, Halsted [Wiley], New York). xxii, 482 pp., illus. \$25. US/IBP Synthesis Series, 1.

Manual of Clinical Immunology. Noel R. Rose and Herman Friedman, Eds. American Society for Microbiology, Washington, D.C., 1976. xxvi, 932 pp., illus. Cloth, \$20; paper, \$16.

Manual on Urban Air Quality Management. M. J. Suess and S. R. Craxford, Eds. World Health Organization, Copenhagen, 1976 (U.S. distributor, Q Corp., Albany, N.Y.). 200 pp., illus. Paper, \$14.40. WHO Regional Publications European Series, No. 1.

Medicine in Chinese Cultures. Comparative Studies of Health Care in Chinese and Other Societies. Proceedings of a conference, Seattle, Feb. 1974. Arthur Kleinman, Peter Kunstadter, E. Russell Alexander, and James L. Gale, Eds. National Institutes of Health, Bethesda, Md., 1975 (available from the Superintendent of Documents, Washington, D.C.). xvi, 804 pp. \$11. A Publication of the Geographic Health Studies Project, John E. Fogarty International Center for Advanced Study in the Health Sciences, DHEW Publication No. (NIH) 75-653. Stock No. 017-053-00036-1.

Mitochondria. Structure, Biogenesis and Transducing Functions. H. Tedeschi. Springer-Verlag, New York, 1976. x, 164 pp., illus. \$36.50. Cell Biology Monographs, vol. 4.

Modeling the Bipolar Transistor. Ian Getreu. Tektronix, Beaverton, Ore., 1976. xii, 256 pp., illus. Paper, \$8.

Molecular and Cellular Mechanisms in Disease. Julien L. Van Lancker. Springer-Verlag, New York, 1976. Two volumes, illus. xvi + pp. 1–604 + index, and x + pp. 605–1116 + index. \$148.

Moths of Southern Africa. Descriptions and Colour Illustrations of 1183 Species. E. C. G. Pinhey. Tafelberg, Cape Town, South Africa, 1975 (U.S. distributor, Entomological Reprint Specialists, Los Angeles). xii, 274 pp. + plates. \$35.95.

The Nature of Causation. Myles Brand, Ed. University of Illinois Press, Urbana, 1976. x, 388 pp. \$11.95.

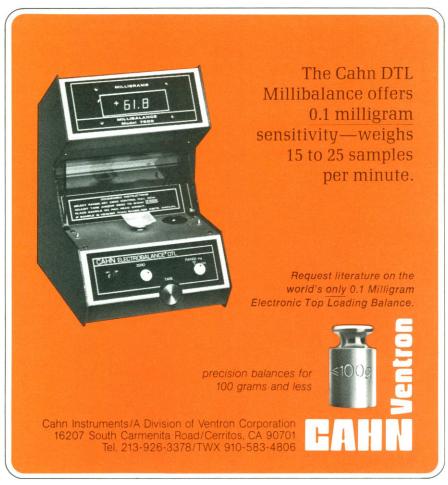
Normal and Deficient Child Language. Donald M. Morehead and Ann E. Morehead, Eds. University Park Press, Baltimore, 1976. xiv, 472 pp. \$14.95.

Of Wonders Wild and New. Dreams from Zinacantán. Robert M. Laughlin. Smithsonian Institution Press, Washington, D.C., 1976. xii, 178 pp., illus. Paper. Smithsonian Contributions to Anthropology, No. 22.

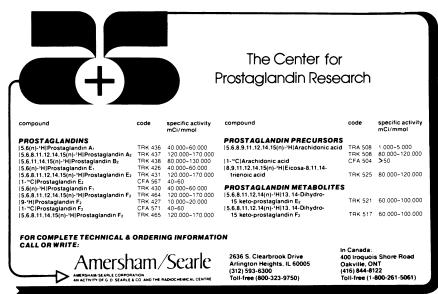
Optimal Design of Flexural Systems. Beams, Grillages, Slabs, Plates and Sheels. G. I. N. Rozvany. Pergamon, New York, 1976. Pergamon, New York, 1976. xvi, 298 pp., illus. Cloth, \$20; paper, \$12.50. Pergamon International Library.

Osteolathyrismus. Quantitativ-morphologische Untersuchungen der experimentellen Skeletterkrankung bei der Ratte. Hanns Plenk, Jr. Karger, Basel, 1976. viii, 102 pp., illus. Paper, \$19.50. Bibliotheca Anatomica, No. 14.

Proceedings of an International Conference on Marine Parks and Reserves. Tokyo, May 1975. International Union for Conservation of Nature and Natural Resources, Morges, Switzerland, 1976. 132 pp. Paper, \$6. IUCN Publications New Series, No. 37.



Circle No. 101 on Readers' Service Card



Circle No. 69 on Readers' Service Card

19 NOVEMBER 1976 869

# Personnel Placement

Only those employers and individuals who do not dis-criminate on the basis of race, sex, religion, age, color, or national origin should submit Personnel Placement advertising.

POSITIONS WANTED: 40¢ per word; use of Box Number counts as 10 additional words. Minimum charge \$10. Prepayment required. This rate applies to individuals only: personnel agencies, companies, colleges, and universities take display rate for all advertising

DISPLAY (POSITIONS OPEN, MARKET PLACE, AND SO FORTH): \$130 per inch, minimum, per insertion (1 SO FORTH): \$130 per inch, minimum, per insertion (1 inch is equivalent to 11 lines of 52 spaces each). Ads over 1 inch billed to nearest quarter inch. No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Prepayment required for foreign advertising. Purchase orders and billing information must accompany all other advertising.

COPY for ads must reach SCIENCE by Wednesday, 3  $\frac{1}{2}$  weeks before issue date (Friday of each week) requested. Send copy for all positions wanted ads and display ads under 5 inches to:

SCIENCE, Room 207 1515 Massachusetts Ave., N Washington, D.C. 20005

Send copy for display ads, 1/6 page and larger, to:

Scherago Associates, Inc. 11 West 42nd Street New York, N.Y. 10036

BLIND AD replies should be addressed as follows:

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

Effective 1 January 1977, the display rate for SCIENCE will be \$145 per column inch, minimum.

#### **POSITIONS WANTED**

**Biophysicist, Engineer, Physicist**, DCT (Batt), M.Sc., Ph.D. Twelve years of research experience. Wideranging research experience in the nuclear field, bioranging research experience in the nuclear field, blo-logical and behavioral effects of electromagnetic fields, thermography and microwave radiometry of biological systems. Numerous publications. Experi-ence in administration and industry. Seeks challeng-ing research/teaching position. Box 502, SCIENCE.

**Biostatistician** with master's in statistics and master's in ecology-evolution desires statistical consultant position in industry, research, or government. Special interests are aquatic ecology and mathematical modeling. Box 503, SCIENCE. X

Seeking Editorial Position in specialized book, periodical, or publications field. Three and one-half years of experience as writer/public information specialist for agricultural research organization. Graduate degrees in journalism and biological sciences. Wants challenge and involvement in editorial planning, acquisitions, production, and so forth. Box 504, SCIENCE.

Electron Microscopy Technician, B.S. biology, experienced in transmission and scanning, seeks position in New England area. C. D. Miller, Harbor and Harvard, Marblehead Neck, Massachusetts 01945.

Marine Scientist: M.S., Ph.D. Experience in: organic marine geochemistry, invertebrate neurochemistry, research diving. Seeks postdoctoral or research/teaching position in marine chemistry or biology. Box 505, SCIENCE.

Mechanical Engineer from piping industry wants to participate in energy R & D; solar, wind, coal conversion. Will work for opportunity to earn advanced degree: Box 492, SCIENCE. X

#### POSITIONS WANTED

Medical Microbiologist. Ph.D., diplomate American Board of Medical Microbiology. Extensive experience in clinical microbiology and immunology, production of diagnostics and teaching; many publications. Seeks challenging position in industry R & D or hospital laboratory. Teaching opportunities desirable. Box 506, SCIENCE.

Pathologist, M.D. (Chemically trained). Board certified (anatomical pathology). Predoctoral research: Sloan-Kettering. Postdoctoral: NIH. Broad experience in biochemical pharmacology. Publications. Desires teaching and research position. Medical school in Northeast or Middle Atlantic region. Résumé on request. Box 507, SCIENCE, or telephone 717-563-2057.

Pharmacologist, Ph.D. with a B.S. in pharmacy, seeks teaching and/or research position. Teaching experience. Active research program. Available March 1977. Box 508, SCIENCE. Available 11/19, 26

Research Scientist (B.S.), 16 years of experience in experimental renal immunopathology, seeks accelerated program or research opportunity which leads to advanced degree. Box 509, SCIENCE. X

Science Copy Editor, 7 years of experience with university press, member CBE, excellent references, will relocate. Box 510, SCIENCE. 11/19, 26

Science Writer, Ph.D. physicist, finishing M.A. science journalism, seeks position as science writer/editor. M. Waldrop, 1215 WARF, University of Wisconsin, Madison, Wisconsin 53703.

Training/O.D./Communications, desires administratraining O. Communications, usines administrative interfacing with technically trained personnel. Educational background: B.A. economics, microbiology, psychology; M.S. psychology. Prefers liaison position commensurate with educational and work experience. Will travel. Box 511, SCIENCE.

**Translations.** Russian to English; all fields in biology. Experienced; low rate. M. Zimmerman, 1050 Las Lomitas Road, Tucson, Arizona 85704.

#### **POSITIONS OPEN**

#### ANATOMISTS

Two gross anatomists with Ph.D. or M.D. (one to teach physical therapy students) with rank of instructor or assistant professor. Choice of research area optional but research strongly encouraged. Send curriculum vitae and letters of reference to: Chairman, Department of Anatomy, University of Kansas Medical Center, Kansas City, Kansas 66103. An Equal Opportunity/Affirmative Action Employer.

# DEPARTMENT OF PSYCHOBIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

A position is available for an outstanding candidate at the ASSISTANT PROFESSOR level. Candidates at the ASSISTANT PROFESSOR level. Candidates should either be pursuing research in neurobiology or behavioral biology. Postdoctoral research experience is preferred. Applicants should write to Norman M. Weinberger, Chairman, Department of Psychobiology, University of California, Irvine, California 92717, providing curriculum vitae, references, publications, and a detailed statement of research plans for the next 3 to 5 years. Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.

#### ASSISTANT PROFESSOR Department of Microbiology Johns Hopkins University School of Medicine

Applications are invited from candidates with a Applications are invited from candidates with a Ph.D. or M.D. degree plus postdoctoral research experience and interest in the molecular genetics of mammalian cells or viruses. Candidates should be qualified to carry out independent research, including supervision of graduate students, and to teach in the School's medical and graduate programs. Applicants should send curriculum vitae, bibliography, and two letters of reference by 31 December 1976 to Daniel Nathans, Department of Microbiology, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, Maryland 21205. Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. tive Action Employer.

#### POSITIONS OPEN

The Research Institute of Pharmaceutical Sciences (RIPS), School of Pharmacy, University, Mississippi, is seeking candidates for ASSISTANT DIRECTOR OF PHYSICAL SCIENCES. Candidates with a B.S. in pharmacy and a Ph.D. in related life science field are of particular interest. Salary will be commensurate with experience and equivalent academic positions. Interested persons should send biographical data, publications, and so forth, to Dr. Carlton Turner, Associate Director, RIPS, School of Pharmacy, University, Miss. 38677. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR. Opportunity for a person with at least 2 or 3 years of postdoctoral experience to occupy a full-time research position in the field of immunity to infectious diseases and cancer. Training in immunochemistry of immunogenetics is preferred but not essential. Send curriculum vitae and names of three references to:

R. J. North, Director Trudeau Institute, Inc. Saranac Lake, N.Y. 12983

An Affirmative Action/Equal Opportunity Employer

The Department of Environmental, Population and Organismic Biology at the University of Colorado at Boulder, expects to fill a position at the Assistant or Associate Professor level beginning 1 July 1977. This position will involve 50 percent teaching with major responsibility for coordination of a team-taught, freshman-level course in general biology and periodic responsibility for a sophomore-junior level course with as an analysis of the professor of the course of the sound provided to the professor of the course of the sound professor of the professor of ic responsibility for a sophomore-junior level course such as animal physiology, vertebrate anatomy, or genetics. The other 50 percent of time will be committed to research in one of the above three disciplines. Applicants should send curriculum vitae, transcripts, three letters of reference, and publications to Professor Alex Cruz, EPO Biology Department, University of Colorado, Boulder, Colorado 80309. Applicants with interests in the area of molecular biology should not apply. Deadline for application is 31 January 1977. The University of Colorado is an Equal Opportunity (Affing time Action Employis an Equal Opportunity/Affirmative Action Employ-

#### ASSISTANT PROFESSOR OF BIOCHEMISTRY

The Department of Chemistry of the University The Department of Chemistry of the University has an opening on its faculty for a person interested in establishing a vigorous research program as well as participating in the varied teaching activities. Research specialization is less important than individual qualifications, but the candidate's interests should be compatible with those of the existing biochemical faculty and facilities.

Postdoctoral research experience is required.

Postdoctoral research experience is required. Deadline for applications is 30 November. Submit curriculum vitae, research plans, and three letters of reference to J. P. Freeman, Chairman, Department of Chemistry, University of Notre Dame, Notre Dame, Indiana 46556 Indiana 46556.

#### STANFORD UNIVERSITY THE HOPKINS MARINE STATION Assistant Professor and Associate Professor of Biology

Assistant Professor and Associate Professor of Bridgy
The Hopkins Marine Station is located in Pacific
Grove on the coast of Monterey Bay, California. It is
a division of the Department of Biological Sciences
of Stanford University, with its own faculty in residence in Pacific Grove, which is 90 miles south of
the main Stanford campus in Palo Alto.
Applications are invited for two junior positions
on the Marine Station faculty from persons working
in aloal or animal physiology, in cellular or devel-

on the Marine Station faculty from persons working in algal or animal physiology, in cellular or developmental biology, in the neurosciences and behavior, and population biology and ecology. Selection will be made entirely on the basis of individual excellence, irrespective of field of specialization.

Members of the Marine Station faculty are required to teach in the area of their special interest and expected to develop a research program involving students at all levels (undergraduate, graduate, and postdoctoral).

volving students at all levels (undergraduate, graduate, and postdoctoral).

The Station's facilities are being enlarged and completely renovated; new appointees will be involved in modernization of their own laboratories.

Applications should include the names of three referees and be addressed to C. S. Pittendrigh, The Hopkins Marine Station, Pacific Grove, Calif. 93950.

They must arrive not later than 31 December 1976.

Earliest starting date is September 1977. Stanford University is an Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR OF PHYSIOLOGY

Applicant must have strong background in central control of breathing and especially in electrophysiology and central neurophysiology. Apply with curriculum vitae and names of two references to: S. M. Tenney, Department of Physiology, Dartmouth Medical School, Hanover, N.H. 03755.

Equal Opportunity Employer

#### DEPARTMENT OF BIOLOGY

Applications are invited by 15 February for positions at assistant professor rank opening fall 1977.

at assistant professor and opening fain 1970. Cellular Physiologist—Develop and teach courses in cellular/subcellular physiology: 50 percent; teach general biology: 50 percent. Graduate preparation in cell physiology, immunology/virology, biochemistry; background in general biology preferred. Ph.D. required. Salary \$13,000 for 9 months.

Plant Physiologist-Develop and teach courses in plant physiology and related subjects: 50 percent; teach general biology: 50 percent. Graduate preparation in vascular plant physiology, biochemistry; background in general biology preferred. Ph.D. required. Salary \$13,000 for 9 months.

Contact:

Dr. Edwin T. Hibbs, Head Department of Biology Georgia Southern College Statesboro, Georgia 30458

#### ASSISTANT PROFESSOR OF BIOLOGY

Washington and Lee University seeks an assistant professor of biology in the fields of cell biology and/ or developmental biology. Opening to be filled by September 1977. Ph.D. required. Send curriculum vitae, statement of interests, three letters of reference to Dr. James H. Starling, Department of Biology, Washington and Lee University, Lexington, Virginia 24450. All qualified applicants are encouraged regardless of race or sex. We are an Equal Opportunity Employer. nity Employer.

ASSISTANT PROFESSOR, ENERGY TECH-NOLOGY. A candidate (with doctorate) is sought who will teach and conduct research in energy generation, conversion and utilization technology. Apply with résumé and references by 31 December 1976 to: Professor Vittorio Castelli, Chairman, Department of Mechanical and Nuclear Engineering, Columbia University, New York, N.Y. 10027.

Columbia University is an Equal Opportunity/Affirmative Action Employer.

# UNIVERSITY OF CALIFORNIA, BERKELEY DEPARTMENT OF ZOOLOGY

Applications are invited for an anticipated opening at the level of ASSISTANT PROFESSOR OF ZOOLOGY Pending final budgetary approval. The teaching and research interests of the candidate should be in the area of animal developmental biology with emphasis on problems encountered at the cell and tissue level of organization. The successful candidate will teach courses in developmental biology including vertebrate embryology, contribute to the teaching of general biology, and develop graduate teaching and research programs. Applicants should send a curriculum vitae, bibliography with copies of publications, a summary of research and teaching objectives, and the names of three references to: Chairman, Search Committee in Development, Department of Zoology, University of California, Berkeley, California 94720. Review of applicants will begin 1 January 1977. Women and minorities are urged to apply. The University of California is an Equal Opportunity/Affirmative Action Employer.

Undergraduate liberal arts state supported college with emphasis on teaching seeks **BIOLOGIST** with recent Ph.D. for position beginning fall 1977. Successful applicant will teach introductory biology and courses in animal development and laboratory techniques. Some background in microbiology is designed. niques. Some background in microbiology is desirable. Submit curriculum vitae, three letters of reference, publications list, and so forth, by 1 December 1976, to: Dr. Stephen W. Fuller, Chairman, Biology Department, Mary Washington College, Fredericksburg, Va. 22401.

#### THE INTERNATIONAL CENTRE OF INSECT PHYSIOLOGY AND ECOLOGY P.O. BOX 30772, NAIROBI, KENYA

Applications are invited from suitably qualified candidates for the following VACANCIES, to be filled by January 1977 or soon thereafter.

#### 1) RESEARCH SCIENTIST (Tsetse Population Diversity Program) Ref. SC1/76/6.

- QUALIFICATIONS: Ph.D. with at least 5 years of postdoctoral experience in biological sciences and a demonstrable experience in ecological or eco-genetic research with anthropods. High-quality research for Ph.D. and evidence for excellence since Ph.D. will, in particular, be a distinct advantage.
- RESPONSIBILITIES: To do research in the field of tsetse population dynamics.
- CONTRACT PERIOD: Five years, inclusive of a 2-year probationary period during which there would be a periodic progress review.
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 72,000 per annum.

#### 2) POSTDOCTORAL RESEARCH FELLOW (Tsetse Population Diversity Program) Ref. SC1/76/7.

- QUALIFICATIONS: Ph.D. or equivalent with experience in insect or relevant sciences. High-quality research for the Ph.D. degree, and evidence for excellence since university degree will be an important criterion for selection.
- RESPONSIBILITIES: To undertake research in tsetse ecology behavior and eco-genetics with other
- CONTRACT PERIOD: Two years, with a possibility of extension for an additional 2 years by mutual agreement.
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 54,000 per annum.

#### 3) SENIOR RESEARCH SCIENTIST (Bases of Plant Resistance to Insect Attack) Ref. SC1/76/8.

- QUALIFICATIONS: Candidates should be scientists who are already internationally recognized in their field. Considerable experience in research on resistance problems on cereals and grain legumes, with evidence for leadership of research group or project, will be of advantage. Especially important is specialist knowledge of insect/host plant relationships.
- RESPONSIBILITIES: To undertake research into the bases of plant resistance to particular pests, investigation of insect problems and possible pest management strategies of sorghum pests (especially sorghum shootfly) and grain legume pests by studying the fundamental bases of crop resistance to insect attack. Leading a small team on these studies.
- CONTRACT PERIOD: Five years, inclusive of a 2-year probationary period, during which there would be a periodic progress review.
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 100,000 per annum.

#### 4) RESEARCH SCIENTIST (Bases of Plant Resistance to Insect Attack) Ref. SC1/76/9

- QUALIFICATIONS: Ph.D. degree with at least 5 years of postdoctoral experience in biological sciences, especially as related to problems of insect behavior and insect/host plant relationships. High-quality research for the Ph.D. and evidence of postdoctoral excellence in research or significant contribution to scientific knowledge will be of distinct advantage.
- RESPONSIBILITIES: To undertake research on the bases of plant resistance to sorghum shootfly, in particular on questions relating to oviposition and feeding preferences, or on pheromones important for insect/plant interactions.
- CONTRACT PERIOD: Five years, inclusive of a 2-year probationary period, during which there would be a periodic review
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 72,000 per annum.

#### 5) SCIENTIFIC OFFICER (Bases of Plant Resistance to Insect Attack) Ref. SC1/76/10.

- QUALIFICATIONS: A higher degree or equivalent with considerable experience in technically oriented research, particularly in the fields of insect ecology, behavior, and population studies. Experience in statistics would be an advantage.
- RESPONSIBILITIES: To assist in research in insect and crop problems related to plant resistance to insect attack.
- CONTRACT PERIOD: Five years, inclusive of a 2-year probationary period, during which there would be a periodic progress review
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 48,000 per annum.

#### 6) SENIOR RESEARCH SCIENTIST (Mosquito Ecology) Ref. SC1/76/11.

- QUALIFICATIONS: Candidates must be scientists who are internationally recognized in the field of mosquito ecology, and in possession of at least 5 years of postdoctoral experience. Evidence for leadership of research groups or projects will be an advantage.
- RESPONSIBILITIES: To undertake research into mosquito ecology, especially in relation to malaria, and to collaborate with other research scientists in the mosquito program of which he/she will be a leading member.
- CONTRACT PERIOD: Five years, inclusive of a 2-year probationary period, during which there would be a periodic progress review
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 100,000 per annum.

#### SENIOR RESEARCH SCIENTIST (Soil Scientist in Termite Ecology Program) Ref. SC1/76/12.

- QUALIFICATIONS: Candidates must be internationally recognized soil scientists with a minimum of 5 years of postdoctoral research experience. The position is a very responsible one, and requires a senior, mature scientist with wide organizational ability and drive, and with ability to work independently.
- RESPONSIBILITIES: To carry out research in the role of harvester termites in soil development and soil characteristics, and to collaborate with other research scientists in the termite ecology program
- CONTRACT PERIOD: Five years, inclusive of a 2-year probationary period, during which there would be a periodic progress review
- SALARY: Basic salary according to qualifications and experience but, in any case, will not be less than K.Shs. 100,000 per annum.
- NOTES FOR ALL: Other benefits include housing allowance, group medical insurance scheme, gratuity, and passages for appointee and family.
- Applications, in sextuple, giving detailed information on general education, professional qualifications, experience, marital status, age, present terms of employment (including salary), names and addresses of four referees (including one personal referee), photostat copies of relevant transcripts, thesis abstracts, and reprints of publications or copies of the most recent publications should be addressed to: The Administrative Manager, The International Centre of Insect Physiology and Ecology, P.O. Box 30772, Nairobi, Kenya; to reach him not later than 30 November 1976.

ASSISTANT PROFESSOR OF PLANNING, for grad-ASSISTANT PROFESSOR OF FLAMMUNG, for grau-uate teaching and research in program granting mas-ter of planning degree. Tenure-track academic year position, Ph.D. expected, salary commensurate with experience. A key responsibility will be to teach within a program committed to comprehensive planprocess. Applicants should have a demonstrated interest in and commitment to teaching, to the planning profession, and to public policy activity. Some ning profession, and to public policy activity. Some professional planning and administrative experience preferred. Women and minority persons are especially encouraged to apply. Submit résumés including names and addresses of references and samples of work by 1 January 1977 to: J. S. Adams, Director, School of Public Affairs, University of Minnesota, Minneapolis, Minn. 55455. Telephone: 612-373-2653.

#### BIOCHEMIST

Amherst College seeks an assistant professor of biology in the area of biochemistry to begin 1 July 1977. Doctorate required. Responsibilities include teaching a one-semester biochemistry course (with laboratories) jointly with a member of the Chemistry Department, teaching two additional courses per year at the beginning and advanced undergraduate level, supervising senior thesis research projects, and being actively engaged in research. Applicants should send a curriculum vitae, copies of publications, and arrange to have three letters of reference sent to: Chairman, Biology Department, Amherst College, Amherst, Mass. 01002. An Equal Opportunity/Affirmative Action Employer.

#### **BIOCHEMICAL PHARMACOLOGIST**

Applications are invited for the position of biochemical pharmacologist at Merrell-National Laboratories. Biochemistry Department is seeking a Ph.D. scientist to participate in an emerging program of membrane regu-

Applicants should have formal training in biochemistry, cell biology or pharmacology. Experience must include radioimmunoassay and membrane isolation techniques

Interested candidates should forward curriculum vitae with salary requirements to: Dr. Norbert L. Wiech, c/o Biochemistry Department,

#### Merrell

MERRELL-NATIONAL LABORATORIES Division of Richardson-Merrell Inc. Cincinnati, Ohio 45215

An Equal Opportunity Employer, M/F/ Handicapped

THE BIOLOGY DEPARTMENT at Eastern Michigan University invites applications from individuals qualified to teach anatomy and physiology and human physiology. Applicants must hold a Ph.D. or the degree must be conferred prior to 29 August 1077

Appointment to begin 29 August 1977, at the academic rank of assistant professor. Salary range \$13,000 to \$16,500.

Applicants for this position should submit by 1 January 1977, all credentials and three letters of recommendation to:

# Dr. H. H. Caswell, Jr., Head Biology Department Eastern Michigan University Ypsilanti, Michigan 48197

Eastern Michigan University is committed to a policy of Affirmative Action. Appointment will be based solely upon the qualifications of the applicant for the position in question.

#### **POSITIONS OPEN**

BIOLOGY. Applications are invited for full-time faculty positions, fall 1977. Responsibilities will include introductory classes in human anatomy-physiology and biology and upper division/graduate courses in area of expertise. Prefer specialty in either genetics, systems physiology, or vertebrate morphology. Interested persons should send copies of their curriculum vitae and three letters of recommendation by February to: Search Committee, Department of Biology, California State University, Los Angeles, Calif. 90032. An Equal Opportunity/Affirmative Action Employer.

CANCER IMMUNOLOGIST. Faculty position of appropriate rank available for individual with strong background in cell-mediated immunity to join cancer immunology group. Must be capable of developing independent projects and interact with others in basic and clinical oncology research; minimal teaching. Send curriculum vitae and three references by 31 December 1976 to Dr. David M. Goldenberg, Division of Experimental Pathology, University of Kentucky College of Medicine, MDRF #3, Lexington, Kentucky 40506. An Equal Opportunity/Affirmative Action Employer. ployer.

# MONASH UNIVERSITY FACULTY OF MEDICINE Melbourne, Australia

#### CHAIR OF ANATOMY

Applications are invited for appointment to the chair of anatomy following the appointment of the chairman of the Department, Professor G. C. Schofield, as Dean of the Faculty beginning 1977.

The Department is located at the Campus and has teaching responsibilities in each of the first 3 years of the medical course which includes cell biology, human embryology and postnatal development, functional histology, neurology, and gross anatomy.

Present research activities include experimental studies on cell, tissue, and organ structure and function using techniques of immunobiochemistry, neuroendocrinology, neurohistology, ultrastructure, tissue culture, histochemistry, and fluorescence microscopy

The appointee will also be chairman of the Depart-

Salary: A\$29,048 per annum. A preclinical loading of \$2,500 per annum will be paid to a medically qualified appointee. Superannuation is based on an endowment assurance scheme, the employee and employer contributing 5 percent and 10 percent, respectively.

Information on application procedure and further particulars, including details of travel and removal expenses and sabbatical leave, may be obtained from the Academic Registrar, Monash University, Clayton, Victoria 3168, Australia, or the Secretary-General, Association of Commonwealth Universities (Appointments), 36 Gordon Square, London, WC1, U.K.

Applications should reach the Academic Registrar not later than 10 December 1976. The Council re-serves the right to make no appointment or to appoint by invitation at any stage

BIOLOGY CHAIRPERSON: Small, liberal-arts college with strong commitment to excellence in under-graduate teaching seeks chairperson of Biology Degraduate teaching seeks chairperson of Biology Department at associate professor rank. Duties include departmental administrative responsibilities and teaching of introductory and advanced courses. Qualifications: Ph.D. required; teaching, research, and/or administrative experience. Broad training desirable with academic emphasis in molecular biology, genetics, or cellular-developmental biology. Salary negotiable and competitive. Equal Opportunity/Affirmative Action Employer. Send résumé and references to Dr. Rene Ballard, Provost, Kalamazoo. College. Kalamazoo. Michigan 49007. Applications College, Kalamazoo, Michigan 49007. Applications must be received by 1 February 1977.

The University of Wisconsin-Madison, Department of Physics, may offer one or more FACULTY POSITIONS during the coming year. Areas of particular interest include but are not limited to solid state physics and experimental plasma physics. Applicants should provide evidence of teaching skill and ability to carry out an independent research program. Apply to W. L. Kraushaar, Chairman, Department of Physics, University of Wisconsin-Madison, Madison, Wisconsin 53706.

An Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

# THE UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF ANIMAL SCIENCE

Applications for the position of chairman, Department of Animal Science, University of British Columbia, Vancouver, are invited from candidates possessing high qualifications in the field of animal science. Candidates should be able to provide leadership in the development of curricula and in the organization of research and extension activities. Knowledge of Canadian agriculture is highly desirtable of the control of t able. Salary is negotiable, and will depend on qualifi-cations and experience.

The deadline for receipt of applications is 28 February 1977. Applications, including curriculum vitae and the names of three references should be addressed to:

Dr. W. D. Kitts, Dean Faculty of Agricultural Sciences The University of British Columbia 2075 Wesbrook Place Vancouver, B.C., Canada V6T 1W5

The University of British Columbia offers Equal Opportunity Employment to qualified male and female candidates.

### CHAIRMAN DEPARTMENT OF PHARMACOLOGY

Applications are invited for the position of chair-Applications are invited for the position of chairman of the Department of Pharmacology, the University of North Dakota School of Medicine in Grand Forks, North Dakota. Prospective candidates must have demonstrated strong research and scholarly productivity as well as leadership ability. Inquiries and applications with curriculum vitae should be sent to:

Dr. Robert G. Fischer, Chairman Department of Microbiology University of North Dakota Grand Forks, N.D. 58202

# CHAIRPERSON DEPARTMENT OF PHYSIOLOGY

DEPARTMENT OF PHYSIOLOGY

The School of Dentistry, University of Oregon Health Sciences Center, invites applications for this position which becomes open I July 1977. Demonstrated experience in teaching general physiology with correlations to problems of dental practice is required. A Ph.D. in physiology is essential, and a dental degree is strongly preferred. Candidates should have administrative experience and interest in developing research and interdisciplinary teaching programs. Salary range: \$28,000 to \$36,000 per year, depending on experience and qualifications. Applicants should submit a curriculum vitae and names of three references by I January 1977, to:

Dr. Norman H. Rickles

Department of Pathology, School of Dentistry

Dr. Norman H. Rickies
Department of Pathology, School of Dentistry
University of Oregon Health Sciences Center
611 S.W. Campus Drive
Portland, Oregon 97201
Telephone: 503-225-8906

An Equal Opportunity/Affirmative Action Employer

# CURATOR ROCKY MOUNTAIN HERBARIUM

A taxonomist with research experience is sought to direct one of the largest herbaria in the West, maintain an active research program, and to teach one course per semester. Rank and salary are open. Interested and qualified applicants will be considered for the Department headship. Applications should include a detailed résumé and the names of three references, and should be submitted before! February 1977 to Chairperson, Search Committee, Department of Botany, Aven Nelson Building, University of Wyoming, Laramie, Wyoming 82071. The University of Wyoming is an Equal Opportunity Employer.

#### BOTANY HEADSHIP

A botanist with a record of teaching and research ac-A botanist with a record of teaching and research accomplishment is sought to assume the leadership of a young, active seven-member department in the Rocky Mountain west. Specialization is open, but the successful candidate must have a familiarity with and appreciation of all areas of botany. Salary is negotiable. Inquiries are welcome. Applications should include a detailed résumé and the names of three references, and should be submitted before 1 February 1977 to Chairperson, Search Committee, Department of Botany, Aven Nelson Building, University of Wyoming, Laramie, Wyoming 82071. The University of Wyoming is an Equal Opportunity Employer.

### COMPARATIVE ENDOCRINOLOGIST/

The Division of Biological Sciences, the University of Michigan, invites nominations and applications for an assistant professorship (effective September 1977). Candidates for this tenure-track position will be evaluated on accomplishments and promise in rebe evaluated on accomplishments and promise in research and in undergraduate and graduate instruction. They should hold the doctorate; postdoctoral training is desirable. Duties will include establishment of a research program in the appointee's field and instruction in introductory and advanced courses involving endocrinology and/or physiology. Applications will be accepted through 15 January 1977.

The candidate should submit curriculum vitae, names of three referees, reprints, and a brief state-ment of research interests and aims and arrange to have the referees forward confidential letters to Dr. Bruce Oakley, Comparative Endocrinology-Neuroendocrinology Search Committee, Division of Biological Sciences, The University of Michigan, Ann Arbor, Michigan 48109. A Nondiscriminatory/Affirmative Action Employer.

#### HAMPSHIRE COLLEGE

Hampshire College seeks a **DEAN** for its School of Natural Science to begin in July 1977. Hampshire, an undergraduate college of 1300 students, opened in 1970, and operates in cooperation with Amherst, Smith, and Mt. Holyoke Colleges and the University of Massachusetts. It is committed to effecting change in traditional undergraduate education. Interesting people are invited to submit appropriate information to the

### Natural Science Dean Search Committee School of Natural Science Hampshire College Amherst, Massachusetts 01002

An Affirmative Action/Equal Opportunity Employer

#### DIRECTOR OF VIVARIUM

The Medical College of Wisconsin has an immediate The Medical College of Wisconsin has an immediate opening for an individual to plan, direct, and supervise the operations of the College's Animal Care Centers; requires administrative and supervisory background in coordinating the operations of animal care to effectively support multidisciplinary research; certificate of supervision of American Association for Laboratory Animal Science; a working knowledge of applicable federal and state legislation. Applicants are invited to submit a résumé of educational and professional experience by 1 December to the Animal Care Committee, c/o Lawrence A. Menahan, Ph.D., Medical College of Wisconsin, 561 North 15th Street, Milwaukee, Wisconsin 53233. An Equal Opportunity Employer. Opportunity Employer.

# ELECTRICAL ENGINEERING AND PUBLIC POLICY

The Department of Electrical Engineering and the Program in Engineering and Public Policy at Carnegie-Mellon University are seeking a person with a negie-Mellon University are seeking a person with a doctorate degree, and academic, government, or industrial experience, for a joint position at the assistant or associate professor level. We are particularly interested in persons with technical and policy research interests in power engineering (for example, load management), communications, or transportation. Carnegie-Mellon is an Equal Opportunity/ Affirmative Action Employer. Send résumé to Professor Granger Morgan, Electrical Engineering and Engineering and Public Policy, Carnegie-Mellon University, Pittsburgh, Pa. 15213.

ELECTRONICS AND INSTRUMENTATION SPE-CIALIST. Problem solver with abilities and skills characteristic of professional electronics engineer and master craftsman. Demonstrated ability in design and maintenance of analog and digital circuits appropriate to chemical instrumentation. Skilled in the design of state-of-the-art electronic components or systems, plus ability to implement the designs in a or systems, plus ability to implement the designs in a practical manner. Permanent position available immediately. Starting salary \$19,000 to \$21,000. Please submit an application consisting of record of experience, statement of career goals or other relevant information, and names of three references to: Dr. A. L. Mathews, Manager, Department of Chemistry, The Ohio State University, 140 West 18th Avenue, Columbus, Ohio 43210. An Equal Opportunity Employ-

#### **POSITIONS OPEN**

### CHAIRMAN DEPARTMENT OF BOTANY

The Department of Botany at Miami University is The Department of Botany at Miami University is seeking a chairman for a 5-year renewable term. The department, with 15 faculty members, 30 graduate students (M.S./Ph.D.), and approximately 170 undergraduate majors, carries out an extensive program of undergraduate and graduate instruction and research. Applicants must have a reputation for excellence in research and teaching. Inquiries and recommendations are welcome. Prospective candidates should send curriculum vitae and solicit three letters of reference to arrive by 15 January 1977 to:

Dr. Charles M. Vaughn
Chairman Search Committee
Department of Zoology
282 Upham Hall Miami University Oxford, Ohio 45056

An Equal Opportunity/Affirmative Action Employer

Oklahoma State University is accepting applications for DEAN, College of Veterinary Medicine. Applicants should have a doctor of veterinary medicine degree or equivalent degree in veterinary medicine and experience as an educational administrator.

Please submit curriculum vitae at time of application or nomination.

Closing date: 31 January 1977.

Contact:

Lester Johnson, D.V.M., Chairman Dean's Search Committee College of Veterinary Medicine Oklahoma State University Stillwater, Oklahoma 74074

Oklahoma State University is an Affirmative Action/ Equal Opportunity Employer.

The New York Botanical Garden invites applications for the position of **DIRECTOR** of its Harding Laboratory. At present, the Harding Laboratory maintains a program of fungal chemistry, chemotaxonomy, fossil chemistry, fungal and tissue culture. Candidates should be prepared to give scientific and administrative leadership to the program. Preference will be given to candidates with experience in some experimental aspects of plant cell and/or tissue culture. A description of the position is available on request. Send curriculum vitae, description of research interests, and names and addresses of three references no later than 15 January 1977 to: references no later than 15 January 1977 to:

Dr. Ghillean T. Prance Director of Botanical Research The New York Botanical Garden Bronx, New York 10458

An Equal Opportunity Employer

# ENDOCRINOLOGIST DEPARTMENT OF BIOLOGY RICE UNIVERSITY

The Department invites applications for an assistant or associate professorship starting 1 July or 1 September 1977. Preference will be given to those applicants whose research activities deal with neuroendocrinology or with the mechanism of action of steroid between Applicants should be the professor of the property of the property of the property of the professor of the property of the professor of the property of the property of the property of the professor of hormones. Applicants should have a minimum of 2 years of postdoctoral experience and be prepared to teach an undergraduate level course in endocrinoloteach an undergraduate level course in endocrinology. The successful applicant will also be expected to participate in either the Department's graduate program in neurobiology or developmental genetics. Send curriculum vitae and names of three references to: Dr. James W. Campbell, Department of Biology, Rice University, Houston, Texas 77001. Rice University is an Affirmative Action/Equal Opportunity Employer. ployer.

# NEUROPHYSIOLOGIST DEPARTMENT OF BIOLOGY RICE UNIVERSITY

The Department invites applications for an assistant or associate professorship starting 1 July or 1 September 1977. Preference will be given to those applicants whose research activities deal with *integrative* mechanisms or with synaptic physiology. Applicants should have a minimum of 2 years of postdoctoral experience and be prepared to teach an undergraduate perience and be prepared to teach an undergraduate course at the organ-organismal level. The successful applicant will also be expected to participate in the Department's graduate program in neurobiology. Send curriculum vitae and names of three references to: Dr. Raymon Glantz, Department of Biology, Rice University, Houston, Texas 77001. Rice University is an Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

CANCER RESEARCH PROGRAM DIRECTOR. Secancer research scientist to direct C ch Program of Oklahoma Medical Foundation, a sponsoring institution of Oklahoma Cancer Center. Established close working relation-Cancer Center. Established close working relationships with University of Oklahoma Health Sciences Center and other Oklahoma Health Center institutions. Responsibility for evaluation and development of existing and new clinical and laboratory research components, including small group and larger collaborative programs. Should be capable of assuming a major scientific role in further development of Oklahoma Cancer Center. Salary negotiable with excellent fringe benefits. Equal Opportunity/Affirmative Action Employer. Send curriculum vitae and letter of interest to Chairman, Cancer Director Search Committee, Oklahoma Medical Research Foundation, 825 Northeast 13th Street, Oklahoma City, Oklahoma 73104.

FACULTY POSITION in human nutrition, assistant FACULTY POSITION in human nutrition, assistant professor, Nutritional Sciences Department, University of Wisconsin-Madison. Research and teaching tenure-track appointment. Position open 1 July 1977. Doctorate and research experience in human nutrition studies required. Teaching experience highly desirable. Send résumé and references, before 1 March 1977, to Jane Voichick, Ph.D., Chairman, Search Committee, Department of Nutritional Sciences, 1300 Linden Drive, University of Wisconsin, Madison, Wisconsin 53706. An Equal Opportunity/Affirmative Action Employer. Affirmative Action Employer.

### FACULTY POSITION-VETERINARY PATHOLOGIST

The University of North Carolina Cancer Research Center and Department of Pathology invite applications for a position for a veterinary pathologist with demonstrated competence in comparative pathology and oncologic research. The individual should be ACVP certified and interested in pursuing active cancer-related research in chemical carcinogenesis, basic immunology, and other appropriate

The candidate must also be interested in participat-

The candidate must also be interested in participating in the graduate training activities of the Department of Pathology and Division of Laboratory Animal Medicine and will be expected to support the service pathology program of the Division of Laboratory Animal Medicine.

Candidates should be citizens of the United States or eligible for a permanent visa. Please send your curriculum vitae and a covering letter in which you state your field of interest and references. We request three letters of recommendation. Correspondence should be addressed to Mrs. A. D. Hyche, Assistant to the Director, Cancer Research Center, Box 30—229H, University of North Carolina, Chapel Hill, N.C. 27514. The University is an Equal Opportunity/ Affirmative Action Employer. Affirmative Action Employer.

FACULTY POSITIONS: Immunologist and/or a morphologist to do research on the eye. Two junior or senior level faculty positions are available. Cansenior level faculty positions are available. Can-didates should have demonstrable abilities for gener-ating their own research programs or interacting with ongoing interests in retinal physiology and bio-chemistry, tumor biochemistry, aqueous humor dy-namics or smooth muscle physiology. Send curricu-lum vitae and names of three references to:

# Marvin L. Sears, Chairman Department of Ophthalmology and Visual Science Yale University School of Medicine New Haven, Connecticut 06510

An Equal Opportunity/Affirmative Action Employer.

The University of California, Los Angeles, invites applications from well qualified individuals for a FACULTY POSITION in the Division of Nuclear Medicine, Department of Radiological Sciences and the Laboratory of Nuclear Medicine and Radiation the Laboratory of Nuclear Medicine and Radiation Biology. Primary interest must be in investigative nuclear medicine with particular attention to cardiac function. This individual should have the M.D. degree with appropriate professional experience in both cardiology and nuclear medicine, be qualified for certification by the American Board of Nuclear Medicine, and have demonstrated ability and expertise for independent clinical research. Applications should include full professional résumé and names of five references and be sent to Laboratory Personel Officer, Laboratory of Nuclear Medicine and Radiof the references and be sent to Laboratory Person-nel Officer, Laboratory of Nuclear Medicine and Radi-ation Biology, 900 Veteran Avenue, Los Angeles, Cali-fornia 90024. An Equal Opportunity/Affirmative Ac-tion Employer. Résumés received prior to 31 December will be considered.

The Division of Biological Sciences, Indiana University, Bloomington, is planning to appoint a FACUL-TY MEMBER IN PHYCOLOGY. The appointee will the MEMBER IN PHYCOLOGY. The appointee will be expected to teach a course in phycology, among other courses, and develop a strong, independent research program in one of the following disciplines: cell biology, genetics, molecular biology, physiology or taxonomy, using algae for research. Applicants should provide a curriculum vitae, including a list of publications, and should ask three individuals familiar with their background and research to write letters of reference to Dr. C. H. W. His policies of the course of reference to the course of the course o ters of reference to Dr. C. H. W. Hirs, Division of Bi-ological Sciences, Indiana University, Bloomington, Indiana 47401. An Equal Opportunity/Affirmative Action Employer.

# FACULTY POSITION SMALL ANIMAL MEDICINE

The clinician will be responsible for clinical teaching as head of one of the medical services, Small Animal Clinic, Veterinary Teaching Hospital. The faculty member will work with students, interns, and residents in providing care of clinical patients. In addition the incumbent will work as a member of a team to initiate and carry out the teaching program designed for professional students in the D.V.M. cur-

Support of other team members will allow the clinician time for scholarly research, self improve-

ment, and extension activities.

The candidate must be a veterinarian with special training or experience in internal medicine. Board eligibility or certification is highly desirable. Salary and rank are dependent on the applicant's back ground and qualifications.

ground and qualifications.

Send curriculum vitae, personal bibliography, and references to R. W. Kirk, Professor and Head of Department of Small Animal Medicine and Surgery, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853.

An Equal Opportunity Employer

#### FACULTY POSITION IN CELL BIOLOGY

The Department of Cell Biology of the University of Texas Health Science Center at Dallas is seeking a Texas Health Science Center at Dallas is seeking a senior faculty member to direct a course in cell biology and histology for graduate and medical students. The individual sought should already have developed a strong research program in the general area of cellular or developmental biology which can be continued in this position. Nominations or curriculum vitae should be sent to: Faculty Search Committee, Department of Cell Biology, The University of Texas Health Science Center at Dallas, Southwestern Medical School, 5323 Harry Hines Boulevard, Dallas, Texas 75235. An Equal Opportunity/Affirmative Action Employer. tion Employer.

# THE UNIVERSITY OF CALIFORNIA DEPARTMENT OF GEOLOGY AND GEOPHYSICS

The Department of Geology and Geophysics, University of California, anticipates authorization (pending final budgetary approval) to fill two regular faculty positions from 1 July 1977.

GEOPHYSICIST with breadth of interest in teach-

ing and research in the internal constitution and dynamics of the earth. Strength in geophysical fluid dynamics, for example, and a strong background in geology, are desirable credentials. Ph. D. required. The position will be filled at a tenured rank.

STRATIGRAPHER-SEDIMENTOLOGIST with interests in geological aspects of petroleum and in

STRATIGRAPHER-SEDIMENTOLOGIST with interests in geological aspects of petroleum and in field geology. This position will be filled at the rank of assistant professor.

Applicants should send, by 31 January 1977, curriculum vitae and names of at least three references to: Dr. T. V. McEvilly, Chairman, Department of Geology and Geophysics, University of California, Berketey 94720. The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

HEMATOLOGIST: Staff position at the San Fran-HEMATOLOGIST: Staff position at the San Francisco VA Hospital with a junior or intermediate level faculty appointment in the Department of Medicine, University of California, San Francisco. The appointee will have clinical and teaching responsibilities and will be expected to develop an independent research program. The position is available immediately and must be filled by July 1977. Send curriculum vitae to: Thomas Bradley, M.D., Chief, Hematology Section, San Francisco VA Hospital, San Francisco, Calif. 94121. Equal Opportunity Employer.

#### **POSITIONS OPEN**

#### FACULTY POSITIONS

The Department of Zoology, University of Texas at Austin has openings for several faculty appointments in genetics, development, and physiology, or preferably some combination among them. Research-oriented department requires capability in graduate and undergraduate teaching and the development of an outstanding research program. Send curriculum vitae, selected reprints, a prospectus of research program, and names of five references by I January to Clark Hubbs, Chairman Faculty Development Committee, Department of Zoology, University of Texas, Austin, Texas 78712.

An Equal Opportunity/Affirmative Action Employer

FISHERIES BIOLOGIST-A national environmental consulting firm is seeking a freshwater fisheries biologist with a M.S. and at least 2 years of experience with a consulting firm or government agency. Experience in field sampling, data analysis, report writing, and proposal preparation is essential. Send résumé and salary requirements to:

Box 512, SCIENCE

### Department of Pharmacology

Texas A & M University, Program in Medicine, invites nominations and applications for the position of head of pharmacology. An outstanding opportunity to build a department in a new medical school nity to build a department in a new medical school dedicated to excellence in teaching and research. Applicants may hold either the M.D. or Ph.D. degree and should qualify for faculty rank of professor. Forward a statement of interest in the position, names of three references, and a current curriculum vitae to:

Dr. Elvin E. Smith, Chairman Pharmacology Search Committee Program in Medicine, Teague Building Texas A & M University College Station, Texas 77843

Texas A & M University is an Equal Opportunity Employer.

**HEAD**, Department of Biology, College of Science, The Pennsylvania State University. Applications and nominations of established scientists with provand nonlinations of established scientists with prove-en research record are invited; teaching and adminis-trative experience are very desirable. The Depart-ment has approximately 30 faculty members and 7 staff persons on the main campus with broadly based staff persons on the main campus with broadly based research interests (botany, ecology, genetics, physiology, and zoology) and has responsibility for administering large graduate and undergraduate programs. There are also 37 biology faculty members at 19 Commonwealth campuses heavily involved in lower division instruction. The department head must interact with a variety of departments, both in and out of the College of Science, whose disciplines are biologically oriented. Screening of applications will begin 1 December 1976 and the closing date for receipt of applications is 15 January 1977. Candidates should submit curriculum vitae, lists of publications, and names of three references to: **Professor Joseph** and names of three references to: Professor Joseph A. Dixon, Chairman of Search Committee, Box 50, 211 Whitmore Laboratory, The Pennsylvania State University, University Park, Pa. 16802. The University is an Equal Opportunity/Affirmative Action Em-

The Department of Microbiology, College of Medicine, is seeking an IMMUNOLOGIST to fill a faculty position at a professional level commensurate with position at a professional level commensurate with experience and accomplishments. Duties include teaching of the medical and graduate students and pursuit of an active and productive research program. Preference is given to applicants with evidence of independent and significant research productivity. Send curriculum vitae and list of three references to: Dr. David Rifkind, Department of Microbiology, College of Medicine, University of Arizona, Tucson, Arizona 85724. An Equal Opportunity/ Affirmative Action Employer under state and federal laws and regulations including Title IX, 1972 Education Amendments.

Position available starting 1 December 1976. IMMU-NOBIOLOGIST, CELL BIOLOGIST, OR DEVEL-OPMENTAL BIOLOGIST, preferably with 2 years of postdoctoral research experience. Assistant professor research appointment through the University of Florida, working full-time at C. V. Whitney Laboratories for Experimental Marine Biology and Medicine, St. Augustine, Florida. Write R. T. Smith, M.D., Director, Whitney Laboratories, Route 1, Box 121, St. Augustine, Florida 32084.

#### **POSITIONS OPEN**

IMMUNOLOGIST-Ph.D., D.D.S., or D.V.M. immunologist with postdoctoral training, experience in cellular immunology, immunochemistry, and tissue culture techniques, is sought for immediate employment as research associate. Salary is negotiable. Applicants should send detailed curriculum vitae and bibliography with three names as references to: Dr. R. L. Vanarsdall, School of Dental Medicard, 4001 Spruge Strate, Philodophic Pa. 101744 Energy 4001 Spruce Street, Philadelphia, Pa. 19174. Equal Opportunity Employer.

IMMUNOLOGIST—Faculty position available August 1977, at assistant professor rank to teach immunology and pathophysiology, and to establish research program. Ph.D. required. Submit curriculum vitae and names of three references by 15 January 1977, to Dr. H. G. Marshall, Chairman, Department of Biological Sciences, Old Dominion University, Norfolk, Va. 23508. An Affirmative Action/Equal Opportunity Employer. IMMUNOLOGIST-Faculty position available Au-

INHALATION TOXICOLOGY RESEARCH: The Biomedical Science Department of General Motors Research Laboratories is developing a program in re-search on the health effects of inhaled gases, mists, and particulate aerosols. Other work includes basic and particulate aerosois. Other work includes basic research on lung defense mechanisms and in respiratory toxicology with emphasis on gases and aerosols potentially associated with the automobile. Principal investigators should have either a Ph.D. or M.D. with research training and the capability of initiating and conducting research projects of their choice in accordance with the aims of the department. Techniactorates with the amins of the department. Technical and support staff are provided by the department. At present vacancies exist in the fields of (i) lung biochemistry, (ii) biochemical toxicology, and (iii) respiratory physiology.

Investigators interested in exploring this opportunity should forward their résumé to:

J. J. Vostal, M.D., Ph.D. Head, Biomedical Science Department General Motors Research Laboratories 12 Mile and Mound Roads Warren, Michigan 48090

General Motors is an Affirmative Action Employer.

Temporary post available winter/spring quarters (10 January to 18 June 1977), with possibility of continuation, for LECTURER to provide tutorial and instructional support for lower division biology courses, to improve performance and retention of students. Ph.D. in biology, postdoctoral, and teaching experience required. Salary \$8,856 for period. Send résumé and names of references only to Chairman, Department of Biology, University of California, B-022, La Jolla, Calif. 92093. The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

#### LIMNOLOGIST

The Zoology Department at the University of The Zoology Department at the University of Rhode Island in Kingston invites applications for a limnologist with strong training in the quantitative and theoretical aspects of his/her specialty. Appointment will be made at the assistant professor level no later than 1 September 1977. An earned doctorate is required at the time of appointment.

The individual chosen will be expected to teach in both the undergraduate (limnology-ecology) and graduate programs, to conduct research of high quality and to act as principal advisor to advanced degree candidates.

gree candidates.

Please submit, by 1 February 1977, curriculum vitae and statement of interest and request that three letters of recommendation be sent to

Dr. R. F. Costantino Search Committee Chairman Department of Zoology University of Rhode Island Kingston, R.I. 02881

Additional information is available on request. An Equal Opportunity/Affirmative Action Employer

#### MEMBRANE BIOCHEMISTRY

Postdoctoral position available 1 May 1977 for a re-Postdoctoral position available 1 May 1977 for a recent Ph.D. to participate in research on the structure and function of eukaryote surface membranes. The position will be in the Department of Pharmacology, University of North Carolina School of Medicine, Chapel Hill, N.C. Reply with curriculum vitae and three letters of recommendation to: Dr. G. A. Scarborough, Department of Biochemistry, University of Colorado Medical School, 4200 East Ninth Avenue, Denver, Colorado 80262.

#### MARINE BIOLOGIST

Process oriented marine biologist with teaching and research interests in a marine ecology program. Position to be filled by September 1977 at a rank appropriate to the successful candidate. Applicant is expriate to the successful candidate. Applicant is expected to have an independent program of research and to participate in undergraduate and graduate training. Postdoctoral experience or equivalent is desirable. Applicants should send curriculum vitae, publications, a research description, and three letters of reference to Dr. Melvin S. Fuller, Room 400, Division of Biological Sciences, University of Georgia, Athens, Georgia 30602, prior to 1 December 1976. An Equal Opportunity/Affirmative Action Employer.

University of North Carolina, Chapel Hill, invites applications from MARINE MICROBIAL ECOLOGISTS for a faculty position at the Institute of Marine Sciences in Morehead City. The appointee is to conduct research on processes of the sediment-water interface and/or organic decomposition, and participate in teaching. Assistant professor rank is anticipated, although higher rank can be considered. Send résumé, reprints, and addresses of three references to: Dr. Jan J. Kohlmeyer, Chairman, Search Committee; University of North Carolina, Chapel Hill, Institute of Marine Science, Morehead City, N.C. 28557 by 7 January 1977.

Equal Opportunity/Affirmative Action Employer

Equal Opportunity/Affirmative Action Employer

MICROBIOLOGIST. Assistant professorship, beginning September 1977, for 3- to 5-year appointment. Ph.D. necessary. Individual should have ment. Ph.D. necessary. Individual should have broad biological background, but must be qualified to teach introductory microbiology, advanced microbiology or immunology or virology, and introductory biology. Additional expertise valued, especially electron microscopy and/or biochemistry. Active research interest expected; good facilities. Position represents a challenging opportunity for advancement. Send curriculum vitae, explanation of qualifications, and also have three letters of reference sent to Dr. Patricia Johnson, Chairman, Biology Department, Vassar College, Poughkeepsie, N.Y. 12601. Vassar College is an Equal Opportunity/Affirmative Action Employer.

### THE UNIVERSITY OF MICHIGAN DIVISION OF BIOLOGICAL SCIENCES announces a position in MOLECULAR GENETICS Assistant Professor effective September 1977

Applicants must have demonstrated competence in molecular genetics and knowledge of molecular cloning procedures. Postdoctoral experience is essential. The newly appointed faculty member will be sential. The newly appointed faculty member will be expected to develop a strong research program utilizing molecular cloning procedures and to teach one term in a general genetics course and another term in an upper level course in his or her own specialty. Applicants should submit curriculum vitae, a detailed statement of academic and research interests, representative reprints, and three letters of recommendation to:

mendation to:

Dr. Sally Allen, Search Committee Co-chairperson Department of Cellular and Molecular Biology Division of Biological Sciences The University of Michigan Ann Arbor, Michigan 48109

Deadline for applications: 15 January 1977.
The University of Michigan is a nondiscriminatory,
Affirmative Action Employer.

NEPHROLOGIST—The Division of Nephrology in the Department of Medicine at the University of Alabama in Birmingham has available a position at the assistant professor level. The position is open to qualified individuals at a senior level fulfilling three criteria. First, the individual must have expertise in the care and management of patients with renal disease and in the operation and administration of a hemodialysis unit. Second, the individual must have a firm commitment to teaching programs oriented to medical students, graduate students, house officers, and fellows. Finally, the individual should have a research background and be able to carry out independent research, preferably in the physiology of renal tubular transport processes. Apply to the Division of Nephrology, University Station, Birmingham, Alabama 35294. Telephone: 205-934-3385. An Equal Opportunity/Affirmative Action Employer. Expiration date for receipt of applications: 1 January 1977.

#### **POSITIONS OPEN**

#### NEMATODE TAXONOMIST

The Department of Nematology of the University of California invites applications from competent Ph.D.'s for the position of assistant professor of nematology to do research and teaching on nematode taxonomy and morphology. Send curriculum vitae with names of references to Dr. S. D. Van Gundy, Department of Nematology, University of California, Riverside, Calif. 92502. The University of California is an Equal OpportunitylAffirmative Action

NEUROBIOLOGIST. Our Department has an opening for a cellular neurobiologist at the assistant professor level, to begin September 1977. Excellence is the primary consideration; commitments to research, graduate training, and classroom teaching are essential. Candidates should request referees to write and send an outline of their experience and write, and send an outline of their experience and proposed research to: Dr. Andrew G. Szent-Gyorgyi, Chairman, Department of Biology, Brandeis University, Waltham, Mass. 02154. Applications should be sent promptly to assure consideration. An Affirmative Action/Equal Opportunity Employer.

#### OCEANOGRAPHER

Oceanography department has faculty position open at assistant professor level; some preference will be given to candidates with strong interest in both research and teaching in areas of marine geo-chemistry and marine food chain dynamics. Address inquiries to Search Committee, Department of Ocean-ography, Florida State University, Tallahassee, Flor-ida 32306. Florida State University is an Equal Opportunity/Affirmative Action Employer.

PHYSIOLOGIST: Ph.D. or M.D. assistant professor to teach medical and graduate student physiology; research publications and competence in cardiac research publications and competence in cardiac physiology; cardiac electrophysiologist will be given preference. Postdoctoral training a prerequisite. Curriculum vitae and three letters of recommendation required of applicants no later than 1 January 1977. Send application materials to: Chairperson, Department of Physiology, Upstate Medical Center, State University of New York, 766 Irving Avenue, Syracuse, N.Y. 13210.

An Equal Opportunity/Affirmative Action Employer

PHYSIOLOGIST: assistant or associate professor level. Selected candidate will be expected to share in the teaching responsibilities of the Department and to develop and maintain an active research laboratory, preferably in an area related to cardiovascular physiology. Send curriculum vitae and names of three references to: H. P. Pieper, M.D., Department of Physiology, College of Medicine, The Ohio State University, 333 West 10th Avenue, Columbus, Ohio 43210. An Equal Opportunity Employer.

#### POSTDOCTORAL POSITION

Biological inter- and intramolecular electron transfer in iron-sulfur-flavoprotein systems using transient kinetics and electrochemistry. Flexible starting date. One-year appointment, renewable. Stipend to \$10,000. Send résumé and letters to Dr. R. H. Lane, Chemistry Department, University of Georgia, Athens, Georgia 30602. The University of Georgia is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION: Available immediately. To conduct research employing magnetic resonance methods to study protein structure and dynamics. Experience in any of the following areas an asset: organic synthesis, magnetic resonance instrumentation and theory, computer programming, protein characterization, especially human vbc proteins. Send résumé and two letters of reference to terns. Send resume and two letters of reference to Dr. J. T. Gerig, Department of Chemistry, University of California, Santa Barbara, California 93106. Applications must be received by 1 February 1977. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION immediately available for research on fetal and tissue antigens and imable for research on fetal and tissue antigens and immune responses to these antigens, including autoimmunity. Previous relevant Ph.D.-level research experience required. No telephone inquiries. Send curriculum vitae, including names of references, to Dr. George J. Friou, Director, Clinical Immunology and Rheumatic Disease Section, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles, California 90033. An Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### PLANT DEVELOPMENTAL BIOLOGIST

Assistant or associate professorship available August 1977. Applicants must have the Ph.D. and training in both plant and animal developmental biology. Ing in both plant and animal developmental biology. Research interests must be in the developmental biology of vascular or nonvascular plants. Candidates should have an interest in graduate and undergraduate teaching and be active in research. Send curriculum vitae, including reprints, statement of teaching and research interests, graduate and undergraduate transcripts, and three letters of reference by 17 December 1976 to:

William H. Darden, Chairman Department of Biology P. O. Box 1927 University of Alabama University, Alabama 35486

An Equal Opportunity/Affirmative Action Employer

#### POSTDOCTORAL POSITION

Available immediately to study the mechanism of action of gonadotropin in the ovary. Please send curriculum vitae and two letters of recommendation to Dr. K. M. J. Menon, Endocrine Laboratory, Departments of Obstetrics and Gynecology and Biological Chemistry, University of Michigan Medical School, Ann Arbor, Michigan 48109.

POSTDOCTORAL POSITION for recent Ph.D. in biochemistry/organic chemistry with experience in biochemistry/organic chemistry with experience in natural products chemistry to participate in a re-search program on insect development. Investiga-tion will focus on the metabolism of insect hor-mones. One year, renewable. Submit résumé and names of three references before 1 January 1977 to: Dr. Karl H. Dahm, Institute of Developmental Biol-ogy, Texas A & M University, College Station, Texas 77843.

An Equal Opportunity/Affirmative Action Employer

TWO POSTDOCTORAL POSITIONS. Research reand the process of the process of the process of the properties of the properties of the process of the properties of the process of the proc partment of Chemistry, University of Notre Dame, Notre Dame, Indiana 46556.

POSTDOCTORAL POSITION in biochemistry. For work on enzymes involved in lysosomal storage diseases. Research experience in enzymology, enzyme purification, and radioisotopes desirable. Salary \$11,500 to \$12,500. Available immediately. Send cur-311,300 to 312,300. Available immediately. Send curriculum vitae and names of references to Dr. Eugene E. Grebner, Division of Medical Genetics, Jefferson Medical College, Room 710, College Building, 1025 Walnut Street, Philadelphia, Pa. 19107.

POSTDOCTORAL POSITION—Available 30 January 1977, or until filled, for Ph.D. in biochemistry. Some postdoctoral experience desirable, but not necessary. Research will be conducted in the area of essary. Research will be conducted in the area of membrane fractionation and enzyme kinetics. Experience with biochemical action of pesticides desirable; 2- to 3-year appointment. Salary \$11,000 per year. Reply with transcripts, curriculum vitae, and names of three references to Dr. R. B. Koch, Biochemistry Department, Mississippi State University, Drawer BB, Mississippi State, Miss. 39762. Mississippi State, University in the English of Consequents (Afternative Afternative Afterna oi State University is an Equal Opportunity/Affirma-

POSTDOCTORAL-MOLECULAR BIOLOGY. Immediate opening for recent Ph.D. in the Molecular Genetics Section of the Cold Spring Harbor Labora-Genetics Section of the Cold Spring Harbor Laboratory. Important problems in phage and bacterial control systems are currently under investigation. Work involves phage, plasmid, and bacterial genetics together with restriction enzyme analysis of DNA and a variety of protein chemistry techniques. Send curriculum vitae to David Zipser, Box 100, Cold Spring Harbor, New York 11724. An Equal Opportunity Employer

#### POSTDOCTORAL RESEARCH ASSOCIATE

Position available for 2 years or longer beginning July 1977 or earlier for studies of leukemia and melanoma cell-surface antigens, lectin-binding sites, and adhesiveness of normal and neoplastic cells. Salary depends upon qualifications. Please send curriculum vitae to: Dr. Robert N. Taub, Chief, Division of Medical Oncology, Box 273, Medical College of Virginia, Richmond, Virginia 23298.

#### POSTDOCTORAL FELLOW

Immediate opportunity for applied research and methods development in an in vitro diagnostic products manufacturing company. Tenure 1 to 3 years. The successful applicant will hold a recent Ph.D. de-The successful applicant will hold a recent Ph.D. degree, preferably in biochemistry, chemistry, or immunology and will be well experienced in analytical instrumentation and experimental design. Clinical chemistry experience helpful, but not necessary. Salary: \$12,000 to \$13,000. Exceptional benefits include choice between two complete, company-paid health insurance plans (medical, dental, vision); also disability and life insurance, profit sharing, and tuition reimbursement. Send transcripts, curriculum vitae, and reprints to: Box 513, SCIENCE.

PREDOCTORAL POSITIONS in oncology, immu-PREDOCTORAL POSITIONS in oncology, immunology, microbiology, virology, molecular and cellular biology. Available: July to September 1977. Prerequisites: U.S. citizenship, B-plus average, high GRE scores. Inquiries to: Dr. Sheldon Dray, Head, Department of Microbiology, University of Illinois Medical Center, P.O. Box 6998, Chicago, Illinois 60680. The University of Illinois is an Equal Opportunity/Affirmative Action Employer nity/Affirmative Action Employer.

### THE UNIVERSITY OF BRITISH COLUMBIA Faculty of Agricultural Sciences Applications are invited for the position of PROFESSOR AND CHAIRMAN of the Department of Poultry Science

Candidates for this position should have an advanced degree in poultry/animal science (preferably a Ph.D.) and be prepared to offer leadership in both a rail D.) and be prepared to oner leadership in both academic and administrative activities particularly in the area of program development. The successful candidate will be an established scholar in poultry science and one that has demonstrated expertise in teaching, research, and administration. Knowledge of the Canadian agricultural scene is highly desir-

Salary for this position is commensurate with qualifications and experience.

Applications with curriculum vitae and the names and addresses of three references should be sent to:

Dr. W. D. Kitts, Dean
Faculty of Agricultural Sciences
University of British Columbia
2075 Westbrook Mall
Vancouver, B.C., Canada V6T 1W5

Applications should be received by 28 February 1977.

The University of British Columbia offers Equal Opportunity Employment to qualified male and female

PROGRAM MANAGER for large, multi-year interdisciplinary continental shelf research program in the Mid-Atlantic. Requires doctorate in marine science or related field. Program has chemical and biodical design of the program of the p logical emphasis but physical and geological sciences are also involved. Experience in field logistics and management desired.

Reply to Box 514, SCIENCE.

An Equal Opportunity Employer

#### THE UNIVERSITY OF MICHIGAN **Radiology Department** Instructor, Assistant Professor, Associate Professor or Professor

Risolate Professor of Trofessor of Trofessor of Trofessor of Board-eligible or Board-certified. Entering level commensurate with qualifications and experience. The physician will take part in the programs of patient care, teaching and research carried on in the Department of Radiology. Candidate will supervise activities of the resident staff and aid in teaching of residents and medical students. Codes #300FO and 700HO. Send résumé to Box 515, SCIENCE. An Equal Opportunity/ Nondiscriminatory Employer.

**RESEARCH SCIENTIST**, 2 to 10 years post-doctoral, with published evidence of independent scholarship beyond the thesis, to direct own laboratory in small mental health research institute, located near major southeastern universities. Stress is laid on a basic research approach to behavioral neurobiology in animals and man. Application dead-line: 31 December 1976. Please send résumé to: Pe-ter N. Witt, M.D., North Carolina Mental Health Re-search, Box 7532, Raleigh, N.C. 27611.

#### **POSITIONS OPEN**

## ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE

RESEARCH ASSISTANT PROFESSOR position available January 1977

Requires Ph.D. in the environmental engineering sciences with an interest in, and a working knowledge ences with an interest in, and a working knowledge of, both population and systems ecology. (Applications are not sought from persons with expertise limited to specialized areas in ecology or biological sciences.) Must be able to demonstrate a proficiency in working with complex ecological models (stochastic and deterministic) and in the use of digital, analog, and hybrid computers for model simulations. Applicants with additional skills in higher mathematics, fluid dynamics, or electrical circuit theory will be given preference. Will aid in the design, implementation, and evaluation of systems-oriented marine research in south Florida involving extensive field and laboratory work, resulting in written reports.

Applicants should send detailed curriculum vitae

Applicants should send detailed curriculum vitae and names of three potential references to:

Chairman
RAP Search Committee
Division of Biology and Living Resources
Rosenstiel School of Marine and Atmospheric Science
4600 Rickenbacker Causeway
Miami, Florida 33149

The University of Miami is an Equal Opportunity/Affirmative Action Employer.

#### RESEARCH BIOCHEMIST

Ongoing research program requires Ph.D. in biochemistry or endocrinology. Candidate must have working knowledge of hormonal regulation of target tissue function and its relation to the pathophysiology of disease of the accessory organs of reproducogy of disease of the accessory organs of reproduc-tion. Competitive salary, dependent upon experi-ence. Please forward résumé with names of two pro-fessional references to Personnel Manager, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, Texas 78284. An Equal Opportunity/Affirmative Action Employer.

#### RESEARCH MANAGEMENT SPECIALIST

Degree required: B.S. with M.B.A. Person with combined background in basic sciences and management to work directly with biomedical scientists in multidisciplinary cardiovascular research program. Will have responsibilities for advising director and co-investigators in financial and personnel manage-ment, planning and budgeting, information and materials flow, preparation of research grant and contract reports and proposals. Attend scientific planning conferences and participate in project planning, Management research interest and previous experi-ence in academic environment desirable. Send résumé to:

Dr. Henry C. McGill, Jr. The University of Texas Health Science Center at San Antonio 7703 Floyd Curl Drive San Antonio, Texas 78284

An Equal Opportunity/Affirmative Action Employer

The Cosmetic Ingredient Review, established to con-The Cosmetic Ingredient Review, established to conduct an independent scientific review of health effects of ingredients in cosmetic products, is accepting applications for SCIENTIFIC COORDINATOR. This individual would act as executive secretary to an expert panel of scientists; be responsible for all scientific functions of the staff; oversee preparation of scientific literature reviews and writing of sumpress desurgates for expert repolls and have reported. of scientific literature reviews and writing of summary documents for expert panel; and have reporting to him/her a staff responsible for the preparation of literature reviews and assemblage of information. Qualifications should include sound scientific background (desirably, in toxicology or pharmacology), a critical and imaginative insight, and ability to express himself/herself in writing. Demonstrated ability to work with committees is essential. Résumés should be sent to: Administrator, Cosmetic Ingredient Review, Suite 1275, 1133 15th Street, NW, Washington, D.C. 20005.

TWO SURGICAL RESIDENCY POSITIONS: One TWO SURGICAL RESIDENCY POSITIONS: One small animal and one large animal. Two-year program, combined orthopedic, neuro- and soft tissue training. Positions available 1 July 1977. One year internship or equivalent required. Salary \$11,020. Application forms obtained from Alexander Cheney, Veterinary Medical Teaching Hospital, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853. An Equal Opportunity Employer.

#### **POSITIONS OPEN**

# UNIVERSITY OF MICHIGAN HOSPITAL

#### SENIOR CLINICAL TECHNOLOGIST

Requires B.S. in science and several years of experience in histological techniques. Courses in anatomy, chemistry, genetics, and embryology desirable. Plans daily lab work, trains new technologists, assists with lab administration. Salary commensurate with experience. Excellent fringe benefits. Send résumé to:

> Joan Schneider Employment Representative
> University of Michigan Hospital
> 1405 East Ann Street
> Ann Arbor, Michigan 48109

A Nondiscriminatory, Affirmative Action Employer

#### UNIVERSITY OF QUEENSLAND

#### SENIOR LECTURER IN ANATOMY

Applications are invited from medical or dental graduates with teaching experience in gross anatomy. The successful applicant may elect to teach a regional anatomy course to either medical or dental students. Preference may be given to graduates with research interests in neuroanatomy or oral biology. Quote Reference No. 34176, 31.12.76.

#### SENIOR TUTOR IN BIOCHEMISTRY

Applicants should have as minimum qualifications an honors science degree, but preferably a higher de-gree. Applicants should indicate their research inter-ests. They will be required to do some lecturing and direct some laboratory classes. Preference may be given to applicants with interests in molecular biol-

ogy. Quote Reference No. 34276, 7.1.77.
Salaries: Lecturer: A\$13,552 to A\$17,993 per annum. Senior Tutor: A\$11,596 to A\$13,373 per annum.

Other benefits: lecturer and above: superannuation, study leave, housing assistance, traveling and removal expenses. Senior tutor: superannuation, housing assistance, traveling and removal expenses.

Additional information and application forms are obtainable from the Staff Officer, University of Queensland, St. Lucia, Queensland, 4067, Australia.

SOIL SCIENTIST: M.S. or B.S. with 2 to 3 years experience. Position available immediately to conduct field soil sampling programs. Perform limited soil mapping assignments, evaluate soil chemistry data for soil suitability in reclamation programs, supervise field crew members, prepare technical reports related to soils assignments, interact with clients and government agency personnel, prepare marketing proposals, represent employer to scientific and industrial conferences. Send résumé to Dr. Russell T. Moore, Ecology Consultants, Inc., P.O. Box 2105, Fort Collins, Colorado 80522. An Equal Opportunity Affirmative Action Employer.

A SYSTEMS ECOLOGIST is required by the On-A SYSTEMS ECOLOGIST is required by the Ontario Ministry of Natural Resources, Division of Fish and Wildlife, to make significant and original contributions to the development of theoretical and practical understandings of the dynamics of aquatic ecosystems as a basis for more effective fisheries management. This can be achieved by applying simulation modeling systems analysis and associated techniques to available ecological (mainly fisheries) data; by collaboration with associates in the Ministry and with scientists in other agencies; by publishing findings and interpreting them; and by acting as a consultant to both Ministry research and management staff. ment staff.

Qualifications: Ph.D. supported by significant research in a related field demonstrated by published scientific papers, or a master's degree in biological or other fields of science and several years of experience. Salary: \$17,100 to \$21,000 (a higher maximum may be considered depending on qualifications).

Location: Maple, Ontario, Canada.

Reply: Ontario Ministry of Natural Resources, Personnel Branch, Queens Park, Toronto, Ontario, Cana-

#### **FELLOWSHIPS**

# POSTDOCTORAL RESEARCH FELLOWSHIPS IN RESPIRATORY PHYSIOLOGY AVAILABLE 1977–1978

apply with curriculum vitae and names of two references to: S. M. Tenney, Department of Physiology, Dartmouth Medical School, Hanover, N.H. 03755.

Equal Opportunity Employer

#### FACULTY POSITIONS OPEN COLLEGE OF MEDICINE KING FAISAL UNIVERSITY DAMMAM, SAUDI ARABIA

Applications are now invited from qualified men and women in these premedical and preclinical subjects:

Biochemistry Chemistry **Biology** Physiology Embryology Physics Anatomy Pathology Community Medicine Biostatistics **Epidemiology** Histology

Doctorate or similar degree required. M.D. degree receives higher salary. Language of instruction is English. Positions are available immediately and for 1977-78.

Salary ranges (approximate):

Professor: \$23,000 to \$25,344 Associate professor: \$18,423 to \$22,272. Assistant professor: \$13,824 to \$25,492.

Free, furnished accommodation is pro-

Incomes not subject to Saudi Arabian income tax.

Send requests for application forms and information to:

Dr. Mohammed T. Altorki, M.D., MRCP Dean of the Medical Faculty King Faisal University c/o Mr. Ghazi Abdul Jawad Saudi Arabian Educational Mission 2223 West Loop South, Suite 400 Houston, Texas 77027

# ASSISTANT PROFESSOR POSITIONS AVAILABLE

Department of Geological Sciences The University of Texas at Austin

The University of Texas at Austin, Department of Geological Sciences, invites applications for two assistant professor positions, effective 1 September

One position is in the broad field of biostratig-raphy, preferably with specialization in one of the following areas:

1) Micropaleontology (including Foraminifera, nannofossils, and/or palynomorphs).

2) Benthic communities (specifically their de-cription interdemediate distributions of the communities).

scription, interdependence, dynamics, evolution, and state of development).

3) Tertiary mollusks (taxonomic, benthic community, or biostratigraphic approach).
4) Interregional biostratigraphy (specifically as applied to intercontinental correlations, continental drift, and/or relations to paleo-oce-

anic currents and environments).

The successful applicant for this position will be expected to participate in undergraduate teaching programs that include general stratigraphy, introductory paleontology, and field geology, in addition to graduate courses in the individual's specialty. The second position is in the field of economic ge-

ology, preferably with specialization in one of the following areas:

1) Ore deposits
2) Solution geochemistry

2) Solution geochemistry3) Stratabound mineral deposits

The successful applicant for this position will be expected to participate in undergraduate teaching programs that include mineralogy, petrology, and field geology, in addition to graduate courses in the intuitive provision.

individual's specialty.

Applicants for these positions must hold the Ph.D. degree. Qualified persons should send a complete résumé including names of references and a statement of research interests and planned research projects

Dr. Robert E. Boyer, Chairman Department of Geological Sciences The University of Texas at Austin Austin, Texas 78712

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#### ASSISTANT PROFESSORSHIPS Department of Biology University of California, Riverside

The Biology Department at the University of The Biology Department at the University of California, Riverside, is seeking appropriate additions to its faculty starting in the 1977 academic year. Candidates must show evidence of ability to initiate and sustain a productive, high-quality research program and show enthusiasm and skill for teaching biology at both undergraduate and graduate levels

#### Vertebrate Physiology

Ph.D. degree or equivalent in vertebrate physiology. Teaching duties to include upper division physiology and vertebrate anatomy courses as well as graduate level physiology

#### Animal Development/Experimental Cytology

Ph.D. degree or equivalent. Teaching duties rii.D. degree of equivaient. Feaching duties to include developmental biology, cytology, and/or histology. Preference will be given to individuals with postdoctoral experience and interest in animal development at the electron microscopic level.

Applicants should provide a curriculum vitae, list of publications, and a brief description of research and teaching interests. Additionally, at least three letters of support should be sent. The University of California is an Equal Opportunity and Affirmative Ac-tion Employer. Applications are invited from all qualified individuals, especially women and members of minority groups.

Send applications to:

Chairman Department of Biology University of California Riverside, California 92502



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# environmental sciences

The IBM Thomas J. Watson Research Center is now inviting applications for appointment as Wallace J. Eckert Visiting Scientist in Environmental Sciences for the academic year of

Although the program is specifically intended for persons on sabbatical leave from universities and governmental laboratories, applications from any scientist prepared to carry out independent research will be seriously considered. The Visiting Scientist will normally be appointed for a period of one year. The primary responsibility of the Visiting Scientist will be to pursue a research program of his own choice at the Thomas J. Watson Research Center. A stipend will be paid and certain relocation expenses will be reimbursed.

The Wallace J. Eckert Visiting Scientist will join the General Sciences Department at the Research Center. Present departmental activities in environmental sciences include mathematical modelling of population dynamics, statistical analysis of ecosystems, stochastic hydrology, geomorphology of drainage basins, numerical taxonomy, and medical decision processes. Applicants for the environmental sciences appointment are not limited to these fields.

Those interested in applying for this post should send a letter, curriculum vitae, and a choice of supporting material not to include any formal research proposals) Dr. S. L. Hantler, Manager, Corporate Ph. D. Program by January 1, 1977.



International Business Machines Corporation Thomas J. Watson Research Center P.O. Box 218, Yorktown Heights, New York 10598

#### **FELLOWSHIPS**

Predoctoral tuition remission FELLOWSHIPS are available for studies leading to the Ph.D. in biochemistry. For further information write:

Dr. D. A. Beeler Department of Biochemistry Albany Medical College Albany, N.Y. 12208

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POSTDOCTORAL FELLOWSHIP. A position is available for biochemical-genetic study of genetic regulation of isoleucine-valine biosynthesis in *Escherichia coli*. Salary: \$10,000. Research involves enzyme purification, genetic mapping, and DNA directed in vitro protein synthesis. Send curriculum vitae and names of references to Dr. David Calhoun, Department of Microbiology, Mt. Sinai School of Medicine, Fifth Avenue and 100th Street, New York, N.Y. 10029.

# POSTDOCTORAL FELLOWSHIPS IN ALLERGIC DISEASES

Research positions for holders of the Ph.D., M.D., or equivalent degrees are available immediately for studies of allergen chemistry, functions of eo-sinophils, biosynthesis of homocytotropic anti-bodies and their role in animal and human diseases, bodies and their role in animal and human diseases, especially due to parasites, and mechanisms of inflammation of the respiratory tract and skin. Combination with advanced clinical training in allergy and immunology and dermatology possible. Stipends begin at \$12,000 depending on experience. Contact Gerald J. Gleich, M.D., Allergic Diseases Training Program Director, Mayo Clinic and Mayo Foundation, Rochester, Minn. 55901; telephone 507-282-2511. Mayo is an Equal Opportunity/Affirmative Action Employer. Action Employer.

#### POSTDOCTORAL AWARDS IN OCEAN STUDY

Applications invited for 1-year Postdoctoral Schol-Applications invited for 1-year Postdoctoral Schol-ar Awards from new or recent doctorates in fields of biology, chemistry, engineering, geology, geophys-ics, mathematics, meteorology, physics, as well as oceanography. Recipients of awards are selected on a competitive basis, with primary emphasis placed on research promise and interest in marine prob-lems

Fellowship stipend is \$13,000. Appointees are eli-Fellowship stipend is \$13,000. Appointees are eligible for group health insurance and a modest research budget. Recipients are encouraged to pursue their own research interests independently or in close association with resident staff. Application inquiries accepted through 1 December 1976 for 1977-78 awards. Awards will be announced 1 February 1977. Write for application forms to Fellowship Committee, Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543.

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#### GRADUATE TRAINING IN PHARMACOLOGY

Research training and course work leading to the Ph.D. degree and realistically designed for career op-portunities in this expanding field are offered. The program includes: neuro-, autonomic, biochemical, clinical, renal, cardiovascular, and behavioral phar-macology; pharmacology of abused drugs; receptor macology; pharmacology of abused drugs; receptor and membrane theory; immobilized drugs and drug metabolism. A limited number of fellowships offering stipend and tuition are available. Early application for August 1977 is advised. Apply to Director of Graduate Studies, Department of Pharmacology and Therapeutics, Medical School, State University of New York at Buffalo, 127 Farber Hall, Buffalo, N.Y. 14214. An Equal Opportunity/Affirmative Action Emplover.

#### POSTDOCTORAL FELLOWSHIPS

Postdoctoral fellowships are available at the Rosenstiel School of Marine and Atmospheric Science, University of Miami.

The interests of the faculty include, but are not limit-The interests of the faculty include, but are not limited to, experimental studies and modeling of: interactions in controlled environments; the benthic boundary layer of the deep sea; the ocean as a climate-controlled biogeochemical system; coastal and shelf ecosystems; large tropical weather systems; and in the development of methods for the optimal utilization of ocean resources.

Applications should include a statement of research Applications should include a statement of research interests, curriculum vitae, and references, and be addressed to: Dr. Warren J. Wisby, Associate Dean, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 4600 Rickenbacker Causeway, Miami, Florida 33149.

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#### **FELLOWSHIPS**

# FELLOWSHIP IN MEDICAL GENETICS AND EPIDEMIOLOGY

The University of Iowa, College of Medicine, invites applications to the Cardiovascular Center for fellowships to study the genetic determinants of coronary risk factors beginning in 1977 and 1978. The program combines clinical training in medical genetics and epidemiology with special emphasis in research. For further information, please contact Helmut G. Schrott, M.D., Department of Medicine, University of Iowa, Westlawn S-212, Iowa City, Iowa 52242.

#### POSTDOCTORAL RESEARCH FELLOWSHIPS IN BLOOD BANKING SCIENCES

Two- and 3-year postdoctoral research training program in blood banking sciences with emphasis on transplantation immunology. Opportunities for basic and applied research on immunobiology of HLA region. Prerequisites: Ph.D. or M.D. degree and motivation toward research and academic career. Program affiliated with Medical College of Wisconsin. Send curriculum vitae, bibliography, and other appropriate information to:

Rene J. Duquesnoy, Ph.D. Director, Research and Development Milwaukee Blood Center, Inc. P.O. Box 10G Milwaukee, Wisconsin 53201

### TWO POSTDOCTORAL FELLOWSHIPS IN THE EARTH AND PLANETARY SCIENCES

The Lamont-Doherty Geological Observatory of

The Lamont-Doherty Geological Observatory of Columbia University invites scientists interested in any field of the earth and planetary sciences to apply for the following fellowships.

Two postdoctoral fellowships, each awarded for a period of 1 year (extendable to 2 years in special instances) beginning in September 1977, with a stipend of \$13,000 per annum. Completed applications are to be returned by 15 February. Application forms may be obtained by writing to the Director, Lamont-Doherty Geological Observatory, Palisades, New York 10964.

Award announcements will be made 31 March

Award announcements will be made 31 March 1977.

POSTDOCTORAL FELLOWSHIP available immediately for studies on myeloma. Projects involve immunochemistry and immunobiology of biclonal myelo-ma proteins and of myeloma-associated immuno-deficiency. Good background in immunology is de-sired. The position will provide training in protein structural chemistry. Send résumé and letters of ref-

> Dr. Jerry Katzmann Hematology Research Mayo Clinic Rochester, Minnesota 55901

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#### **GRADUATE STUDY**

#### GRADUATE WORK IN IMMUNOLOGY

predoctoral stipend is now available for immunochemical and immunobiological studies on functional aspects of bovine immunoglobulins. Training encompasses studies in cellular and molecular immunology in a major medical center. Students with master's or D.V.M. degrees are especially encouraged to apply. For more details, contact Dr. J. E. Butler, Department of Microbiology, University of Iowa, Iowa City, Iowa 52242.

#### **PROGRAMS**

GRADUATE STUDIES: Northwestern University GRADUATE STUDIES: Northwestern University Department of Pharmacology offers Ph.D. programs in molecular, physiological, morphological, and clinical aspects of pharmacology. Faculty interests include molecular pharmacology; pharmacokinetics, metabolism, and biochemical and electrophysiologic mechanisms of action of cardioactive agents; structural and physiologic bases of neurotransmission; relationships between contractile and metabolic events in smooth muscle; environmental toxicology; and pharmacology of hone. Instrumentation and speevents in smooth muscle; environmental toxicology; and pharmacology of bone. Instrumentation and specialized techniques include EM, FT-NMR, GC-MS, HPLC, intracellular microelectrode recording and tissue culture. Stipends begin at \$3600. Supported by NIH training grant. For further information contact Dr. George T. Okita, Department of Pharmacology, Northwestern University Medical School, Chicago, Illinois 60611.

#### **PROGRAMS**

DOCTORAL PROGRAM IN PHARMACOLOGY. Medical University of South Carolina, Department of Pharmacology, seeks candidates for Ph.D. program. Interdisciplinary environment with capabilities ranging from GC-MS through cell cultures and tues ranging from GC-MS through cell cultures and animals studies to clinical studies of patients. Research training available in biochemical, cardiovascular and clinical pharmacology, drug metabolism, toxicology, analytical chemistry. Stipends available: \$3900 per year. Contact: Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29401.

PROFESSIONAL PROGRAM: DOCTOR OF OPTOMETRY (O.D.). Accelerated professional program of two calendar years specifically designed for the Ph.D. in physical, biological, behavioral, or applied sciences. An opportunity for an independent professional career; program starts July 1977. Division of Special Studies, The New England College of Optometry, 424 Beacon Street, Boston, Mass. 02115. Telephone: 617-261-3430, ext. 46.

#### **ANNOUNCEMENTS**

The Scientific Advisory Committee of a proposed study of the vertical transport of materials through seawater (BIOTRANS), to be supported by the Office for the International Decade of Ocean Exploration, National Science Foundation, invites scientists interested in participating in a multidisciplinary program to submit **LETTERS OF INTENT** outlining their proposed research. The objectives of the pro-

(1) The identification of the processes that govern the vertical fluxes of materials through the water column

umn.

(2) Determination of the forms and species of elements in seawater.

(3) Role of the biota in transport processes.

These letters of intent will be evaluated by the Scientific Advisory Committee within the framework of a comprehensive program with the above goals. Endorsement by the Scientific Advisory Committee neither ensures nor implies funding. All final proposals will be evaluated by the National Science Foundation. The letter of intent should not exceed five pages. Tentative budgets should be included, but detailed justifications are not necessary at this time.

The letter of intent must be received prior to 1 January 1 Januar The letter of intent must be received prior to 1 January 1977 to be considered in the 1977 research program. The letters and questions should be directed to Dr. John Martin, Moss Landing Marine Laboratories, Moss Landing, California 95039.

#### **TRAINEESHIPS**

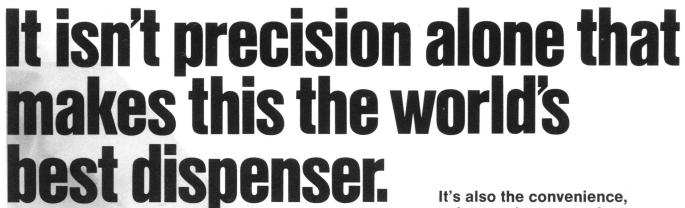
RESPIRATORY PHYSIOLOGY TRAINEESHIPS: RESPIRATORY PHYSIOLOGY TRAINEESHIPS: Postdoctoral traineeships, 1 to 3 years, available July 1977. Emphasizes training in cellular as well as classical respiratory physiology. Nine faculty members. Write: Education Officer, Respiratory Physiology Group, Department of Physiology, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19174. An Equal Opportunity Employer.

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