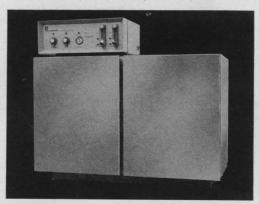
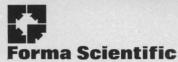


New Total Concept WATER-JACKETED **INCUBATORS**

Forma's new condominium style double door model includes separate CO2 tension control systems. And cost savings up to 20%. Write for bulletin WJ-1070. Forma Scientific, Inc. Box 649, Marietta, Ohio 45750.





Circle No. 106 on Readers' Service Card



this modern laser way... for less than \$250! With Bausch & Lomb's low cost helium-neon gas

Laser and Laser Experiment Kit you will teach optical principles most effectually. Furthermore, you'll find your students cooperating most energetically. Operation of the Laser is uncomplicated and dependable for

classroom use. Just plug it in and it begins to lase. Power is .1mw, multi-mode, producing a monochromatic beam at 6328 Angstroms. It's about the size of a shoebox and weighs approximately three

The Experiment Kit contains all necessary components to conduct impressive demonstrations. There are set-ups for 13 experiments from reflection to a Michelson Interferometer. Even for making and reconstructing holograms. A comprehensive manual and treatise on laser theory and practice are included.

Just write for our catalog 41-2325 and you will have all the facts on this contemporary teaching tool.

BAUSCH & LOMB (



SCIENTIFIC INSTRUMENT DIVISION

20938 Bausch Street, Rochester, New York 14602 SCIENCE, VOL. 171

Personnel Placement

RATE CHANGE Effective 1 January 1971

POSITION WANTED: 40¢ per word, minimum charge \$10. Use of Box Number counts as 10 additional words. Payment in advance is required. These rates apply to individuals only. Personnel agencies and companies take display rate for all advertising.

POSITIONS OPEN: \$110 per inch. No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Ads over 1 inch will be billed to the nearest half inch. Payment in advance is required except where satis-factory credit has been established.

COPY for ads must reach SCIENCE 4 weeks before issue date (Friday of every week). Send copy for Personnel Placement adver-tising to:

SCIENCE, Room 211 1515 Massachusetts Ave., NW Washington, D.C. 20005

Replies to blind ads should be addressed as follows:

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

POSITIONS WANTED

Agricultural Botanist, Ph.D., 1971 (plant physiology, genetics). M S., A.B., botany (plant eco ogy/physiology). Presently university instructor in agronomy, crop physiology. Desires teaching/research position, September 1971. Box 75, SCIENCE.

Biochemist, Ph.D. Postdoctoral experience in tissue culture and mammalian RNA metabolism. Seeks research/teaching position. Research interests: Control of macromoleular synthesis and growth. Box 76, SCIENCE.

Biological Chemist, Ph.D., 40, independent research within broad guidelines. Drug metabolism, TLC, GLC, electrophoresis, spectra, automatic and radioisotope techniques. Protein, peptide chemistry, organic synthesis. Academic, hospital or industry. Box 77, SCIENCE.

Biologist, Ph.D., 35, 9 years of university experience. Particular interest in core curriculum development, innovative undergraduate education. General, cellular, genetic, evolutionary biology. Seeks teaching/administrative position in undergraduate oriented institution. Box 25, SCIENCE.

German Soil Microbiologist: Ph.D. (Germany), M.S. (microbiology), 2 years of teaching experience. Publications. Desires permanent or replacement university teaching/research position in United States, Canada, South Africa. Box 78, SCIENCE.

Human Factors. Ph.D. Industrial Engineering, 1971. M.A. Psychology. Interests in cognitive processes and computer science. Desires research/teaching or research position. Box 79, SCIENCE.

Immunobiologist-Immunologist.

toral, teaching, publications.
(college) or medical school
position. Box 80, SCIENCE.

X

Microbiologist, Ph.D., 28, postdoctoral experience and publications; seeks opportunity to work in invertebrate pathology or pathogenesis of microbial toxins to vertebrates, for example, endotoxic shock, cholera toxins. Box 62, SCIENCE.

Molecular Biologist, Ph.D., 1968, postdoctoral research and teaching experience, publications. Seeks research/teaching/administrative position. Research in nucleic acid metabolism in microbial and animal systems. Box 63, SCIENCE. 2/19

POSITIONS WANTED



Microbiologist, Ph.D., 28, postdoctoral experience and publications; I am looking for a position in which I could receive training in mammalian physiology. Box 81, SCIENCE.

Microbiologist, Ph.D., available September. Desires teaching and/or research position, preferably in the Northwest. Interests immunology, physiology. Experience with immunosuppressants in vitro and in vivo. Box 82, SCIENCE.

Microbiologist-Virologist, Ph.D. 1969. Teaching and clinical experience in virology. Desires industrial, academic or clinical position for fundamental or applied research in prevention and treatment of viral infectious diseases; particular interests in diagnostic and clinical virology encompassing experimental antiviral chemotherapy and basic supportive investigations in tissue culture. Available September 1971. Box 83, SCIENCE.

Protein Chemist, Ph.D. Age 39. Isolation and physical and chemical characterization—4 years' medical school position—teaching and research in gonadotropins, radioimmunological assays and antigens involved in reproduction. Broad background. Desires hospital, academic or industrial position in blochemistry related field. Box 84, SCIENCE.

Radioimmunoassay Specialist. Experienced Ph.D. familiar with theory; versed in experimental details; shoots troubles; has developed new procedures. Interested in senior scientist position in laboratories (industry or hospital) pursuing this line. Box 85, SCIENCE.

Tumor Biologist, D.V.M., Ph.D., 32, experience in tumor immunology and virology. European postdoctoral experience as cancer research fellow. Seeks position where research can be combined with teaching. Box 86, SCIENCE.

POSITIONS OPEN

Applications are invited for the position of ASSISTANT PROFESSOR in the School of Engineering Science at the Florida State University, Tallahassee, Florida 32306. The School offers bachelors, masters, and doctoral degrees. Applicants should have teaching and research interests in the areas of biochemical engineering and/or biochemistry. The successful candidate will be expected to develop undergraduate and graduate coursework in biochemical engineering and related areas, as well as contribute to the teaching of the existing engineering science curriculum and conduct research in his area of interest. The closing date for receipt of applications is 15 March 1971.

Simon Fraser University

Department of Chemistry

BIOCHEMIST

Appointment will be at the Assistant or Associate Prof. level. Applications from Physical or Macromolecular Biochemists will be particularly welcome. The successful applicant will be expected to teach physical biochemistry at the graduate and undergraduate level, and conduct an active research programme, for which excellent facilities, including a protein sequencer, are available. Applications and vitae, including the names of three referees, to Dr. T. N. Bell, Department of Chemistry, Simon Fraser University, Burnaby 2, B.C., Canada.

TEACHERS and ADMINISTRATORS NEEDED For Universities and Colleges throughout the United States. Our Nationwide Academic Placement Service since 1890 offers excellent opportunities to qualified individuals in higher education. Send résumé to E. E. Hansbrough, President, American College Bureau and University and College Staffing Center, 327 S. La Salle Street, Chicago, Ill. 60604.

CAREER

TRAINING IN

HEALTH SCIENCE

ADMINISTRATION

Through the PHS Grants Associates Program

Scientists interested in the challenge of Federal programs supporting re search, training, and services in health related fields are urged to consider the Grants Associates Program of the U.S. Public Health Service.

The Program offers a limited number of positions, on a selective basis, that prepare each associate for a leading role in health science administration. For a 12-month period the grants associate participates in an individually structured training experience. He has the opportunity of gaining experience through collaboration with senior scientist administrators, attending seminars, visiting project sites, attending seminaris, visiting project sites, attending scientific meetings and participating in the evaluation and analysis of grant supported programs.

These positions will be for appointment in 1972.

If you hold a doctorate or equivalent in a discipline related to the biomedi-cal sciences, including the behavioral sciences, have significant research at the postdoctoral level, and are motivated to health science administration as a profession, you should investigate the opportunities offered by the Grants Associates Program. The be-ginning salaries for these Civil Service appointments range up to \$20,815. U.S. citizenship required.

For information write: The Executive Secretary, Grants Associates Pro-

NATIONAL INSTITUTES OF HEALTH

Division of Research Grants Westwood Building, Room 2A03 Bethesda, Maryland 20014

An equal opportunity employer, M/F

POSITIONS OPEN

AEROSOL RESEARCH

The Naval Biomedical Research Laboratory of the School of Public Health, University of California, Berkeley has an immediate opening for an Assistant Research or Postdoctorate Fellow. Will participate in advanced research studies on particulate air pollutants and aerobiology as related to public health and industrial aspects of respiratory diseases. Specific research areas can include: study of aerosol characteristics and interactions with vapor phase pollutants, kinetics of chemical and biological reactions in aerosols, effects of exotic environments on respiratory disease.

A Ph.D. or equivalent in particle physics, physical chemistry, microbiology, or meteoro'ogy is required. Send curriculum vitae to: Chairman, Environmental Biology Department, Naval Biomedical Research Laboratory, Naval Supply Center, Oakland, California 94625.

ELECTRON MICROSCOPE TECHNICIAN

ELECTRON MICROSCOPE TECHNICIAN
Fully equipped laboratory with Hitachi HU-11E
electron microscope and related equipment. Individuals applying should be well trained in all
basic EM techniques including routine maintenance of the electron microscope. Research will
involve a variety of biological tissues. The applicant will also be asked to assist in the training of some students. This is a faculty position
with all fringe benefits supplied, including life
insurance, dental plan, disability insurance, choice
of pension plans. Tenure is normally granted
after 5 years of continuous service. Salary:
\$9200. Annual increments are provided. Contact
Dr. C. Robert Jones. Chairman, Department of
Biological Sciences, Herbert H. Lehman College
of the City University of New York, Bronx, New
York 10468.

Ph.D. **IMMUNOLOGIST**

HAZLETON LABORATORIES, specializing in the life and environmental sciences, has an immediate opening for an Immunologist with particular interest in viral oncology and a minimum of three years' experience in virus antigens and antibodies to participate in research programs associated with mammalian infectious diseases and spontaneous and virus-induced cancer. Duties include design, coordination, and assisting in research programs associated with medical microbiology, virology, veterinary medicine, and other specialties. Opportunity to pursue basic, as well as applied research, is excellent. Outstanding employee benefits program. Please send resume to Kenneth C. Woolbert, HAZLETON LABORATORIES, INC., a Subsidiary of TRW Inc., P. O. Box 30, Falls Church, Virginia 22046.

An Equal Opportunity Employer

INSTRUCTOR/ASSISTANT PROFESSOR

Teaching positions open in Science Division, new 4-year women's college, in plant ecology, 20th-century history of science, astronomy. Interdisciplinary interests desirable, including acoustics, optics, computer programming, geography, philosophy of science, art and music. Teaching ability is emphasized. Ph.D. Coordinate with Hamilton College, Write to Science Division, Kirkland College, Clinton, N.Y. 13323.

McMASTER UNIVERSITY intends to appoint to its staff a Palaeontologist-Palaeoecologist with interests relating to the interaction of organisms and sediments. Applicant should be motivated to participate in teaching elementary as well as specialist courses.

The appointment will be at the Assistant or Associate Professor level. Appointment will be effective in the 1971-72 academic year. Applications, curriculum vitae and the names of three referees should be addressed to:

Chairman, Department of Geology, McMaster University, Hamilton 16, Ontario, Canada

UNIVERSITY OF AARHUS (DENMARK) DEPARTMENT OF PHYSIOLOGY

Applications are invited from graduates with Ph.D. in Physiology, Biochemistry or Physical Chemistry to work on the isolation and characterization of membrane proteins.

Present salaries are \$6000 to \$8000 per annum, according to seniority. Extra allowance made for moving expenses.

Applications should be made to Professor, dr. med. J. C. Skou, Institute of Physiology, University of Aarhus, 8000 Aarhus C, Denmark, not later than 1 April 1971.

POSITIONS OPEN

BOREAL INSTITUTE THE UNIVERSITY OF ALBERTA EDMONTON, ALBERTA, CANADA NORTHERN RESOURCES RESEARCH PROJECT

The Boreal Institute for Northern Studies, The University of Alberta, is currently engaged in a systems analysis of the alternative ways in which the resources of northern Canada can be developed. The effect of industrial development and of government programs on both the people and the physical environment of the North will be assessed.

The Institute is seeking the services of two or more Research Associates with training in the fields of economics, and/or systems analysis, and/or sociology, to work on this project. Applicants should be applied scientists, quantitatively oriented and have research experience.

Salary is in the \$10,000 to \$13,000 range but is

Please reply with résumé to: Mr. R. S. Jamieson, Assistant Director, Boreal Institute, The University of Alberta, Edmonton 7, Alberta, Canada.

GRADUATE STUDY

QUEEN ELIZABETH II FELLOWSHIPS IN THE PHYSICAL AND BIOLOGICAL SCIENCES

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 proved capacity for original work. These are postdoctoral awards tenable in an Australian university or approved research institution, normally for two years. Tenure of a fellowship will commence on a date which normally should be within nine months of the date of the award.

OUALIFICATIONS. Queen Elizabeth II Fellows

on nine months of the date 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 \$7000 (Australian) per annum—in-

STIPEND. \$7,000 (Australian) per annum-creased to \$7,500 per annum at age 28 years.

ALLOWANCES. Allowances are payable in respect of a Fellow's wife (\$500 p.a.), 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 towards the cost of setting up a Fellow and his research work.

setting up a Fellow and his 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 Education and Science, P.O. Box 826, Canberra City, A.C.T. 2601, Australia; The Official Secretary, Australia House, Strand, London, W.C.2, England; or the Corsul General, Australian Consulate General, 636 5th Avenue, New York, N.Y. 10020, U.S.A. Applications for the next round of awards, which will be announced in June 1971, close at the Canberra address on 19 March 1971.

POSTDOCTORAL POSITION IN PESTICIDE BIOCHEMISTRY: Available immediately or during summer 1971. Research on pesticide action and mechanisms of metabolism. Send curriculum vitae and names of two references to Dr. H. W.

Dorough, Department of Entomology, University of Kentucky, Lexington, Ky. 40506.

GRADUATE STUDY IN THE ANATOMICAL SCIENCES

ANATOMICAL SCIENCES

A program leading to the Ph.D. degree involving course work and research training with special emphasis upon the study of the structure of biological systems from the molecular to the gross level. Research training is available in cell biology, endocrinology, and experimental neurology and neuroanatomical basis of behavior. For further information write to Director, Graduate Program, Department of Anatomy, State University of New York, Upstate Medical Center, 766 Irving Avenue, Syracuse, New York 13210.

GRADUATE STUDY

GRADUATE STUDIES IN PHYSIOLOGY

Excellent opportunities in programs leading M.Sc. and Ph.D. degrees are offered in various specialty disciplines of physiology and biophysics. Stipends from \$3000. to \$3600. are available for the 8-month academic year. Travel assistance may be provided. Applications from all areas of life and physical sciences are considered according to individual interests and circumstances. In practice only a small number of students are admitted each year, but all of those accepted have been awarded stipends. For information contact: Dr. S. G. Pickering, Supervisor of Graduate Student Program, Physiology Department, University of Alberta, Edmonton, Alberta, Canada.

SOIL FORMATION RESEARCH FELLOWSHIP

Applicants must have a minimum qualification of an honours degree or equivalent qualification in chemistry, geology or soil science. Appointment as Research Fellow Grade III in salary scale R\$2088 x R\$168—R\$2928. (R\$1 = U.S. \$1.4) Housing allowance of R\$200 per annum. Travel and subsistence expenses for field work up to approximately R\$400 per annum. Pension and medical aid schemes. Further particulars may be obtained from the Registrar, University of Rhodesia, P.O. Box MP 167, Mount Pleasant, Rhodesia, to whom detailed applications, including the names of three referees, should be sent before 30 April, 1971.

NEUROCHEMISTRY

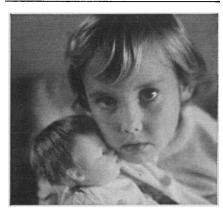
Pre- and Postdoctoral Fellowships beginning summer or fall 1971 with emphasis on regulatory mechanisms in brain metabolism with reference to the role of biogenic amines and cyclic AMP in processes underlying mental disorders and in the mode of action of psychoactive drugs. Write to Dr. Radhey Singhal, Department of Pharmacology, Faculty of Medicine, University of Ottawa, Ottawa 2, Canada. Send complete transcripts and arrange for two letters of support.

NOTICE OF SUMMER TRAINING PROGRAM

The Fertilization and Gamete Physiology Research Training Program will be held at the Marine Biological Laboratory, Woods Hole, Mass. 12 June—25 August 1971. Emphasis will be on immunological, cytological, biochemical and physiological research on marine organisms, both plant and animal, available at Woods Hole. The program is open to pre- and postdoctorals. Applications must be filed by 1 March 1971 with: Dr. Charles B. Metz, Institute of Molecular Evolution, University of Miami, 521 Anastasia, Coral Gables, Florida 33134.

PREDOCTORAL ASSISTANTSHIPS

Excellent opportunities for graduate students to pursue a Ph.D. in Life Sciences, in most areas of Biology with special emphasis in fields related to Ecology, Microbiology, and Physiology, Stipends are available up to \$3500 for 9 months. With up to \$800, in addition, for the summer. For details write to: Dr. C. P. Sword, Chairman, Life Sciences Department, Indiana State University, Terre Haute, Indiana 47809.



One gift works many wonders THE UNITED WAY

This cage isn't made to last.

It's made for all sorts of people.

Those who can't justify the cost of maintenance or sterilization.

Those who have problems with residual contamination from infectious diseases, toxic chemicals, or radioactive tracers.

And, those who want to write-off the total cost against one experiment.

It's the Model E-0210 Econo-Cage disposable plastic cage for mice and dwarf hamsters. So economical you can use it once and throw it away. The lowest cost disposable cage on the market.

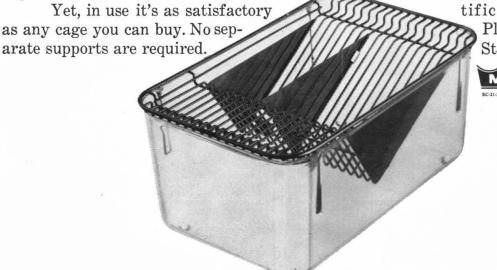
86-sq. in. of floor area in accordance with NIH and Public Law 89-544 specifications. Made of clear polystyrene it provides complete see-thru visibility and is available with a variety of zinc-plated, galvanized, and stainless steel lids.

It is rigid and self-standing. And it provides

When it's time to dispose of an Econo-Cage you'll find it is still economical. It incinerates to a 1-to-2% residue or pulps to only 20% of original volume.

For a complete catalog, contact your Econo-Cage Distributor, or write the Scien-

> plastics, Inc., 9 East 37th Street, N.Y., N.Y. 10016.



The Disposable Econo-Cage. by Maryland Plastics.

Circle No. 16 on Readers' Service Card

AO announces the first frost-free cryostat.

It's a hot one.

The new AO ® Cryo-Cut includes all the conveniences you have wanted in a cryostat microtome. Precision sectioning with no ice, no condensate, no dripping. It's frost-free.

Desired temperature operating range between $\pm 10^{\circ}$ to -30° is readily maintained with the door open.

You will appreciate the additional elbowroom offered by the 18-in, width of the microtome well; the sliding glass door with built-in heater to eliminate condensation; the conveniently located fast-feed control; new easy-to-clean procedure without time consuming messy defrosting; clear view control panel and many other features that help make the new AO Cryo-Cut the most convenient precision frozen sectioning instrument of our time.

Write for all the facts, or better still, see a demonstration. Ask your AO Representative.

®TM Reg., American Optical Corp.

