

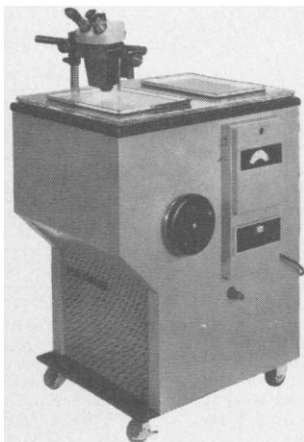
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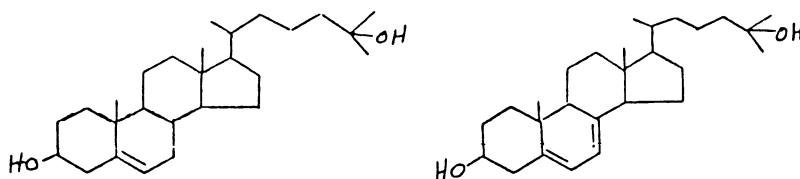
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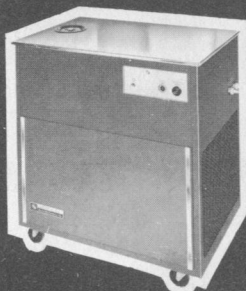
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Position available 1 July 1978 for **ASSOCIATE CHIEF OF STAFF FOR RESEARCH**; professor of medicine. Applicant must have demonstrated excellence in clinical and/or basic medical research and have shown administrative expertise and clinical competence. Candidate will supervise functioning of entire research program at the Ann Arbor VA Hospital, as well as continue to pursue his/her own research project. Send reply to: **Box 191, SCIENCE.** Code 5900BO. A nondiscriminatory, Affirmative Action Employer.

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Position available for **CARDIOLOGIST** associate professor of medicine. Applicant must have demonstrated excellence in both clinical and research aspects of cardiology and be certified by the American Board of Internal Medicine. Reply to: **Box 189, SCIENCE.** Code 4200DO. A nondiscriminatory, Affirmative Action Employer.

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF INTERNAL MEDICINE

FIVE FACULTY POSITIONS available at the instructor through professor level in the Department of Internal Medicine, University of Michigan Medical Center and affiliated hospitals. Send reply to: **Box 192, SCIENCE.** Code 4400HO; 4500HO; 4600HO; 4700HO; 4800HO. A nondiscriminatory, Affirmative Action Employer.

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Position available for **GASTROENTEROLOGIST** associate professor of medicine. Applicant must have demonstrated excellence in both clinical and research aspects of gastroenterology and be certified by the American Board of Internal Medicine. Reply to: **Box 190, SCIENCE.** Code 4300DO. A nondiscriminatory, Affirmative Action Employer.

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Position available 1 July 1978 for **HEMATOLOGIST/ONCOLOGIST** associate professor of medicine. Applicant must have demonstrated excellence in both clinical and research aspects of hematology/oncology and be certified by the American Board of Internal Medicine. Respond to: **Box 187, SCIENCE.** Code 300BO. A nondiscriminatory, Affirmative Action Employer.

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Applications are invited for one **ASSISTANT PROFESSOR** and one **ASSOCIATE PROFESSOR** position in physiology. **Qualifications:** D.V.M. and Ph.D. **Duties:** research in endocrinology/reproduction and gastrointestinal physiology [qualified applicants with other specialties will also be considered]; teaching in professional curriculum; and participation in graduate training programs. Opportunities exist for liaison with investigators at the National Animal Disease Center in Ames.

Send résumé and request that three letters of recommendation be sent by 15 July 1978 to: **Dr. M. H. Crump, Chairman, Physiology Search Committee, College of Veterinary Medicine, Iowa State University, Ames, Iowa 50011.** Iowa State University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF BIOCHEMISTRY.

Position available July 1978. Faculty responsibilities require postdoctoral teaching and research experience and interest in medical and graduate student programs. Background in endocrinology and steroid biochemistry helpful. Active research program essential. Salary range \$15,000 to \$17,000 per 12 months. *Indiana University is an Equal Opportunity/Affirmative Action Employer.* Applicants should submit résumé, transcripts, and three letters of reference to: **Dr. Alvin S. Levine, Director, Indiana University School of Medicine, Terre Haute Center for Medical Education, 135 Holmstedt Hall, Indiana State University, Terre Haute, Ind. 47809.**

BIOCHEMIST: Division of Genetics and Molecular Medicine, Meharry Medical College, Nashville, Tennessee 37208. Assistant professor position available for fall 1978. Successful applicant will be expected to initiate and develop independent research program and participate in teaching graduate students. Applicants should have postdoctoral experience and potential for obtaining grant support. Send curriculum vitae, copies of recent publications, and names of three references to: **Dr. Ifeanyi J. Arinze, Department of Biochemistry, Meharry Medical College, 1005 18th Avenue North, Nashville, Tennessee 37208.**

BIOCHEMISTRY OF TRACE METALS

The **DEPARTMENT OF ENVIRONMENTAL HEALTH**, of the **COLLEGE OF MEDICINE, UNIVERSITY OF CINCINNATI**, is seeking a leader for its research unit concerned with the metabolic, nutritional, toxicologic, and other biologic aspects of trace metals. The program is broad in scope and has focused on a variety of environmental health problems. The appointment will be at the academic rank of **ASSOCIATE** or **FULL PROFESSOR**. A joint appointment in the Department of Biochemistry may be available. Please address all inquiries to: **Dr. E. C. Foulkes, Department of Environmental Health, University of Cincinnati Medical Center, 3223 Eden Avenue, Cincinnati, Ohio 45267.** An Affirmative Action/Equal Opportunity Employer.

BIOCHEMISTRY-MICROBIOLOGY. Assistant professor, recent Ph.D., to start August 1978. Regular position at a small, quality liberal arts college for women. Excellence in teaching and a strong commitment to research are required. Send curriculum vitae, with covering letter describing research interests and names and addresses of three referees, to: **Dr. Sidney L. Beck, Chairman, Department of Biology, Wheaton College, Norton, Mass. 02766.**

BIRD CURATOR responsible for major bird collection, principally Australasian. Involvement in research encouraged, some public relations duties. College degree essential.

Salary and conditions comparable with those in major zoos in the United States. Write, airmail, to: **Peter Crowcroft, Taronga Zoo, P.O. Box 20, Mosman, New South Wales, 2088, Australia.**

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POSITIONS OPEN

ASSISTANT PROFESSOR—GENETICS

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Purdue is an Equal Access/Equal Opportunity University.

ASSISTANT PROFESSOR OF HUMAN GENETICS

Applications are invited from qualified Ph.D.'s, and/or M.D.'s with demonstrated research potential in genetics and with a background in biochemistry or cell biology. Position is limited to individuals entering first academic appointment. Candidate must have significant research accomplishments and teaching capabilities in one or more genetic fields. Preference to be given to persons whose research focus involves eukaryotic organisms. Please send complete curriculum vitae and three references to: **Chairperson, Faculty Search Committee, Department of Human Genetics, University of Pennsylvania, School of Medicine, Philadelphia, Pa. 19104. An Equal Opportunity/Affirmative Action Employer.**

BIOCHEMISTRY FACULTY POSITION

The Department of Biochemistry, Eastern Virginia Medical School, invites applications for an assistant or associate professorship in a growing research environment. Candidates should have a demonstrated ability to successfully initiate and develop research projects, as well as participate in teaching of medical students. Applicants should send curriculum vitae and the names of three references to: **Dr. Karl A. Schellenberg, Department of Biochemistry, Eastern Virginia Medical School, 700 Olney Road, Norfolk, Virginia 23501, no later than 1 July 1978.**

An Equal Opportunity/Affirmative Action Employer

DEPUTY DIRECTOR, ENVIRONMENTAL RESEARCH LABORATORY—CORVALLIS

The U.S. Environmental Protection Agency is seeking a deputy director, Environmental Research Laboratory—Corvallis, Oregon, GS-15/16. The laboratory conducts research on the processes occurring in the environment consisting of atmospheric, terrestrial, freshwater, and marine components with the objectives of improving the understanding and ability to predict changes in natural and stressed ecosystems. Specific research programs include determining the effects of pollutants on freshwater, marine water, and terrestrial ecosystems; developing an understanding of the eutrophication process; determining the fate and effects of environmental pollutants on the biosphere and determining the movement, fate, and transformation of stressing agents through impacted ecosystems and predicting the long-term effect on plant, animal, and aquatic communities. **Minimum acceptable qualifications** as follows: (i) B.S./B.A. (or equivalent) in a biological or physical science; (ii) 3 years of professional experience in biological or physical science with at least 1 year at a level equivalent to the next lower level in the federal service; (iii) substantive experience in environmental research programs; (iv) experience demonstrating knowledge of research efforts in biological and physical sciences; and (v) experience in directing an organization of scientific and technical personnel.

Location: Corvallis, Oregon.

Salary: \$36,171 to \$47,500.

Contact: Please send a completed Standard Form 171 (Personal Qualifications Statement), which can be obtained from any federal government personnel office, postmarked no later than 12 June 1978, to: **Edna Morse (PM-212), Personnel Management Division, Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.**

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Applicants should hold a Ph.D. in pharmacy, pharmacy administration, or a program embodying the social-behavioral components of pharmacy. Interests should include health services delivery, social and behavioral implications of drug-related services, and quality assurance and cost control mechanisms applicable to the drug component of health care. The successful applicant will be expected to develop research programs and participate in undergraduate teaching and curriculum development. Applicants should submit curriculum vitae and three letters of recommendation no later than 15 June 1978 to: **Dr. Donald C. Brodie, Adjunct Professor of Pharmacy, University of Southern California, School of Pharmacy, 1985 Zonal Avenue, Los Angeles, California 90033.**

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DIRECTOR OF HOSPITAL IMMUNOLOGY LABORATORY—An assistant professor of microbiology and immunology or higher. Candidates must have Ph.D., M.D., or equivalent and should be Board-certified or -eligible. Responsibility for all aspects of immunological testing for 500-bed hospital including radioimmunoassays. Includes teaching of medical, graduate, and medical technology students with opportunity to develop active research program. Rank and salary commensurate with experience and training. Send curriculum vitae and references to: **Chairman, Search Committee, Department of Microbiology and Immunology, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, Pa. 19140. Equal Opportunity/Affirmative Action Employer.**

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The Commission on Sociotechnical Systems (CSS) of the National Research Council (NRC), Washington, D.C., seeks applicants for this principal staff officer position in a study of the technical feasibility of meeting future vehicle emission standards. The incumbent's responsibilities will include preparing the study plan for the committee's review, providing operational support and NRC policy/procedural interpretation for the committee, directing staff and consultant activities, monitoring project finances and expenditures, coordinating program administration with sponsors, and reporting periodically to the executive director, CSS. Qualifications include Ph.D. or equivalent in an engineering discipline plus a minimum of 10 years progressive experience which reflects management of a complex project, creative and analytical abilities, sensitivity in dealing with diverse interests and problems, and effective oral and written communication. Please send résumé, including salary requirements, to: **Dr. Edward Epreman, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.**

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EXECUTIVE SECRETARY

Committee on Alternative for Reduction of Chlorofluoromethane Emissions

The Commission on Sociotechnical Systems (CSS) of the National Research Council (NRC), Washington, D.C., seeks applicants for this senior staff officer position. The incumbent's responsibilities will include preparing the study plan for the committee's review, providing operational support and NRC policy/procedural interpretation for the committee, assigning work to consultants, monitoring project finances and expenditures, coordinating program administration with sponsors, and reporting periodically to the executive director, CSS. Qualifications include Ph.D. or equivalent in an engineering discipline plus a minimum of 4 years of progressive experience which reflects management of a complex project, creative and analytical abilities, sensitivity in dealing with diverse interests and problems, and effective oral and written communication. Please send résumé, including salary requirements, to: **Dr. Edward Epreman, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.**

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GROSS ANATOMIST/NEUROANATOMIST, beginning 1 July 1978.

Ph.D., with 3 to 6 years of experience teaching in medical or dental school preferred; rank and salary negotiable.

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Send curriculum vitae to:

**Dr. Frances H. Higginbotham, Chairman
Department of Anatomy
West Virginia School of Osteopathic Medicine
400 North Lee Street
Lewisburg, West Virginia 24901**

LIMNOLOGIST—WAPORA, Inc., an environmental consulting firm, has an opening in Chicago for a limnologist fisheries biologist. Requirements include Ph.D., 3 to 5 years of experience, and excellent technical writing ability. Responsibilities include designing, evaluating, and participation in EIS work. Send résumé to: **WAPORA, Inc., 35 East Wacker Drive, Suite 2380, Chicago, Illinois 60601.**

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POSITIONS OPEN

DEPARTMENT OF ANIMAL SCIENCE THREE FACULTY POSITIONS OPEN

- 1) **Assistant professor in dairy cattle reproductive physiology.** Position available 1 July 1978. Duties are 50 percent teaching, 50 percent research. Qualifications: Ph.D. in reproductive physiology and training in physiology, endocrinology, and biochemistry. Responsibilities include teaching an undergraduate course in general animal physiology and a research program on problems of reproduction in dairy cattle.
- 2) **Assistant professor in meat science.** Position available 1 July 1978. Duties are 50 percent teaching, 50 percent research. Qualifications: Ph.D. in meat science with training in muscle biology, biochemistry, and physiology. Teaching will include an undergraduate course in meat science. Research will be in the area of meat animal production and meat science.
- 3) **Assistant or associate professor in nutritional biochemistry.** Position is available 1 September 1978. Responsibilities: 30 percent teaching, 70 percent research. Qualifications: Ph.D. in biochemistry or nutritional biochemistry with an interest in the study of metabolic systems in ruminant lactating animals. Teaching at the graduate level.

Individuals interested in any of the three positions send curriculum vitae, a statement of research interests, and arrange for at least three letters of reference to be submitted to: **R. J. Young, Morrison Hall, Cornell University, Ithaca, N.Y. 14853.** *An Equal Opportunity/Affirmative Action Employer; minorities, women, and the handicapped are encouraged to apply.*

FACULTY POSITION—CANCER RESEARCH

Assistant professor level or higher. Applicant must have a minimum of 2 years of postdoctoral experience and be qualified to conduct an independent research program, supervise graduate students, and participate in graduate and medical student education. Possible areas of research interest include DNA tumor viruses and gene structure and regulation in eukaryotic cells. Salary and rank depending on qualifications. Position open 1 July 1978 or later. Send curriculum vitae, statement of research interests, and names of three referees to: **Dr. Robert S. Schwartz, Director, Cancer Research Center, Tufts University School of Medicine, 136 Harrison Avenue, Boston, Mass. 02111.**

An Equal Opportunity/Affirmative Action Employer

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL INSTRUCTOR-ASSISTANT PROFESSOR

The Department of Surgery is seeking a **SURGEON** who is either certified by or eligible to take the examination of the American Board of Surgery. The position would be a full-time academic position in the Section of General Surgery. The individual should have special training and major academic interest in peripheral vascular surgery. He/she should also have special training or expertise to direct a clinical or laboratory investigation in peripheral vascular surgery. Rank and salary will be commensurate with qualifications. Send reply to: **Box 193, SCIENCE.** Code 1200FO. *A nondiscriminatory, Affirmative Action Employer.*

FACULTY POSITION IN PHYSICAL OCEANOGRAPHY

The College of Marine Studies, University of Delaware, invites applications for an academic faculty position in physical oceanography at the Marine Studies Complex, Lewes, Delaware. The position will be available from 1 September 1978.

Candidates with academic and research interests in continental margin (shelf and slope) and estuarine circulation dynamics are sought. Preference will be given to a field experimentalist with solid foundations in geophysical fluid dynamics, and who has demonstrated expertise in current measurement, hydrographic, turbulence, or air-sea interaction studies. An interest in teaching graduate courses and advising graduate students is required. A pioneering opportunity is available in the setting of a developing academic and research program and new facilities. Rank and salary will be commensurate with qualifications.

Application deadline is 1 August 1978. Send curriculum vitae, bibliography, list of research and teaching interests, and names of three professional references to: **Dr. Christopher N. K. Mooers, Physical Oceanography Search Committee, College of Marine Studies, Lewes, Delaware 19958.**

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

POSITIONS OPEN

FACULTY POSITION IN MICROBIOLOGY

Assistant/associate professor of microbiology. Position available 1 July 1978. Applicant's research expertise should be in areas of physiological aspects of bacterial pathogenesis or the immune response to bacterial infection. Duties include establishment of a research laboratory and the teaching of medical students, nurses, and graduate students. Applicants should plan an advanced graduate course around their research expertise. Applicants must have postdoctoral experience and should submit curriculum vitae and names of three references to: **Jeffrey C. Burnham, Ph.D., Acting Chairman, Department of Microbiology, Medical College of Ohio, C. S. 10008, Toledo, Ohio 43699.**

An Affirmative Action/Equal Opportunity Employer

MARINE INVERTEBRATE PHYSIOLOGIST

The **Department of Zoology** anticipates one opening at the assistant professor level beginning fall 1978. Candidates with training and research interests in comparative physiology of marine invertebrates are invited to apply. An active research program, teaching participation in the biology core courses, and development of an advanced course in the above field are expected. Applicants should submit a letter outlining qualifications, curriculum vitae, list of publications, and names of three references before 19 June 1978 to: **Dr. F. J. Maturro, Department of Zoology, University of Florida, Gainesville, Fla. 32611.**

An Equal Opportunity/Affirmative Action Employer

ORGANIC POLYMER CHEMISTRY. Applications are invited for an assistant professor level position. Candidates must have postdoctoral research experience and a demonstrated ability to conduct independent research programs. Applications containing a résumé, list of publications, future research objectives, and names of three referees should be sent no later than 15 June 1978 to: **Search Committee, Midland Macromolecular Institute, 1910 West Saint Andrews Drive, Midland, Mich. 48640.** *Midland Macromolecular Institute is an Equal Opportunity Employer and welcomes applications from women and minorities.*

POSITIONS OPEN

PHYSICAL SCIENTIST (GS-15, \$36,171). The National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, announces a career Civil Service vacancy in the Marine Assessment Division, Center for Experiment Design and Data Analysis of the Environmental Data Service, Washington, D.C.

The Marine Assessment Division provides environmental impact analysis, products and services for marine baseline, monitoring, and resource problems. This position is responsible for managing all of the administrative and technical activities of the division and for serving as the senior authority in technical areas involved in marine environmental assessment, budget, and personnel requirements for the office.

Qualifications: graduate degree preferred. Minimum of a bachelor's degree or equivalent experience in marine biology, environmental chemistry, or related fields, plus at least 3 years of progressive professional experience in these fields (Ph.D. or graduate experience). At least 1 year of professional experience must have been at a level of difficulty comparable to the next lower grade in the federal service.

For information, telephone **Dr. Joshua Z. Holland** or **Dr. Kenneth Hadeen** at 202-634-7324. Applications (SF-171) should be submitted by 9 June 1978 to: **Personnel Division (AD412), Page Building 2, 3300 Whitehaven Street, NW, Washington, D.C. 20235, attention: L. Thompson.**

An Equal Opportunity Employer

POSTDOCTORAL POSITION in environmental photobiology and carcinogenesis. Opportunity to participate in mechanistic and product identification studies of cellular lesions produced by chemicals and light. Ph.D. training in organic chemistry and/or biochemistry required. Familiarity with a wide range of separation techniques desirable. Please send curriculum vitae and letters of reference to: **Dr. L. C. Harber, Department of Dermatology, or Dr. I. B. Weinstein, Institute for Cancer Research.** Both are located at: **College of Physicians and Surgeons, Columbia University, 630 West 168 Street, New York, N.Y. 10032.**

COMMONWEALTH OF AUSTRALIA AUSTRALIAN INSTITUTE OF MARINE SCIENCE DIRECTOR

The Australian Institute of Marine Science invites applications from senior marine scientists for the position of director which will become vacant on 1 June 1978 upon the resignation of the present director who has accepted an invitation to a senior post in the United States.

The institute is a statutory research authority established under the Australian Institute of Marine Science Act 1972 and is funded by the Commonwealth Government. Research commenced in mid-1974 and the institute occupied its new 10,000 m² headquarters and laboratory complex at Cape Ferguson, 50 km east of Townsville, North Queensland, in July 1977. Its facilities there also include a harbour and associated marine services. In addition to several smaller vessels, the institute will take delivery of a 24.4-m research vessel in mid-1978.

The director is the chief executive officer of the institute and, subject to the general directions of the Council, is responsible for the direction of the research program, the management of the direction of the research program, and the management of the affairs of the Institute. The director may be appointed for an initial period not exceeding 7 years, but is eligible for reappointment. Salary and other conditions of this statutory appointment are determined by the Commonwealth Parliament.

Further information on the institute, its staffing, facilities, and the current research program and on the position of director may be obtained from the undersigned. Applications, including the names and addresses of three referees, should be received by:

**Chairman of Council
Australian Institute of Marine Science
PMB 3
Townsville MSO
Queensland, Australia 4810**

not later than 30 June 1978.

POSITIONS OPEN

NEUROBIOLOGIST

The Merck, Sharp and Dohme Research Laboratories in Rahway, New Jersey, are looking for an outstanding electrophysiologist to pursue studies in invertebrate neurobiology and comparative neuropharmacology. At least 2 years of postdoctoral experience and the demonstrated ability to initiate and pursue independent creative research as evidenced by publications are required.

This is an unusual career opportunity which offers a highly stimulating, interdisciplinary work environment. Publication of results is strongly encouraged. Compensation and benefit package is excellent. Applicants should send curriculum vitae and the names and addresses of three references to: **Technical Employee Supervisor**.

MERCK & CO., INC.

P.O. Box 2000, Rahway, New Jersey 07065
An Equal Opportunity/Affirmative Action Employer



FACULTY POSITION IN CARDIOVASCULAR PHYSIOLOGY. The Physiology and Biophysics Section of Brown University's Division of Biology and Medicine has an opening at the assistant professor level for an individual with research and teaching interests in cardiovascular physiology. Available 1 January 1979. Applicants must have an M.D. or Ph.D. degree, a minimum of 2 years of postdoctoral training, and demonstrated ability and productivity in research. The successful applicant will be expected to teach cardiovascular physiology to medical and graduate students and to develop an independent research program in experimental cardiovascular physiology which will complement the department's interests in comparative and/or mammalian physiology. Applicant should send curriculum vitae, bibliography, and at least three letters of reference to: **Dr. Helen F. Cserr, Section of Physiology and Biophysics, Brown University, Providence, R.I. 02912.** Application deadline is 31 July 1978. *Brown University is an Equal Opportunity/Affirmative Action Employer.*

The University of California, Irvine, Department of Pediatrics, is recruiting for a **LECTURER** (genetic associate); salary to be determined by qualifications. Requirements: master's in genetic counseling or related field; teaching experience in interdisciplinary university setting preferred. Responsibilities: teach in and coordinate interdisciplinary master's-level program in genetic counseling, including coordination of several weekly clinics; participate in grant writing; and counsel genetic patients, including pre-natal diagnosis. *Women and minorities encouraged to apply; all qualified candidates welcome.* Send curriculum vitae plus three letters of reference to: **Kenneth W. Dumars, M.D., Department of Pediatrics, Division of Developmental Disabilities and Clinical Genetics, University of California, Irvine, Irvine, Calif. 92717.** Closing date: 26 June 1978.

POSTDOCTORAL POSITION IN BIOCHEMISTRY. To study the carbohydrate structure and function of a vitamin binding glycoprotein. Experience with serum clearance desirable. Available 1 July 1978. Send résumé and list of three references who may be contacted to: **Dr. Harold B. White, Department of Chemistry, University of Delaware, Newark, Del. 19711,** and/or make contact at ASBC meetings in Atlanta, 4 to 8 June. *The University of Delaware is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION—Immediately available in research project on role of nuclear cyclic GMP-dependent protein kinases in gene function. Experience in enzyme purification and characterization essential. Starting salary: \$12,000 per annum. Send résumé and two letters of recommendation to: **Dr. Thomas E. Donnelly, Jr., Associate Professor, Department of Pharmacology, University of Nebraska Medical Center, Omaha, Nebraska 68105.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

UNIVERSITÉ LAVAL FACULTÉ DES SCIENCES ET DE GÉNIE DÉPARTEMENT DE BIOLOGIE

PHYSIOLOGIE ANIMALE GÉNÉRALE ET COMPAREE: Le candidat devra participer à l'enseignement théorique et pratique dans cette discipline. Il devra dispenser un enseignement de 2e et 3e cycles dans sa spécialité (écorphysiologie), poursuivre un programme de recherche et diriger des étudiants gradués. La préférence sera accordée au candidat ayant de bonnes connaissances de la biophysique. S.V.P. adressez curriculum vitae et noms de trois répondants à:

**Dr André Gagnon, directeur
Département de biologie
Faculté des sciences et de génie
Université Laval
Cité Universitaire
Québec, Canada G1K 7P4**

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

POSTDOCTORAL POSITION. PSYCHOLOGIST. Basic animal research and work related to chemical aversion treatment of the addictions. Familiar with Garcia technique. Incumbents with less than 2 years of postdoctoral experience paid at fellowship rate, otherwise, at professorial rate. Not tenurable. Send materials and names of references to: **Sam Revusky, Department of Psychology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 5S7.**

POSTDOCTORAL POSITIONS (FIVE) available for study of synaptic and vascular smooth muscle function in normal and diseased blood vessels from animals and man. Candidates must have experience and superior qualifications in one or more of the following areas: **electron microscopy/adrenergic transmitter and receptor biochemistry/in vitro tissue physiology or pharmacology.** Candidates will work within a multidisciplinary group whose special interests include short- and long-term regulation of blood vessel structure and functional, regional vascular specificity, the cerebral circulation, and hypertension. Send curriculum vitae with three references to: **Dr. John Bevan, Department of Pharmacology, University of California, Los Angeles, School of Medicine, Los Angeles, California 90024.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS. Three are available. (i) Microtubule self-assembly (Dr. D. L. Brown). (ii) Molecular biology of lymphocytes activation: membranes and/or RNA-protein synthesis (Dr. J. G. Kaplan). (iii) Microtubules—microfilaments in stimulated lymphocytes (joint sponsorship of D. L. Brown and J. G. Kaplan). Send applications, including curriculum vitae and the names and addresses of two referees, to: **Dr. J. G. Kaplan, Department of Biology, University of Ottawa, Ottawa, Ontario, Canada K1N 6N5.**

The University of California, Irvine, College of Medicine, offers a **POSTDOCTORAL POSITION IN AUDITORY EVOKED POTENTIALS.** Experience in neurophysiology in animals, evoked potentials, and computer use are required. *All qualified candidates are welcome; minorities and women are encouraged to apply.* Send curriculum vitae and three references by 1 July to: **Arnold Starr, M.D., Department of Neurology, University of California, Irvine, Medical Center, 101 City Drive South, Orange, California 92668.** Position available 1 September 1978.

The Neurosciences Program at the University of Alabama in Birmingham has **ONE POSTDOCTORAL POSITION** available immediately. This appointment is funded by an Institutional National Research Service Award for research training in biological sciences.

This postdoctoral research training program is multidisciplinary in approach with emphasis on molecular biology, sensory motor mechanisms, membrane biochemistry, psychopharmacology, medicinal chemistry, cerebral metabolism, psychophysiology of sleep, and neurochemistry and behavior.

Prospective trainees should send curriculum vitae and three letters of reference to: **Dr. Vernon Pegg, Director, The Neurosciences Program, University of Alabama Medical Center, University Station, Birmingham, Alabama 35294.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH POSITION in developmental neurobiology, to participate in studies on development of taste function and nerve-tissue interactions in acute and chronic, fetal and newborn sheep preparations. Techniques include CNS and peripheral neurophysiology; grafting fetal tissues; and light microscopy; 1- to 2-year position. Send curriculum vitae and three letters of reference, before 30 June 1978, to: **Dr. R. M. Bradley or Dr. C. M. Mistretta, Department of Oral Biology, School of Dentistry, University of Michigan, Ann Arbor, Michigan 48109.**

The University of Michigan is a nondiscriminatory, Affirmative Action Employer.

POSTDOCTORAL TRAINING IN LIPID- AND ATHEROSCLEROSIS-RELATED RESEARCH

Training at the postdoctoral level is offered in the following areas under a grant from the National Heart, Lung, and Blood Institute.

Lipid interactions and membrane structures as studied by NMR techniques; lipid-lipid and lipid-protein interactions in the regulation of catalysis at interfaces; lipid structure determination by mass spectroscopy; micromethods of lipid separation and analysis by HPLC-MS.

Pathways and mechanisms of phospholipid metabolism; function and metabolism of lysophospholipids and their analogs; cholesterol ester hydrolysis in atherosclerosis; ocular lens function related to lipid composition; nutrition and metabolism of unsaturated fatty acids; influence of dietary fat intake on prostaglandin biosynthesis; metabolism and function of furanoid and acetylenic acids; structure-function relationships of ionophores.

Cell culture physiology; lipid and carbohydrate metabolism in microbial infections; relations of lipid metabolism to calcium flux in mitochondria; aberrations of lipid metabolism in disease; relationships between diet, fecal steroids, and cancer; the influence of pesticides on lipid metabolism.

Research training will be for 1 to 3 years, beginning after 1 July, and will be supplemented with lectures by faculty and invited speakers. **Base stipend: \$13,000.** Trainees must be citizens or noncitizen nationals of the United States or be permanent residents and have earned a Ph.D. or M.D. degree. To apply or obtain more information, write: **Dr. R. T. Holman, Professor and Director, The Hormel Institute, University of Minnesota, 801 16th Avenue, NE, Austin, Minnesota 55912.** *An Affirmative Action/Equal Opportunity Institution.*

Immunopharmacologist

Candidates are required to have:

- PhD in Immunology with graduate training in cellular immunology, biochemistry, immunogenetics, immunopathology and microbiology.
- 3 to 5 years of direct laboratory experience, beyond the Doctorate, in cellular immunology and biochemistry.
- Interest in research directed toward identification, characterization and development of immunoregulatory drugs.
- Broad training / experience with *in vitro/in vivo* immunological methodologies.
- Some theoretical and practical training/experience in pharmacology.
- Flexibility to supervise both drug screening and more fundamental research.
- Ability to communicate orally and in writing and work with multidisciplinary research group.
- Specific interest in applying immunological expertise to the discovery and development of pharmacological agents for the treatment of diseases.
- Supervisory experience.

Successful candidate will be expected to:

- Supervise all aspects of an immunological—biochemical pharmacological research laboratory staffed with non-PhD level scientists.
- Conceive, plan, develop, conduct, supervise and evaluate laboratory experimentation in areas of immediate and proposed interest.

SmithKline offers an excellent compensation program and an opportunity for professional growth. Please send resume to: Mr. Walter B. Flagg, Senior Employment Administrator, Smith Kline & French Laboratories, a Division of SmithKline Corporation, 1554 Spring Garden Street, P.O. Box 7929, Philadelphia, Pa. 19101. An Equal Opportunity Employer, Male/Female/Handicapped/Veteran.

SmithKline

AQUATIC BIOLOGIST



BETZ LABORATORIES INC., the leader in industrial water treatment and pollution control, has an opening for an AQUATIC Biologist/Toxicologist; position is located at our Corporate Headquarters R & D facility in Bucks County, Pa. Individual will conduct acute toxicity bioassays with aquatic species based upon specialty chemical product lines, including pesticides. Additional responsibilities include: experimental design, data interpretation and reporting; maintaining aquatic toxicity laboratory in compliance with regulatory protocols; quality control; conferring with Environmental and Government Regulatory Groups responsible for safety evaluation in support of product registration.

Successful candidate should have a MS/MA Degree, emphasis on AQUATIC BIOLOGY; familiarity with fish and/or aquatic invertebrate physiology and bioassay techniques; principles of water chemistry and effects of water quality on aquatic life; and experience in laboratory culturing techniques.

This position offers an attractive salary, excellent benefits program, relocation assistance and future career advancement.

For consideration, please send a detailed resume outlining educational background, work experience and salary requirements to: WM. DRAINE, Manager—Professional Employment, BETZ LABORATORIES, 4636 Somerton Road, Trevose, Pa., 19047. An Equal Opportunity Employer, M/F.



BETZ

SCIENTIFIC WRITER, BIOLOGICAL

Lederle Laboratories, a major ethical pharmaceutical manufacturer, has a challenging opportunity in its Toxicology Research Section. Major responsibilities will be organizing and summarizing experimental animal data for submission to the FDA and other regulatory agencies. The information is drawn from studies on new drugs under development and includes pharmacology, pharmacokinetics, toxicology, pathology, reproduction, teratology and mutagenicity data.

Qualifications include an advanced degree in an appropriate Life Science and experience analyzing animal data and the preparation of technical reports.

We offer professional growth, competitive salary and liberal fringe benefits in a suburban location 30 miles from New York City. Please send resume and salary history in confidence to Mr. G. J. Stein,



**LEDERLE
LABORATORIES**

American Cyanamid Company
Pearl River, New York 10965

Equal Opportunity Employer Male/Female

VETERINARY PARASITOLOGIST

SmithKline Corporation, a diversified multinational pharmaceutical firm, located in Philadelphia, Pennsylvania is seeking a Veterinary Parasitologist.

Candidates are required to have:

- D.V.M. and PhD in parasitology, or D.V.M. with extensive experience in veterinary parasitology, or PhD in veterinary parasitology with graduate training in veterinary helminthology or chemotherapy of endoparasites.
- Interest in research directed toward identification and characterization of new anti-helminthic compounds.
- Ability to communicate orally and in writing and work with a multi-disciplinary research group.
- Interest in goal oriented research and drug evaluation.

Successful candidate will be expected to:

- Supervise all aspects of an endoparasitology laboratory staffed by two technicians (lab is located at our Animal Health Products facility 30 miles west of center city Philadelphia).
- Conceive, plan, develop, conduct, supervise, and evaluate laboratory and animal experimentation in the areas of immediate and proposed interest.

SmithKline offers an excellent compensation program and an opportunity for professional growth. Please send resume to: Mr. W.B. Flagg, Senior Employment Administrator, Smith Kline & French Laboratories, A Division of SmithKline Corporation, 1552 Spring Garden St., P.O. Box 7929, Philadelphia, Pa. 19101. An Equal Opportunity Employer, Male/Female/Handicapped/Veteran.

SmithKline

POSITIONS OPEN

POSTDOCTORAL POSITION available 1 June for research on regulation of protein synthesis in early development of the sea urchin. Experience in developmental biology and nucleic acids desirable. Salary: \$11,000 to \$12,000. Send curriculum vitae and three letters of recommendation to: **Dr. R. A. Raff, Department of Biology, Indiana University, Bloomington, Ind. 47401.** An Equal Opportunity/Affirmative Action Employer.

PROFESSOR AND CHAIRPERSON DEPARTMENT OF PHYSIOLOGY

The Department of Physiology, University of Nevada School of Medical Sciences, is currently seeking a highly qualified individual as professor and chairperson. This individual will be expected to provide leadership, demonstrate administrative expertise, have an interest in interdisciplinary programs, attract external funding, build a contemporary faculty, conduct and encourage strong research programs and further develop the medical and graduate teaching programs in physiology. This position requires either an M.D. or Ph.D. degree, academic experience in both teaching and research in physiology, and an active research program. Preference will be given to individuals who are currently active in neurophysiological research and have external research support. This position will be available in fall 1978. Salaries are competitive with Western regional medical schools and will be based upon training and experience.

All candidates must supply curriculum vitae, a chronologically continuous bibliography, and a brief description of their research interests and teaching experience. Three letters of recommendation are also required. Applications must be received by 15 July 1978 to ensure full consideration. Applications should be addressed to: **Dr. Richard Bjur, Chairman, Physiology Search Committee, University of Nevada, School of Medical Sciences, Anderson Medical Sciences Building, Reno, Nevada 89557; telephone 702-784-6956.** Affirmative Action/Equal Opportunity Employer.

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

Applications are invited for the position of **PROFESSOR AND CHIEF** of the **DIVISION OF RADIO-PHARMACY** in the Department of Radiological Sciences (Nuclear Medicine Division) at the University of California, Irvine, California College of Medicine. The successful candidate must be a clearly outstanding figure in the field of radiopharmacy. Requirements for this position include a Ph.D. degree in a field related to radiopharmacy, a minimum of 10 years of experience in academic nuclear medicine, and evidence of a considerable body of original research work in the development and application of radiodiagnostic agents in nuclear medicine. The new chief will be expected to develop a vigorous research program at the University of California, Irvine, to participate in the Graduate Program in Radiological Sciences, to teach residents and medical students, and to assume responsibility for the clinical aspects of the radiopharmaceutical program at the University of California, Irvine, Medical Center. *Applications are invited from all qualified candidates; women and minority candidates are encouraged to apply.* Applications, including a biography and copies of any publications, should be sent to:

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

Closing date: 12 July 1978.

The Institute for Cancer Research has formed a search committee to fill one or more positions for **RESEARCH SCIENTISTS** with experience in the following areas of cell biology: function and structure, biochemistry, and biophysics of cell membranes, receptors, and cell organelles; cell-cell recognition, intercellular communications; somatic cell genetics. Applicants should have at least 1 or 2 years of postdoctoral experience. Applicants should submit curriculum vitae, statements of experience and research plan(s), and names and addresses of four referees to: **Dr. A. Knudson, Director, The Institute for Cancer Research, 7701 Burholme Avenue, Philadelphia, Pa. 19111.** An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MICROBIOLOGIST—GENETICIST

Assistant professorship in life science at an upper level university requires Ph.D. with major aptitude and enthusiasm for teaching and developing students. Courses will include microbiology, genetics for majors, human genetics for nonmajors, and advanced microbiology courses at the senior and master's degree levels. Applicant should be comfortable working in a small, innovative, closely cooperating faculty. *Women and minority candidates are encouraged to apply.* Starting date: 16 August 1978. Applicants please send résumé and names of three references to:

**Dr. Charles W. McLarnan, Dean
College of Science and Engineering
The University of Texas of the Permian Basin
Odessa, Texas 79762**

POSTGRADUATE RESEARCH PHYSICIST OR PHYSICAL CHEMIST. Requirements: Ph.D. experimental physicist or physical chemist. Experience in areas related to surfaces. Preference for some semiconductor experience; alternatively, catalysis, surface kinetics, or electrosurface properties are of interest. Salary open. Position available fall 1978. Send résumé by 1 July 1978 to: **Dr. Sheldon Schultz, Department of Physics, B-019, University of California, San Diego, La Jolla, Calif. 92093.** *University of California, San Diego, is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSOCIATE. Position for mammalian cardiovascular or respiratory physiologist. Demonstrated research ability preferred. The person in this position will participate in ongoing projects, develop research proposals and conduct independent research. Institute has capabilities in surgery, physiological chemistry, and histology and provides an excellent research environment for self-motivated individual. Applicants should have Ph.D. or equivalent. Salary dependent on qualifications. State research interests and send curriculum vitae to:

**Dr. Brian C. Hodgkin
Biomedical Research Institute
Center for Research and Advanced Study
University of Maine
246 Deering Avenue
Portland, Maine 04102**

An Equal Opportunity Employer

SCIENTIFIC PROGRAMMER/ANALYST

Person with proven ability in programming PDP-8 or PDP-12. Research in image analysis and pattern recognition for nuclear medicine studies. Send résumé to: **E. A. Elkman, M.D., College of Medicine, University of South Florida, 12901 North 30 Street, Tampa, Florida 33612.** *The University of South Florida is an Equal Opportunity Employer.*

FELLOWSHIPS

POSTDOCTORAL POSITIONS. Two **FELLOWSHIPS** available July 1978, **Bacteriology Department, University of California, Los Angeles (UCLA), Los Angeles, Calif. 90024.** General area host-parasite interactions. Specific interests of departmental faculty: **R. J. Collier**—structure and enzymology of diphtheria, *Pseudomonas* and cholera toxins; investigations of how protein toxins penetrate plasma membrane and reach cell interior in active form; **C. F. Fox**—structure and function of biological membranes; **R. J. Martinez**—biochemistry and biology of alveolar macrophages with emphasis on cell membrane receptors and membrane composition of phagocytic cells; **M. J. Pickett**—identification of and taxonomic studies on *Yersinia enterocolitica*, *H. vaginalis*, and nonfermentative bacilli; production, purification, and characterization of heat-stable enterotoxin of *E. coli*; **S. C. Rittenberg**—interperiplasmic growth of *Bdellovibrio bacteriovorus* including peptidoglycan breakdown, penetration mechanisms and permeability characteristics of altered substrate cell; **W. R. Romig**—genetics of *Vibrio cholerae*, control of toxin production and bacteriophages; **J. Stevens**—study of pathogenesis of persistent viral infections including recurrent herpes simplex, cytomegalovirus, Marek's disease, and Shope papilloma-carcinoma. Interested individuals send curriculum vitae and three letters of recommendation to any above listed faculty by 30 June 1978. *Affirmative Action/Equal Opportunity Employer.*

FELLOWSHIPS

FELLOWSHIP, CLINICAL CHEMISTRY

The University of California, Irvine, Department of Pathology, is recruiting for a fellow in clinical chemistry. Required: M.D. with at least 2 years in clinical pathology or clinical/anatomical pathology. Duties include supervision of resident staff in division of clinical chemistry and research (basic or clinical). *All qualified candidates welcome; minorities and women encouraged to apply.* Send curriculum vitae and references to: **H. Simpkins, M.D., Ph.D., Chief, Division of Clinical Chemistry, University of California, Irvine Medical Center, Orange, California 92668, by 3 July 1978.**

POSTDOCTORAL FELLOWSHIPS (TWO) available July 1978, for qualified M.D.'s or Ph.D.'s for structural and pathophysiology studies of normal and abnormal human connective tissues, particularly the skeletal dysplasias. Background in collagen, glycosaminoglycan, and/or cartilage biochemistry highly preferred. Send inquiries and curriculum vitae to: **Dr. David Hollister or Dr. Robert Burgeson, Harbor General Hospital, 1124 West Carson Street, Torrance, Calif. 90509.**

Equal Opportunity Employer

HORMEL POSTDOCTORAL FELLOWSHIP available immediately to study lipids and lipid-protein complexes in the ocular lens and their relationship to permeability and transport across lenticular membranes. Beginning stipend: \$13,008 for 12 months. Send curriculum vitae and names of three references before 20 June to: **Hormel Institute, University of Minnesota, 801 16th Avenue, NE, Austin, Minn. 55912.** An Equal Opportunity/Affirmative Action Employer.

ANNOUNCEMENT

The National Cancer Institute has compiled a projection data base for two-dimensional computerized reconstruction. Copies of this library are available free of charge. For further information contact: **Judith M. S. Pre-witt, National Institutes of Health, Building 12A, Room 2053, Bethesda, Md. 20014.** Telephone: 301-496-1247 or 1248.

CONFERENCE

CONFERENCE ANNOUNCEMENT AND CALL FOR PAPERS

Brooklyn College, City University of New York, and the New York Academy of Medicine are sponsoring an international meeting, **Human Factors Engineering in Clinical Medicine and Prosthetic Development**, in New York, 18 to 20 January 1979. Abstracts of 500 words are requested by 1 July, in any area related to engineering, computer simulation, physiologic, or clinical considerations. Address correspondence to: **Professor G. Lelsman, Department of Health Science, Brooklyn College, Brooklyn, N.Y. 11210.**

MARKET PLACE

University Extension
University of California, Berkeley

Natural History of
Australia
Study Tour/October 1-30, 1978

Explore the Great Barrier Reef, Ayers Rock, Alice Springs, the Australian Alps, the "outback"—and their unique geology, plant and animal populations—under the guidance of Dr. Robert C. Stebbins, Professor of Zoology, UC, Berkeley. Lectures by specialists at museums and universities in major cities.

For information: Nathan W. Cohen, UC Extension, Dept. E-36, 2223 Fulton St., Berkeley, CA 94720; (415) 642-1061.

ISCO's new tunable UV monitor detects sugars to coenzymes

...and everything in between

Continuously variable wavelength selection from 190 to 380 nm lets you match wavelengths to the absorption characteristics of a wide variety of compounds.

In fact, with its ability to detect in the UV below 254 nm, the model 1800 enables you to analyze many samples not usually thought of as UV-detectable — amino acids and certain carbohydrates, for example.

Detector sensitivity can be maximized by choosing the optimum wavelength for a particular compound to be analyzed. Or, selectivity can be increased by using a wavelength at which interfering solvents or impurities do not absorb.

A 10 mm pathlength flow cell and an exceptionally fast response speed allow you to separate small,

sharp peaks easily. In addition, the high-performance, small-volume cell is temperature equilibrated to minimize instrument noise.

Reliable measurements are enhanced by low baseline drift, achieved with unique reference-

compensated optics that combine high energy throughput with stability.

Controls are simple. Wavelength, range, and baseline are the only adjustments necessary. An event marker is provided to record injections. And of course, the model 1800 connects easily to any ISCO recorder, fraction collector, or pump to give you an integrated liquid chromatography system.

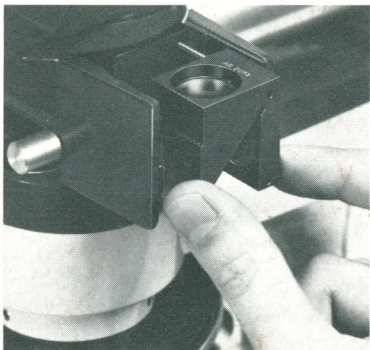
For more information on ISCO absorbance monitors and other instruments, send for your free catalog today. Or dial direct, toll free: (800) 228-4250 (continental U.S.A. except Nebraska). Instrumentation Specialties Company, P.O. Box 5347, Lincoln, Nebraska 68505.



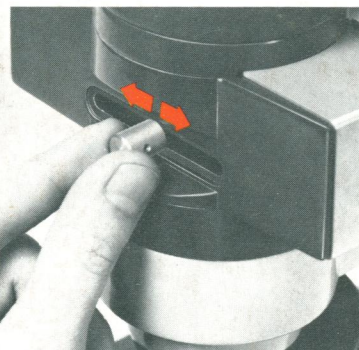
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with a difference**

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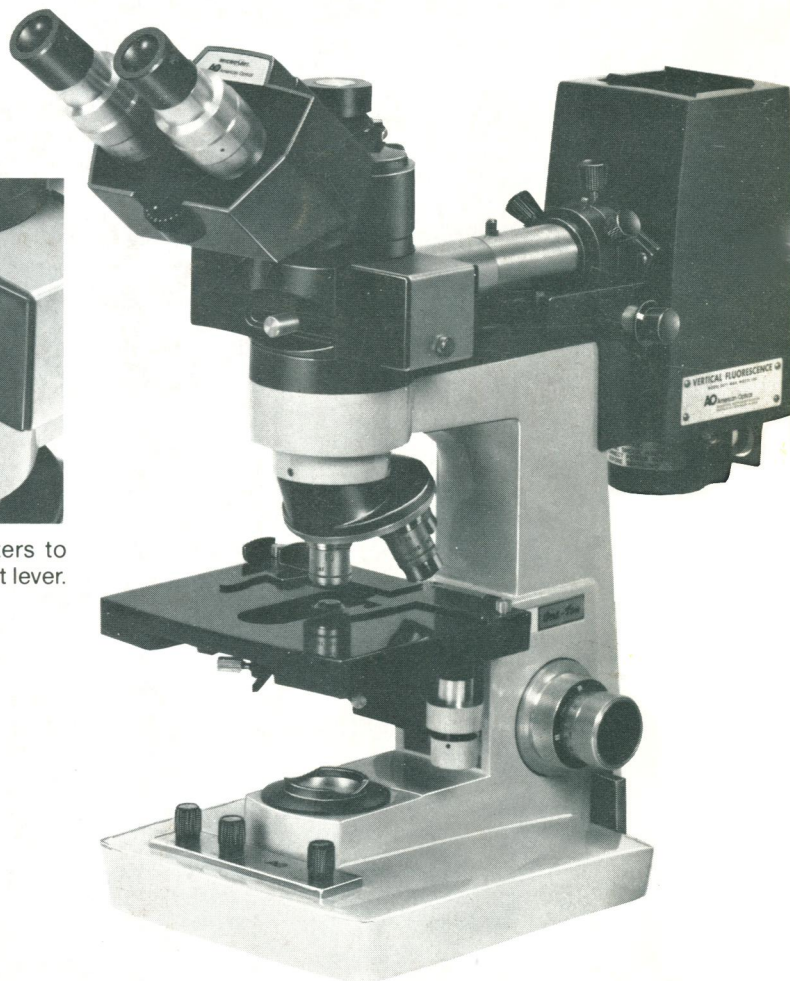
The new AO[®] FLUORESTAR[®] microscope makes fluorescence more convenient with Fluor Clusters.



Matched filter combinations in interchangeable Fluor Clusters.



Switch from Fluor Clusters to brightfield with convenient lever.



The all-new FLUORESTAR microscopes have an advanced Fluor Cluster system that greatly simplifies operation and makes fluorescence faster and more efficient. Matched barrier, exciter and dichroic filter combinations are precisely aligned in interchangeable clusters. A single lever positions the desired filter combination. The same lever switches the microscope to transmitted brightfield.

Objectives also serve as the condenser to assure full use of the numerical aperture. You get full field coverage even with 10X objective and 10X wide-field eyepiece.

An advanced illumination system is something else you get with the new AO FLUORESTAR microscope. A 100w tungsten-halogen or 50w mercury

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