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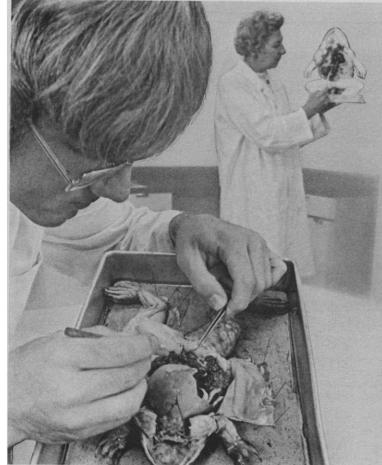
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1 Irving, E.A. and Elliott, W.H., JBC 244, p. 60, 1969

 2 Granic, S., JBC 241, p. 1359, 1966
 3 Tschudy, D.P. and Bonkowsky, H.L., Federation Proceedings, 31, p. 147, 1972



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POSITIONS WANTED

Aquaculturist. Ph.D., August 1975, LSU, crustacean culture/endocrinology research; experience in warm water fish culture; publications. Available September 1975. Seeking research and/or teaching position. J. Huner, 4759 Newcomb, Baton Rouge, La. 70808.

Biomedical Engineer, 34, B.S.E.E., M.S. physiology. Twelve years of experience in biomedical electronic instrumentation support of teaching and research programs, teaching of biomedical electronics, and design of sensors and data systems. Nineteen publications. Desires university position. Box 69, SCIENCE.

Biophysicist. Ph.D. 1972. Postdoctoral experience in biophysics, morphology, and electrophysiology of photoreceptors. Publications. Seeks research position starting January 1976. Box 70, SCIENCE, X

Cardiopulmonary Physiologist, M.D., Ph.D., with experience in acupuncture seeks visiting post for exchange research experience for 3 months between June and September. Passage and living allowance required. Box 71, SCIENCE.

M.S. in **Chemistry and Psychology**, recently immigrated, seeks employment in industry or university in biochemistry, biophysiology, food chemistry, behavior, or environmental science. Box 76, SCIENCE.

Electrophysiologist. Ph.D. 1971. Publications, research experience (10 years in sensory systems) and teaching experience (3 years in comparative, animal, and neurophysiology, general biology, undergraduate and graduate), excellent recommendations. Seeks academic or research position. Occupant, 1516 Oakridge Road, Baltimore, Md. 21218.

Experimental and Comparative Pathologist seeks tenured faculty position. Established long-range research. Desire to develop or join experimental and comparative graduate program, by itself and serving other curricula. Box 72, SCIENCE. 3/7

Immunologist. Ph.D. 1972. Immunochemistry, cellular/secretory immunology, 3 years of experience, publications, radioisotopes, immunofluorescence, gnotobiotics, desires active teaching/research position. Box 74, SCIENCE.

POSITIONS WANTED

Hybrid Biologist, B.S. biology, M.S. systems ecology, Ph.D. remote sensing. Seeks postdoctoral or research associate position. Academic interests: vegetational remote sensing, natural resource inventories, automatic image processing, computer simulation, technology assessment. Publications. Box 62, SCIENCE. 2/21

Microbiologist-Biochemist-Virologist, Ph.D. 1971.
Teaching experience. Four-year postdoctoral fellowship at major medical school, Publications.
Interested in teaching at 2- or 4-year college or in an industrial position. Anywhere except East or West Coast. Box 75, SCIENCE.

Mineralogist-Mineral Physicist, Ph.D. 1968, semi-empirical thermodynamic modeling of mineral systems with electronic, solid-earth, and ceramic application; innovative and adaptive experimenta-tion with x-ray, thermal and TEM methods; in-ternational teaching and research experience, pub-lications, U.S. citizen, seeking interesting posi-tion after June 1975. Box 63, SCIENCE. 2/21

Phytoplankton ecologist, Ph.D. oceanography 1967. More than 20 publications, Teaching/research experience in marine and freshwater phytoplankton and aquatic chemistry. Governmental research during the last 5 years. Desires teaching and/or research position, preferably western United States or Canada. Box 77, SCIENCE. X

Zoologist, Ph.D. Seeks teaching or teaching-research position. Interests include invertebrate zoology, invertebrate physiology, parasitology. Box 54, SCIENCE. 2/28; 3/7, 14, 21, 28; 4/4, 11

POSITIONS OPEN

ANATOMIST

Applications are invited from individuals with a Ph.D. degree in Anatomy for a position becoming available in June 1975. Teaching responsibilities in embryology-histology or gross human anatomy. Applicants who can demonstrate strong research productivity and potential should submit a curriculum vitae, reprints, and a summary of research plans to Dr. Bryant Benson, Head, Department of Anatomy, University of Arizona, Tucson, Arizona 85724. An Equal Opportunity Employer.

APPLIED PHYSIOLOGIST

Department of Kinesiology requires 1-year visiting professor in physiology or applied physiology with interests and developed research in cardio-respiratory, metabolic, or environmental physiology. Appointment will take effect 1 September 1975 and terminate August 1976. Appointment at any rank, salary by negotiation depending upon qualifications. Send curriculum vitae and inquiries to Dr. E. W. Banister, Kinesiology, Simon Fraser University, Burnaby 2, B.C., Canada.

ASSISTANT PROFESSOR (Organic, Biochemistry) Full time; September 1975. ACS certified program; undergraduate only. Private college, Total enrollment 3000; about 18 chemistry majors annually. Doctorate required, with promise of excellence in teaching, pedagogical planning and innovation, research for self and undergraduates. Deadline: 24 March 1975. To Prof. William F. Sheehan, Chairman, Department of Chemistry, University of Santa Clara, Santa Clara, Calif. 95053, send résumé, transcripts, list of publications, research needs, names of three references, and 600-word statement of goals. University of Santa Clara is an Equal Opportunity/Affirmative Action Employer. Chemistry Department is subject to requirements of Executive Order 11246, All interested persons are encouraged to apply.

One ASSISTANT PROFESSOR and ADDITION-AL LECTURERS in comparative, social, or learning. Ph.D. required. Send résumé and names of three references to Professor Lewis Petrinovich, Search Committee, Department of Psychology, University of California, Riverside, Calif. 92502. UCR is an Equal Opportunity/Affirmative Action Employer.

The GENETICS DEPARTMENT AT THE UNIVERSITY OF WISCONSIN hopes to make an appointment at the assistant professor rank in mathematical population genetics. Depending on qualifications and interests of the person, a joint affiliation with another department will be considered. Send curriculum vitae and names of three references to: James F. Crow, 509 Genetics Building, University of Wisconsin, Madison, Wis. 53706. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR, BIOCHEMIST

An expanding Reproductive Biochemistry Division of the Department of Gynecology and Obstetrics has a faculty position available for a glycoprotein chemist, starting date July 1975. Salary \$17,000 to \$22,000 depending on qualifications. Responsibilities involve (i) research on cervical mucus biochemistry with emphasis on cervical mucin structure, (ii) collaborative efforts with other investigators in the division and (iii) participation in teaching medical students and medical technologists in association with Department of Biochemistry. Send curriculum vitae and concise description of research experience to:

Dr. Frank N. Syner, Associate Professor, Department Gynecology-Obstetrics, Mott Center, Wayne State University Medical School, Detroit, Michigan 48201. Michigan 48201.

ASSISTANT PROFESSORSHIPS IN MARINE BIOLOGY

Applications are sought from Experimental Microbiologists, Animal Physiologists, and Population Biologists to fill three positions for fall 1975. Appointees are expected to establish vigorous research programs. Teaching is required in an area compatible with the interests of the appointee. Applications with curriculum vitae, transcripts, names of references, and summary of research interests should be sent to: Chairman, Department of Biology, University of Houston, 3801 Cullen Boulevard, Houston, Texas 77004. The University of Houston is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF PHARMACOLOGY

D.V.M. and Ph.D. in pharmacology or equivalent is required; teaching experience and ability to develop independent research; begin 1 July or 1 September. Send curriculum vitae to: **Dr. T. M. Brody, Department of Pharmacology, Michigan State University, East Lansing, Michigan 48824.**

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ASSISTANT PROFESSOR OF PHYSIOLOGY

M.D. and/or Ph.D. Strong research interests and teaching ability essential. Teaching includes medical and graduate students. Apply with curriculum vitae and names of three referees to: Dr. Benjamin Kaminer, Department of Physiology, Boston University School of Medicine, 80 East Concord Street, Boston, Mass, 02118.

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ASSISTANT RESEARCH VIROLOGIST/BIO-CHEMIST position available immediately in a comparative viral oncology program with emphasis on leukemogenic RNA viruses in gibbons. The position is open to an individual with strong training in biochemistry, molecular biology, and virology with research interests in the development of biochemical probes for detection of RNA tumor virus components in neoplasms of nonhuman primates and man. A person with postdoctoral experience in analytic nucleic acids and protein chemistry preferred but individuals with relevant doctoral experience will be considered. Applicants should mail a curriculum vitae, three letters of recommendation, and a statement of research interests to Dr. T. G. Kawakami, Comparative Oncology Laboratory, University of California, Davis, Calif. 95616. The University of California is an Equal Opportunity Affirmative Action Employer.

ASSOCIATE DIRECTOR, CLINICAL LABORATORIES

Position on Pathology Faculty, University of California, Davis, Must be Board certified in clinical pathology with expertise, interest in metabolic disorders, and related diagnostic laboratory procedures. Send curriculum vitae with summary of past experience to S. R. Wellings, M.D., Ph.D., Department of Pathology, School of Medicine, University of California, Davis, Calif. 95616.

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POSITIONS OPEN

ASSISTANT PROFESSOR AQUATIC ENTOMOLOGY

Position available now, but appointment may be deferred until 1 July 1975 if warranted. Teaching and research in aquatic biology with emphasis on quantitative communty ecology and freshwater resource management. Ph.D. required. Training and/or experience must include thorough knowledge of aquatic insects. Taxonomic specialization in a group of aquatic insects or mites is desirable, but not essential. Send curriculum vitae, all official transcripts, names and addresses of three references, and copies of any publications or manuscripts to: Dr. Deane P. Furman, Division of Entomology and Parasitology, University of California, Berkeley, California 94720. The University of California is an Equal Opportunity/

BIOCHEMISTRY-BIOPHYSICS

Faculty position at assistant professor level available fall 1975. Individuals with strong analytical background and interest in utilizing LC-GC/MS for solving problems of biological significance at molecular or cellular level are encouraged to apply. Position will entail establishment of a vigorous research program as well as teaching at undergraduate level. It is expected that the chosen candidate will have demonstrated competence, originality, and productivity, as evidenced by research accomplishment and reputation. Candidate should also be able to perform effectively both as a lecturer and in more informal teaching situations. Applicants should submit curriculum vitae and bibliography, a statement of prospective research program, and names of three references.

Please send applications to: Equal Opportunity/Affirmative Action Office, Personnel Services H-PER-246, 501 East Cullen, The University of Houston, to an Equal Opportunity of Houston, Texas 77004.

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

UNIVERSITE LAVAL, FACULTE DES SCIENCES ET DE GENIE, DEPARTEMENT DE BIOLOGIE

Trois postes de professeurs sont offerts au Département de biologie:

ENTOMOLOGIE: Le candidat doit être spécialisé en éco-physiologie ou physio-biochimie des insectes. Les tâches d'enseignement consisteront à participer aux cours de base de premier cycle en entomologie et en un autre domaine de la biologie

cycle en entomologie et en un autre domaine un la biologie.

ZOOLOGIE DES VERTEBRES: Le candidat

ZOOLOGIE DES VERTEBRES: Le candidat

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la biologie.

ZOOLOGIE DES VERTEBRES: Le candidat devra donner un cours d'un trimestre en zoologie des vertébrés dès septembre 1975 et participer à l'enseignement de l'écologie marine. La préférence sera accordée à un spécialiste de la dynamique des populations de vertébrés marins.

BIOLOGIE CELLULAIRE: Le candidat aura à enseigner, dès septembre 1975, un cours de ler cycle en biologie cellulaire et sera responsable des travaux pratiques qui l'accompagnent.

Les candidats devront s'intégrer aux groupes de recherche dans leur spécialité, dispenser un enseignement de deuxième et troisième cycles et diriger des étudiants gradués. S.V.P. adressez curriculum vitae et nom de deux répondants à: Dr. Lucien Huot, directeur, Département de biologie, Faculté des Sciences et de Génie, Université Laval Québec, Canada, G1K 7P4.

BIOLOGY POSITION at Ashtabula Regional Campus, Candidate must be capable of teaching anatomy and physiology for the Associate Degree Nursing Program; must also teach general biology and zoology. Terms of this contract will be for the academic year (9 months) with reappointment according to established University Guidelines and Departmental Policy Guidelines, Required: Ph.D. Rank and salary based on credentials and experience. Application deadline—31 March 1975.

ASSISTANT PROFESSORSHIP IN BIOLOGICAL SCIENCES. Primary instructional duties in vertebrate anatomy and histology with some teaching in the general biology series. Major responsibility is in the undergraduate instructional program, however, research and graduate education are essential and strongly encouraged. Terms of this contract will be for the academic year (9 months) with reappointment according to established University Guidelines nd Departmental Policy Guidelines, Required: Ph.D. in Zoology, Biology or Anatomy. Salary dependent upon experience and credentials. Application deadline—31 March 1975.

Applications should be addressed to: Charles V. Riley, Chairman, Department of Biological Sciences, Kent State University, Kent, Ohio 44242.

POSITIONS OPEN

Kirkland College, a liberal arts college for women, announces the following openings as part of a joint program in biology coordinated with Hamilton College.

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available. Possible appointment at associate professor level.

DEVELOPMENTAL BIOLOGIST, to teach courses in vertebrate organization and development, a departmental course for nonmajors, and advanced courses as schedule permits. Electron microscope facilities available.

Send curriculum vitae to Nadine F. George, Acting Chairman, Science Division, Kirkland College, Clinton, New York 13323. Affirmative Action/Equal Opportunity Employer.

CARDIOLOGY

Rhode Island Hospital, Brown University, Program in Medicine, Faculty position available beginning July 1975 for an individual to direct noninvasive testing area in the Division of Cardiology, Applicant should be interested in a career in academic cardiology which combines teaching and research with patient care, Fur further information contact: Albert S. Most, M.D., Division of Cardiology, Rhode Island Hospital, Providence, Rhode Island 02902. An Equal Opportunity Employer/Affirmative Action.

SUNY AT BUFFALO

The Division of Cell and Molecular Biology, State University of New York at Buffalo, is anticipating the appointment of two faculty members by September 1975. The rank is open. Individuals with strong records of research productivity or potential are sought, who can also make important contributions to the teaching program at the undergraduate and graduate level. The areas we are seeking to strengthen are the following:

- 1) Nucleic acid and protein chemistry. The individual appointed will be expected to engage in teaching in the field of nucleic acid and protein chemistry, with an emphasis on physical chemical aspects of macromolecular structure and interactions, and to carry on a research program in this area.
- 2) Molecular and cell biology, preferably in plant area. This person will be expected to engage in teaching in areas of cell and molecular biology which involve processes characteristic of plants, such as photosynthesis, nitrogen fixation, chloroplast structure and function, and so forth, and to carry on a research program in some aspects of this field.

Applicants should send curriculum vitae and names of at least three ref-erences to:

Dr. O. P. Bahl. Director Division of Cell and Molecular Biology State University of New York at Buffalo Buffalo, New York 14214

In addition, applications should include a concise description of research background, current interests and areas in which contributions to the teaching program could be made.

The State University of New York is Equal Opportunity/Affirmative Action

MC MASTER UNIVERSITY
ONTARIO

Faculty positions in Pharmacology. The Faculty of Health Sciences, McMaster University, invites applications for junior and senior faculty positions in the currently expanding program in pharmacology. Successful applicants will teach pharmacology primarily in the medical undergraduate and postgraduate programs as well as in the graduate science courses. Emphasis is placed on interdisciplinary research and one of the posts relates specifically to cardiovascular pharmacology.

relates specificary to cardio accompanied by curriculum vitae, should be sent in the first instance to:

Dr. J. D. Fitzgerald

Professor of Medicine

McMaster University Medical Centre

1200 Main St. West

Hamilton, Ontario, Canada L8S 4J9

Telephone: 416-525-9140, Ext. 2157

POSITIONS OPEN



DIRECTOR, DENTAL RESEARCH INSTITUTE, UNIVERSITY OF MICHIGAN. Applications and nominations are invited for the position of Director, Dental Research Institute, Responsibilities will include the continuance of the current operational strategy of the Dental Research Institute. The Director should be qualified for professorial rank in the School of Dentistry, possess outstanding research accomplishments in dentally related sciences, and demonstrate capacity for leadership and administration in a university. A nondiscriminatory affirmative action employer. Send nominations or applications with curriculum vitae to Dr. Brien R. Lang, Chairman, Search Committee for Director. Dental Research Institute, School of Dentistry, University of Michigan, Ann Arbor, Michigan 48104.

CSTRO DIVISION OF FISHERIES AND OCEANOGRAPHY CRONULLA, N.S.W. CHIEF OF DIVISION

CSIRO has a broad charter for research into primary and secondary industry areas. The Organization has approximately 6500 employees—2100 of whom are research and professional scientists—located in Divisions and Sections throughout Australia.

The Chief of the CSIRO Division of Fisheries and Oceanography, Dr. K. Radway Allen, reaches retiring age early in 1976 and the Executive invites applications for the position of Chief of the Division from scientists who have an established record of personal research achievements and leadership.

and leadership.

The Division has its major laboratory at Crorulla. near Sydney. Other scientific groups of the Division are located in laboratories in Perth, and near Brisbane. The Division has a total staff of approximately 150, of whom some 60 are professional scientists.

fessional scientists.

The Division's programs are concerned with studies both of the fisheries resources and of the marine environment. They embrace a wide range of scientific disciplines and emphasis is placed on an integrated, multidisciplinary approach wherever this is appropriate. The Division has undergone substantial expansion over the last 2 years, with particular emphasis on developing work on the fish resources, and on basic estuarine ecology. There are also programs on Australian crustacean resources.

The scientific programs are supported by a

The scientific programs are supported by a strong electronics group engaged in instrument development, a computer center linked to the large CSIRO network, good mechanical workshops, and a comprehensive library.

The Division has approval for the design and construction of a 67-meter oceangoing research vessel and when this becomes available, expansion of the high seas program is anticipated. The Division also has three vessels between about 12 meters and 21 meters and a number of small craft. It has a 42-meter vessel on charter for a rock lobster program.

The Chief will be responsible to the Executive for the development, scientific direction, and integration of the research programs of the Division. He will be expected to collaborate with other Australian and overseas marine research bodies.

Salary for the appointment will be the subject

Salary for the appointment will be the subject of negotiation but will not be less than \$23,463 per annum.

per annum.

The appointment carries Australian Government Superannuation privileges subject to medical fitness. It is normal practice to make term appointments to Chief positions with the options of negotiating a further term if mutually desired or of providing a senior research position in the Organization.

organization.

A member of the CSIRO Executive will be visiting Great Britain and the United States in June-July 1975 and will be available for discussions concerning the appointment with applicants and other interested parties. It may be possible to arrange discussions at a number of points in Great Britain and the United States. Scientists interested in discussing the appointment should ensure that the appropriate office is contacted in ample time to enable suitable arrangements to be made and should contact either the Chief Scientific Liaison Office, Australian Scientific Liaison Office, def Kingsway, London, WC2B 6BD England, or the Counsellor (Scientific), Embassy of Australia, 1601 Massachusetts Avenue, NW, Washington, D.C. 20036.

Further information on the Division's activities

Further information on the Division's activities can be obtained by writing to the Secretary (Administration), CSIRO, P.O. Box 225, Dickson, A.C.T. 2602, Australia.

Applications, stating full personal and professional details, the names of at least two referees, and quoting reference number 320/521, should reach: The Secretary (Administration), Head Office, CSIRO, P.O. Box 225, Dickson, A.C.T. 2602 Australia by 4 April 1975.

POSITIONS OPEN

DEPARTMENT OF BIOLOGY WESLEYAN UNIVERSITY

CELL BIOLOGIST/GENETICIST

Applications are invited for a faculty position in the area of cell biology or genetics. The appointment will be at the Assistant Professor level effective 1 July 1975. Applicants must have demonstrated excellence in research and teaching, and the potential to develop an independent research program which would complement strong, orgoing programs in cellular and developmental biology. Research specialties of particular interest include cell-cell interactions in development, molecular aspects of chromosome structure, and vertebrate somatic cell genetics. Teaching responsibilities involve participation in sophomore-level cell biology or genetics course, plus a senior/graduate course in the appointee's specialty. Applications with curriculum vitae, list of publications, names of references, and a summary of research interest should be sent before 1 March to: Dr. Barry I. Kiefer, Chairman, Department of Biology, Wesleyan University is an Equal Opportunity/
Affirmative Action Employer and encourages and

Wesleyan University is an Equal Opportunity/ Affirmative Action Employer and encourages ap-plications from minority groups and women.

CLINICAL CHEMIST, M.S. or Ph.D. Full-time supervisory position available on the night shift for a management-orientated individual with experience in automated chemistry, special chemistry, RIA, and toxicology. M.S. applicants must have at least 4 years and Ph.D. applicants must have at least 2 years of clinical laboratory experience. Equal opportunity employer. Contact: P.R. Walsh, Ph.D., Laboratory Procedures, The Upjohn Company, King of Prussia, Pa, 19406.

DIRECTOR DEPARTMENT OF DIETETICS UNIVERSITY OF OTTAWA

Position available 1 July 1975 for a qualified person with extensive experience to be in charge of a department offering courses in French and English. Applications received until 15 March 1975. Dean, Faculty of Arts, University of Ottawa, Ottawa, Ontario, K1N 6N5.

ENTOMOLOGIST

Assistant Professorship starting Sepfember 1975 for systematic entomologist and curator to teach introductory entomology and insect identification. Ph.D. and broad research interests related to insect systematics required. Send résumé and names of three references to: Dr. Carl W. Rettenmeyer, Biological Sciences Group, University of Connecticut U-43, Storrs, Conn. 06268. An Affirmative Action Employer.

ETHOLOGIST. Applications are invited for position available September 1975 in undergraduate/graduate teaching and research in animal behavior/wildlife. Nine-month appointment at rank of assistant professor. Ph.D. required. Candidate should have interest in teaching game biology as well as ethology. Forward curriculum vitae to Dr. M. Dale Arvey, Chairman, Department of Biology, University of North Carolina-Charlotte, Charlotte, N.C. 28223. The UNCC is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS: RESIDENTIAL COLLEGE OF INTERDISCIPLINARY STUDIES, The Western College of Miami University, a residential division with an evolving curriculum in lower division interdisciplinary core courses and upper division interdisciplinary programs, including American studies and environmental studies, seeks four faculty at junior and senior levels with completed degrees, multiple competencies, and a willingness to collaborate in a variety of teaching-learning situations. Western College stresses high student-teacher contact and clustered living-learning facilities and activities serving a 4-year undergraduate experience. Persons with interdisciplinary training or orientation and with one or more of the following special competencies are sought: experimental physics, experimental or field biology, history of science or technology, science and public policy, political science, cultural anthropology, social psychology, religion, philosophy, history of ideas, and art history. Experience in creative and performing arts is highly desirable. Miami University is an Equal Opportunity Employer with an Affirmative Action Program. Application, letters of recommendation, supporting documents, and full statement of interest due by 28 February to: Curtis W. Ellison, Search Coordinator, Western College, Miami University, Oxford, Ohio 45056.

POSITIONS OPEN

FACULTY POSITIONS

Stockton State College announces openings, subject to final authorization, for the following positions: Chemical and Physical Oceanographer, Chemist, Environmental Chemist/Engineer, Hard Rock Geologist, Applied Mathematician, and Applied Physicist. These positions are offered at the Assistant Professor or Instructor level, but candidates for Visiting Associate or Full Professor rarks are also encouraged to apply.

Submit application materials to: Philip A. Na-zetta, Dean, Faculty of Natural Science and Mathematics, Stockton State College, Pomona, New Jersey 08240. An Equal Opportunity Employer.

FIELD ECOLOGY—ANIMAL BEHAVIOR

Applications are invited for a faculty position in field ecology and animal behavior effective September 1975. Primary interest in undergraduate teaching, Ability to contribute to interdisciplinary program in environmental studies including course development. Send résumés to Dr. E. T. Handelman, Chairman, Science Division, Simon's Rock, Great Barrington, Mass. 01230.

Simon's Rock is an Equal Opportunity Employer with an Affirmative Action Program.

IMMUNOCHEMIST

(Clinical)

Expanding operations in our clinical laboratories located in suburban St. Louis creates a unique opportunity for a recent Ph.D. Immunochemist to assume responsibility of the radioassay department. Successful candidate must have 1 to 3 years of experience in the design and purifications of antibodies and a current knowledge of clinical applications of immunologic test-

We offer an excellent starting salary and liberal benefits. Please send resume and salary requirements in confidence to: Donald J. Parker, Ph.D.

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PHYSIOLOGIST

The Department of Surgery at the Peter Bent Brigham Hospital (Harvard Medical School) invites applications from Ph.D. physiologist interested in clinical and experimental circulatory physiology. The position is with an ongoing hospital-centered program; opportunities and facilities for independent work; faculty appointment according to experience. Reply to: Alfred P. Morgan, M.D., Peter Bent Brigham Hospital, 721 Huntington Ave., Boston, Mass. 02115.

THE DEPARTMENT OF PHYSIOLOGY of the University of Minnesota Duluth School of Medicine invites applications for a full-time faculty position at the level of Assistant or Associate Professor. Candidate should be available by 1 August 1975. The individual would be expected to engage in neurophysiological or cardiovascular research and to participate in teaching physiology to undergraduate as well as medical students. Excellent research opportunities. Preference will be given to those candidates with teaching experience in Medical School. Curriculum vitae should be sent to Dr. R. S. Pozos, Chairman, Uriversity of Minnesota Duluth School of Medicine, 2205 East 5th Street, Duluth, Minnesota St812. The University of Minnesota-Duluth is an Equal Opportunity Employer with an Affirmative Action Program.

WESTERN AUSTRALIAN MUSEUM CURATOR OF MOLLUSCS DIVISION OF NATURAL SCIENCE

Applications are invited for the above position.

QUALIFICATIONS:

A degree in zoology with a higher degree in some aspect of mala-cology. Museum curatorial experi-ence and research experience in some area of molluscan systematics is desirable.

DUTIES:

The appointee will be responsible to the Head of the Division of Natural Science for the collections of the department, the employment of the collections in education and research, the conduct of taxonomic research on the collections and the propaga-tion of information about molluscs to the public. The appointee will also advise and assist the Curator of Display on displays within his field.

SALARY:

Curators are employed at Levels 3 & 4 Professional Division (Curatorial Officers) Salaries Agreement 1973. Present salary range Level 3 \$(Aust)11146-12220 (by 3 increments), Level 4 \$(Aust)12562-14317 (by 3 increments). Appointments are usually made, within level 2 but if an appointer. within Level 3, but if an appointee has the requisite seniority an appointment may be made in the higher Level.

CONDITIONS OF SALARY:

Museum staff are employees of the Western Australian Museum under the Museum Act, 1969. Staff are entitled to the same leave and superannuation benefits and superannuation benefits and superannuation benefits and superannuation benefits and superannuation. leave and superannuation benefits as are Public Servants employed under the *Public Service* Act. Other conditions of service are fixed by the Trustees, but are similar to those applying in the Public Service. All appointments are subject to confirmation after a probationary period of three months. Salary scales are fixed by arbitration.

APPLICATIONS:

Applications must include information as to nationality, date of birth, particulars of education and degrees. Applicants should also include the names of three referees competent to give information on professional ability and character. The successful applicant will be expected to provide evidence of good health before appointment. A recent photograph would be useful.

INFORMATION

Further information on duties and conditions of service may be obtained on application to the Director.

CLOSING DATE:

Applications will close with the Director on 14 March 1975.

W. D. L. RIDE Director.

POSITIONS OPEN

MARINE ZOOLOGIST

Ph.D., 3 to 10 years of professional experience in invertebrate zoology and biological oceanography. Vertebrate zoology also necessary. Desirable related academic experience will include immunology, embryology and/or parasitology. Duties will begin 1 July 1975 and will include research and some teaching. Salary commensurate with experience.

MARINE/ESTUARINE ECOLOGIST

Ph.D., strong background in biometry, zoology, and community ecology. Benthic ecologist preferred. Familiarity with sedimentology desirable. Assistant Professor level, salary \$16,000. Two-year appointment, beginning 1 July 1975. Duties will include research only.

Send résumé and three references to Dr. Barry A. Vittor, University of Alabama, Marine Science Programs, P.O. Box 386, Dauphin Island, Ala. 36528. An Equal Opportunity Employer.

NEPHROLOGIST—The Division of Nephrology in the Department of Medicine at the University of Alabama in Birmingham has available a position at the Assistant Professor or the Associate Professor level. The position is open to qualified individuals at a senior level fulfilling three criteria. First, the individual must have expertise in the care and management of patients with renal disease and in the operation of a hemodialysis unit. Second, the individual must have a firm commitment to teaching programs oriented to medical students, graduate students, house officers, and fellows. Finally, the individual should have a research background and be able to carry out independent research, preferably in renal micropuncture. Apply to the Division of Nephrology, University Station, Birmingham, Alabama 35294. Telephone: 205-934-3585. An Equal Opportunity/Affirmative Action Employer. Expiration date for receipt of applications: 1 June 1975.

PHARMACOLOGY

Applications are invited for a full-time position of Assistant/Associate Professor with a major research interest in Neuropharmacology. Applicants should be prepared to give lectures in this field to medical, dental, and pharmacy students, and to carry on an independent research program. Curriculum vitae and two letters of reference should be sent to: Dr. J. G. Aldous, Department of Pharmacology, Dalhousie University, Halifax, Nova Scotia, Canada B3H 4H7.

The PHYSICS DEPARTMENT of the Rochester Institute of Technology anticipates two positions beginning September 1975, one of which will be a visiting assistant professorship that may be renewable annually for a total period of 5 years. Possibility of conversion to tenurable appointment possible but not probable. Applicants should have a Ph.D. in experimental physics and a background in one of the areas of acoustics, solid state, or optics, particularly physiological optics. The positions would require the teaching of introductory and advanced undergraduate physics, including electronics, as well as initiating undergraduate research programs. Send curriculum vitae, list of publications, and the names of three references to Dr. John S. Shaw, Physics Department, Rochester Institute of Technology, One Lomb Memorial Drive, Rochester, New York 14623. The Institute is an Equal Opportunity Employer. The PHYSICS DEPARTMENT of the Roch-

PLANT ECOLOGIST PLANT TAXONOMIST

PLANT TAXONOMIST

Anticipated opening for Ph.D. at Assistant Professor level commencing September 1975. Salary range \$12,500 to \$13,500, depending on experience. Résumé, complete academic records, and three letters of recommendation are required for consideration. Apply to: Richard C. Leonard, Chairman, Department of Biology, The University of Alabama in Huntsville, P.O. Box 1247, Huntsville, Alabama 35807. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW IN SCIENCE AND NATURE

AND NATURE

Openings for several postdoctoral fellows with backgrounds in Immunology available within research programs in the general areas of Rheumatology (TDVC) and Cancer (DI). Write with curiculum vitae and details of current work and special expertise to Drs. T. D. V. Cooke, Department of Surgery, or D. Eidinger, Department of Microbiology and Immunobiology, Queen's University, Kingston, Ontario, Canada, K7L 3N6.

POSTDOCTORAL POSITION

To work on plasma lipoproteins: ionic and cellular interactions. Applicants with background in ultracentrifuge and lipid analytical techniques preferred. Apply with résumé to

Dr. S. Chosh
Department of Biochemistry
Northwestern University Medical School
303 East Chicago Avenue
Chicago, Ill. 60611

POSITIONS OPEN

Texas A & M University is seeking eight LECTURERS IN THE DEPARTMENT OF BIOLOGY beginning fall 1975 in the following areas: Ecology, Neurobiology, Immunology and Infectious Diseases, Physiology, Cellular Biology, Developmental Biology, and Botany. These are 1-year appointments with the possibility of a 1-year extension. All candidates must have a Ph.D. degree and be qualified to teach General Biology. In addition to high quality teaching which is expected, time for postdoctoral research will be available in collaboration with one or more faculty members. Salary \$10,125. Send inquires plus three letters of recommendation to John R. Seed, Head, Department of Biology, Texas A & M University, College Station, Texas 77843, Texas A & M University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION

Postdoctoral position available 1 March 1975 for research on the metabolic activation and covalent binding of environmental contaminants. Applicants must have a Ph.D. in biochemistry or pharmacology. Salary \$9500 for 12 months. Applications with curriculum vitae, naming three references, should be sent to Dr. Donald R. Buhler, Department of Agricultural Chemistry, Oregon State University, Corvallis, Oregon 97331. An Equal Opportunity/Affirmative Action Employer. ployer.

POSTDOCTORAL RESEARCH

Applications are invited for a position with a group (G. L. Bartlett, J. W. Kreider, and M. Purneil) studying animal models of tumor immunotherapy. Experience in tumor or cellular immunology desirable, stipend negotiable. Send curriculum vitae and names and addresses of three individuals familiar with your work to: Division of Cancer Biology, Department of Pathology, College of Medicine, M. S. Hershey Medical Center, Hershey, Pa. 17033.

FACULTY POSITION IN PSYCHIATRY

FACULTY POSITION IN PSYCHIATRY
The University of Wisconsin-Madison invites applications from child psychiatrists interested in a faculty position in the Department of Psychiatry. Candidates must be Board qualified in Child Psychiatry and must have had experience in the development and conduct of teaching, research, and service delivery programs. Letters of application or nomination should include a curriculum vitae. The University of Wisconsin School of Medicine is an Equal Opportunity Employer.

Correspondence should be addressed to: William T. McKinney, Jr., M.D.; Chairman, Department of Psychiatry, University of Wisconsin Medical School, Madison, Wisconsin 53706.

FACULTY POSITION IN PSYCHIATRY

The University of Wisconsin-Madison invites applications from behavioral neuropharmacologists interested in a faculty appointment in the Department of Psychiatry. Preference will be given to individuals who combine interests in biogenic amines and behavior, polypeptides and behavior, and psychotropic drugs and who do their work in a developmental context. Letters of application or nomination should include a curriculum vitae. The University of Wisconsin School of Medicine is an Equal Opportunity Employer.

Correspondence should be addressed to: William T. McKinney, Jr., M.D.; Chairman, Department of Psychiatry, University of Wisconsin Medical School, Madison, Wisconsin 53706.

QUANTITATIVE POPULATION ECOLOGIST

QUANTITATIVE POPULATION ECOLOGIST A faculty position is open for a quantitative population ecologist. Applicant must possess Ph.D. and combination of field laboratory, and theoretical experience is desired. Teaching at the undergraduate and graduate level as well as development of a strong graduate research program is expected. Send biographical data including publication list and names of three references to Dr. Robert L. Packard, Chairman of Search Committee, Department of Biological Sciences, Texas Tech University, Lubbock, Texas 79409. An Equal Opportunity Employer.

RESEARCH ASSOCIATE PHYSICAL OCEANOGRAPHER

One-year opening to assist in numerical model simulation of coastal upwelling ocean circulation. M.S. in physical oceanography, fluid dynamics, or meteorology with experience in numerical modeling of fluid motion required. Closing date: 25 February 1975. Send inquiries, curriculum vitae, and references to: Chairman, Department of Meteorology, Florida State University, Tallahassee, Florida 32306. We Are an Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Immediate opening for biochemist with experience in protein sequencing and a strong background in protein chemistry, for studies on structure-function relations in folate-dependent enzymes. Chemical modification studies will be integrated with NMR, CD, MCD, and sequence investigations. Complete sequence laboratory facilities. Send résumé to Dr. J. H. Freisheim, Department of Biological Chemistry, College of Medicine, University of Cincinnati, Ohio 45267. An Equal Opportunity Employer.

SOIL SCIENTIST

SOIL SCIENTIST

Senior Staff Position available at Argonne National Laboratory for established Soil Chemist or Soil Biologist with broad background in terrestrial ecology. Responsibilities of the position will be: (i) To develop a strong research program on some aspect of the impact, or use, of energy production on natural and/or agricultural ecosystems. (ii) To provide overall leadership for the terrestrial ecology program at Argonne. For additional information, send résumé to Mr. Ronald A. Johns, Personnel Division, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, Illinois 60439. An Equal Opportunity Employer, M/F.

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for Institute of Laboratory Animal Resources. Professional degree, Ph.D., or equivalent, with substantial background and experience in laboratory animal science. General supervision of staff and operations in support of study committees, symposia, workshops and conferences; preparation of reports and published materials; fiscal management. Salary open. The National Academy of Sciences is an Equal Opportunity Employer. Reply to Dr. Russell B. Stevens, National Academy of Sciences, Room 340, 2101 Constitution Avenue, Washington, D.C. 20418.

DEPARTMENT OF SURGERY UNIVERSITY OF IOWA COLLEGE OF MEDICINE IOWA CITY, IOWA 52242

Faculty positions for M.D.'s with special qualifications in fields of tumor, transplant, immunology, oncology, shock and resuscitation, gastrointestinal physiology, plastic surgery, vascular surgery, thoracic and cardiovascular surgery, and neurosurgery. Ph.D. immunologist qualified in Research Immunology, Oncology, and Immunogenetics.

Inquiries and applications directed to S. E. Ziffren, M.D., Professor and Head. An Equal Opportunity Employer.

TRAVELING LECTURERS

University of Maryland University College seeks lecturers to teach introductory nonlab science courses in its European Division. Geologists, Zoologists, Biologists and Botanists, especially those with backgrounds (at least to the M.A. level) in two of these areas preferred, Full and three-fourth positions available starting August 1975. Frequent travel limits positions to single persons or married people without dependent children, Send résumé to: Office of the Dean, University of Maryland University College, College Park, Maryland 20742.

VIROLOGISTS

Immediately available are positions for a post-doctoral fellow and a junior staff member to study antigenic variation in influenza viruses, the origin of new influenza viruses, and the molecular basis of virulence. Excellent research facilities with competitive salaries. Inquiries and curriculum vitae should be sent to Dr. R. G. Webster, Department of Virology, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, Tennessee 38101. An Equal Opportunity Employer.

FELLOWSHIPS

POSTDOCTORAL RESEARCH FELLOWSHIPS IN MEDICAL GENETICS
Postdoctoral research fellowships in medical genetics are available through an NIH institutional research training grant. M.D.'s, Ph.D.'s and D.D.S.'s with intention to make a career in medical genetics are encouraged to apply. Deadline for applications will be 1 April 1975. Starting date of fellowship is 1 July 1975. Fellowships are renewable for 1 year on a competitive basis, and stipends range from \$10,000 to \$13,000, depending on years of postdoctoral experience. Research experience and background in genetics or clinical experience is desirable.

Application forms may be obtained from Dr. Jorge J. Yunis, Director of Training Program in Medical Genetics, Box 198 Mayo Memorial Building, University of Minnesota, Minneapolis, Minnesota 55455. Telephone: 612-376-3309.

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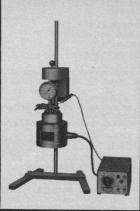
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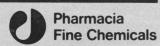
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NEUROSCIENCE POSTDOCTORAL FELLOW-SHIPS for U.S. citizens or resident aliens; lipid neurochemistry (with N. Radin or A. Hajra), neuronal RNA and protein processing (with O. Z. Sellinger), gonadal hormones and social behavior (with R. Davis). An unusual opportunity for interdisciplinary training. Write relevant research director at Mental Health Research University of Michigan, Ann Arbor, Michigan 48104.

Fellowships available for interdisciplinary graduate program in BIOMEDICAL COMPUTING AND INFORMATION PROCESSING. National Institutes of Health/National Library of Medicine fellowships are available for those with baccalaureate degree in health professions or computing services for studies leading to the M.S. or Ph.D. in a College of Medicine department or in the Department of Computer and Information Science. Applications must be received by 1 April 1975 for the 1975–1976 year. For information, write to Gregory L. Trzebiatowski, Ph.D., Assistant Dean for Medical and Graduate Education, Ohio State University College of Medicine, 2066 Graves Hall, 333 West Tenth Avenue, Columbus, Ohio 43210.

Postdoctoral fellowship available immediately for BIOCHEMIST well qualified in areas of enzymology and protein chemistry. To collaborate on studies of the interaction and functional regulation of membrane enzyme components with emphasis on cyclic nucleotide biochemistry. Starting salary \$9000. Send curriculum vitae and three letters of reference to Dr. Mark W. Bitensky, Department of Pathology, Yale University School of Medicine, 310 Cedar Street, New Haven, Conn. 06510. An Equal Opportunity Affirmative Action Employer.

QUEEN ELIZABETH II FELLOWSHIPS PHYSICAL AND BIOLOGICAL SCIENCES

commemorate the Royal Visit to Australia To commemorate the Royal Visit to Australia in 1963 the Australian Government established the Queen Elizabeth II Fellowships Scheme. Under this scheme up to ten fellowships may be awarded each year for full-time research by young scientists of exceptional promise and proven capacity for original work. These are postdoctoral awards tenable in an Australian university or approved research institution normally for 2 years. Tenure of a Fellowship is expected to commence within 9 months of the announcement of the award.

Qualifications. Queen Elizabeth II Fellows must be either Australian or United Kingdom citizens. They should have a Ph.D., or equivalent qualifications, in one of the physical or biological sciences (which are deemed to include mathematics and the scientific aspects of statistics, engineering, metallurgy, agriculture and medicine). Awards will, in general, be restricted to applicants who are not more than 30 years of age on the date when applications close.

Stipend. \$9,820 (Australian) per annum increased to \$10,585 per annum at age 28 years.

Allowances. Are payable in respect of a Fellow's spouse (\$500 per annum), each dependent child (\$200), superannuation payments (up to 10 percent of stipend), appropriate insurance coverage, and necessary travel expenses. Host institutions are paid an allowance toward the cost of setting up the fellow and his/her research work.

setting up the fellow and his/her research work.

Applications. Persons interested in applying for the above fellowships should obtain application forms and a statement of the conditions of award from the Secretary, Queen Elizabeth Fellowships Committee, Department of Science, P.O. Box 449, Woden, A.C.T., 2606, Australia; Education Llaison Officer, Canberra House, Strand, London, WCZR 3 EH, England; or The Consul General, Australian Consulate General, 636 Fifth Avenue, New York, N.Y. 10020. Applications for the next round of awards, which will be announced in June 1975, close at the Canberra address on 7 March 1975.

POSTDOCTORAL FELLOWSHIP available in (i) control of growth of plasma cell tumors in tissue and organ culture; and (ii) effect of tumors on host metabolic processes or immunologic capabilities. Candidates must be familiar with research techniques in area of interest. \$12,000 to \$16,000. Permanent resident status required. Send complete academic transcript, names of three references, and description of your research interest to: Dr. V. Hollander, Research Institute, Hospital for Joint Diseases and Medical Center, 1919 Madison Ave., New York, N.Y. 10035. An Equal Opportunity Employer. POSTDOCTORAL FELLOWSHIP available in (i)

RESEARCH PROPOSALS

RESEARCH PROPOSALS a:e invited by a large corporation.

AREA OF RESEARCH:

aste/odor perception

METHOD:

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ANNOUNCEMENT

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polypeptides, collagen, muscle, silks, keratins, and elastic proteins.

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Applications with the state of the state

Applications, with brief curriculum vitae, to: Dr. A. Miller, Laboratory of Molecular Biophysics, Zeology Department, South Parks Road, Oxford, OX1 3PS by 15 March 1975.

SUMMER STUDY

BERMUDA BIOLOGICAL STATION SUMMER COURSES

For graduate and advanced undergraduates, in Tropical Marine Biology, 9 June (Dr. Gary Wagenbach), Embryology and Larval Development, 7 July (Dr. H. Eugene Lehman), and Environments of Carbonate Deposition, 5 August (Drs. Conrad D. Gebelein and Peter Garrett). For application blanks for admission and scholarships, write airmail to the Director, Bermuda Biological Station, St. George's West, Bermuda.

Marine Science, Duke University Marine Laboratory SUMMER COURSES: Undergraduate: 12 May—Introduction to Biological Oceanography. Graduate/Advanced Undergraduate: 16 June—Ecology, Comparative and Evolutionary Biochemistry, Phytoplankton Systematics, Physiological Ecology of Marine Animals, Chemical Oceanography, Geological Oceanography, 21 July—Comparative Behavior, Membrane Physiology and Osmoregulation, Marine Invertebrate Zoology, Biological Oceanography, Chemical Pollution of Coastal Waters, Marine Microbiology, Marine Phycology, Write: Director, Duke University Marine Laboratory, Beaufort, North Carolina 28516.

SUMMER STUDY

SUMMER TRAINING PROGRAM

The Worcester Foundation for Experimental Biology is seeking a limited number of qualified college students to participate in its Summer Training Program to be held during 9 June 1975 through 14 August 1975. Applicants must have completed at least 2 years of college work, have an overall grade point of "B" or better, have had at least three courses in either the life or natural science or in both and are interested in basic research. Please have three present or former professors write directly to us concerning you and send your résumé and official transcript of college courses no later than 15 April 1975 to: Dr. Ashton Gibbons, Director of Summer Training Programs, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Massachusetts 611545. An Equal Opportunity Affirmative Action Employer. Employer.

SUMMER PROGRAM IN CELL PHYSIOLOGY

This broad course will have as its theme the combination of molecular analyses of cell components, their detection in situ in cells and their organelles, and the in vitro assay of their various properties, activities, and interactions in order to better understand processes and interactions of intact living cells.

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AREA LABORATORIES (10 days each) will be informally structured but designed to acquaint students with those specialized techniques, instruents, biologic material, and strategies used by each instructor in his own field of research. Students may consecutively attend a minimum of three and a maximum of five during the formal course period (16 June to 4 August).

INDIVIDUAL RESEARCH (5 August to 1 September) may be undertaken with the permission of and under the guidance of one or more of the instructors during the post-course period.

TOPICS (AREA LABORATORIES):
1) Cellular and Molecular Immunology, John
Cebra (Hopkins) and Robert Prendergast (Hop-

Cebra (Hopkins) and Robert Prendergast (Hopkins)

2) Molecular Components of Systems Involved in Cell Motility and Contractile Processes, Thomas Pollard (Harvard University)

3) Transcriptional and Translational Processes in Protein Synthesis, Ru-Chih Huang (Hopkins)

4) Physical Chemistry of Protein Interactions, Gary Ackers (University of Virginia)

5) Mammalian Virus—Membrane Interactions, Thomas Bächi (Zurich) and Paul Klein (University of Florida)

6) Lysosomes and Their Roles and the Preparation and Use of Liposomes, Gerald Weissman (New York University)

7) Base Sequence Analysis of RNA and DNA, P.-C. Huang (Hopkins)

8) The Role of Protein Chemistry in Genetics and Developmental Biology, Dennis Powers (Hopkins) and Dennis Barrett (University of Denver) Guest lecturers will include Mathew Scharff (Mutants of Mammalian Cells), Jean Lindenmann (Virology), and Alan Edmunson (X-ray Crystallographic Analysis of Proteins).

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TUITION: \$600 (formal course) and \$250 (post course). A limited number of fellowships (full and partial) available to cover tuition and/or living expenses and/or travel but these are restricted to college graduates and can only be awarded to nationals and those with permanent resident visas.

QUALIFICATIONS: Preference is given to graduate students already enrolled in Ph.D. and M.D./Ph.D. programs. A few places are available to advanced undergraduates and to postgraduate students from areas outside the biological scistudents from areas outsidences. Class limited to 42.

APPLICATION FORMS and descriptive "Annual Announcement" available from: Admissions Office, Marine Biological Laboratory, Woods Hole, Mass. 02543 (specify Physiology Course). Applications are due 15 March; notification of decision of selection committee by 15 April.

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