

# Personnel Placement

## POSITIONS WANTED

**Anatomist**—histology, embryology, electron microscopy, Ph.D. Desires senior academic teaching/research position. Extensive experience in transmission and scanning electron microscopy; microprobe analysis of tissues. Strong background in cell ultrafine structure. Versatile, innovative person with genuine commitment to teaching. Numerous publications. Box 144, SCIENCE. X

**Aquatic Ecologist**, Ph.D. Emphasis on freshwater fishes. Teaching, consulting experience. Three years of experience with environmental impact analysis for a broad range of industrial projects. Seeks teaching (general biology, ecology, ichthyology) or applied research position. Box 145, SCIENCE. 4/2

**Biochemist**, Ph.D. 1966. Eight years of academic experience (medical schools). Publications, transferable research support. Research interests include biochemistry of membranes (structure and function), phospholipids, and complex carbohydrates. Desires challenging position in industrial or academic setting. Rank, salary, and geographical location are open. Available June 1976. Box 146, SCIENCE.

**Biochemist**, Ph.D. 1970. Wide experience in enzyme and protein purification and characterization including glycoprotein, protein synthesis, virology, immunochemistry, and tissue culture. Several discoveries and awards. Three years postdoctoral and 4 years of investigative experience. Available in June 1976. Box 147, SCIENCE. X

**Biochemist-Cell Biologist**, Ph.D. 1972, 4 years postdoctoral. Experience: immunochemistry, immunoassay, protein purification, tissue culture, electronics, photography, some computer. Research interests: control of protein synthesis; development; endocrinology, especially steroids and cyclic AMP. Desires research and/or teaching. Available immediately. Box 148, SCIENCE. X

**Biochemist**, Ph.D. 1972. Experience: biochemistry/pharmacology of cyclic AMP/cyclic GMP, enzymology, teaching. Eleven publications, discovery of regulatory protein. Seeks research/teaching/industry position. 1400 South Nova Road, Apartment 222, Daytona Beach, Florida 32014. X

**Biophysical Chemist/Collagen Chemist**, Ph.D. 1970. Five years postdoctoral in collagen structure and function, protein chemistry, mineralized tissues. Some teaching experience in several chemistry courses. Publications. Seeks research and/or teaching position. Box 149, SCIENCE. X

**Biophysics Ph.D.**, University of Pennsylvania, June 1976. Research interests: neurobiology, cell receptor and membrane structure. Experienced in x-ray diffraction, crystallography, spectroscopy. Teaching experience, publications, references available. Desires research-teaching or postdoctorate position. Box 150, SCIENCE. X

**Climatologist**, 1975. Trained in interdisciplinary meteorology, oceanography, geography, statistics. Seeks research/industrial or teaching position in Canada or United States. Foreign-born, needs sponsorship. Ramasastry, Quanta Consulting Engineers, 169 Takht Tavous, Tehran, Iran. X

**Clinical Chemist and Instructor**. A.A., B.Sc., C(ASCP), CCT(NRCC), F.A.I.C. Four years of toxicology and public health, 7 years of clinical chemistry in large hospital laboratory. Extensive instrumentation background. Frequent teaching assignments in clinical chemistry, toxicology, and instrumentation. Desires academic or R & D position. Contact: B. Selby, 108 Charles Drive (M-2), Bryn Mawr, Pennsylvania 19010. X

**Gastrointestinal Physiologist**, Ph.D. 1974, plus 2 years of postdoctoral research, seeks research position with active group. Curriculum vitae supplied on request. Available September 1976. Box 151, SCIENCE. 3/26; 4/9

**Human Cytogeneticist/Cytologist** (Ph.D.). Eight years of experience in clinical and basic cytogenetics research, and in administering research grants. Publications. Background in cell biology. Seeks academic or research position with teaching and/or administrative responsibilities. Will seek own research support. Box 152, SCIENCE. X

## POSITIONS WANTED

**Laboratory Instructor—Coordinator and/or Technician** in general biology, general zoology, anatomy. Experienced M.S. with career hopes to continue lower-division college teaching. Box 153, SCIENCE. X

**Natural Resource**. Degrees: watershed, wildlife, geology. Experience: environmental monitoring; trans-Alaska pipeline construction; impact assessments; federal, state agencies. Desires multidisciplinary team, independent impact research, and/or introductory teaching. Versatile. Reply: S.R.A. 4078, Anchorage, Alaska 99502. X

**Physiology/Neurobiology/EM**. Medical school interdisciplinary dual Ph.D., postdoctorate of prominent membrane morphologist, publications. Fundable research on model membranes. Telephone: 919-684-4124, extension 36. 3/26; 4/2

**Sensory Physiologist**, teaching experience, active sponsored research program, seeks teaching/research position. Prefers West. Box 154, SCIENCE. X

**Surface Water Hydrologist**. Five years in field, 20 years of research, including 3 years with university faculty. Extensive publications in deterministic, stochastic, water resources systems modeling. Seeks teaching, research position. Box 155, SCIENCE. X

**Toxicologist/Pharmacologist**. D.V.M., M.S., Ph.D. Associate professor. Broad experience includes administration. Interdisciplinary outlook. Seeking challenge and advancement. Box 139, SCIENCE. X

## POSITIONS OPEN

### ANIMAL PHYSIOLOGIST

Biology Department seeks replacement for 1 year or longer (up to 3 years) beginning September 1976. Candidate should have Ph.D. Rank and salary commensurate with qualifications. Teaching duties include animal physiology, introductory biology, and genetics. Opportunity for research. Send curriculum vitae and three letters of recommendation by 1 May 1976 to Dr. J. T. Darlington, Southwestern at Memphis, 2000 North Parkway, Memphis, Tennessee 38112.

*An Equal Opportunity Employer*

### TWO 1-YEAR APPOINTMENTS AT SWARTHMORE COLLEGE, 1976-77

**Plant Physiologist** with broad botanical background.

**Animal Behaviorist-Sensory Physiologist** with broad zoological background.

Both at rank of assistant professor. Duties include undergraduate teaching with some opportunity for research.

Send curriculum vitae, statement of interests, three letters of reference, and transcripts to:

Dr. Norman A. Meinkoth, Chairman  
Department of Biology  
Swarthmore College  
Swarthmore, Pennsylvania 19081

*Swarthmore College is an Equal Opportunity Employer.*

**ASSISTANT PROFESSORSHIP** (research). Position available October 1976 for biochemical pharmacologist with experience in receptor identification, interaction of synthetic derivatives with receptors, and in vivo metabolism. Please send curriculum vitae to: Mrs. Lynne Kipp, George Washington University Medical Center, Room 225, Walter G. Ross Hall, 2300 Eye Street, NW, Washington, D.C. 20037. *Equal Opportunity Employer.*

**CELLULAR BIOLOGIST**—Available at the Department of Biology, University of Louisville, beginning in fall 1976; appointment is expected to be at the rank of assistant professor. The position involves teaching in the undergraduate program and developing graduate courses and an active research program. Preference will be given to a cellular biologist with a strong background in biochemistry and physiology. Applicants must have the terminal degree (Ph.D.). Send résumé, including a brief description of teaching and research experience, by 15 April 1976 to: Dr. Lois S. Cronholm, Chairman, Search Committee, Department of Biology, University of Louisville, Louisville, Kentucky 40208. Three letters of reference will be requested from those applicants passing initial screening. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR**, Ph.D., in Department of Biochemistry and Biophysics. The candidate should be qualified to teach biophysics on the undergraduate and graduate levels and have postdoctoral experience in research on the structure and function of membranes in model systems, cells, and tissues by biophysical methods. Interested candidates should send curriculum vitae to Dr. Annemarie Weber, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, Pennsylvania 19174. *An Equal Opportunity Employer.*

**ASSISTANT PROFESSOR OF CHEMISTRY**: Ph.D. required, postdoctoral experience desirable. Biochemist preferred, other specialties considered; instrumental expertise desirable. Teaching assignments may include first-year courses. Supervision of undergraduate research is expected; ACS-approved department. Submit letter of application, curriculum vitae, brief description of teaching and research interests, and three letters of recommendation before 31 March to: Larry Fitzpatrick, Director of Personnel, Saginaw Valley State College, 2250 Pierce Road, University Center, Michigan 48710. *Saginaw Valley State College is an Equal Opportunity Employer.*

**ASSISTANT PROFESSOR OF ZOOLOGY**: to teach invertebrate developmental zoology, introductory zoology, and/or introductory biology courses. Develop course in area of specialization. Qualifications: Ph.D. in developmental biology, active research; postdoctoral training desirable. Application deadline 15 April 1976; duties begin 1 September 1976. Send curriculum vitae and three letters of reference to Dr. John E. Foret, Zoology Department, University of New Hampshire, Durham, N.H. 03824. *The University is an Affirmative Action/Equal Opportunity Employer.*

The Biology Department at Georgia State University has an opening for an **ASSISTANT PROFESSOR IN ZOOLOGY**. Applications are invited from environmentally oriented zoologists willing to develop teaching-research programs in an urban university. The person chosen should be able to teach general zoology and graduate courses in area of specialization and direct graduate student research. Ph.D. required. Position available September 1976. Send curriculum vitae and references to Dr. Fred K. Parrish, Department of Biology, Georgia State University, University Plaza, Atlanta, Georgia 30303. *Affirmative Action/Equal Employment and Educational Opportunity Institution.*

Position for **BIOPHYSICIST OR PHYSICAL CHEMIST** to continue and expand a strong research program investigating biophysical and biochemical aspects of low temperature stress and its effects on horticultural plants. Should have training or experience in plant science, horticulture, and cryobiology, or should have a deep interest in these areas. Must be able to function in a cooperative team research situation. The scientist will also be required to teach and to advise graduate students. The appointment (12 months) will be at assistant professor in the Laboratory of Plant Hardiness, Department of Horticultural Science, University of Minnesota, St. Paul, Minn. 55108. Address inquiries to: D. Stushnoff, Chairman of the Search Committee. Telephone: 612-373-1030. Completed applications due 23 April 1976. *The University of Minnesota is an Equal Opportunity/Affirmative Action Employer and welcomes applications from women and minority groups.*

The Biology Department is seeking a **PLANT PHYSIOLOGIST** with an ecology research orientation or an **ALGOLOGIST** with a physiology and ecology research interest. The person chosen should be able to teach general botany and graduate courses in area of specialization and direct graduate student research. Ph.D. required. Position available September 1976. Send curriculum vitae and names of three references to Dr. Warren L. Cook, Department of Biology, Georgia State University, University Plaza, Atlanta, Georgia 30303. *Affirmative Action/Equal Employment and Educational Opportunity Institution.*

**BIOLOGIST**. To teach general biology courses for science and nonscience majors and course in area of specialization. Assistant professor or instructor commencing September 1976. Eligible for tenure. Forward dossier including curriculum vitae, letters of recommendations, and transcripts to Professor L. G. Klikoff, Department of Biology, Allegheny College, Meadville, Pa. 16335. *Equal Opportunity Employer.*

## POSITIONS OPEN

**BIOLOGY DEPARTMENT:** Three permanent faculty openings at the instructor or assistant professor rank. (i) Teaching general biology and/or human physiology to nonmajors, and directing M.S. students in human or vertebrate physiology. (ii) Teaching general biology and/or environmental biology to nonmajors, and directing M.S. students in aquatic biology area. (iii) Teaching general biology and/or environmental biology to nonmajors, and directing M.S. students in thesis research and advising them in quantitative aspects of their thesis research. All positions are at the instructor or assistant professor rank with salary range from \$10,500 to \$12,750. All positions have duties in advising undergraduate students and academic committee membership. Ph.D. in area of concentration required. Postdoctoral experience desired. Some college or university-level teaching required. Two or 3 years of university-level teaching/research desired. Send applications to **Dr. Henry Vallowe, Biology Department, Indiana University of Pennsylvania, Indiana, Pennsylvania 15701**, by 2 April 1976.

*An Affirmative Action/Equal Opportunity Employer*

Basic nonprofit research institute in suburbs of New York City has laboratory space for biomedical research. Modern animal facilities available. If you are an established **BIOMEDICAL SCIENTIST** with full or partial financial support which is transferable please submit in confidence curriculum vitae, details of project, and support.

Box 158, SCIENCE

The School of Medicine of the University of California, Davis, invites applicants for the position of **CHAIRMAN** of the Department of Physical Medicine and Rehabilitation. This position requires a Board-certified **PHYSIATRIST** with substantial, demonstrated teaching, research, and administrative abilities who will provide leadership in a strong, active department. Applicants should send a curriculum vitae and other supporting information to **Ernest Gardner, M.D., Chairman, Search Committee, Department of Neurology, University of California, Davis, California 95616**. The University of California is an Affirmative Action/Equal Opportunity Employer.

**CHEMISTRY DEPARTMENT:** Three openings; two openings will be teaching introductory chemistry to nonmajors, part on main campus and part will be at the branch campus. Master's degree plus 10 hours of postgraduate work required. Ph.D. desired. The other position is teaching analytical chemistry to undergraduate and graduate majors, also some duties in general chemistry. Master's degree plus ten postgraduate hours in analytical chemistry. Ph.D. in analytical chemistry desired. For all positions: permanent faculty openings September 1976, at instructor or assistant professor rank. Salary range: \$10,500 to \$12,000 (9 months). Four years of experience required. Five years of experience desired. Send applications, transcripts, and three letters of recommendation to: **Dr. Stanford L. Tackett, Chemistry Department, Indiana University of Pennsylvania, Indiana, Pa. 15701**, by 2 April 1976.

*An Affirmative Action/Equal Opportunity Employer*

### CLINICAL GENETICIST

The Department of Human Genetics at Medical College of Virginia/Virginia Commonwealth University invites applications from physicians who are trained in clinical genetics. Teaching and research ability are of primary consideration in a rapidly growing Basic Sciences Department conferring graduate degrees. Academic appointment and salary dependent on qualifications. Qualified applicants should send curriculum vitae, a brief description of research and teaching experience, and career objectives to **W. E. Nance, M.D., Ph.D., MCV Station, Box 33, Richmond, Va. 23298**.

*Equal Opportunity Employer*

**DIRECTOR**—Performance Research Laboratory and research professor. Candidates should have Ph.D. with training and experience in human factors, performance research, or behavioral toxicology. Experience in administration and in extramural support is required. For detailed information write: **Dr. Paul D. Jones, Associate Research Professor, Performance Research Laboratory, Leopold Hall, University of Louisville, Louisville, Kentucky 40208**. An Equal Opportunity/Affirmative Action Employer.

26 MARCH 1976



## U.S. ENVIRONMENTAL PROTECTION AGENCY

### SENIOR EPIDEMIOLOGIST

The U.S. Environmental Protection Agency, Health Effects Research Laboratory, is seeking an Epidemiologist with an advanced degree in epidemiology to assist in the management of Population Studies in the Research Triangle Park, North Carolina. Responsibilities will include management of the design and conduct of studies to quantitate the adverse effects of environmental pollutants on human health or to assess the impact of improvements in environmental quality on the health and welfare of man. Candidate must have demonstrated excellence as an investigator in some aspect of environmental epidemiology. Administrative experience in organizing and directing a research organization is highly desirable.

This position may be a competitive Civil Service Appointment or Commission in the Public Health Service depending on qualifications and/or eligibility. Salary open.

Inquiries should be addressed to:

Director  
Health Effects Research Laboratory (MD-51)  
Environmental Protection Agency  
Research Triangle Park, North Carolina 27711

An Equal Opportunity Employer

International Pharmaceutical Group is seeking a

### DIRECTOR FOR ITS BIOLOGICAL DEPARTMENT

located in one of the main European cities.

Reporting to the Director of Research and Development, he will work in close collaboration with the directors of the chemical and the medical department.

Responsible for planning, organisation and coordination of the programs of applied and fundamental research, he will supervise a staff of about 120 which has to be substantially enlarged in the near future.

#### Requirements:

- age between 38 and 45 years
- MD and possibly PhD degree
- high scientific production in cardiovascular pharmacology and physiology, particularly in the field of central regulation of blood pressure, hemodynamics and in smooth muscle physiology
- knowledge of psychotropic and analgesic drugs
- fluent English, good background of French and possibly German
- previous experience in pharmaceutical industry desirable but not essential.

Conditions according to the importance of the position.

Write to: **HAVAS CONTACT— 156, Boulevard Haussmann— 75008— PARIS (France) N° 69.337**

## POSITIONS OPEN

**Chairperson**  
Department of Pathology  
School of Medicine-School of Dentistry  
Georgetown University  
Washington, D.C. 20007

The two Schools are searching for a new **chairperson**, Department of Pathology. A challenging opportunity exists for teaching approximately 820 medical and 600 dental students and for encouraging and promoting research. The School of Medicine in its 125th and the School of Dentistry in its 75th year are well established and committed to traditional, scholarly, educational and research programs.

*The University is an Affirmative Action/Equal Opportunity Employer.* Letters from interested persons or proposals for the position should be addressed to:

**John C. Rose, M.D.**  
Chairman, Search Committee  
Georgetown University School of Medicine  
3900 Reservoir Road, NW  
Washington, D.C. 20007

## DIRECTOR DEPARTMENT OF ANATOMY

Applications and nominations are invited for the position of director of the Department of Anatomy in the Faculty of Medicine at Laval University. The department is responsible for undergraduate and graduate teaching of gross anatomy, histology, embryology, and neuroanatomy and has research programs in those disciplines. Candidates must possess a Ph.D. or M.D. degree and have an established record of achievement in research and teaching in one of the areas involved. Fluency in French is a prerequisite. Submit application, including curriculum vitae, before 15 April 1976, to Dr. Pierre Potvin, Secretary, Faculty of Medicine, Laval University, Quebec, Quebec, Canada, G1K 7P4.

## POSITIONS OPEN

### COMMUNITY ECOLOGIST HERPETOLOGIST VERTEBRATE ENDOCRINOLOGIST

We anticipate three openings at the assistant professor level with appointments effective 1 September 1976. All three positions involve teaching in beginning courses as well as at the advanced level. Applicants must have a Ph.D. and strong commitment to research and teaching.

**ECOLOGIST:** must have an interest in community-level processes. Will participate in large introductory course in general biology. Preference given to applicants having postdoctoral research experience. Contact: **Dr. Frederick Streams.**

**HERPETOLOGIST:** to develop specialized course and graduate program in herpetology. Develop productive research program in one or more of the following: biogeography, population genetics, systematics, comparative behavior, paleontology. Will participate in general zoology or general biology. Contact: **Dr. James Slater.**

**ENDOCRINOLOGIST:** to participate in graduate teaching program and develop research program in area of specialization. Will participate in teaching of human physiology/anatomy to paramedical students. Preference given those with postdoctoral experience. Contact: **Dr. Guillermo Pilar.**

To apply, send full curriculum vitae and names and addresses of three references to indicated contact person, **Biological Science Group, U-42, University of Connecticut, Storrs, Connecticut 06268.**

Deadline: 1 April 1976. *An Equal Opportunity Employer.*

**INSTRUCTOR, human anatomy and physiology and genetics**, the former to nonmajors, the latter to biology majors. Start September 1976. Must have strong interest in teaching. Small private college with nursing and allied health degrees. Send résumé and three letters of recommendation before 15 April to: **Dr. Richard J. Clark, Department of Biology, York College of Pennsylvania, York, Pa. 17405.**

*Equal Opportunity/Affirmative Action Employer*

## POSITIONS OPEN

The Concentration in Science and Environmental Change is seeking a **FACULTY MEMBER** with a Ph.D. in geology or earth science to join in its interdisciplinary teaching and research programs. Capability to teach the following courses is desirable: mineralogy, petrology, structural geology, and petroleum geology. Participation in an introductory earth science course is required. Opportunities to participate in team-taught courses which integrate geology with other natural and social sciences are available. Research that bears on applications of geology to regional environmental problems is encouraged. The position carries the rank of assistant professor and is available September 1976. Salary for the academic year will be in the \$12,500 range. Applicants should send a résumé, transcripts, and three letters of reference by 19 April to **Dr. Keith White, Science and Environmental Change, University of Wisconsin-Green Bay, Green Bay, Wisconsin 54302.** *An Equal Opportunity/Affirmative Action Employer.*

### GENETICS FACULTY POSITIONS

Effective 1 September 1976

Applications are invited for two positions at the level of assistant professor in the following areas:

- (i) **Developmental-Biochemical Genetics** of higher plants.
- (ii) **Somatic Cell Genetics** of higher plants.

Applicants must have a strong background in genetics and biochemistry and demonstrated research capability involving the regulation of gene expression at the molecular or cellular level. It is expected that they have postdoctoral experience and significant publications. We are seeking excellence in research and teaching.

Send curriculum vitae, list of publications, three references, and summary of research experience and interests to:

**Dr. John G. Scandalios, Head**  
Department of Genetics  
P.O. Box 5487  
North Carolina State University  
Raleigh, North Carolina 27607

*An Affirmative Action/Equal Opportunity Employer*

## Medical Research Opportunities

ICI United States, Inc. is currently seeking creative, experienced researchers to join our expanding medical research team.

### ANALYTICAL BIOCHEMIST

Position requires a Ph.D. Degree with substantial industrial research experience. Responsibilities will include coordinating the efforts of subordinate laboratory personnel, routine analysis, developing new or improved methodology in support of new drug development and interpretation of data including pharmacokinetics.

### RESEARCH HEMATOLOGIST

Position requires a Ph.D. or DVM Degree and a strong background in laboratory animal hematology work. Some experience in microbiology and chemistry is also preferred. Responsibilities will include coordinating the work of subordinate hematology and microbiology laboratory personnel, method development leading to new or improved diagnostic techniques, analysis and interpretation of pre-clinical data and participation as a member of a new drug discovery team.

We offer an excellent salary and benefits package, convenient suburban location, and a highly professional work environment, with excellent growth prospects. Reply in complete confidence including salary requirements, to:



**E. Shannon Wyant**  
PROFESSIONAL EMPLOYMENT  
**ICI United States Inc.**

**Wilmington, Delaware 19897**

*An Equal Opportunity Employer M/F*

## Hot off the column!

The three hottest nucleosides [<sup>3</sup>H] available.

**Thymidine, [methyl, 1,2'-<sup>3</sup>H]- 80-100Ci/mmol**

Ethanol:water solution, 7:3.

NET-512 \$54/1mCi \$162/5mCi

**Guanosine, [5'-<sup>3</sup>H]- > 20Ci/mmol**

Ethanol:water solution, 3:7.

NET-511 \$54/1mCi \$173/5mCi

**Deoxyguanosine, [8,5'-<sup>3</sup>H]- 25-50Ci/mmol**

Ethanol:water solution, 3:7.

NET-509 \$113/1mCi \$340/5mCi



**New England Nuclear**

549 Albany Street, Boston, Massachusetts 02118  
Customer Service 617-482-9595

NEN Canada Ltd., Lachine, Quebec; NEN Chemicals GmbH, Dreieichenhain, W. Germany

Circle No. 393 on Readers' Service Card

## POSITIONS OPEN

### EVOLUTIONARY BIOLOGIST

Applications are invited for an anticipated research and teaching position at the assistant professor level, beginning August 1976. Teaching to include evolution course for majors and advanced teaching and graduate training in evolutionary biology with emphasis on adaptation and natural selection.

Write to:

**Chairman  
Evolutionary Biology Search Committee  
Department of Zoology  
The University of Iowa  
Iowa City, Iowa 52242**

*An Equal Opportunity/Affirmative Action Employer*

### FACULTY POSITION

#### BIOCHEMISTRY

Applications are invited for an appointment at the assistant professor level. Preference will be given to candidates with research interests in the biochemistry/biophysics of membranes. Please send curriculum vitae, a brief description of research plans, and the names of three references to: **Search Committee, Department of Biochemistry, Dartmouth Medical School, Hanover, N.H. 03755.** Closing date for applications is 30 April 1976. *Dartmouth Medical School is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION—MICROBIOLOGY.

The Department of Microbiology at The University of Chicago would welcome inquiries from candidates wishing to join its faculty. We are particularly interested in persons with doctoral and postdoctoral training in either (i) plasmid microbiology including studies of the role of R factors in drug-resistant and infectious diseases or (ii) those aspects of cell biology relevant to the departmental interest including the molecular biology of the eukaryotic gene. Candidates should have a primary interest in research but be prepared to participate in the teaching activities of the department. Interested individuals should send their curriculum vitae, list of publications, and the names of three references to: **Dr. Bernard Strauss, Chairman, Department of Microbiology, University of Chicago, 920 East 58 Street, Chicago, Illinois 60637.** *From the time of its original charter, the principle of The University of Chicago has been to appoint scholars without regard to race, color, religion, sex, or national origin.*

**HUMAN RESOURCE ADMINISTRATION.** A Washington, D.C., nonprofit national organization seeks a professionally qualified person for an administrative position concerned with support for advanced education and research in science and engineering. Qualifications include doctorate or equivalent in science, engineering, or mathematics, with experience in graduate education and postdoctoral training. Knowledge of international education and experience in selection research desirable. Appointment is for 1 year, with possible extension. Salary is competitive, and opportunities exist for advancement. Candidates should send résumés to **Box 156, SCIENCE.**

*An Equal Opportunity Employer*

**INSTRUCTORSHIP** available fall 1976 for qualified Ph.D. to supervise multisectioned introductory biology laboratory for science majors. Duties include developing laboratory exercises and materials, supervising teaching assistants and other support personnel, and coordinating laboratories with lecturers. Appointment will be made for 1 or 2 years depending on experience and other qualifications. Preference will be given to candidates with credentials in areas of cell biology. Salary \$10,000 to \$11,500 for the academic year. Please respond by 12 April to **Laboratory Coordinator Search Committee, Department of Biology, Gilmer Hall, University of Virginia, Charlottesville, Va. 22901.** *An Equal Opportunity/Affirmative Action Employer.*

26 MARCH 1976

## RADIATION SAFETY OFFICER

Northwestern University is seeking applicants for the position of University Radiation Safety Officer. The Radiation Safety Officer is responsible for making recommendations on policies and procedures for a broad program in radiation safety and is to implement those programs and policies approved by the Radiation Safety Committee and the University administration. The RSO serves as the Director of the Radiation Protection Office; is responsible for supplying advice and assistance on all matters involving the use of radioactive materials or radiation sources; issues authorization for the use of radioactive materials or radiation sources with the approval of the Radiation Safety Committee; is responsible for maintaining necessary records relating to the use of radioactive materials or sources; maintains the University NRC licenses and State of Illinois registrations. The University maintains a Broad General Medical License which covers two campuses (Evanston and Chicago) and two teaching hospitals. In addition to a range of radiographic equipment and extensive nuclear medicine programs, the University has X-ray diffraction facilities, electron accelerators, a subcritical reactor and a broad range of isotope users with sources ranging from kilocurie to microcurie quantities.

**QUALIFICATIONS:** The successful applicant must have a broad knowledge of all aspects of radiation safety and requirements of the NRC with regard to maintaining a broad license. The applicant should have a M.S. in related field, and/or have Board certification. In addition, the applicant must have personal, managerial, and financial skills which permit him or her to successfully operate the Radiation Protection Office and deal effectively with faculty, staff and administration.

**SALARY and BENEFITS:** The Salary is open and depends on the background and experience. Faculty appointment is available to qualified individuals.

**RESUMES,** along with the names of at least three references, or inquiries, should be directed to:

**David Mintzer  
Vice President for Research  
Northwestern University  
633 Clark Street, Evanston, IL. 60201  
An Equal Opportunity Employer**

## ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA

presents a

### BICENTENNIAL SCIENTIFIC SYMPOSIUM

APRIL 18-21, 1976

#### Theme: "Changing Scenes in Natural Sciences"

Speakers will present papers in ecology, evolution and systematics, and behavior which will illustrate the change in scientific thinking and methodology over the last 200 years. Speakers and moderators include:

Drs. R. D. Alexander, Univ. of Michigan; J. L. Brooks, National Science Foundation; A. J. Cain, Univ. of Liverpool; R. D. Estes, Academy of Natural Sciences of Phila; W. J. Ewens, Univ. of Penna; E. B. Ford, All Souls College; D. R. Goddard, National Academy of Sciences; E. Goffman, Univ. of Penna; W. D. Hamilton, Imperial College Field Station; J. L. Harper, Univ. College of North Wales; R. A. Hinde, Univ. of Cambridge; G. E. Hutchinson, Yale Univ; D. H. Janzen, Univ. of Michigan; R. M. May, Princeton Univ; E. Mayr, Harvard Univ; R. T. Paine, Univ. of Wash; R. Patrick, Academy of Natural Sciences of Phila; P. H. Raven, Missouri Botanical Garden; D. Ripley, Smithsonian Inst; H. L. Sanders, Woods Hole Oceanographic Inst; R. R. Sokal, State Univ. of N.Y. at Stony Brook; E. Stellar, Univ. of Penna; T. Uzzell, Academy of Natural Sciences of Phila; A. C. Wilson, Univ. of Calif; E. O. Wilson, Harvard Univ.

Lectures will be held at the University Museum Auditorium, 33rd and Spruce Streets, Phila., Pa. from 9-5. Registration fee of \$45. includes banquet, concert and publication. (Special student rate of \$15. includes concert and publication.) Rooms are reserved at the Sheraton Hotel on a first come, first served basis. Upon receipt of registration fee, a hotel reservation card will be forwarded.

#### I WOULD LIKE TO ATTEND BICEN SYMPOSIUM

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

☐ Enclosed is \$15.00 deposit. ☐ Enclosed is \$15.00 (Special Student Rate) payment in full. ☐ Enclosed is \$45.00 payment in full.

**NOTE:** Please make check or money order payable to: Academy of Natural Sciences of Philadelphia.

**RETURN TO:**

Academy of Natural Sciences of Philadelphia  
Attn: Dr. Clyde E. Goulden, Chairman  
Bicentennial Symposium Committee  
19th and the Parkway, Phila., Pa. 19103

## POSITIONS OPEN

**IMMUNOLOGIST**, to establish independent research program to study cellular immunity to carcinoma of the bladder in humans. Candidates should have 2 years of postdoctoral experience in studies related to cell-mediated immunity with expertise in these areas: (i) techniques for cultivation of cell lines from human transitional cell carcinoma, (ii) in vitro techniques to demonstrate tumor-specific cellular immunity, and (iii) immunochemical procedures for isolation and purification of tumor-associated antigens. Applicants should submit a curriculum vitae, publication list, three letters of recommendation, and a research plan outline to: **C. E. Cox, M.D., Department of Urology, University of Tennessee Center for the Health Sciences, P.O. Box 63635, Memphis, Tenn. 38163.** An Affirmative Action/Equal Opportunity Employer.

*Equal Opportunity/Affirmative Action Employer*

**MEDICAL MICROBIOLOGIST.** Faculty position with rank and salary negotiable is available 1 September 1976. Applicants must have strong commitment to research as exemplified by postdoctoral experience and significant publications. Major undergraduate teaching responsibility is a course in medical microbiology. Closing date: 15 May 1976. Please send curriculum vitae and names of four references to:

**L. N. Zimmerman, Head  
Department of Microbiology and Cell Biology  
The Pennsylvania State University  
S101 Frear Building  
University Park, Pa. 16802**

*An Affirmative Action/Equal Opportunity Employer*

## POSITIONS OPEN

**GASTROINTESTINAL PHYSIOLOGIST** with demonstrated teaching ability and active research program (desired areas: electrophysiology of smooth muscle or secretory cells; reflex/peripheral control of GI motility). Clinical competence or interest important factor. Professional rank and salary commensurate with qualifications. *Affirmative Action/Equal Opportunity Employer.* Send résumé and references to **Search Committee (GI), Department of Physiology, University of North Carolina, Chapel Hill, N.C. 27514.**

**MASS SPECTROSCOPIST:** The Department of Chemistry of the University of Pennsylvania seeks a person to operate and maintain a Perkin-Elmer high-resolution mass spectrometer and associated instruments. Applicants should have a degree in electronics, physics, or chemistry or equivalent training with several years of experience in mass spectrometry. Send résumé and references to **Dr. L. G. Sneddon, Chemistry Department, University of Pennsylvania, Philadelphia, Pa. 19174.** *Equal Opportunity Employer.*

**NATURAL SYSTEMS ENVIRONMENTALIST.** Teaching position involving course work in vegetation, soil and wildlife, inventories and analysis; and environmental impact assessment in an alternative transdisciplinary undergraduate college emphasizing teaching, community involvement, and career preparation. Prefer Ph.D. and/or professional experience with some classroom teaching experience. Write: **Ronald B. Poitras, William James College of the Grand Valley State Colleges, Allendale, Michigan 49401.**

## POSITIONS OPEN

**NEUROCHEMIST**—Assistant research biochemist position open for Ph.D. neurochemist experienced in assays for phospholipids, neurotransmitters, enzymes, and nucleic acids (rat brain). The responsibilities include collaboration with the present group and development of original investigations. Qualified individuals should submit a curriculum vitae, a list of references, and a description of professional interests to: **Dr. Stephen Zamenhof, University of California at Los Angeles, Microbiology and Immunology Department, 405 Hilgard Avenue, Los Angeles, Calif. 90024.** *Women and minority candidates are encouraged to apply.*

## PATHOLOGY

### ASSISTANT PROFESSORS

Positions of assistant professors of pathology are available at the College of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, New Jersey. Background in clinical chemistry and/or laboratory research desirable. Starting salary according to training and experience. Please send résumé to: **George P. Studzinski, M.D., Ph.D., Chairman of Pathology**



**COLLEGE OF MEDICINE AND  
DENTISTRY OF NEW JERSEY  
NEW JERSEY MEDICAL SCHOOL  
100 BERGEN STREET  
NEWARK, NEW JERSEY 07103**

*An Equal Opportunity Employer M/F*



**State of  
New South Wales**

**AUSTRALIAN MUSEUM, SYDNEY**

## DIRECTOR

**Position No. 187P**

The Australian Museum at Sydney is maintained by the State Government of New South Wales for the purpose of collecting and preserving materials from the fields of natural history, particularly biology, anthropology and geology, and palaeontology, and using these materials for display and educational purposes and research. Its role is to provide new knowledge through original research, and to disseminate information through publications and educational and exhibition programmes. A Board of Trustees exercises general powers relating to the management of the Museum and its property. The Museum has a total staff of about 160 persons.

**SALARY:** \$A26,317 plus expenses allowances of \$A336 per annum.  
(All rates quoted are subject to pending 'STATE WAGE CASE REVIEW')

**QUALIFICATIONS:** Essential — Post graduate degree plus administrative experience at an appropriate level.

Desirable — Museum administration experience plus a good knowledge of curatorial duties including the display, housing and custody of collections.

**DUTIES:** Responsible to the Board of Trustees for the organisation and management of the Australian Museum including the co-ordination and control of research programmes conducted by the Museum. He will have opportunities to pursue his active interest in research.

**GENERAL:** Subject to certain conditions, the successful applicant will be eligible for:-

1. Payment of fares to Sydney;
2. Financial assistance towards cost of removal expenses;
3. Financial assistance towards cost of initial accommodation expenses.

**INQUIRIES:** Mr Ingall, Assistant Under Secretary, Department of Culture, Sport and Recreation, Phone 27 7235.

**APPLICATIONS CLOSE:** N.S.W. PUBLIC SERVICE BOARD, Goodsell Building, 8-12 Chifley Square, Sydney, 2000, by 30th April, 1976.

*When applying applicants are requested to indicate the number of the position applied for and the title of the position.*

**DEPARTMENT OF CULTURE  
SPORT & RECREATION**

### PHYSICAL OCEANOGRAPHER

The Coastal Marine Studies program of the University of California, Santa Cruz, anticipates a faculty opening at the assistant professor level, starting 1 July 1976. Applications are encouraged from recent Ph.D.'s who have strong research interests in coastal processes to work in an interdisciplinary group in a developing coastal marine program. Teaching at the undergraduate and graduate level is expected. Salary range is \$13,500 to \$15,100 for a 9-month contract. Send résumé and three letters of recommendation to: **Search Committee, Coastal Marine Studies Office, Applied Sciences Building, University of California, Santa Cruz, Calif. 95064.** Application deadline is 15 April 1976.

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

**PLANT PHYSIOLOGIST/BIOCHEMIST.** A staff position is available immediately for research in plant metabolism. Individual with research experience is sought for appointment at either associate or professor level (technical assistance will be hired). Please submit curriculum vitae, list of references to be contacted, and pertinent publications by 31 May 1976 to: **J. W. Brown, Administrative Assistant, UT-ER-DA Comparative Animal Research Laboratory, 1299 Bethel Valley Road, Oak Ridge, Tennessee 37830.** Salary will be commensurate with experience.

*An Equal Opportunity Employer*

### POSITION AVAILABLE

The Department of Entomology, Purdue University has an academic staff position available with primary responsibilities for teaching entomology at the undergraduate level. Training must include a strong background in entomology and a broad base in related areas of science. The individual should have an overriding interest in the education of career entomologists with a commitment to an undergraduate teaching program. In addition to the teaching function the appointee will have opportunity to conduct research and supervise graduate students.

Salary is to be commensurate with training and experience. Send detailed résumé including transcripts and three letters of recommendation to:

**Eldon E. Ortman  
Department of Entomology  
Purdue University  
West Lafayette, Indiana 47907**

Applications will be received until 5 April 1976.

*An Equal Opportunity Employer: Purdue University is an Equal Access/Equal Opportunity Employer.*



## POSITIONS OPEN

**PHYSICAL SCIENTIST.** The National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, announces one vacancy in the competitive service in the Office of the Associate Administrator for Marine Resources, Rockville, Md. Entrance level salary \$26,861 (GS-14) or \$31,309 (GS-15) depending upon experience and level of the Civil Service rating. Incumbent will coordinate with other offices in NOAA in recommending policy guidance and direction for the National Sea Grant Program, the Deepwater Ports Project Office program, and marine research programs related to energy resources. Qualifications: bachelor's degree or equivalent experience in physical sciences, engineering, or mathematics, and additionally 3 years of progressive professional experience directly related to the above duties, 1 year of which must have been at a level equivalent to the next lower grade in the Federal Service. Additional information may be obtained by contacting **Dr. Robert F. Hutton, Telephone: 301-443-8276**. Applications (SF-171) should be submitted no later than 9 April 1976 to the Personnel Division, AD411, 6001 Executive Boulevard, National Oceanic and Atmospheric Administration, Rockville, Md. 20852, Attention: Miss Barrett. An Equal Opportunity Employer.

**PLANT CHEMOTAXONOMIST** at assistant professor rank with a strong background in chemistry and identification of secondary metabolites and natural products of vascular plants. Teaching responsibilities: general botany, biosystematics, and chemotaxonomy. Postdoctoral experience preferred. Send résumé, three letters of recommendation, and other supportive materials by 17 April 1976 to: **Dr. D. J. Pinkava, Chairman, Search Committee, Department of Botany and Microbiology, Arizona State University, Tempe, Arizona 85281**. An Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL FELLOW

Molecular biology of blue-green algae (control of gene expression, biochemical genetics, and evolution). Experience in bacterial molecular genetics desirable. Starting date between 1 April and 1 October 1976. \$11,200 per annum. **Dr. W. Ford Doolittle, Department of Biochemistry, Tupper Building, Dalhousie University, Halifax, Nova Scotia, Canada, B3H 4H7**.

**POSTDOCTORAL POSITIONS.** Department of Cell Biophysics, Baylor College of Medicine, has two positions available 1 July and 1 September 1976. Applicants should have M.D. or Ph.D. degree. Training period is for 1 or 2 years. Areas of training include  $\text{Na}^+$ ,  $\text{K}^+$ -ATPase, contractile proteins, sarcoplasmic reticulum and microtubules (cardiac), DNA and protein metabolism of the muscle cell, mitochondrial metabolism, smooth muscle pharmacology and biochemistry, electron microscopy, and experimental animal surgery. Applicants should submit curriculum vitae, together with names of two individuals familiar with the candidate's research potential to: **Jeannie M. Wood, Ph.D., Department of Cell Biophysics, Baylor College of Medicine, Houston, Texas 77039**. Equal Opportunity Employer.

### POSTDOCTORAL POSITION AVAILABLE

Physiologist-Biochemist to investigate physiological aspects of nitrogen fixation.

*Oregon State University subscribes to a policy of active recruitment of women and ethnic minority persons and invites all interested and qualified persons to apply with résumé and references to:*

**Professor Harold J. Evans**  
Department of Botany and Plant Pathology  
Oregon State University  
Corvallis, Oregon 97331

### POSTDOCTORAL POSITIONS

Opportunities for research training in the biochemistry and molecular biology of the cardiovascular system including coagulation muscle metabolism, lipid transport, and adaptation to malnutrition; effective date 1 July 1976 with NIH stipends. Ph.D. or M.D. applicants send résumé with three references to:

**Dr. Robert E. Olson**  
St. Louis University School of Medicine  
Department of Biochemistry  
1402 South Grand Boulevard  
St. Louis, Missouri 63104

## POSITIONS OPEN

**BIOCHEMIST, POSTDOCTORAL POSITION**, available immediately. Candidate needs strong background in organic with interest in toxicological mechanisms of action—to study activation and covalent binding of toxins to target cells. U.S. citizenship. \$10,000 first year. Send résumé and references to **Professor B. J. Wilson, Department of Biochemistry, Vanderbilt School of Medicine, Nashville, Tennessee 37232**.

**PROFESSOR AND CHAIRPERSON.** Department of Physical Education and Dance including undergraduate through advanced graduate professional preparation programs. Doctorate or equivalent degree with administrative ability and strong teaching, service, and research. Deadline 17 April 1976. Send application letter and curriculum vitae to **Harland E. Samson, School of Education, Box 39, University of Wisconsin-Madison, Madison, Wisconsin 53706**. An Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

The Department of Physiological Optics of the School of Optometry, The University of Alabama in Birmingham, is seeking a person with an O.D. and a Ph.D. in an area of **VISION SCIENCE**. Responsibilities will include: teaching courses within the physiological optics curriculum to optometry students and graduate students, individual research, and some administration. Teaching experience within the areas of ocular motility and binocular vision would be an advantage. Rank and salary commensurate with experience. Résumés will be accepted until 1 May 1976.

Interested persons should send their curriculum vitae and the names of three professional references to **Dr. Thomas Greenspon, Ph.D., Department of Physiological Optics, School of Optometry/The Medical Center, University Station, University of Alabama in Birmingham, Birmingham, Alabama 35294**.

Equal Opportunity/Affirmative Action Employer



## U.S. ENVIRONMENTAL PROTECTION AGENCY

### DIRECTOR OF CLINICAL RESEARCH DIVISION

The U.S. Environmental Protection Agency, Health Effects Research Laboratory, is seeking a physician, board-certified in Internal Medicine, Pediatrics or Preventive Medicine to serve as Director of Clinical Studies in Chapel Hill, North Carolina. Responsibilities will include management of the conduct of human studies under controlled conditions to detect and define effects of environmental pollutants on human health. These studies help form the basis for much of the environmental control policy in this country. One of the most sophisticated controlled environmental laboratories in the country is nearing completion in Chapel Hill. Affiliation with adjacent University of North Carolina affords opportunity for teaching and involvement in the research programs there. Candidate must have demonstrated excellence as an investigator in some aspect of environmental medicine. Administrative experience in organizing and directing medical research programs is highly desirable.

This position may be a competitive Civil Service Appointment or Commission in the Public Health Service depending on qualifications and/or eligibility. Salary open.

Inquiries or applications should be addressed to:

**Director**  
**Health Effects Research Laboratory (MD-51)**  
**Environmental Protection Agency**  
**Research Triangle Park, North Carolina 27711**

An Equal Opportunity Employer

## POSITIONS OPEN

# Ph.D. BIOCHEMIST/ ENZYMOLOGIST

Industrial research experience in enzyme technology and/or enzyme immobilization required. Experience in industrial fermentation desirable.

This opening exists in the Research Division of W. R. Grace & Co., located in Columbia, Maryland, between Washington and Baltimore, with easy access to either. Send résumé, in confidence, to: Personnel Department,

**W. R. GRACE & CO.**

**GRACE**

Washington Research Center  
7379 Route 32, Columbia, Maryland 21044

An Equal Opportunity Employer M/F

## MOLECULAR ENDOCRINOLOGIST

Applications are invited for the position of assistant or associate professor in the Banting and Best Department of Medical Research, University of Toronto. Candidates should have demonstrated ability to carry out independent research in molecular and cellular endocrinology. Preference will be shown toward those working in molecular aspects of hormone action, or in the role of hormones in gene expression. The beginning date is negotiable but must be arranged before 1 September 1976. Candidates should send a curriculum vitae and have three letters of recommendation sent to:

Search Committee Chairman  
Banting and Best Department of Medical Research  
University of Toronto  
112 College Street  
Toronto, Ontario M5G 1L6, Canada

**PSYCHIATRISTS/EDUCATORS** sought for directing medical school and residency program activities within community-based New York State Buffalo Psychiatric Center. Positions would involve academic appointments (up to associate professor level) and administrative appointments (up to clinical director level) with commensurate salaries. Write to: Dr. S. Mouchly Small, Chairman, Department of Psychiatry, State University of New York at Buffalo, Buffalo, New York 14214. *Equal Opportunity Employer.*

**RESEARCH ASSOCIATE.** Trace metal geochemistry in marine ecosystems. Supervise sampling. Train and direct technical personnel. Fiscal responsibility. Conduct independent research. Ph.D. in chemistry, chemical oceanography, or geochemistry. Research experience in analytical chemistry and geochemistry. Send résumé to J. Griffin, Graduate School of Oceanography, University of Rhode Island, Kingston, R.I. 02881. *An Equal Opportunity/Affirmative Action Employer.*

**SCIENTIFIC GLASSBLOWER.** The Chemistry Department, University of Wisconsin-Madison, is seeking an experienced master glassblower to supervise the glass shop and to design, construct, and repair appropriate innovative research apparatus in consultation with the research staff. *The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and minority candidates.* Send résumé, names of three references, and salary requirements to Don Gaines, Room 7315, Chemistry Department, University of Wisconsin, 1101 University Avenue, Madison, Wisconsin 53706.

Positions with or without salary for **SCIENTISTS** with Ph.D. or M.D. degrees become available from time to time in nuclear medicine, biochemistry, radiobiology, developmental biology, environmental biology, or measurement sciences. Send résumé to L. Crumplar, Laboratory of Nuclear Medicine and Radiation Biology, 900 Veteran Avenue, Los Angeles, California 90024. *We are an Equal Opportunity/Affirmative Action Employer. Applications from minorities and women are encouraged.*

## POSITIONS OPEN

## POSTDOCTORAL TRAINEESHIP

Available immediately in the area of cancer biostatistics. Ph.D. in statistics, biostatistics, or mathematics required. Offers experience in application of statistical methods to the design and analysis of studies sponsored by the Fred Hutchinson Cancer Research Center. Faculty guidance provided by the Department of Biostatistics, University of Washington. Send curriculum vitae, at least two letters of reference, and transcripts to Dr. Polly Feigl, Department of Biostatistics SC 32, University of Washington, Seattle, Washington 98195.

**PROFESSOR AND CHAIRMAN,** Department of Microbiology and Immunology, University of Colorado School of Medicine.

Candidate should be a Ph.D. and/or M.D. who is an established investigator interested in research and the teaching of both medical and graduate students.

*The University of Colorado Medical Center is an Equal Opportunity Employer. We welcome applications from minorities and female persons.* Applicants should send curriculum vitae, bibliography, and recommendations to Dr. Arthur Robinson, Professor of Biophysics and Genetics, University of Colorado Medical Center, Box B-121, 4200 East Ninth Avenue, Denver, Colorado 80220.

## THE UNIVERSITY OF MICHIGAN RESEARCH ASSOCIATE ELECTRON MICROSCOPY

Consult with investigators on technical aspects of electron microscopy and ancillary methods relating to research in mammalian tissues. Assist in the management of one or more phases of research. Knowledge of several types of electron microscopes, microtomes. Experience with maintenance of electrical or electronic equipment. M.S. in natural science or equivalent experience.

Send résumés to:

Office of Professional and  
Administrative Staff Services  
The University of Michigan  
1020 "C" LS&A Building  
Ann Arbor, Michigan 48109

*A nondiscriminatory, Affirmative Action Employer.*

**RESEARCH ASSOCIATE POSITION** available immediately for recent Ph.D. interested in biochemical toxicology. Studies will center on the role of glutathione transferases in the metabolism and toxicity of pesticides in mammals. Send curriculum vitae and two letters of recommendation to:

Dr. R. M. Hollingworth  
Department of Entomology  
Purdue University  
West Lafayette, Indiana 47907

*Purdue University is an Equal Access/Equal Opportunity Employer.*

## POSITIONS OPEN

Purdue University  
School of Mechanical Engineering  
announces the establishment of the

**VINCENT P. REILLY PROFESSORSHIP  
IN COMBUSTION**

Applications and résumés should be mailed to Professor A. M. Mellor, Chairman, Search Committee, The Combustion Laboratory, School of Mechanical Engineering, Purdue University, West Lafayette, Indiana 47907.

*Purdue University is an Equal Access/Equal Opportunity Employer.*

## PULMONARY PHYSIOLOGY RESEARCH/TRAINING

Research and graduate teaching position available in field of mammalian pulmonary physiology as adjunct professorship of appropriate rank in the University of California, Irvine. Collaborative research conducting physiologic studies in animals exposed to airborne materials of environmental/occupational interest. Requires Ph.D. in physiology or related field and 2 years of postdoctoral research, preferably with pulmonary measurements in laboratory animals. Preference given applicants experienced in inhalation toxicology and published independent work. Research site at Toxic Hazards Research Unit, Wright-Patterson Air Force Base, Dayton, Ohio; opportunity to participate in training of graduate students of University of California, Irvine, and other campuses. Closing date for application is 1 June 1976. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Submit complete curriculum vitae and names of at least three references to: Dr. J. D. MacEwen, University of California, Irvine, Toxic Hazards Research Unit, Overlook Branch, P.O. Box 3067, Dayton, Ohio 45431.

## DEPARTMENT OF RADIOLOGICAL SCIENCES UNIVERSITY OF CALIFORNIA COLLEGE OF MEDICINE, IRVINE

The Department of Radiological Sciences at the University of California, Irvine, invites applications for a position in nuclear medicine as assistant or associate professor-in-residence. Applicants must be suitably trained and experienced in the use of radionuclides with demonstrated evidence of clinical and academic ability. Duties will include interpretation of the clinical nuclear medicine studies and teaching at graduate and undergraduate levels. Applicants will also be expected to develop their own research protocols.

The successful candidate will be based at the Veterans Administration Hospital, Long Beach, California (Chief of Nuclear Medicine, Dr. Kenneth P. Lyons), and will be appointed to the Faculty of the University of California College of Medicine, Irvine.

*Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.*

If you are interested in this position, please write to the address below including a curriculum vitae, an autobiographical letter, and copies of any publications.

Closing date: 15 April 1976.

Eric N. C. Milne, M.B., Ch.B., F.F.R.  
Professor and Chairman  
Department of Radiological Sciences  
University of California, Irvine  
College of Medicine  
Irvine, California 92717

## STAFF OFFICER

A nonprofit organization in Washington, D.C., is seeking staff officers for two national committees concerned with the education and employment of minority-group members and women in science and engineering.

Qualifications should include a doctorate or equivalent achievement in behavioral or social science, natural science, or engineering. Significant experience in studies of human resources, higher education, federal-agency programs, and science policy would be desirable. Duties will include collection and compilation of information on a large scale and analysis of computerized data by statistical techniques. Preparation of reports will be a significant activity, and good writing skills are required.

Salaries are competitive, and opportunities exist for advancement. Candidate should send résumé and salary requirements to Box 157, SCIENCE.

*An Equal Opportunity Employer*

# PATHOLOGIST

## DVM, Ph. D. or Board Certification

Prime responsibilities in this position on our corporate Pathology and Toxicology staff will concern evaluation, interpretation and reporting of microscopic examination of post-mortem tissues. Other functions will include assessment of hematological data, ultramicroscopic examination of tissue and assisting in the direction of the clinical chemistry and pathology laboratories.

These activities will involve constant contact with other professional staff members, consulting and advising on such matters as behavioral patterns of drug-treated animals, necropsies, scheduling procedures, interpreting and reporting findings.

For further information and consideration, please send your resume, to: Manager, Research Personnel, Schering-Plough Research Division, 60 Orange Street, Bloomfield, New Jersey 07003.

**SCHERING-PLOUGH CORPORATION**  
WE ARE AN EQUAL OPPORTUNITY EMPLOYER M/F

## RESEARCH SCIENTIST

### ATHEROSCLEROSIS

Opportunity for an experienced scientist to become part of Upjohn's multi-disciplinary Diabetes and Atherosclerosis unit. The research program is directed toward developing methods for effectively preventing or reversing the atherosclerotic process.

Candidates must have a Ph.D. or its equivalent and broad knowledge and research experience in the field of atherosclerosis.

Location: Kalamazoo, Michigan, a medium-sized community near lakes and recreational areas; excellent living and working conditions, with occupancy of a new research building in the near future.

**Upjohn**

Send complete resume with transcripts and references to Dennis A. Nevala, Employment Representative, The Upjohn Company, Kalamazoo, Michigan 49001

An Equal Opportunity Employer M/F

## BIOLOGISTS

We have an outstanding opportunity for you to join an R&D organization that is one of the tops in the utility industry. This organization is responsible for R&D of advanced energy systems, fuel alternatives, environmental control technology and advanced environmental assessment and amelioration methodologies. Current environmental assessment research centers upon the development of predictive models of marine ecosystems in the vicinity of thermal discharges from coastal power generating stations and desert ecosystems subjected from elemental enrichment from emissions emanating from inland coal fired power generating stations. Other projects include the productive use of waste heat and water and the biological generation of synthetic fuels.

Southern California Edison has the following openings:

### RESEARCH SCIENTISTS

**MARINE ECOLOGIST OR BIOLOGICAL OCEANOGRAPHER:** Ph.D. in Biology or Oceanography and post doctoral experience in systems analysis and modeling required. Responsibilities will include coordination of several inter-disciplinary projects aimed at developing criteria for siting and operating power generation facilities. Applicants must show evidence of ability to plan and implement comprehensive programs to meet defined objectives. (Section 25)

**EPIDEMIOLOGIST OR HEALTH SCIENTIST:** Ph.D. in one of the biological sciences with emphasis on human health. Experience in analyzing and interpreting population data especially as related to air pollution exposure criteria and on-going research, maintaining liaison with active workers in the field and developing a research program to determine strategies for future control technology. (Section 26)

### RESEARCH ASSISTANTS

**MARINE BIOLOGIST:** Ph.D. or equivalent experience in the specialized area of fish behavior required. Responsibilities include developing experimental plans and carrying out comprehensive programs on the reaction of fish species to various imposed environmental conditions. Both field and laboratory studies are involved. (Section 28)

**TERRESTRIAL ECOLOGIST, BIOLOGIST:** Masters degree in biology or ecology with experience in systems analysis and modeling. Ability to work at interface level between biologists, modelers and user groups. Responsible for implementing and directing programs. (Section 29)

**You can expect excellent salary and benefit programs while working in one of the nation's finest geographical areas offering unequaled recreational facilities and a great lifestyle potential.**

**PERSONNEL RECRUITMENT**  
(Indicate Section Number)

**P.O. BOX 300**  
**ROSEMEAD, CALIF. 91770**

**SCE SOUTHERN CALIFORNIA EDISON**  
We aggressively support affirmative action and equal opportunity



## POSITIONS OPEN

### THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

invites applications for a post of **STATISTICIAN** to assist the program of the Agency, which includes a wide range of epidemiological and laboratory studies on the etiology of cancer.

The Agency, a part of the World Health Organization, is located at Lyons, France.

The post would suit a recently graduated Ph.D. but experience in the biomedical field at the postdoctorate level would be an advantage. The net annual salary ranges from US \$14,586 to US \$19,482, plus family allowances. A cost-of-living allowance is also payable and amounts at present to US \$8,988 per annum for a staff member with dependents.

For further details and conditions of service, write to:

**The Personnel Office  
International Agency for Research  
on Cancer  
150, Cours Albert Thomas  
F-69008 Lyons, France**

Applications are invited for a new faculty position in **STRUCTURAL GEOLOGY** for fall 1976 from scientists interested in joining a dynamic, growing program in the geosciences. The position requires a Ph.D. and documented ability to do original research. The candidate is expected to initiate and develop a graduate-oriented research program in tectonics and/or theoretical structural geology. Preference will be given to scientists with broad interests. Teaching duties will involve both graduate and undergraduate courses in structural geology and tectonics and supervision of M.S. and Ph.D. students. Rank will be based on qualifications of the applicant although the appointment will be preferably at the assistant professor level.

Indication of ethnicity and sex is requested but not required for Affirmative Action statistical purposes. Send inquiry and current curriculum vitae by 1 May 1976 to:

**Alexander L. Clark  
Vice President for Academic Affairs  
The University of Texas at Dallas  
P.O. Box 688 Mail Station AD11  
Richardson, Texas 75080**

*The University of Texas at Dallas is an Equal Opportunity/Affirmative Action Employer.*

### VETERINARY PATHOLOGIST

D.V.M./Ph.D., Board-certified or working toward certification, to join rapidly growing pharmacology and toxicology group. Requires strong background and interest in animal histopathology. Will participate in ongoing and new long-term programs in the safety evaluation of antimalarial and anticancer agents and environmental chemicals.

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

**Martin N. Schuler  
Midwest Research Institute  
425 Volker Boulevard  
Kansas City, Missouri 64110  
An Equal Opportunity Employer, M/F**

### WATER RESOURCES

Position available in summer or fall 1976 for Ph.D. assistant or associate professor for undergraduate teaching and research in water quality, hydrology, and geology. Send résumé and three references to: **Dr. Bruce Berryman, Acting Chairman, Department of Environmental Sciences, Wilkes College, Wilkes-Barre, Pa. 18703. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**VERTEBRATE PHYSIOLOGIST.** The Biology Department of a small, undergraduate, liberal arts college which emphasizes good teaching is seeking a vertebrate physiologist who can also teach embryology, comparative anatomy, and share the department's teaching load, beginning September 1976. Ph.D. required. Rank of assistant professor. Opportunities for research. Send résumé and three references by 15 April 1976 to: **Dr. James B. Ifft, Dean, Division of Natural Sciences, University of Redlands, Redlands, Calif. 92373. An Equal Opportunity/Affirmative Action Employer.**

## GRADUATE STUDY

The Chemistry Department of the University of Maryland Baltimore County will have available a number of **TEACHING ASSISTANTSHIPS AND RESEARCH ASSISTANTSHIPS** for graduate students for the fall 1976 semester. These will be offered to M.S. and Ph.D. candidates. Interested individuals should contact **Dr. V. P. Vitullo, Department of Chemistry, University of Maryland Baltimore County, 5401 Wilkens Avenue, Catonsville, Md. 21228, telephone: 301-455-2523, or the Coordinator of Graduate Studies, University of Maryland Baltimore County.**

**GRADUATE RESEARCH ASSISTANTSHIPS**—Colorado State University. Study the thermal and electrical properties of oil shale and other natural resource materials. Opportunities for experimentally and/or theoretically oriented students wishing to study the heat flow and current flow mechanisms in heterogeneous materials. Interdisciplinary program of study. Starts between 1 June and 1 September 1976. Contact **Professor Joel DuBow, Electrical Engineering Department, Colorado State University, Fort Collins, Colorado 80523. Telephone: 303-491-8235.**

## COLLOQUIUM

### 24TH ANNUAL COLLOQUIUM "PROTIDES OF THE BIOLOGICAL FLUIDS"

Brugge (Belgium) 27 April to 1 May 1976.

Topics: Pregnancy-associated proteins.  
Carcino-fetal and carcino-placental proteins.  
Detection and quantitation of proteins by molecular amplification.

No limitations to attendance.

Registration deadline: 10 April 1976.

Preliminary program, inquiries, and full details at:

### COLLOQUIUM "PROTIDES OF THE BIOLOGICAL FLUIDS"

Secretariate  
**Simon Stevin Instituut  
Jerusalemstraat 34  
B-8000 BRUGGE(Belgium)  
Telephone 50/33.47.34, Telex 81379 SSI B**

## TRAINING SESSIONS

Two-week session in Electron Microscopy for the Biological, Medical, and Health Sciences, 14 to 25 June. Lectures and laboratory experience in electron microscopy. Guest lectures. Limited enrollment to permit individualized instruction. Tuition \$375. Room: \$52 for single and \$38 for double for the session. For further information and application form write to: **Dr. B. L. Redmond, Program Director, Department of Biology, State University of New York, New Paltz, N.Y. 12561.**

## FELLOWSHIPS

The California Institute of Technology, Division of Engineering and Applied Science, invites applications for a **POSTDOCTORAL FELLOWSHIP IN SYSTEMS ENGINEERING/AUTOMATIC CONTROLS**. The applicant must have a Ph.D. degree in engineering or applied mathematics with a strong background in engineering systems analysis, control theory, or estimation and identification theory. Submit résumé to **Dr. T. K. Caughey, 104-44, Division of Engineering and Applied Science, California Institute of Technology, Pasadena, California 91125. Equal Opportunity/Affirmative Action Employer.**

## FELLOWSHIPS

**POSTDOCTORAL FELLOWSHIP IN AUDITORY PROCESSES.** Opportunity for research and training in electrophysiological and behavioral studies of the auditory system and animal communication. Applicants must have Ph.D. or M.D. with research experience in neurobiology, animal psychophysics, or ethology of animal communication. Reply to **M. B. Sachs, Johns Hopkins School of Medicine, 506 Traylor Research Building, 720 Rutland Avenue, Baltimore, Md. 21205.**

### VISION RESEARCH AT THE UNIVERSITY OF MICHIGAN— ANN ARBOR

Postdoctoral fellowship applications are now being accepted for research with the following investigators at the University of Michigan: **S. S. Easter, L. J. Fisher, D. G. Green, W. Kincaid, D. H. Krantz, J. S. McReynolds, G. W. H. M. Van Alphen.** Positions are available starting 1 July 1976 or later. Send inquiries to **M. Alpern, University of Michigan Medical School, Department of Ophthalmology, Ann Arbor, Michigan 48109. A nondiscriminatory Affirmative Action Employer.**

### APPLICATIONS INVITED FOR APS CONGRESSIONAL SCIENCE FELLOWSHIPS

For the fourth consecutive year, the Council of the American Physical Society (APS) has allocated funds to support two physicists who will serve for a year as Congressional Science Fellows. A full description of the APS program, which is undertaken in cooperation with the AAAS, is given in *Physics Today* (November 1975, page 107).

Deadline for applications is 31 March 1976 (moved from 15 March). For further information contact **Carol Z. Rosen, Administrator, Congressional Science Fellow Program, The American Physical Society, 335 East 45 Street, New York, N.Y. 10017. Telephone 212-685-9422.**

### UNIVERSITY OF PITTSBURGH BASIC RESEARCH IN OPHTHALMOLOGY

Applications are invited for four postdoctoral research fellowships for work on the structural macromolecules of the cornea in health and disease.

Applicants should possess a medical degree and/or Ph.D. and experience in one (or more) of the following areas: immunology, genetics, cell biology, biochemistry. Minimum salary will be \$10,000.

Curriculum vitae, together with the names of two persons to whom reference may be made, should be sent as soon as possible to **Dr. Stuart I. Brown, Department of Ophthalmology, Eye and Ear Hospital, 230 Lothrop Street, Pittsburgh, Pa. 15213.**

## MARKET PLACE

### \$ FOR NATURAL SCIENTISTS

Faculty members and Ph.D. students in AL, AR, FL, GA, KY, LA, MD, MS, NC, SC, TN, TX, VA and WV can obtain financial assistance to use facilities not available on their own campus through funds provided by the **Alfred P. Sloan Foundation**. Interested persons contact the **Southern Regional Education Board, 130 Sixth St., N.W., Atlanta, Georgia 30313.**

## Exactingly Pure tRNAs...

Synthetic deoxy and ribo  
polymers, enzymes and  
DNAs.



**biogenics  
research  
corporation**

52 Maple Hill Drive, Chagrin Falls,  
Ohio 44022 (216) 564-6631

Circle No. 424 on Readers' Service Card

SCIENCE, VOL. 191

# Calumet is



## Supercold Freezers

- Complete line of supercold freezers including up-right, bench top and low profile chest models.
- Frost resistant sealed and insulated inner doors on upright models.
- Chest models are countertop height for ease of access.
- Temperatures to  $-100^{\circ}\text{C}$ ; capacities to 23 cubic feet.

Write today for our descriptive literature on freezers, incubators, growth chambers, and environmental rooms.

**Calumet is professional photographic equipment.**

Calumet Scientific also offers you the highest quality professional photographic equipment at direct-from-the-factory savings.



**Calumet  
scientific, inc.**

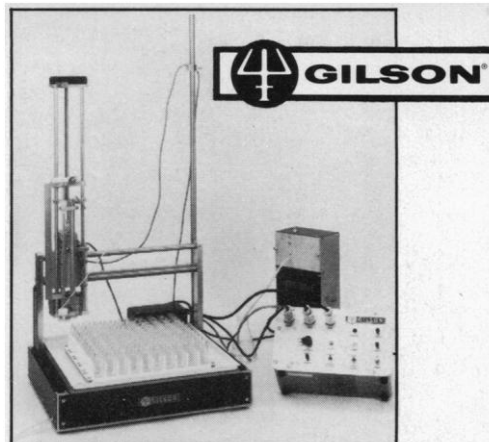
1590 Touhy Ave., Elk Grove Village, Ill. 60007  
312/439-9330

New York  
Suite 3502, Empire State Bldg.  
10001, 212/695-4780

Los Angeles  
434 North La Brea  
90036, 213/933-5735

Circle No. 397 on Readers' Service Card

## GILSON AUTOMATIC FRACTIONATOR FOR ACRYLAMIDE GELS



Several important design features such as incremental advance of the gel, a rotating cutting wire and a pulsing pump have resulted in a greatly improved GEL FRACTIONATOR when compared with previously available devices.

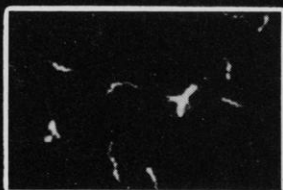
The Gel Fractionator also has the mincing assembly located above the scintillation vials so that the minced particles are flushed directly into each vial. Thickness of the gel slice can be selected (0.5, 1, 2 mm). The uniformity is such that the maximum error of the minced gel dispensed into each vial is  $\pm 4\%$ . The average error is  $\pm 1.3\%$ .

Write or phone for literature.

**GILSON MEDICAL ELECTRONICS, INC.**

Post Office Box 27, Middleton, Wis. 53562 • Phone 608/836-1551

Circle No. 267 on Readers' Service Card



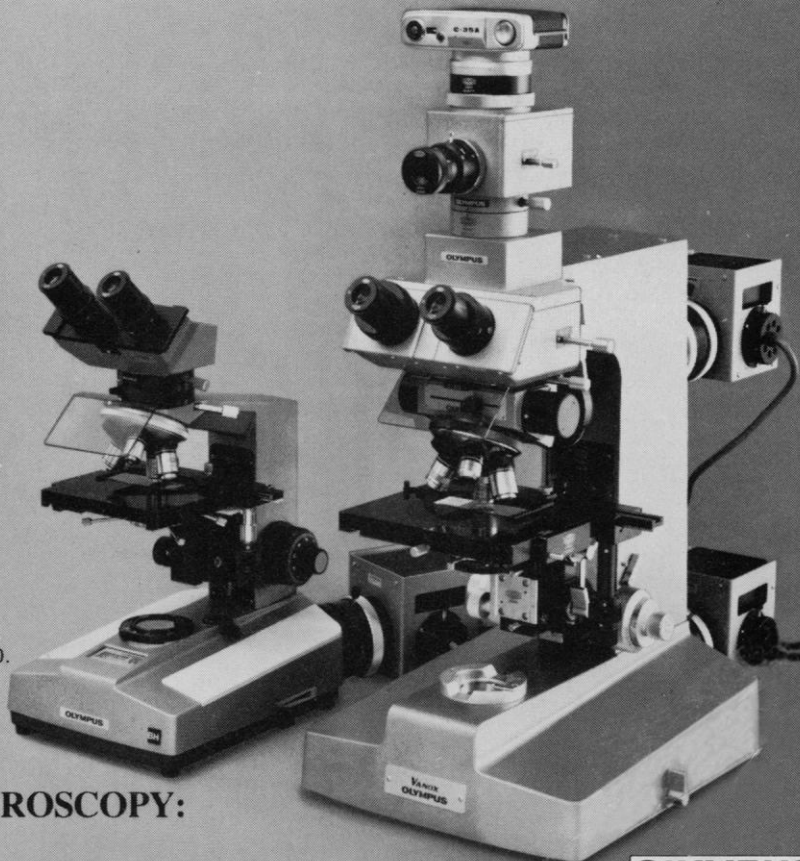
Photomicrograph of Trepanema Pallida FTA-ABS.  
Courtesy: Clinical Sciences Inc.

Olympus versatility is extended into the field of fluorescence microscopy. The Olympus Vanox universal research microscope and the BH Series laboratory microscopes are now available with accessories to fulfill virtually every fluorescence microscopy usage.

Whether your fluorescent light applications are in transmitted light, reflected light, combined with phase contrast, interference contrast or photomicrography, you can be sure that when it comes to fluorescence, you can come to Olympus.

We'd like to give you a demonstration right in your own lab. Write: Olympus Corporation of America, 2 Nevada Dr., New Hyde Park, N.Y. 11040. In Canada: W. Carson Co. Ltd., 321 Don Park Rd., Markham, Ontario, L3R, 1C2, Canada.

**THERE'S ONE WORD  
FOR FLUORESCENCE MICROSCOPY:  
OLYMPUS.**



**OLYMPUS**  
SEEKING BEYOND MAN'S VISION

Circle No. 364 on Readers' Service Card

## Add a vertical illuminator for incident light fluorescence

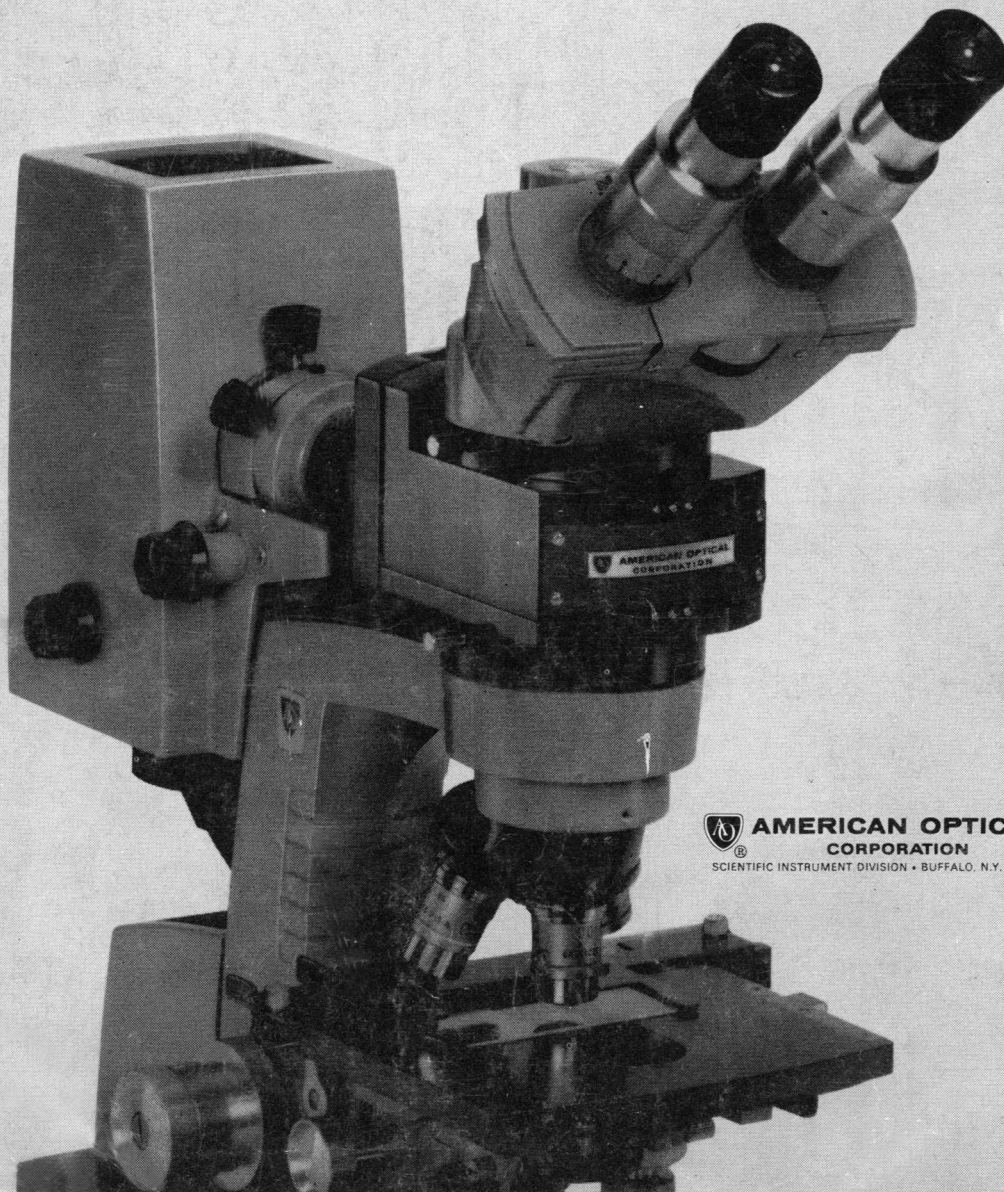
You can extend the versatility of your AO MICROSTAR microscope with the simple addition of our new compact Vertical Illuminator for incident light fluorescence microscopy. It fits any Series 10 or 20 microscope; attaches easily and quickly; requires no alignment or adjustment.

Fluorescence intensity is maximized by excitation with UV incident light regardless of specimen thickness or density. The microscope objective serves as both condenser and objective. Full field coverage is assured, even with the 10X objective.

Exciter, barrier and dichroic filters are turret mounted for dial-in convenience. More than that, they can be identified by touch when working in subdued light.

Convert to conventional transmitted light merely by rotating filter turrets to a neutral position. See your AO dealer or representative or send for detailed brochure on the AO Vertical Illuminator. If you don't have a MICROSTAR microscope to use it with, we'll be glad to supply information on the Series 10 or 20 also.

**...makes your AO MICROSTAR®  
do the work of two microscopes.**



 **AMERICAN OPTICAL  
CORPORATION**  
SCIENTIFIC INSTRUMENT DIVISION • BUFFALO, N.Y. 14215