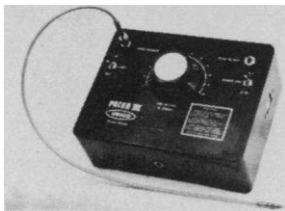


TIME-LAPSE photography

A complete, low-priced attachment for your motion-picture camera (8 to 35 mm.)



P-A-C-E-R III

P-A-C-E-R III is an adjustable electronic timer which operates the shutter of any (single-frame equipped) movie camera through a 20 inch cable release. The period is infinitely variable from 5 secs. to 10 min. Battery operated for portability, it will run unattended for 50 to 600 hours depending on setting. Light sensor stops filming at sunset and starts again at dawn, if desired. Use to record plant growth, animal behavior, cloud formation, chemical reactions, crystal formation, meter readings, time-and-motion studies or any slowly changing scene. Make a low-cost record of your work — the uses are limited only by your imagination.

* * * *

Size 3" x 5" x 6½"; weight 2 lbs. plus batteries; minimum cable release pressure 33 oz.; batteries, 12 "C" cells; battery voltage meter. Price \$159.95 POSTPAID; regulated 120 v. AC power supply \$32.50. (For Bolex specify model number) Catalog sheet available. U. S. manufactured by The Pacer Company, 1673 Woodmen Tower, Omaha, Nebraska, 68102.

Circle No. 685 on Readers' Service Card

From ELECTRO-NUCLEONICS, INC.

Controlled-Pore Glass Chromatography

PERMEATION/EXCLUSION PACKINGS
AFFINITY-SUPPORTS
HIGH-SPEED GPC PACKINGS
PREPACKED COLUMNS

Controlled-Pore Glass (CPG)

- For permeation/exclusion chromatography
- Twelve narrowly controlled pore sizes: 40 to 3000Å
- Separation range: 10³ to 10⁶ M.W.
- Use aqueous or organic solvents
- Pore size unaffected by eluant, pH, pressure, temperature
- Flow rates up to 100x faster than soft gels
- Unaffected by concentrated acids, corrosive solvents, detergents
- Easily cleaned, reused, sterilized; immune to biological attack
- No preswelling required; fast packing

Affinity-Supports

- Controlled-Pore Glass matrix: rigid, chemically inert; use aqueous or organic solvents
- Attach ligands, enzymes, hormones, antibodies, antigens
- Available functional groups: alkylamine, arylamine, carboxyl

Speed-Pore™ Packings

- For high-speed permeation chromatography
- Porous quartz-glass chemically modified to eliminate adsorption
- Use aqueous or solvent systems
- Pore sizes: 40, 75, 170, 240, 700, 2000Å

Redi-Pak™ Columns

- Prepacked with Controlled-Pore Glass (autoclavable)
- Septum end-closures for sterile connections, and injection; ideal for pathogens
- Use or store in any position
- Available empty for use with any rigid column packing



ELECTRO-NUCLEONICS, INC.
368 Passaic Avenue, Fairfield, New Jersey 07006
Tel. (201) 227-6700 / telex 138302

Circle No. 682 on Readers' Service Card

FREE!

Savant

HVE

ELECTROPHORESIS
GUIDE

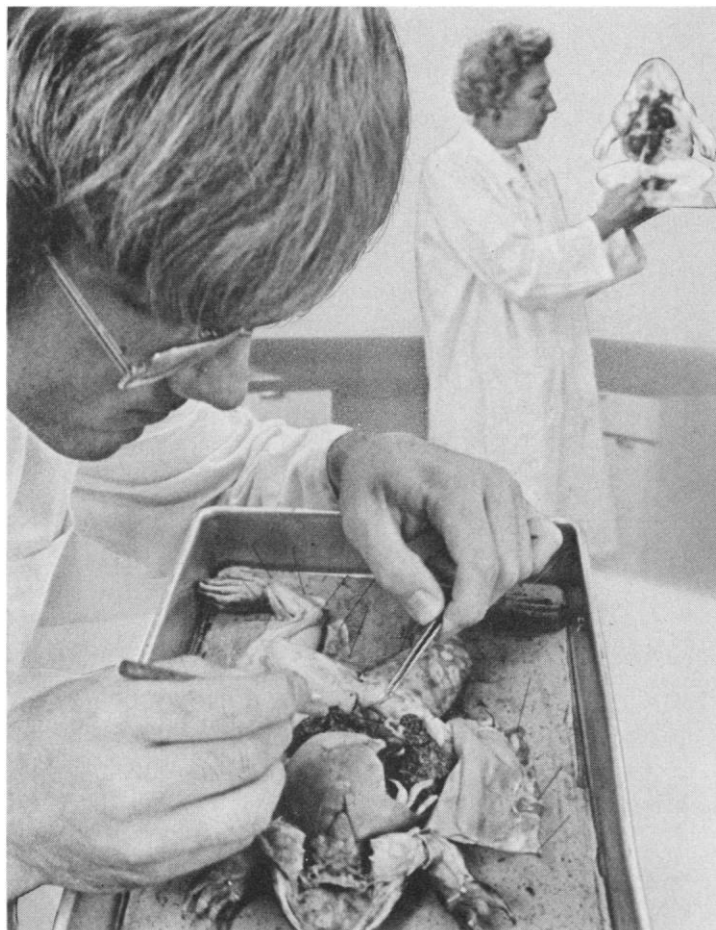
A comprehensive 24 page Guide
describing the use of Dye Markers,
Separation of Peptides and
Amino Acids as well as
Bibliography, available upon
request.



Savant
Instruments, Inc.

221 Park Ave. / Hicksville, N.Y. 11801

Circle No. 544 on Readers' Service Card



At Ward's... We Match Your Pride in Teaching With Our Pride in Preparing Specimens

Your pride in teaching means taking extra care and time in your preparation. Ward's gives the "extras" that result in specimens that mean more to you and your students. We've had this pride since 1862. The guidelines for quality and service we set then have never been relaxed. Generations of teachers can attest to that. We've grown with the times . . . kept pace with modern technology. And pioneered much of it.



That's why we put quality first . . .
Our mutual concern for good education
demands it!

If you haven't seen our 1974-75 Catalog, send
for it. See a panorama of living, preserved,
mounted, embedded specimens; field and
lab equipment.

WARD'S BIOLOGY
EARTH SCIENCES
CHEMISTRY

Ward's Natural Science Establishment, Inc., P.O. Box 1712,
Rochester, N.Y. 14603; P.O. Box 1749, Monterey, Calif. 93940

Circle No. 649 on Readers' Service Card

PRODUCTS and MATERIALS

Organic Carbon Analyzer

The model 1218 (Fig. 1) features a strip chart recorder, a bottle sample system, multiple measuring ranges (from 0 to 10 to 0 to 5000 parts per million), and an automatic zero adjust-

ment between analyses. Inorganic carbon from carbonates and bicarbonates is stripped from the sample stream which then flows by a sampling valve. Each sample enters a reactor maintained at 900°C. Carbon in the sample is oxidized to carbon dioxide which is

transported to an infrared detector. The total organic carbon content is a measure of organic material in the sample. Ionics, Incorporated. Circle No. 983 on Readers' Service Card.

Tunable Laser

The model CMX-4 (Fig. 2) tunes continuously from 445 to 700 nanometers and a frequency doubler extends the tuning range into the ultraviolet from 265 to 350 nanometers. At 600 nanometers, energy exceeds 6 millijoules per pulse and peak power exceeds 6 kilowatts; at 300 nanometers the CMX-4 delivers 0.4 millijoule and 0.4 kilowatt. Repetition rates up to 30 hertz can be run at full output energy providing more than 200 milliwatts average power (10^{18} photons per second). Flash-amp lifetime exceeds a million shots. The device provides direct read-out of wavelength, fast interchange of dye and mirror without optical realignment, and uses birefringent-filter tuning and a quartz-rod-mounted optical cavity. Chromatix, Incorporated. Circle No. 988 on Readers' Service Card.

Disposable Chromatograph Columns

Eleven different filled disposable columns (Fig. 3) are available in units of 50 columns or more. Applications include deproteinization of amino acid samples, removal of detergents from proteins, radioisotopic purifications, heavy metals analysis, separation of nucleosides from nucleotides, and routine desalting among others. Disposable columns may be ordered with any available filling material or chromatographic separation medium. Bio-Rad Laboratories. Circle No. 990 on Readers' Service Card.

Reagent for Trace Metal Analysis

Metexchange reagent eliminates preparative chemistry in trace metal analysis by anodic stripping voltametry. The

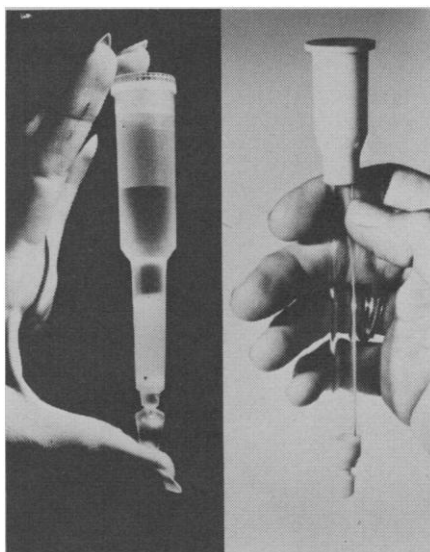
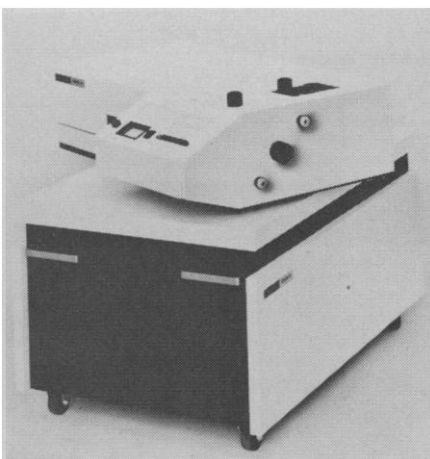
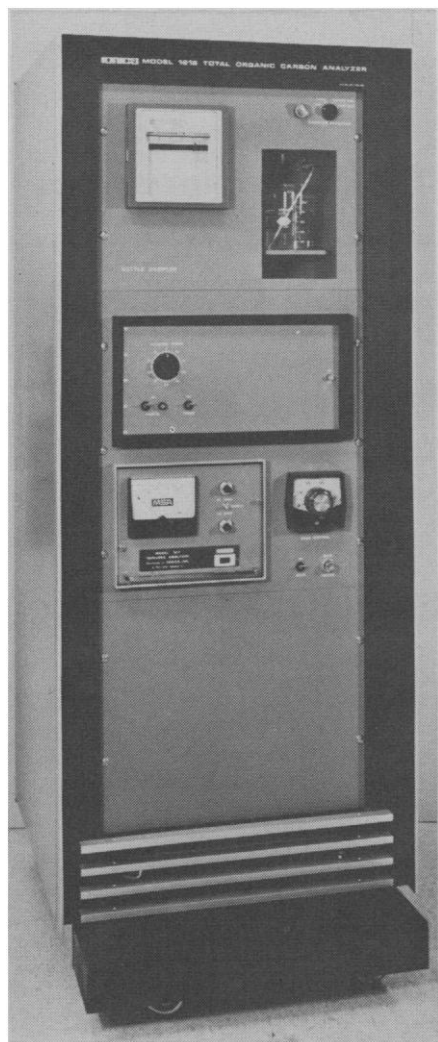


Fig. 1 (left). The Ionics model 1218 total organic carbon analyzer strips inorganic carbon and oxidizes the organic carbon from each sample to carbon dioxide which is monitored by an infrared detector. Fig. 2 (top right). The CMX-4 is a tunable laser designed for use by investigators who desire pure wavelengths for a variety of applications. Its range is from 445 to 700 nanometers and this may be extended into the ultraviolet region. Fig. 3 (bottom right). Disposable, prefilled chromatograph columns are available in these two styles and in nine others. The user may select from any of Bio-Rad Laboratories' filling media and the columns are available in bulk.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card (see pages 306A and 370C) and placing it in the mailbox. Postage is free.—RICHARD G. SOMMER

reagent is offered in ½-liter plastic bottles and in kit form for trace analysis of blood for lead, copper, or cadmium. Reagent kits for lead analysis are also useful in testing water, gasoline, food, and other materials. Environmental Sciences Associates. Circle No. 989 on Readers' Service Card.

Cortisol Radioimmunoassay

Cortisol RIA Paks consist of a matched set of lyophilized antiserum, tritium-labeled tracer, cortisol standard, and a detailed methodology. The product is packaged in sizes sufficient for 100 or 500 determinations. The product may be used without chromatography in screening procedures when plasma samples are processed by extraction with methylene chloride because possible cross-reacting steroids are usually only present in low concentrations. In certain applications samples must be subjected to column chromatography to minimize interference from cross reactivity. New England Nuclear. Circle No. 986 on Readers' Service Card.

Sample Atomizer

The IL 455 Flameless Atomizer has a temperature capacity to 3500°C. It includes six-step multilinear programming and direct readout of temperature at the furnace. The furnace cuvettes are of graphite or tungsten and the furnace environment is inert. Programming is easy and repeatable; overlay program cards attach to the front panel. Other features are automatic cuvette cleaning, thermal safety interlocks, a viewing port in the door, and an automatic trigger to initiate atomic absorption analysis. Instrumentation Laboratory, Incorporated. Circle No. 984 on Readers' Service Card.

Fun with a Microscope Kit

A teacher's guide, student microscope, six specimens, a set of self-teaching worksheets, and an illuminator comprise this kit. The microscope is of rugged construction designed for easy operation and employs quality optics with magnifying powers of 100 and 40 times. The specimens on slides include a dog flea, a fruit fly, cloth, newspaper, and plant stem and corn kernel

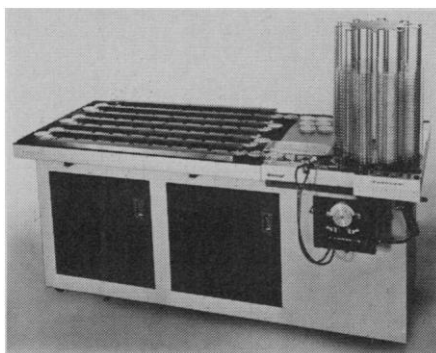


Fig. 4. Buchler's Petri-Fill 1500 enables a single operator to produce up to 1500 filled, gelled, and cooled dishes per hour.

sections. The kit is suitable for the purpose of introducing elementary students to microscopy. Bausch & Lomb. Circle No. 987 on Readers' Service Card.

Petri Dish Filler

The Petri-Fill 1500 (Fig. 4) produces up to 1500 evenly filled, gelled, and cooled dishes per hour. Media are dispensed by a peristaltic pump and the volume per dish is adjustable up to 20 milliliters and the filling rate is adjustable from 250 to 1500 dishes per hour. The device has particular application in laboratory situations that require many dishes and frequent changes in media. The dishes are cooled on a table-top heat sink and there are sensors located along the path of the dishes through the machine to detect any operating defects. Buchler Instruments. Circle No. 985 on Readers' Service Card.

Literature

DC Power Supplies are described and illustrated in a 16-page catalog supplement. Lambda Electronics Corporation. Circle No. 991 on Readers' Service Card.

Thermocouple Reference Systems includes guides for selecting between true ice-point, oven, uniform temperature, and compensator type references. Kaye Instruments. Circle No. 992 on Readers' Service Card.

Vacuum Components features valves, flanges, feedthroughs, viewports, fore-line traps, bellows, and other items for ultra-high vacuum applications. Huntington Mechanical Laboratories. Circle No. 993 on Readers' Service Card.

What to Look for When Buying

Binoculars explains and illustrates desirable qualities and characteristics of these optical instruments. Carl Zeiss, Incorporated. Circle No. 994 on Readers' Service Card.

High-Speed Mass Spectrometer Data System is devoted to the model 21-094B system that acquires and processes data for display or printout. The system is designed to complement the 490 series of mass spectrometers. DuPont Company, Instrument Products Division. Circle No. 995 on Readers' Service Card.

Articulated Light Guides describes an assembly for precise direction of laser energy with minimum loss of power and maximum beam quality and safety. Whittaker Corporation, Space Sciences Division. Circle No. 996 on Readers' Service Card.

Chemicals Catalog is a 365-page master list of items for research and industry including pharmaceuticals, clinical reagents, biochemicals, crystals, inorganic chemicals, and others. Gallard-Schlesinger Chemical Manufacturing Corporation. Circle No. 997 on Readers' Service Card.

Series 4200 Infrared Spectrometer is illustrated in color and its specifications and capabilities are listed and described in this 16-page brochure. Beckman Instruments, Incorporated. Circle No. 998 on Readers' Service Card.

Uses Unlimited is a quarterly publication for engineers, scientists, and technicians. It describes and solves problems in control and sensing. Micro Switch Division of Honeywell. Circle No. 999 on Readers' Service Card.

Graphimets: Graphite Intercalates features a line of metal and metal-compound intercalates with selective reactivity as reagents and catalysts. Ventron Corporation, Alfa Products. Circle No. 1000 on Readers' Service Card.

Traces is a newsletter devoted to fluorometry and spectrometry in analytical chemistry. An 11-year cumulative index is now available. G. K. Turner Associates. Circle No. 774 on Readers' Service Card.

Automatic Particle Counting and Sizing Instruments and Accessories is an eight-page brochure that includes devices for analysis of gases or liquids. Royco Instruments Incorporated. Circle No. 773 on Readers' Service Card.

Temperature Control Equipment describes heating and cooling apparatus. Fischer & Porter Company. Circle No. 772 on Readers' Service Card.

CHARLES C THOMAS • PUBLISHER

MEN AT WORK: Applications of Ergonomics to Performance and Design by Roy J. Shephard, *Univ. of Toronto, Ontario, Canada*. This book has the unifying theme of matching design to human performance characteristics in the interests of both worker-comfort and productivity. Where possible, material has been chosen for its broad interdisciplinary appeal, and while a sound scientific basis has been preserved, unnecessary technical terms are avoided. The psychological and the physiological impact of the working environment is noted, and psychological, physical and physiological aspects of fatigue are discussed. The final section of this volume takes a detailed look at specific ergonomic problems—the aging and the handicapped worker; the underdeveloped nation; the application of anthropometry to design; the nature of computers and their potential role in replacing the worker; and the ergonomics of mass transit systems. This book will appeal to those who demand an answer to man's role in the complex machine-oriented world of the twentieth century. '74, 408 pp. (6 3/4 x 9 3/4), 99 il., 8 tables, \$23.50

BIOLOGIC AND CLINICAL EFFECTS OF LOW-FREQUENCY MAGNETIC AND ELECTRIC FIELDS edited by J. G. Llauro, A. Sances, Jr., and J. H. Battocletti, *all of the Medical College of Wisconsin and Marquette Univ., Milwaukee*. (50 Contributors) This book is the result of a one-week seclusion of a group of scientists in Colorado. It will be of particular value to physiologists, biologists, neurologists and other persons interested in the effect of low-frequency magnetic and electric fields on communication processes in human, animal and plant life. Widespread use of devices producing emanations in the environment can damage living systems, and this volume considers the related important and critical problems. It covers six major sections of topics ranging from nuclear resonance applications to microwave radiometric techniques followed by groups of questions and answers. '74, about 383 pp. (6 3/4 x 9 3/4), 130 il., 36 tables

• Prepaid orders sent postpaid, on approval •

301-327 EAST LAWRENCE
SPRINGFIELD • ILLINOIS • 62717

Personnel Placement

It is requested that only those employers who will not discriminate on the basis of race, sex, religion, color, or national origin submit positions open advertising.

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 quarter inch. Payment in advance is required except where satisfactory credit has been established.

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

SCIENCE, Room 207
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

Biochemist, Chemist (Physiology), M.S., Ph.D. Broad research interest and experience: college teaching, pharmaceuticals, hospital clinical chemistry, environmental studies, instrumentation, and cancer. Desires responsible academic, research institute, or industry. Publications. East. Box 469, SCIENCE. X

British Scientist, university lecturer at present, experienced in lung function, aerosol, and occupational hygiene studies, seeks suitable appointment in Canada or United States. Box 470, SCIENCE. X

Communications Media Producer/Consultant with broad technical experience in film, A/V, video, photography. Will handle projects or provide support. D.C. area. (202) 965-3300. X

Editing, manuscript preparation, indexing, abstracting by Yale M.A., former medical journal copy editor, English teacher. Box 462, SCIENCE. X

Immunobiologist/Anatomist, Ph.D. Human immunogenetics, cellular immunology. Basic and clinical research experience. Seeks academic appointment with teaching and research opportunities. Box 473, SCIENCE. 11/1

Immunochemist, Ph.D. Industrial, clinical, and basic research experience. Radial immunodiffusion product development. Experience in radioimmunoassay, antibody production, and protein purification. Seeks industrial, clinical chemistry, or basic research position. Box 474, SCIENCE. X

Neurophysiologist, Ph.D. Broad psychophysiological and biomedical background. Ten years of independent research at eastern medical center on motor control and sensory-motor interactions; 14 years of electrophysiological diagnostic testing, especially neurologic, pediatric, and developmental disorders. Experienced in solution of methodologic and instrumentation problems. Publications, some teaching experience. Seeking research/teaching position in human CNS and behavioral development, neurophysiology, or related areas. Availability flexible, salary requirements, and relocation negotiable. Box 475, SCIENCE. X

Plant Ecologist, Ph.D., woman, desires teaching, research, or combination position. Experience: 3 years consulting, including terrestrial surveys for environmental statements; 5 years small college, teaching botany, ecology, general biology. Box 441, SCIENCE. 11/22

Poultry Nutritionist, female, Ph.D. 1974. Thesis research in vitamins. Broad experience in pesticide research, university teaching, and commercial industry. Desire position in university or industry. Dr. Ramachandran, Poultry Science Department, Oregon State University, Corvallis, Oregon 97331. X

POSITIONS WANTED

Ecologist, Ph.D. Research or research/teaching position Western United States. Six years' experience in aquatic pollution, eutrophication, primary production, and aquaculture. Ten publications including book. Would consider postdoc or temporary appointment. Box 471, SCIENCE. X

Ecologist, Ph.D. 1970, seeks academic position. Research and teaching experience in theoretical, systems, and plant physiological ecology. Available fall 1975. Box 472, SCIENCE. X

POSITIONS OPEN

ALGOLOGIST

UNIVERSITY OF WASHINGTON, SEATTLE

Faculty appointment (Ph.D.) available 15 September 1975. Duties include undergraduate and graduate teaching. Candidate is also expected to develop an independent research program. An equal opportunity/affirmative action employer. Send curriculum vitae and references before 1 January to: Dr. B. J. D. Meeuse, Botany Department, University of Washington, Seattle, Wash. 98195.

ANIMAL BIOLOGIST

Ph.D. for a rapidly developing department in a new, fully equipped science building. Effective January 1975. Research space available but primary duty is the teaching of Animal Physiology, Microbiology, and General Biology. Applicants committed to quality undergraduate education should send detailed résumé to: Dr. Melvin J. Wentland, Chairman, Biology Department, St. John Fisher College, Rochester, New York 14618. An Equal Opportunity Employer

ASSISTANT PROFESSOR (SEPTEMBER 1975)

A modern, well-equipped department seeks a Ph.D. with postdoctoral research experience. Applicants should be qualified to teach embryology and a graduate course in development at the molecular level. Candidates must exhibit a strong interest in maintaining a vigorous research program. Send a curriculum vitae, reprints, statement of research and teaching interests, and three letters of recommendation by 1 December 1974 to: Dr. F. M. Butterworth, Department of Biological Sciences, Oakland University, Rochester, Michigan 48063. An Equal Opportunity Employer.

ASSISTANT PROFESSOR position available for Physiologist with Ph.D. Spring or fall semester 1975. Opportunities for upper division and graduate courses, but primary responsibility will be for a nursing anatomy and physiology course. Candidates with a broad range of interests in biology preferred. Equal Opportunity/Affirmative Action Employer. Send résumé to: Dr. Lynn Raulerson, Biosciences Division, University of Guam, Agaña, Guam 96910.

ASSISTANT PROFESSOR TUFTS UNIVERSITY BIOLOGY DEPARTMENT

Biochemist with research interest (in order of preference): in (i) environmental problems such as primary productivity or the enzymology of nitrogen fixation or (ii) developmental biology such as regulatory mechanisms in eukaryotes or hormone-receptor interactions. Teaching duties will include sharing the instruction in a biochemistry course for advanced undergraduates and graduate students and teaching a course in areas of special interest. We seek to fill the position September 1975.

Send curriculum vitae, reprints, and arrange to have three letters of recommendation sent to: Dr. Saul Slapikoff, Department of Biology, Tufts University, Medford, Mass. 02155.

Application deadline: 10 January 1975.

Tufts University is an Equal Opportunity, Affirmative Action Employer. Applicants from women and minority-group members are encouraged.

ASSISTANT PROFESSOR OF ANATOMY

The Department of Anatomy at Emory University is seeking an individual whose research training and interests are in the field of biology of cell membranes with emphasis upon membrane chemistry, structure, or cell surface interactions. Candidates should have the Ph.D. or M.D. degree and at least 2 years of postdoctoral training. Preference will be given individuals whose background equips them for teaching gross anatomy. Send curriculum vitae, bibliography, and letters of reference to: Dr. J. Sutin, Chairman, Department of Anatomy, Emory University, Atlanta, Georgia 30323.

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

ANATOMIST. Position available in Department of Anatomy for an anatomist with teaching experience in gross and microscopic anatomy. Salary and rank negotiable. Send curriculum vitae to **Dr. G. Di Virgilio, College of Osteopathic Medicine and Surgery, 3200 Grand Ave., Des Moines, Iowa 50312.**

ASSISTANT PROFESSOR

The Department of Environmental Health, University of Cincinnati Medical Center, is inviting applications for an assistant professorship in toxicology with specific commitment to the area of the carcinogenic, mutagenic and/or teratogenic actions of foreign chemicals. The person would be expected to assume responsibility for developing a program of research in one or more of these areas. This person would also participate in the graduate teaching program of the department. Send curriculum vitae and three references to **Dr. Paul B. Hammond, Department of Environmental Health, University of Cincinnati Medical Center, 3223 Eden Avenue, Cincinnati, Ohio 45267. An Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR OF HUMAN GENETICS UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Applications are invited from individuals with M.D. and/or Ph.D. degrees and demonstrated research and teaching abilities in the immunogenetics, biochemical genetics, or developmental genetics of eukaryotes, with particular reference to man. Code #500BO. Send résumé to **Box 480, SCIENCE. A Nondiscriminatory Affirmative Action Employer.**

THREE ASSISTANT PROFESSOR POSITIONS

Available in the Department of Surgery, University of Michigan Medical School. Seeking three young surgeons, Board qualified in General Surgery for full-time positions. Should be interested in career in academic surgery with special training or expertise in a specific clinical or investigative area in general surgery. Send résumé to **Box 482, SCIENCE. A Nondiscriminatory Affirmative Action Employer.**

AUDITORY NEUROPHYSIOLOGIST. Assistant professorship in Biomedical Engineering. Involves collaborative and independent research in auditory neurophysiology, and teaching in Biomedical Engineering Department. Applicant must have strong background in both engineering and neurophysiology. Evidence of productive research in auditory neurophysiology required. Send résumé to **Dr. M. B. Sachs, Johns Hopkins University, School of Medicine, Department of Biomedical Engineering, Baltimore, Md. 21205. An equal opportunity employer, male and female.**

BIOCHEMIST

Postdoctoral position available February-March 1975 for research in nucleoside-nucleotide analogs, the isolation of enzymes related to the biosynthesis of nucleosides, and the use of nucleoside analogs as biochemical probes. Excellent research facilities. Stipends negotiable depending on experience. Send résumé to **Ms. Young, Personnel Department, Temple University Health Sciences Center, 3401 North Broad St., Philadelphia, Pa. 19140. An equal opportunity employer.**

CELL BIOLOGIST

Immediate opening. Research Associate to work on **invertebrate (snail) tissue culture** utilizing radiotracers. Expertise in molecular or immunobiology desired. Ph.D. required. Single year funded at present; seeking continuation. \$10,250. Apply with references to **Dr. C. J. Bayne, Zoology Department, Oregon State University, Corvallis, Oregon 97331. OSU is an Affirmative Action Employer.**

TWO INSTRUCTOR POSITIONS

Available in the Department of Anesthesiology, University of Michigan Medical School. M.D. with specialty training in Anesthesiology, Board certified or eligible. Clinical and didactic instruction of residents in training and medical students in anesthesiology. Code #'s 700HO and 1100HO. Send résumé to **Box 481, SCIENCE. A Nondiscriminatory Affirmative Action Employer.**

25 OCTOBER 1974

POSITIONS OPEN

CHAIR OF ANATOMY UNIVERSITY OF NORTH CAROLINA

Applications and nominations are invited for the position of Professor and Head of the Department of Anatomy in the School of Medicine. Candidates must have a generally recognized record of important scientific contributions and a continuing commitment to vigorous investigative activity. It is expected that a candidate will have a broad background in anatomy and cell biology. The department has responsibility for teaching of gross and microscopic anatomy, neurobiology, reproductive biology, and embryology in the Schools of Medicine and Dentistry and to Allied Health Disciplines. The successful candidate therefore must be seriously interested in medical and paramedical education and be prepared to assume active leadership in developing and implementing innovative and effective teaching programs for these areas and for graduate students.

Interested persons may obtain further information or submit letters of application or nominations accompanied by a detailed curriculum vitae to **Chairman, Anatomy Search Committee, Dean's Office, University of North Carolina School of Medicine, Chapel Hill, North Carolina 27514. An Equal Opportunity, Affirmative Action Employer.**

CHAIRMAN OF PATHOLOGY NEW JERSEY MEDICAL SCHOOL

Nominations and applications are invited for the position of Chairman of Pathology of the College of Medicine & Dentistry of New Jersey-New Jersey Medical School.

Correspondence should be addressed to:

Dr. Wilhelm R. Frisell
Chairman, Pathology
Search Committee



COLLEGE OF MEDICINE & DENTISTRY OF N.J. NEW JERSEY MEDICAL SCHOOL

100 Bergen Street
Newark, N.J. 07103

An Equal Opportunity Employer
Affirmative Action Employer

SCARBOROUGH COLLEGE UNIVERSITY OF TORONTO CHAIRMAN—LIFE SCIENCE

Applications are invited for the position of Chairman of the Life Science Group at Scarborough College, University of Toronto, effective 1 July 1975. The Life Science Group is made up of about 25 faculty in Biochemistry, Botany, Psychology, and Zoology. Applicants should have established reputations in scholarship in any of these fields, and be eligible for full professorship rank at the University of Toronto. A letter of application together with a detailed curriculum vitae and the names of three persons who have agreed to act as referees should be directed to **Principal D. R. Campbell, Scarborough College, University of Toronto, 1265 Military Trail, West Hill, Ontario, Canada, not later than 1 January 1975.**

POSITIONS OPEN

EAST TENNESSEE STATE UNIVERSITY COLLEGE OF MEDICINE

Chairperson of Anatomy, Biochemistry, and Physiology

East Tennessee State University College of Medicine invites nominations of, and applications from, qualified individuals as Chairpersons in the following disciplines:

Anatomy
Biochemistry
Physiology

Candidates should have a doctoral degree(s) and experience in medical education and basic research. A curriculum vitae and names of three references should be submitted with the application or nomination.

The State has authorized the College of Medicine which is to be established in affiliation with the Mountain Home Veterans Hospital under the authority of the Veterans Administration Medical School Assistance and Health Manpower Training Act of 1972.

East Tennessee State University is an equal opportunity/affirmative action employer.

Correspondence should be addressed to:

Robert E. Jewett, M.D., Dean
College of Medicine
East Tennessee State University
Johnson City, Tennessee 37601

C-V RENAL PHYSIOLOGISTS

Two positions: (i) Assistant Professor at University of Maryland School of Medicine, starting September 1975 for cardiovascular and/or renal physiologist and (ii) Assistant Professor to Professor, rank dependent on qualifications, at Federal University of Pernambuco, Recife, Brazil, for renal physiologist. Apply with complete curriculum vitae and names of three references to: **William D. Blake, M.D., Department of Physiology, 660 W. Redwood Street, Baltimore, Maryland 21201.**

DEAN, SCHOOL OF MEDICINE UNIVERSITY OF MISSOURI-COLUMBIA

The University of Missouri-Columbia invites applications for the position of Dean of the School of Medicine. Applicants are preferred who have had experience with a program of patient care, undergraduate education, and research, as well as considerable recent experience in medical administration, preferably with a major medical center. Applicants should have an intimate knowledge and major interest in the issues of medical education and curriculum design and demonstrated knowledge of federal funding procedures in the support of medical education and research. Apply to: **James M. A. Weiss, M.D. (Chairman, Search Committee), Department of Psychiatry, University of Missouri School of Medicine, Columbia, Mo. 65201. UMC is an equal employment and educational opportunity institution.**

DEVELOPMENTAL OR CELL BIOLOGIST LECTURER, TEMPORARY

One-semester position available beginning 17 January 1975 to teach an intermediate level lecture course (50 to 150 students) in developmental biology or molecular aspects of cell biology.

Candidate must have Ph.D. and preferably teaching experience.

Please send curriculum vitae, reprints, and three letters of recommendation to:

Dr. Mary Ella Feinleib
Acting Chairman
Biology Department
Tufts University
Medford, Mass. 02155

Application deadline: 15 November 1974. *Tufts University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minority candidates are especially welcomed.*

The University of Alaska is seeking applications and nominations for the position of **DIRECTOR** of one of its major institutes. Minimum qualifications are demonstrated potential to direct and administer a research unit with a six-figure budget.

The University is an Equal Opportunity Employer; women and members of minority groups are encouraged to apply.

For further information, address the **Office of the Vice President for Research, University of Alaska, Fairbanks, Alaska 99701.**

POSITIONS OPEN

DEAN; SCHOOL OF MATHEMATICS, SCIENCE AND ENGINEERING; CALIFORNIA STATE UNIVERSITY, FULLERTON: The dean is responsible for the overall quality of the educational and research programs offered by the school in the disciplines of biology, chemistry, earth sciences, engineering, mathematics, physics and science education. Applicants should possess a doctorate and qualifications for appointment at the rank of professor. University-level teaching experience and a record of scholarly achievement in basic or applied research is essential. Evidence of administrative ability is required. Preference will be given to candidates with experience in administering engineering or applied science research programs. *The University is a nondiscriminatory, Affirmative Action, Equal Opportunity Employer.* Anticipated salary: \$26,900 to \$32,700. Applicants should send a letter of intent plus a brief résumé of professional and academic experience to: **Patrick A. Wegner, Department of Chemistry, Chair, Dean Search Committee, California State University, Fullerton, California 92634.**

DEAN OF GRADUATE STUDIES AND RESEARCH

Eastern Illinois University invites candidates for this position. Responsibilities: Administer Graduate School, promote faculty research, external funding, recruitment. Graduate teaching experience, active research, funding experience, and administrative background required. Send application and résumé to: **Jerry Griffith, Chairman Search Committee, Dean of Graduate Studies and Research, Eastern Illinois University, Charleston, Ill. 61920.**

An Equal Opportunity Employer

ELECTRON MICROSCOPIST

Master's degree or 2 years of experience in biological or medical EM research. Will assist in research and service programs of Pathology Department, Eastern Virginia Medical School. Send curriculum vitae to: **Donald G. Martin, Personnel Department, Norfolk Area Medical Center Authority, 333 West Freemason St., Norfolk, Va. 23510.**

• Epidemiologist •

M.D. or well-established Ph.D. with 5-plus years of experience to organize and direct an epidemiological studies group in support of NIOSH agricultural occupational safety and health program. Must have knowledge of occupational diseases and be skilled in all aspects of epidemiological research designs, i.e. cross sectional prospective field studies; data quality and processing, including automated data processing and analysis techniques.

• Toxicologists •

M.D. or Ph.D.—3 positions available in support of a large Federally sponsored (NIOSH) agricultural occupational safety and health program. Responsibilities to develop and conduct environmental, biochemical, and agricultural toxicology studies including pesticide field re-entry and other health problems common to agriculture and agriculturally related industries. Opportunity for academic appointment.

Send résumé to: **UNIVERSITY OF UTAH, 401 Park Building, Salt Lake City, Utah 84112.** An equal opportunity employer.

FISH PHYSIOLOGIST

Department of Zoology and Physiology, the University of Wyoming, invites applications for Assistant Professor position. Ph.D. with research experience and teaching interests in physiological aspects of fisheries biology and comparative physiology of lower vertebrates. Address correspondence to **Prof. Oscar H. Paris, Department Head, P.O. Box 3166, University Station, Laramie, Wyoming 82071.**

Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

ECOLOGIST

The Department of Biological Sciences of the University of Illinois at Chicago Circle is seeking an ecologist at the rank of Assistant Professor, starting September 1975. Preference will be given to applicants with an aquatic or plant orientation. The closing date for applications is 1 December 1974. Applications, including curriculum vitae, publications or thesis synopsis, and three letters of recommendation, should be sent to **Dr. Stanley Shapiro, Head, Department of Biological Sciences, University of Illinois at Chicago Circle, P.O. Box 4348, Chicago, Illinois 60680.** *An Equal Opportunity/Affirmative Action Employer.*

ENTOMOLOGIST

Two faculty positions: (i) Conduct an extension program in tobacco insect pest management. (ii) Conduct extension and research program in agriculture and in crop pollination enhancement, respectively. Ph.D. required. Rank of Assistant Professor. Send curriculum vitae, bibliography, and names of three references to: **Head, Department of Entomology, North Carolina State University, Raleigh, N.C. 27607.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION

The Pharmacy Department of the University of Rhode Island has one full-time academic year state-supported faculty position open for an Assistant Professor. Qualifications: A Ph.D. with an active interest in teaching and research at the undergraduate and graduate levels. The applicant should have a strong background in biopharmaceutics and/or physical pharmacy. Applicants should submit a curriculum vitae, reprints, a short statement of teaching and research experience, and the names of three references.

We are an Equal Opportunity/Affirmative Action Employer and members of minority groups and women are urged to apply.

Address inquiries to **Dr. George E. Osborne, Acting Chairman, Department of Pharmacy, or Dean Heber W. Youngken, Jr., College of Pharmacy, University of Rhode Island, Kingston, Rhode Island 02881.**

MICROBIAL BIOCHEMIST

Ph.D. LEVEL

Research Section of the Industrial Applications Group seeks candidate with broad research interests and capabilities in industrial microbiology. Thorough understanding of enzyme and membrane chemistry is essential. Experience with disinfectants, their mode of action and methods of application is desirable.

Excellent salary and good benefits. Qualified candidates, please write:

M. J. DUGGAN

FMC

FMC CORP.

CHEMICAL R & D CENTER

P. O. BOX 8

PRINCETON, N. J. 08540

An Equal Opportunity Employer

POSITIONS OPEN

FACULTY POSITION—PHARMACOLOGY

Applications are invited for the position of Assistant Professor of Pharmacology at the University of Maryland School of Pharmacy. The Department is interested in an individual with a background in natural products research but will accept qualified individuals with a biosynthesis or fermentation background. Minority applications encouraged. Send résumé to **Dr. Ralph N. Blomster, Department of Pharmacology, University of Maryland School of Pharmacy, Baltimore, Maryland 21201.**

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION—Level open. The specific responsibilities for the first year would be to analyze the patient monitoring needs of a six-hospital health care center. Opportunities for research and teaching are completely open. Applicants must be articulate, able to deal well with physicians, and should have experience with computerized instrumentation as well as physiology. Other faculty level positions in biotechnology also available. **Box 476, SCIENCE.**

HUMAN RESOURCE STUDIES. A Washington, D.C., nonprofit national organization seeks professionally qualified persons to conduct studies of human resources and support of advanced training in science and engineering. Qualifications include doctorate or equivalent in behavioral/social sciences or in life sciences, physical sciences, engineering, or mathematics with experience in manpower or science-policy studies. Ability to collect and analyze survey data and to relate the results to human-resource development is essential. Good opportunities exist to work with research leaders and to test models of educational and manpower systems by use of unique data resources. Several appointments will be made. Salaries are competitive, and opportunities exist for advancement. *An Equal Opportunity Employer.* **Box 477, SCIENCE.**

IMMUNOCHEMIST

A growing pharmaceutical company is seeking an immunochemist to head an R & D effort in its Allergy Division. The successful candidate must have a Ph.D. degree (or equivalent in experience) and 1 to 2 years of experience in the isolation and purification of allergens. Knowledge of protein and carbohydrate chemistry and standard immunological techniques is required.

Alcon offers excellent working conditions and employee benefits including free medical care insurance and free life insurance as well as excellent profit sharing program. Send résumé in confidence to:

**T. A. Gisi
Alcon Laboratories, Inc.
6201 South Freeway, Box 159
Fort Worth, Texas 76101**

An Equal Opportunity Employer

JUNIOR FACULTY POSITION—PATHOLOGY

A University of Washington position is available at the Instructor or Assistant Professor level in the Department of Pathology. We seek someone interested in teaching medical students general and systemic pathology and working closely with a senior staff person to develop this presentation, not only in Seattle but in our WAMI sites in Alaska, Montana, and Idaho. In addition, this person will also be able to develop their background in neoplasia or liver disease by initiating their own work or by collaborating in ongoing investigation. Send letters of inquiry and curriculum vitae to **Dr. Edward A. Smuckler, Department of Pathology, University of Washington, Seattle, Washington 98195.**

An Equal Opportunity—Affirmative Action Employer

NEUROCHEMIST/PROTEIN CHEMIST

Staff scientist position available for chemist interested in characterization of nerve proteins. Experience in electron microscopy and immunotechniques advantageous. Send résumé and letter of recommendation to: **Dr. P. F. Davison, Boston Biomedical Research Institute, 20 Staniford St., Boston, Mass. 02114.** *An Equal Opportunity Employer.*

TEACHING POSITION AVAILABLE SEPTEMBER 1975

PHYSIOLOGIST. Assistant Professor, Ph.D. Undergraduate and graduate teaching in vertebrate physiology and zoology; preference for research at cell-organ level with background in special sensory organs or reticulo-endothelial system; postdoctoral experience desirable; direct graduate students and participate actively in research. Write **Dr. A. W. Pritchard, Chairman, Search Committee, Department of Zoology, Oregon State University, Corvallis, Oregon 97331.** *OSU is an affirmative action employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION

Position available immediately for a person with experience in enzymology and preferably in cell culture techniques, for research on proteolytic enzymes in cell growth and transformation. Stipend \$9000. Send curriculum vitae and two references to

Dr. W. T. Shier
Cell Biology Laboratory
The Salk Institute
P.O. Box 1809
San Diego, Calif. 92112

POSTDOCTORAL POSITION

Open now, to work on role of prolactin in normal and neoplastic breast. Background in endocrinology and/or breast physiology and biochemistry required. Good salary. Apply to **Dr. Alan Senior, Department of Biochemistry, University of Rochester Medical Center, Rochester, New York 14642.**

POSTDOCTORAL POSITION BIOCHEMISTRY

Research on separation and identification of products of lipoxigenase, RIA of steroid hormones, and bile acid metabolism. Hard money position paying \$10,000, possibly more to exceptional applicant. **Dr. Thomas Kellogg, Department of Biochemistry, P.O. Drawer BB, Mississippi State, Mississippi 39762.**

POSTDOCTORAL POSITION

Available immediately. Regulation of RNA metabolism in bacteria. Experience in nucleic acid enzymology and bacterial genetics required. Send curriculum vitae and two references to **Dr. M. Deutscher or Dr. P. Setlow, Department of Biochemistry, University of Connecticut Health Center, Farmington, Conn. 06032.**

Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

A 2- to 2½-year position available immediately. Biochemistry of mammalian sperm capacitation in vitro (in particular, the acrosome reaction, a sperm membrane fusion necessary for fertilization). Requirements: Ph.D. in biochemistry or broad experience in biochemistry lab techniques. Starting salary: \$10,000. Send curriculum vitae and two letters of recommendation to: **Dr. Stanley Meisel, Human Anatomy Department, University of California Medical School at Davis, Davis, California 95616, or call (916) 752-2102.**

Equal Opportunity/Affirmative Action Employer

UNIVERSITY OF WISCONSIN—MADISON

PSYCHOLOGY DEPARTMENT has faculty opening for a behavioral primatologist to begin as soon as possible. A senior level person preferred, but will consider candidate at any level. Strong academic and research credentials preferably in laboratory research on social primate behavior. Applications, curriculum vitae, and references should be sent to **Prof. Robert E. Bowman, Chairman, Department of Psychology, University of Wisconsin, Madison, Wis. 53706.**

An equal opportunity/affirmative action employer.

SCIENTIST-MANAGER IMMUNOASSAY

Our expanding commercial and research efforts in the area of immunoassay require a Ph.D. level scientist with experience in or with a high potential for success in the management of basic and applied research and manufacturing development. Experience in one or more of the following will be considered significant: radioassay, clinical biochemistry, protein chemistry, immobilized proteins, immunology, and bacteriology. Primary responsibilities include among others direction of research, product development, quality control, technical support of marketing efforts, publications, and so forth. Forward résumé with salary requirements to:

Director, Research and Development
Smith Kline Instruments, Inc.
Subsidiary Smith Kline Corp.
440 Page Mill Rd.
Palo Alto, Calif. 94306

Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION

Postdoctoral position available immediately for Ph.D. to investigate palate, shelf rotation during mouse development and cleft palate and the role of embryonic contractile proteins in these processes. Experience in electron microscopy and/or tissue culture is desirable. Stipend commensurate with qualifications. Send curriculum vitae and references to: **Dr. Ernest F. Zimmerman, Director of Fetal Pharmacology, Children's Hospital Research Foundation, Cincinnati, Ohio 45229.**

An equal opportunity employer

RESEARCH SCIENTIST

Position in primatology and neurophysiology. Postdoctoral level with instrumentation experience. Suburban New York City area, considerable field time involved. Salary approximately \$14,000. Reply **Box 478, SCIENCE**

BIOCHEMISTRY/BIOPHYSICS PROGRAM at Washington State University seeks outstanding recent Ph.D. to be appointed Assistant Professor of Biochemistry for the fall of 1975. Please send complete curriculum vitae including teaching experience, academic transcripts, a fairly detailed research proposal for future work, and the names and addresses of three references by December 1, 1974 to **Dr. B. A. McFadden, Department of Chemistry, Washington State University, Pullman, W.A., 99163.**

An Equal Opportunity/Affirmative Action Employer

freezers

three model with
guaranteed ranges of
-75°C and -90°C at
85°F ambient



by Forma Scientific

Ultra low temperature chest freezers. Human engineered, easy to load, low profile height of 38" with casters. Auto-charge nickel cadmium battery operated alarm system. Quality controlled construction using rigid foamed-in-place urethane insulation. Two capacities available, 11 cu. ft. and 20 cu. ft. Options: inventory control storage racks, Weksler recorder, stainless steel liquid LN₂ insert kit.



Forma Scientific®
BOX 649 • MARIETTA, OHIO 45750 • 614/373-4763 • TELEX 24-5394

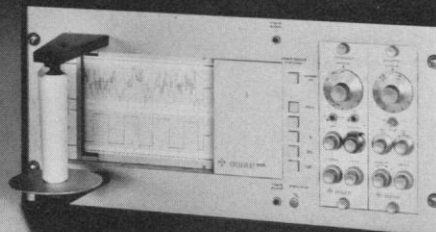
Circle No. 288 on Readers' Service Card

The Gould 220: the workhorse of biophysical recording.

Why do so many hospitals and laboratories depend on the Gould 220? Just look at the features.

The modular system provides two 40 mm analog channels and two event channels and it accepts a broad range of biophysical plug-in signal conditioners so you can use the 220 to measure almost any physiological parameter. The 220's pressurized writing system makes the sharpest, crispest traces of any recorder on the market. And the 220's 99.5% linearity means you get accurate records you can trust.

For all these reasons, the Gould 220 belongs in your hospital or laboratory. Write for details. Gould Inc., Instrument Systems Division, 3631 Perkins Avenue, Cleveland, Ohio 44114. Or Kouterveldstraat Z/N, B 1920 Diegem, Belgium.



GOULD

Circle No. 645 on Readers' Service Card

POSITIONS OPEN

DEPARTMENT OF PHYSIOLOGY AND PHARMACOLOGY UNIVERSITY OF PENNSYLVANIA SCHOOL OF DENTAL MEDICINE

This new department expects to make two appointments at the Assistant Professor level for the forthcoming academic year. Applications are requested from individuals with research interests in all aspects of cellular physiology or pharmacology who can contribute to the teaching of physiology or pharmacology to dental students and to graduate education in a university-wide graduate group in a biomedical science.

Please send your résumé along with the names of three or more references to **Dr. Richard Orkand, Department of Physiology and Pharmacology, University of Pennsylvania, School of Dental Medicine, Philadelphia, Pa. 19174. An Equal Opportunity Employer.**

SOCIETY BUSINESS MANAGER

A one-quarter-time job for the Society for Developmental Biology. Some accounting and biology background preferred. Pays \$5 per hour. Send curriculum vitae and names of references to the **Society for Developmental Biology, Box 18, Kensington, Maryland 20795.**

STATISTICAL SCIENTISTS

Positions are available for Ph.D.-level statistical scientists. Primary responsibilities within the Laboratory are for scientific collaboration on the planning, conduct, and analysis of clinical trials in cancer. Opportunities exist for teaching and research within the Laboratory and through joint appointments with University departments. *Applications from women and minority candidates will be especially welcome.* Applicants should send full curriculum and employment vitae as well as names of three references to:

**Search Committee
c/o Mrs. Gloria Patti
Statistical Laboratory
State University of New York at Buffalo
4230 Ridge Lea Road
Amherst, New York 14226**

**STATISTICAL LABORATORY
OF THE
STATE UNIVERSITY OF NEW YORK
AT BUFFALO**

POSITIONS OPEN

Research Associate or Postdoctoral Fellow is sought for a recently funded study on Comparative Ocular Pharmacology-Toxicology. The study deals with methods for evaluation and mechanisms of toxicity of therapeutic agents in animal eyes. Attempts will be made to develop several model systems. The initial appointment will be for 2 years. Persons with experience in ocular physiology, ocular toxicology, and the pharmacology of corticosteroids and phenothiazine-based tranquilizers would be particularly attractive. Interested persons should submit a résumé and references to: **John A. Shaddock, D.V.M., Ph.D., Department of Pathology, University of Texas Health Science Center at Dallas, 5323 Harry Hines Blvd., Dallas, Texas 75235. Telephone 214/631-3220 Ext. 593. We are an Equal Opportunity Employer.**

TERRESTRIAL AND AQUATIC ECOLOGISTS

Responsible for design and implementation of monitoring and research projects to assess impacts of coastal developments on aquatic and terrestrial environments. Graduate degrees required. Positions also open for technicians experienced in collection and identification of ecological samples. Send résumé and salary history to: **General Development Corporation, P.O. Box 2716, Port Charlotte, Fla. 33952.**

TISSUE CULTURE TECHNICIAN

Opening in a Chicago suburb hospital for an individual with training and/or experience in tissue culture and immunological techniques to work as a technician in a cellular cancer research laboratory. Biochemical background desirable, but not essential. Excellent salary and benefits. Please send résumé to **Box 479, SCIENCE.**

An Equal Opportunity Employer

TOXICOLOGIST

We are seeking candidates with 3 to 5 years of experience in the field of Toxicology, preferably in the food or industrial chemical industry, to offer our toxicological and allied services. Will interface with clients, design protocols, oversee laboratory effort, and prepare reports. Position is located in northern New Jersey. Send résumé with salary requirements to **Dr. H. Schwartz, Food and Drug Research Laboratories, 60 Evergreen Place, East Orange, N.J. 07018.**

An Equal Opportunity Employer

POSITIONS OPEN

TEACHING OPPORTUNITIES AT THE UNIVERSITY OF MARYLAND

Department of Government and Politics seeks three to five assistant professors in building policy-oriented department. Applicants should be skilled in a social science and political science and/or modern methods of systematic analysis, and committed to research and analysis germane to predicting, prescribing, or evaluating public policy. Commitment may be to particular issue area, function, methodology, or body of theory. Salary competitive. Inquiries and applications to: **Davis R. Bobrow, Chairman, Department of Government and Politics, University of Maryland, College Park, Maryland 20742.**

WATER RESOURCES ECONOMETRICIAN

Faculty position, rank, and salary depending on qualifications. Must have strong background in economics, experience with water resources problems, and ability to work with multidisciplinary groups both in teaching and research. Ph.D. or equivalent required. Send curriculum vitae to **Dr. E. S. Simpson, Chairman, Search Committee, Department of Hydrology and Water Resources, University of Arizona, Tucson, Ariz. 85721. An Equal Opportunity, Affirmative Action Employer.**

FELLOWSHIP

POSTDOCTORAL FELLOWSHIP in Immunochimistry with special emphasis on secular antigens, including neoplastic cells. \$7200 per year plus dependency allowance. Address applications to: **Dr. Alois Nowogny, Department of Microbiology & Immunology, Temple University School of Medicine, Philadelphia, Pa. 19140. An Equal Opportunity, Affirmative Action Employer.**

MARKET PLACE

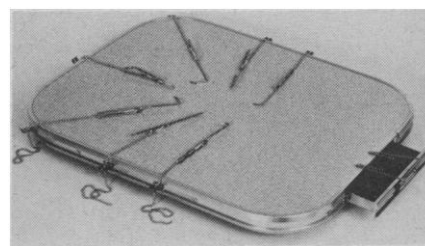
BELL-MORE LABS, INC.

Custom freeze-drying/sterile filtration/vial-filling/reagent and media preparation/packaging. All work done to your specifications. Write or call for more information.

16 Gill Ave.
Hampstead, Md. 21074
(301) 239-7554

SMALL ANIMAL SURGICAL APPARATUS

Specifically designed for research and teaching.



PATENTED

Available in sizes for MOUSE, RAT, HAMSTER, GUINEA PIG, FROG and other animals.

Some of its features include: six patented design innovations, unlimited attachment positioning, nonglare pattern formica surface, all attachments stainless steel, built-in stainless steel drawer for safekeeping attachments,

Write For Descriptive Literature and Prices:
Brookline Surgical Specialties

Westford, Massachusetts 01886 U.S.A.
Circle No. 681 on Readers' Service Card

UNIVERSITY OF TROMSØ NORTH NORWAY FISHERY BIOLOGY RESEARCH GROUP

Applications are invited for the following positions:

TWO PROFESSORSHIPS AND ONE LECTURESHIP

One Professorship in Fisheries Biology for candidates with appropriate qualifications and experience in the fields of Population Dynamics and/or Systems Modeling. Duties will include development of courses and teaching of fishery students in these topics plus research in an integrated program on fjord fish populations and their ecosystems.

One Professorship and One Lectureship in Aquaculture. There is much interest in aquacultural developments and possibilities in northern Norway in which the successful candidate will have ample opportunity to participate. It is expected that those who are appointed will contribute to the fjord research program. Although experience in aquacultural techniques is required, it is also hoped that the persons appointed will have a broad biological experience so that in both teaching and research they will be able to stress the more fundamental aspects of this subject.

The University is now considering long-range plans for expansion of its teaching and research capability in Fisheries Biology. A major program of fishery and environmental research of fjords is being developed by a group of biologists headed by Professor A. H. Weatherley. Other fishery research programs are being planned.

Tromsø is situated in a very large northern commercial fishing region, and fishery biology is one of the areas of study being emphasized in the development of the university. The work of the fishery group is being conducted in conjunction with marine biologists, fishery economists, sociologists, and technologists, and fishery biology will be offered at both undergraduate and graduate levels. English may be used for teaching until Norwegian is learned.

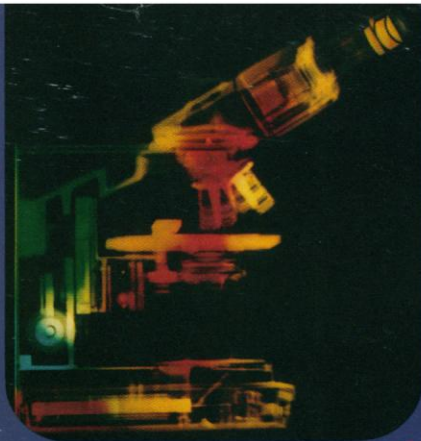
The University is new and expanding rapidly, and those who obtain posts will be expected to participate in planning activities. The fishery group is part of the Institute of Biology and Geology and is housed in a new building well equipped for various kinds of teaching and research.

A new highly sophisticated 112-foot fishery research vessel will be available by 1975. The University has a computer center featuring a 64-K Nor. computer, there is a DCT 2000 Simulator connected to a UNIVAC 1110 at the University of Bergen, and a DCT 1000 Simulator is under construction.

Tromsø lies north of the Arctic Circle (latitude 69°), but has a mild climate because of its coastal position. There are 2 months of midnight sun and 2 months with darkness. There are fine opportunities for outdoor life.

Salaries: Professor 104,780, Lecturer 69,760 to 87,510 N.Kr. per year. The University will help with housing and other problems. Applications should be sent by 14 November 1974, including five copies of curriculum vitae and three sets of relevant publications.

Formal applications should be addressed to **Universitetet i Tromsø, Postboks 635, 9001 Tromsø, Norway.** Further inquiries should be addressed to **Professor A. H. Weatherley,** same address.



BAUSCH & LOMB 

Balplan™

MICROSCOPE
One of a kind

Personally Yours



Bausch & Lomb has successfully applied the modular design concept in producing for you the new Balplan research quality laboratory microscope system within a competitive price range. No matter what modules you select they will act together in a complete microscope that's a beauty to look at . . . and look through.

Because "looking through" is what a microscope is all about, every component in this new system has been designed to let you see more . . . see better.

Choose from a comprehensive selection of illuminators; condensers; stages; nosepieces for 2, 3, 4 or 5, objectives; flat field objectives at no extra cost; single or dual viewing heads; extra wide field eyepieces; cameras; viewing screen, and the wide array of accessories . . . you can be sure your Balplan system will give you the highest degree of performance and versatility.

LOOK INTO BALPLAN. No other microscope system offers so much for so little . . . a premium quality microscope at up to half the price of another brand of comparable quality. See for yourself in your own lab with your own specimens.

Send for new 24-page full color catalog 31-2411, and our free demonstration offer.

TM. Balplan is a Bausch & Lomb Tradename.




BAUSCH & LOMB, SCIENTIFIC OPTICAL PRODUCTS DIVISION, 77410 BAUSCH STREET, ROCHESTER, N.Y. 14602

Circle No. 585 on Readers' Service Card

Buy \$300 in radiochemicals, and we'll add \$50 in Ultra Pures to your order. And nothing to your cost.

Schwarz/Mann is the only supplier of both radiochemicals and high-quality Ultra Pure reagents. To dramatize this capability, we're making an unprecedented offer: Buy \$300 worth of our radiochemicals, and we'll give you \$50 in Ultra Pure reagents.

Your total cost? \$300. The Ultra Pures cost you nothing. They're free.

So get your order in today. Call collect 914-359-2700 or write Schwarz/Mann, Division of Becton, Dickinson and Company , Mountain View Ave., Orangeburg, NY 10962.

Select one free Ultra Pure from the following:

90-1946	Ammonium Sulfate, Ultra Pure	10 kg
90-5025	Cesium Chloride, Optical grade	100 g.
90-7801	Guanidine Hydrochloride, Ultra Pure	500 g.
90-9530	Sucrose, Density Gradient, Crystalline, Ultra Pure	7 kg
90-6593	Tris, Hydrochloride, Ultra Pure	1 kg
90-7438	Tris, Ultra Pure	2 kg
90-9200	Urea, Ultra Pure	5 lb.
90-2805	Adenosine 5'-Triphosphate, Disodium (ATP)	10 g.

Special Offer and Special Prices end November 30, 1974

Circle No. 559 on Readers' Service Card



Schwarz/Mann
Science
For Mankind

SELECT FROM THESE FINE RADIOCHEMICALS

RADIOCHEMICALS			
CATALOG #	COMPOUND	SPEC. ACT. MC/MMOLE	PRICE
1433-07	Adenosine 5'-Triphosphate, Tetralithium [8- ³ H] (ethanol: water 1:1)	12,000-25,000	\$ 40./1 mc 165./5 mc
1433-09	Adenosine 5'-Triphosphate, Tetrasodium [8- ³ H] (ethanol: water 1:1)	12,000-25,000	40./1 mc 165./5 mc
3122-13	L-Alanine [¹⁴ C] (0.01 N HCl sol.) (U)	135-165	90./500 uc 170./1 mc
3122-15	L-Arginine [¹⁴ C] (0.01 N HCl sol.) (U)	270-320	75./250 uc 140./500 uc
1433-38	Cytidine 5'-Triphosphate, Tetralithium [5- ³ H]	5,000-15,000	40./1 mc 165./5 mc
1433-39	Cytidine 5'-Triphosphate, Tetrasodium [5- ³ H]	5,000-15,000	40./1 mc 165./5 mc
2433-06	Deoxyadenosine 5'-Triphosphate, Tetralithium [8- ³ H]	>10,000	40./1 mc 165./5 mc
2433-07	Deoxyadenosine 5'-Triphosphate, Tetrasodium [8- ³ H]	>10,000	40./1 mc 165./5 mc
2433-33	Deoxycytidine 5'-Triphosphate, Tetralithium [5- ³ H]	15,000-30,000	40./1 mc 165./5 mc
2433-34	Deoxycytidine 5'-Triphosphate, Tetrasodium [5- ³ H]	15,000-30,000	40./1 mc 165./5 mc
2433-58	Deoxyguanosine 5'-Triphosphate, Tetralithium [8- ³ H]	>10,000	40./1 mc 165./5 mc
2433-56	Deoxyguanosine 5'-Triphosphate, Tetrasodium [8- ³ H]	>10,000	40./1 mc 165./5 mc
3122-31	Glycine [¹⁴ C] (0.01 N HCl sol.) (U)	95-100	60./500 uc 110./1 mc
1433-59	Guanosine 5'-Triphosphate, Tetralithium [8- ³ H]	5,000-15,000	40./1 mc 165./5 mc
1433-60	Guanosine 5'-Triphosphate, Tetrasodium [8- ³ H]	5,000-15,000	40./1 mc 165./5 mc
3122-41	L-Leucine [¹⁴ C] (0.01 N HCl sol.) (U)	270-320	170./500 uc 320./1 mc
3122-45	L-Lysine [¹⁴ C] (0.01 N HCl sol.) (U)	270-300	170./500 uc 320./1 mc
3122-49	L-Phenylalanine [¹⁴ C] (0.01 N HCl sol.) (U)	405-495	170./500 uc 320./1 mc
3122-51	L-Proline [¹⁴ C] (0.01 N HCl sol.) (U)	225-265	170./500 uc 320./1 mc
3122-53	L-Serine [¹⁴ C] (0.01 N HCl sol.) (U)	135-165	170./500 uc 320./1 mc
2533-83	Thymidine [methyl- ³ H] (st. aq. sol.)	360	60./5 mc 260./25 mc
2533-84	Thymidine [methyl- ³ H] (st. aq. sol.)	1900	60./5 mc 260./25 mc
2533-85	Thymidine [methyl- ³ H] (st. aq. sol.)	3000	60./5 mc 260./25 mc
2533-86	Thymidine [methyl- ³ H] (st. aq. sol.)	6000	60./5 mc 260./25 mc
2533-87	Thymidine [methyl- ³ H] (st. aq. sol.)	>10,000	60./5 mc 260./25 mc
2533-88	Thymidine [methyl- ³ H] (st. aq. sol.)	40,000-60,000	60./5 mc 260./25 mc
2433-94	Thymidine 5'-Triphosphate, Tetralithium [methyl- ³ H]	>40,000	40./1 mc 150./5 mc
2433-95	Thymidine 5'-Triphosphate, Tetrasodium [methyl- ³ H]	>40,000	40./1 mc 150./5 mc
1533-94	Uridine [5- ³ H] (st. aq. sol.)	2000	50./5 mc 220./25 mc
1533-95	Uridine [5- ³ H] (st. aq. sol.)	4000	50./5 mc 220./25 mc
1533-96	Uridine [5- ³ H] (st. aq. sol.)	8000	50./5 mc 220./25 mc
1533-97	Uridine [5- ³ H] (st. aq. sol.)	>20,000	50./5 mc 220./25 mc
1533-92	Uridine [5,6- ³ H] (st. aq. sol.)	40,000-60,000	50./5 mc 220./25 mc
1433-89	Uridine 5'-Triphosphate, Tetralithium [5- ³ H]	10,000-25,000	40./1 mc 165./5 mc
1433-90	Uridine 5'-Triphosphate, Tetrasodium [5- ³ H]	10,000-25,000	40./1 mc 165./5 mc
3122-61	L-Valine [¹⁴ C] (0.01 N HCl sol.) (U)	225-265	140./500 uc 260./1 mc

Also available: ¹²⁵I - Bovine Serum Albumin (specific activity ~43 C/mM). . . . please inquire