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**THIS COMPETITION IS OPEN TO BOTH MEN AND WOMEN  
SPRUCE BUDWORM RESEARCH**

Salary to \$15,364

Maritimes Forest Research Centre, Canadian Forestry Service  
Department of the Environment  
Fredericton, New Brunswick

A Doctorate graduate with training and research experience in behavioral insect physiology is required to:

Conduct research into the direct effects of physical factors, particularly temperature and moisture, on development rates, vigor and survival of the spruce budworm under laboratory conditions and to relate this to behaviour and development of budworm in the field;

Attempt to identify stimulus-receptor-response systems in budworm behaviour that might be manipulated with the object of making use of this in budworm control.

Knowledge of the English language is essential.

To ensure consideration applications or resumes should be submitted before February 1, 1973 to the:

BIO-PHYSICAL SCIENCES PROGRAM  
PUBLIC SERVICE COMMISSION OF CANADA  
OTTAWA, ONTARIO K1A 0M7

Please quote reference number 73-100-03 on all correspondence.

## VETERINARY MICROBIOLOGIST

Our agricultural and veterinary research department needs a versatile scientist—one who is capable of innovation in the development of chemotherapeutic agents and vaccines for the veterinary trade. This scientist must have a Ph.D. and 2-5 years experience in several of the sub-disciplines of microbiology showing a clear record of accomplishment in veterinary products research.

Location is in rural-suburban Lake County, Illinois. Please send résumé including salary information to:

**John Gaddis**  
Professional Employment

**ABBOTT**  
Health Care World Wide  
North Chicago, Ill. 60064

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## Personnel Placement

### POSITIONS WANTED

**Human and General Geneticist**, 37, Ph.D. (1965), 15 years of professional academic experience. Currently on postdoctoral (cytogenetic and familial inheritance in neuromuscular disease). Special interest in genetic counseling. Desires academic position. Box 464, SCIENCE. X

**Immunologist**, Ph.D. living in England, 7 years of experience in isolation and purification of tumor antigens, raising and testing of antisera. Desires a research position. Box 495, SCIENCE. 1/19

**M.S. (genetics, 72), B.S. (chemistry)**. Six years of experience in medical research and chemical analysis. Box 468, SCIENCE. 1/5, 19

**Microbiologist, Ph.D.** Photobiology, aquatic microbiology, specialization blue-green algae; 18 years of experience, research and university teaching. Seeks innovative research opportunity at university or research institute. Temporary or visiting appointment considered. Box 476, SCIENCE. X

**Ph.D.** Experienced, publications, seeks teaching position, biology, pharmacology, physiology, allied medical science; wife physician interested in student health openings. Box 481, SCIENCE. X

**Ph.D. Microbiologist and Immunologist**; microbiologist of multihospital laboratory management corporation; 5 years of clinical experience; medical school faculty; interested in lab management and applied research. Box 433, SCIENCE. X

### POSITIONS OPEN

#### AQUATIC PLANT BIOLOGIST

Ph.D. required for vacant assistant professorship qualified for research, teaching, and graduate training with emphasis on ecology and taxonomy of aquatic vascular plants. For further information write: **Dr. F. G. Smith**, Department of Botany and Plant Pathology, Iowa State University, Ames, Iowa 50010.

#### ASSISTANT PROFESSOR

New position. Beginning September 1973. Salary competitive. Interested in Ph.D. with strong research and teaching interests. Prefer someone who expects to be great. Area of specialty not particularly important but a scientific orientation is. Contact: **B. G. Tate**, Chairman, Department of Psychology, University of Mississippi, University, Mississippi 38677. We are an equal opportunity employer.

#### ASSISTANT PROFESSOR POSITION AVAILABLE

in the Department of Surgery, The University of Michigan Medical School, for July 1973. Candidate must be a thoracic surgeon skilled in general thoracic and cardiac surgery. Must be qualified for Thoracic Boards and have an interest in research. Code #300L. Send résumé to **Box 1, SCIENCE**. A Nondiscriminatory Affirmative Action Employer.

#### UNIVERSITY OF SOUTH FLORIDA DEPARTMENT OF BIOLOGY

Applications are invited for a position at the level of Assistant Professor (possibly Associate Professor) from Biologists with a Ph.D. working in immunology, invertebrate behavior, or ichthyology. Duties, to begin September 1973 or later, will include teaching of undergraduate courses in biology and development of research and graduate instruction in their area of interest. Women and minority applicants invited. Send curriculum vitae to **Chairman, Department of Biology, University of South Florida, Tampa, Florida 33620**, by 20 January 1973.

### POSITIONS OPEN

#### BIostatistician

BS or MS with 1-3 years' experience required by northern New Jersey manufacturer of consumer packaged goods. Will serve as Assistant to Research Director. Duties include experimental design and evaluation, research planning, liaison and controls. Send resume and salary history to:  
**DEPT. 704936, 373 Fifth Avenue, N.Y., N.Y.**  
An equal opportunity employer M/F

#### CHAIRMAN AND PROFESSOR POSITION AVAILABLE

Department of Surgery, The University of Michigan Medical Center. Candidate must have M.D. degree and certification from the American Board of Surgery. Demonstrated administrative abilities essential. Code #100E. Send résumé to **Box 2, SCIENCE**. A Nondiscriminatory Affirmative Action Employer.

Associate or Assistant Professor with teaching responsibilities in general area of **comparative physiology**. Research interest may include physiology or physiological problems in ecology, behavior or evolutionary biology. Excellent research and teaching facilities available. Applicants should send a curriculum vitae, publications, and three letters of reference to **Dr. B. R. Holt**, Biology Department, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Missouri 63121. Applications from women and minority groups are encouraged. The University of Missouri is an equal opportunity employer.

#### ASSISTANT PROFESSORSHIP IN COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

Opportunity for recent Ph.D. with interest in, but not necessarily restricted to, programming languages, operating systems, and/or artificial intelligence in a research-oriented department composed of 13 members with diverse interests in systems, quantum electronics and optics, and computer science. Send résumé to **Professor W. H. Huggins**, Chairman, Electrical Engineering Department, The Johns Hopkins University, Baltimore, Md. 21218. Johns Hopkins is an equal opportunity employer.

## POSITIONS OPEN

### THE AUSTRALIAN MUSEUM, SYDNEY

requires a

#### CURATOR/ASSISTANT CURATOR, MARINE INVERTEBRATES

**SALARY:** Assistant Curator—salary range \$A4,863—\$A7,969 p.a. Curator—salary range \$A8,701—\$A9,310 p.a. with progression to \$A10,442 p.a., subject to certain conditions. Appointment to research scientist/senior research scientist classification, with salary range \$A7,304—\$A11,604 p.a., is available within the Public Service.

**QUALIFICATIONS:** Essential: degree in Zoology. Desirable: Postgraduate qualifications, with research in Zoology. Preference will be given to candidates with experience in corals or other coelenterates, echinoderms, ascidians or sponges. Previous experience in management of museum collections an advantage.

**DUTIES:** Research on taxonomy/ecology of marine invertebrates; the curation of one or more marine invertebrate groups; answering public and professional scientific inquiries.

**CONDITIONS:** Subject to certain conditions the successful applicant will be eligible for—

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

#### APPLY TO:

Public Service Board, Goodsell Building,  
8-12 Chifley Square, Sydney, N.S.W. 2000  
Australia, by 22 January 1973.

### DEVELOPMENTAL PSYCHOLOGIST

Team member for follow-up studies of premature infants; Ph.D.; must have experience with infant and child testing; equal opportunity employer. L. F. Chapman, Chairman, Department of Behavioral Biology, School of Medicine, University of California, Davis, California 95616 [(916) 752-3361].

### DIRECTOR OF GREAT LAKES RESEARCH

Due to the impending retirement of the present director, the University of Michigan invites applications or nominations for Director of the Great Lakes Research Division, a multidisciplinary institute emphasizing oceanographic, limnological and ecological research on the Great Lakes. The new director will hold a professorial appointment on the faculty and will have the responsibility of coordinating university programs in teaching and research on the Great Lakes. Applicants are requested to submit vitae by 1 February 1973 to Professor David M. Gates, GLRD Search Committee Chairman, Natural Science Building, The University of Michigan, Ann Arbor, Michigan 48104.

The University of Michigan is a nondiscriminatory, affirmative action employer.

### ECOSYSTEM MODELER

Needed immediately for Coniferous Biome of International Biological Program through 1974. Salary to \$18,000. Curriculum vitae and letters to

D. G. Chapman  
College of Fisheries  
University of Washington  
Seattle, Washington 98195

### ENTOMOLOGY

Assistant Professor, teaching/research. Ph.D. Primarily teaching undergraduate entomology. Research preference in one of the following: functional morphology, systems ecology, genetics, acarology, behavior. Teaching experience preferred. An equal opportunity employer. Letters and credentials to: Eldon E. Ortman, Head, Department of Entomology, Purdue University, West Lafayette, Ind. 47907.

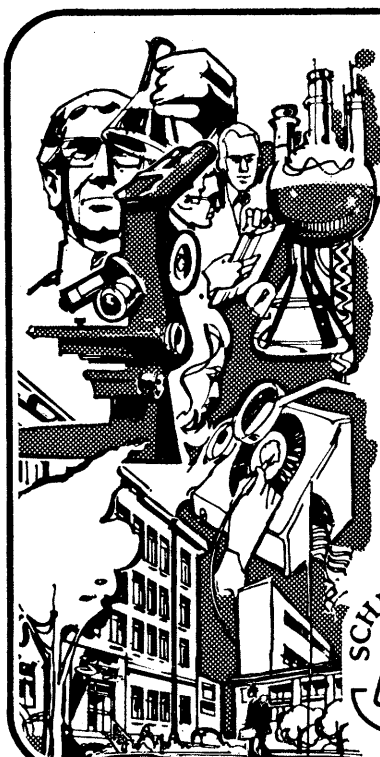
### FACULTY POSITION AVAILABLE

Assistant Professor of Biological Sciences. Bright, aggressive individual with postdoctorate. Teaching, research, some administration in new division. Molecular biology, genetics, or cell physiology preferred. Send curriculum vitae and references to

Box 4, SCIENCE

5 JANUARY 1973

## POSITIONS OPEN



A Senior Position at Our  
Corporate Research Center—

## BIOCHEMIST, Ph.D.

experienced in studies of  
**DRUG METABOLISM**

This position calls for training and experience in drug metabolism research, and for demonstrated ability to direct and supervise the research projects of other scientists.

Schering, a major pharmaceutical company, has long carried on research programs in Biology and Biochemistry and related areas. Our Research Center offers not only excellent facilities and supportive services, but an atmosphere that encourages creativity and fullest use of professional talents and skills. The location is close to the New York area's cultural and educational resources, and to many desirable suburban communities.

For further information and consideration, please send a confidential resume of your qualifications to Research Personnel,

**SCHERING  
CORPORATION**

60 Orange St., Bloomfield, N.J. 07003

Applicants of all races are encouraged to apply.

### IMMUNOLOGIST

M.S. or Ph.D. Experience in clinical immunology required. Opportunity to supervise and teach in a busy, automated, teaching hospital laboratory located in central New York State. Salary commensurate with education and experience. Send curriculum vitae to

Box 3, SCIENCE

### ASSISTANT PROFESSOR

Available September 1973. **MEDICAL BACTERIOLOGIST.** Will assume major responsibility for undergraduate course in medical microbiology and immunology and direct students in research specialty. Postdoctoral experience desirable. Submit curriculum vitae and references to: C. H. Tempels, School of Public Health, University of California, Berkeley 94720.

### Ph.D.'s FOR SEPTEMBER 1973

**Microbiologist** to teach general biology and introductory microbiology to students in nursing program. **Geneticist** to teach general genetics and own specialty (cytogenetics or biochemical genetics preferred). **Ecologist** to teach senior undergraduate general course and specialty. Send résumé to Chairman, Department of Biology, George Mason University, Fairfax, Virginia 22030.

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### NEUROANATOMY

Medical center Anatomy Department seeks applicants interested in teaching neuroanatomy-neurobiology, possibly some gross anatomy. Ph.D. in anatomy, postdoctoral training desirable. Letters of application with complete curriculum vitae should include evidence of active on-going research in neuroscience.

Box 5, SCIENCE

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### PHARMACOLOGIST/TOXICOLOGIST

Appointment effective July 1973. Responsibilities include instruction at both undergraduate and graduate levels in School of Pharmacy programs. Research activity expected, and supported. An equal opportunity employer. Level of appointment commensurate with qualifications. Send up-to-date curriculum vitae together with publication reprints to: Dean D. Perlman, School of Pharmacy, University of Wisconsin, Madison, Wisconsin 53706.

### NEUROSCIENTIST

The Department of Biology at the University of California, Santa Cruz, is seeking a neuroscientist for a position at the assistant professor level. Applicants should submit a curriculum vitae, reprints, a short statement of teaching and research plans, and the names of four referees by 15 February to the Search Committee, Department of Biology, Thimann Laboratories, University of California, Santa Cruz, California 95060. The University is an Equal Opportunity Employer.

### ORNITHOLOGIST

University of Wisconsin, Madison, Department of Zoology anticipates an opening for a new staff member to teach ornithology. For full particulars, write by 1 February 1973 to

Mrs. Linda McConnell  
Birge Hall  
University of Wisconsin  
Madison, Wisconsin 53706

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### PERINATAL MEDICINE

Physician experienced in neonatology; research team member to study respiratory distress and other high risk conditions and participate in follow-up studies. Equal opportunity employer. L. F. Chapman, Chairman, Department of Behavioral Biology, School of Medicine, University of California, Davis 95616 [(916) 752-3361].

**POSTDOCTORAL RESEARCH ASSOCIATE** in solution properties of biopolymers. Experience in ultracentrifugation, light scattering and/or low-angle x-ray scattering. Send résumé and three (3) references to

Dr. S. S. Stivala  
Department of Chemistry  
and Chemical Engineering  
Stevens Institute of Technology  
Hoboken, New Jersey 07030

**THE DEPARTMENT OF PSYCHOLOGY** at the University of Oregon anticipates several new positions for the 1973-74 academic year. One is a joint position with the computing science department, and one is a position in physiological (where there is an interdisciplinary training program with the Biology Department). The other positions will be in clinical and social or developmental. Salaries are competitive.

Recruiting is primarily at the Assistant Professor level.

Minority group members and women are urged to apply. Send curriculum vitae to: Professor E. Lichtenstein, Co-Head, Department of Psychology, University of Oregon, Eugene, Oregon 97403.

# RESEARCH PLANNING OFFICER

Salary: \$18,737 to \$24,156  
(dependent on  
qualifications)

The National Cancer Institute, National Institutes of Health, seeks an M.D. or Ph.D. with special competence in the field of molecular biology, and experience in laboratory or clinical investigation in some aspect of cancer.

The selected candidate will assume responsibility for analysis of the activities of various governmental agencies and institutions, and non-governmental organizations as they relate to the National Cancer Program. Duties also include participation in planning for organization and development of new operational career research programs.

This is a unique opportunity for a professional person specializing in molecular biology to make a meaningful contribution to the National Cancer Program for which the National Cancer Institute has assumed leadership responsibility.

Please send your resume to: Personnel Office, Room 3A-33, National Cancer Institute, Building 31.

## NATIONAL INSTITUTES OF HEALTH

Bethesda, Maryland 20014  
(a suburb of Washington, D.C.)

*an equal opportunity employer*

## POSITIONS OPEN

### EXPERIMENTAL PSYCHOLOGY—Ph.D.

Assistant Professor of Psychology in the area of Experimental Psychology to start in September 1973. Candidates in any substantive subarea will be considered, but especially in the area of cognitive psychology (broadly defined). Duties will include undergraduate and graduate teaching. Candidates showing post-Ph.D. evidence of high quality research will be given preferential consideration. Applications should include a curriculum vitae and covering letter. **Dr. James Zacks, Search Committee Chairman, Department of Psychology, Michigan State University, East Lansing, Michigan 48823.**

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### SALES SPECIALIST

LKB Instruments, Inc., an international research instrumentation manufacturer, has an opening in our Chicago office for a Sales Specialist with a Gas Chromatography background. The individual chosen will have responsibility for GC-MS sales in this region and should have a proven sales background. Prefer candidate with Master's or Ph.D. Degree in Life Sciences. Applicants with analytical instrumentation experience will be considered. Compensation includes salary, commission plan and excellent fringe benefits. The position will require travel throughout midwestern states. Please send your complete resume with salary requirements to:

**Mr. Donovan Merry**  
LKB Instruments, Inc.  
6600 W. Irving Park Rd.  
Chicago, Ill. 60634, EOE

# RESEARCH DIRECTOR INDIA

Major pharmaceutical firm with worldwide operations seeks a Director for a modern facility devoted to antibiotics research, located in Bangalore, India. This Director will manage the operations of a large staff in the early microbiological and chemical phases of such investigations. Position reports directly to U.S. research management.

We are seeking an Indian national who desires full-time opportunity in India and who has the following qualifications: Several years of research/research management experience beyond doctorate level training in microbiology or chemistry, with demonstrated record of accomplishment in administration and supervision of a moderate-size research group. Strong preference for some industrial experience in the U.S. Must be an effective communicator in English.

Excellent salary and benefits, commensurate with assigned responsibilities.

For consideration, please submit complete information in confidence to:

**BOX 6, SCIENCE**

## POSITIONS OPEN

### EXPERIMENTAL SOCIAL PSYCHOLOGISTS

Two visiting faculty positions, 1 to 2 years, rank and salary open. **Social Psychology Doctoral Training Program, The Ohio State University, 404C West 17th Ave., Columbus, Ohio 43210.**

## GRADUATE STUDY

**GRADUATE STUDY IN PHARMACOLOGY.** A program leading to the Ph.D. degree involving course work and research training which stresses research on fundamental mechanisms of drug action on neural, neurohumoral, membrane, and chemotherapeutic systems using electrophysiological, biochemical, behavioral, and computer techniques. Full stipend and tuition available to qualified U.S. citizens. Early application for September 1973 strongly advised. **Department of Pharmacology, Schools of Medicine and Dentistry, State University of New York at Buffalo, 122 Capen Hall, Buffalo, N.Y. 14214.**

**GRADUATE TRAINING PROGRAM IN OCCUPATIONAL HEALTH AND SAFETY.** September 1973. A 12-month interdisciplinary program leading to M.S. degree. Involves instruction in all aspects of Occupational Health and Safety, research project, seminars, field trips, and conferences. For further information, write to: **Dr. Samuel Elkin, Project Director, Temple University Center for Environmental Studies, 3223 North Broad Street, Philadelphia, Pennsylvania 19140.**

### NOTICE OF RESEARCH TRAINING PROGRAM

The Fertilization and Gamete Physiology Research Training Program will be held at the Marine Biological Laboratory, Woods Hole, Mass., 12 June to 25 August 1973. Emphasis will be on immunological, cytological, biochemical, and physiological research on marine organisms available at Woods Hole. Pre- and postdoctorals are accepted. Financial support is available for U.S. nationals. Applications must be filed by 15 February 1973 with: **Dr. Charles B. Metz, Institute for Molecular and Cellular Evolution, University of Miami, 521 Anastasia Avenue, Coral Gables, Florida 33134.**

**GRADUATE ASSISTANTSHIPS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY.** Teaching and research assistantships leading to M.Sc. and Ph.D. degrees available for academic year 1973-74. Modern laboratories with excellent facilities. Wide variety of research projects. Stipend for teaching assistantships range from \$3700 to \$4500 plus remission of fees; research assistantships range from \$3000 to \$4000. Apply **Chairman, Department of Biochemistry, University of Alberta, Edmonton, Alberta, Canada.**

**PREDOCTORAL TRAINEESHIPS IN BIOMETRY:** Applications are sought from candidates with training in the health sciences and substantial supplementary training in mathematics for traineeships in biometry. The doctoral program is strongly based on statistical theory and probability with special courses and applications in the health sciences together with an internship program and the continuation of study in a health science. Stipends are at prevailing federal rates and tuition is paid—open to U.S. citizens and permanent residents. Other fellowships and assistantships for graduate study in statistics, probability, and operations research are available also. Inquiries to **Dr. R. A. Bradley, Head, Department of Statistics, Florida State University, Tallahassee, Florida 32306.**

### TWO POSTDOCTORAL RESEARCH FELLOWSHIPS

Available immediately for research on DNA repair and for research into mechanisms of DNA-protein interaction. Well-equipped laboratory, recent Ph.D. in molecular biology or biochemistry, tenure 1 to 2 years. Send curriculum vitae to **Dr. J. J. McCormick, Molecular Biology Section, Michigan Cancer Foundation, 4811 John R, Detroit, Mich. 48201.**

**Student Fellowships** available for U.S. citizens toward Ph.D. in Pharmacology. Diversified training related to the pharmacological and biochemical basis for drug action with emphasis on cancer therapeutics: inhibition of nucleic acid, protein and membrane components, enzyme activity regulation, coenzyme action and inhibition, basis for selective toxicity, pharmacokinetics in animals and cells, immunotherapy, immunosuppression, experimental chemotherapy, molecular pharmacology, hematology, preclinical and clinical pharmacology. Stipends start at \$2400 with dependency allowances. Write to **E. Mihich, Chairman, Graduate Pharmacology Program, Roswell Park Memorial Institute, Buffalo, N.Y. 14203.**



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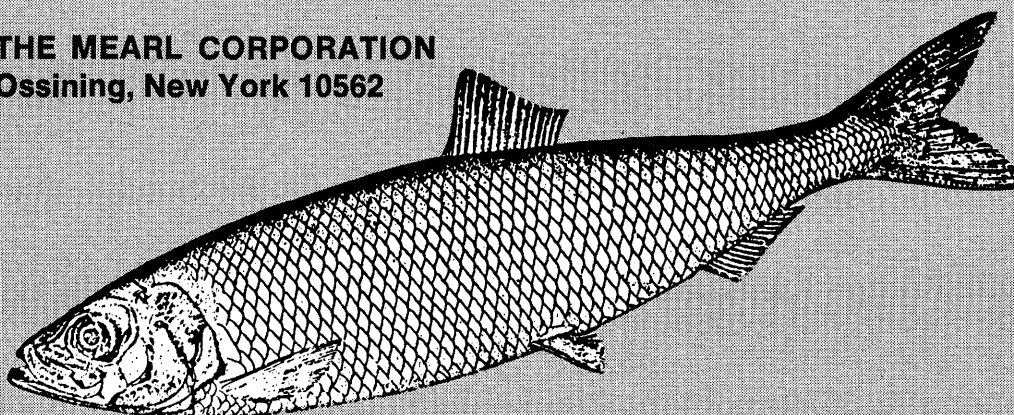
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