A 24-hour implantable osmotic pump used in research animals pumps at 8.0 microliters per hour for 1 day to provide short-term, high-dose infusions or infusions of poorly soluble compounds.

Only 3 centimeters long and weighing 1.1 grams, the Model 2001D is the shortest-duration, commercially available implantable infusion pump and is useful with laboratory animals weighing as little as 20 grams. It delivers in 1 day peptides, growth factors, and other bioengineered molecules used frequently by researchers working in neuroscience, immunology and cancer research.

Alza

A remote-controlled nanoliter micropipette is designed for the automatic DNA injection of oocytes. Easily attached to most micro positioners (shown with the Brinkman Model MM33) the

Becton Dickinson Labware has new features in its FALCON® Tufrol™ roller bottle. Bold, white-printed graduations now extend the length of the roller bottle for ease in reading and added flexibility in measuring larger volumes. A large, white writing patch has been added for each identification. New non-detented neck and plug seal cap guarantee smooth opening and closure while preventing leakage and contamination with a perfect seal. Available in 850 cm², the bottle is blow-molded with a unique biaxial construction that is virtually shatter resistant.

Becton Dickinson

Pulsed electrochemical detector (PED), which combines conductivity and amperometry, is the most powerful detection scheme available for non-chromophoric compounds. Compounds detected with high sensitivity and specificity include inorganic anions and cations, organic acids, amines (including quaternaries), carbohydrates, oligosaccharides from glycoproteins, glycosidic drugs, alcohols, aldehydes, thiols, and sulfides.
Electronic pulsing virtually eliminates noise, drift, and electrode fouling problems. PED measures cyclic voltammetry, d.c. amperometry, pH, and temperature.

Dionex Circle 53

A turnkey benchtop workstation offers state-of-the-art biomedical research capabilities in the fluorescent microscopic study of calcium and other ions, receptors, and pH measurements. Two main components are the Zeiss AXIOVERT™ microscope and Attofluor™ digital fluorescence system, an integrated image analysis workstation for effortless image acquisition, processing, and archiving to measure high-speed cell metabolic kinetics, and for other biological research.

Carl Zeiss, Inc. Circle 55

Software

Dynatech Laboratories has interactive software that creates customized image analysis programs for Dynatech’s SAMBA® 4000 Cell Image Analysis System. Available in workstation and benchtop versions, the SAMBA® 4000 Cell Image Analysis System integrates cell image acquisition, analysis, and data processing to transform images into accurate, repeatable, quantitative measurements of shape, color, texture, optical density, and fluorescence.

Dynatech Laboratories Circle 48

A UVVis monitor combines the sensitivity and detectability of a fixed wavelength detector with the versatility and programmability of a photo diode array. Complete 3-D graphics shows peak purity and optimum wavelength with easy-to-use software. The monitor produces complete spectral scans in a fraction of a second, and data reduction software provides ratio and derivative plots of spectral and wavelength absorbances. Also available is a complete line of HPLC detectors including absorbance, fluorescence, conductance, refractive index, and electrochemical.

BioRad Laboratories Circle 54

The model 1000 handheld rechargeable homogenizer features a two-speed (15,000/20,000 rpm) high torque motor and choice of three different diameter autoclavable rotor/stator generators. It comes with either a 5-mm diameter, 7-mm diameter, or 10-mm diameter mini microgenerator.

Omni International Circle 52

The quarterly newsletter, VWR BioUpdate, provides technical information pertaining to the life sciences, including articles on isolation and analysis of RNA.

VWR Scientific Circle 58
**POSITIONS AVAILABLE** — Classified advertisement: $25.00 per line (70 characters), $200.00 (8 line) minimum. Display advertisement: $600.00 for ¼ page, 3½ inches × 4½ inches; $900.00 for ½ page, 3½ inches × 9½ inches (vertical) or 7¼ inches × 4½ inches (horizontal); $1200.00 for full page, 7½ inches × 9½ inches. (For display ads, add 5% if mechanical not submitted.) Advertisements will be published in next available issue unless otherwise specified. Deadline for receipt of copy is 5th day of month before publication. Payment or purchase order is required with insertion copy. Advertisements are noncommissionable to agents; no cash discounts are allowed. Blind advertisements are not accepted.

**POSITIONS DESIRED** — Candidates registered with FASEB Placement Service are allowed one advertisement of five lines, each containing 70 characters including spaces. The issue in which advertisement appears will be based on date of receipt of copy. Fee for publication in additional issues: $10.00 per issue.

Primary employers desiring identification and additional details concerning Positions Desired advertisers should write to address below, indicating hyphenated number appearing as last element of advertisement; a one-page application from advertiser(s) will be provided immediately. Advance telephonic determination of availability of advertisers from earlier-than-current issues is recommended. Employers not currently registered with Placement Service for annual meeting participation are charged a minimum fee of $30.00 for identification of up to 10 advertisers, plus $3.00 for each above 10, payable in advance to FASEB Placement Service.

Some registered candidates do not prepare Positions Desired advertisements; some advertisements are published at times not coinciding with employer recruitment activities. Primary employers not finding advertisements that appear to match current or projected needs are invited to request a search of all active candidate files. Telephone a description of the desired qualifications; results of search will be discussed telephonically with requesting official, and applications from candidates declared suitable will be forwarded. Employers not currently registered with Placement Service for annual meeting participation are charged a minimum fee of $30.00 for up to 10 applications, plus $3.00 for each above 10.

In publishing these advertisements FASEB assumes no obligations as to qualifications of prospective employees or responsibility of employers, nor shall FASEB obtain further information concerning positions advertised or those seeking employment. Accuracy and completeness of all listings are the responsibility of the submitting party.

Various U.S. national and state laws against discrimination, including the Federal Civil Rights Act of 1964, prohibit discrimination in employment in the United States because of race, color, religion, national origin, age, sex, or any reason not based on a bona fide occupational qualification. The Federation of American Societies for Experimental Biology endorses these principles and reserves the right to edit all copy and to refuse advertisements not in consonance therewith.

Employment in countries other than the United States may be restricted by government visa and other policies. Moreover, it is suggested that the generally accepted employment practices, the cultural conditions, and the exact provisions of the specific positions being considered be investigated thoroughly. The U.S. Embassies in countries of interest to potential employees should be able to provide up-to-date data concerning internal conditions.

For a description of operation at annual meetings, please refer to the January or February issue or contact the Placement Service.

Address all correspondence to FASEB Placement Service, 9650 Rockville Pike, Bethesda, MD 20814. (301) 530-7020

**RATE CHANGE, POSITIONS AVAILABLE**

Effective January 1, 1991 (per issue)

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<td>$1000.00 for ½ page, 3½ inches × 9½ inches (vertical) or 7¼ inches × 4½ inches (horizontal)</td>
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<td>$1400.00 for full page, 7½ inches × 9½ inches (for display ads, add 5% if mechanical not submitted)</td>
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**ACADEMIC PHARMACOLOGIST OR PHYSIOLOGIST**. The Center for Imaging and Pharmaceutical Research has been established in the Department of Radiology, Massachusetts General Hospital. Its purpose is to use modern imaging technology (computed tomography, ultrasound, PET, and magnetic resonance) to facilitate drug development from discovery through animal studies to pre- and post-approval clinical documentation. Both contrast agents and therapeutic drugs are our focus and we seek to develop expertise in quantitative imaging, novel administration protocols and pharmacokinetic modeling. Applicants should have skills in these areas and seek collaborative research in an academic-industrial environment with assured long-term funding. Applications from women and minority candidates are actively encouraged. Please send resume and list of references to Director, Center for Imaging, MGH-East, Building 149, 13th Street, Charlestown, MA 02129.

**POSITIONS AVAILABLE**

**POSTDOCTORAL.** In the area of drug metabolism. Emphasis will be on the metabolism and hepatotoxicity of volatile anesthetics and related halocarbons. Applicants should have a Ph.D. or M.D. with training in pharmacology or biochemistry. Send CV and names of three references to Max T. Baker, Ph.D., Department of Anesthesia, University of Iowa, Iowa City, IA 52242. The University of Iowa is an affirmative action/equal opportunity employer. Minorities and women are encouraged to apply.

**NUTRITION ASSISTANT PROFESSOR.** Tenure-track, teaching and research position, fall 1991. Ph.D. required, R.D. preferred, demonstrated teaching experience and evidence of research capability. Teach nutrition courses, develop and implement a research program and advise students. Application deadline: February 15, 1991. Send letter, CV, transcripts and list of three references to Dr. Katharine K. Grunewald, Department of Foods and Nutrition, Kansas State University, Manhattan, KS 66506-1407 (913) 532-5508. AA/EOE.
CHAIRPERSON
DEPARTMENT OF NUTRITION AND FOOD SCIENCE
WAYNE STATE UNIVERSITY

The Department of Nutrition and Food Science, College of Liberal Arts, Wayne State University, located in the cultural center of Detroit, Michigan, is seeking a Chairperson to lead its rapidly expanding undergraduate and graduate programs in Nutrition, Food Science, and Medical Dietetics. Wayne State University is an urban, comprehensive, research university serving 30,000 students. The department has 8 faculty and enrolls 100 undergraduate and 85 graduate majors. It will move to new facilities before fall, 1991.

Qualifications for the Chairperson's position include: an earned doctorate, administrative and teaching experience, and an established research program within the department's scope. Applicants should send a letter of application, a CV and the names, addresses and phone numbers of at least three references to:

M. Marlyne Kilbey, Chair
Nutrition and Food Science Selection Advisory Committee
2226 F.A.B., Office of the Dean, College of Liberal Arts
Wayne State University
656 West Kirby
Detroit, Michigan 48202

Salary and rank (Professor/Associate Professor) depend upon qualifications. The position is available July 1, 1991. For best consideration, please respond before the March 1, 1991 deadline for completed applications.

Wayne State University is an affirmative action/equal opportunity employer.

U.S. DEPARTMENT OF ENERGY
OFFICE OF HEALTH AND ENVIRONMENTAL RESEARCH

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- 400 awards for independent research at 110 laboratories within 30 participating agencies
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- Annual stipend for recent Ph.D. or M.D. graduates $27,150 to $42,000 depending upon sponsoring laboratory; stipend higher for senior researchers
- Funds for relocation and professional travel; comprehensive health insurance program offered
- 3 annual award competitions

For application materials and information on participating laboratories contact:
Associateship Programs GR 430/FB

NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue, N.W.
Washington, D.C. 20418
FAX: (202) 334-2759

Deadlines for application: January 15 (December 15 for NASA), April 15 and August 15

THE NATIONAL RESEARCH COUNCIL
ANNOUNCES
POSTDOCTORAL & SENIOR RESEARCH ASSOCIATESHIP AWARDS

The awards sponsored by the National Research Council are available at the U.S. Army Institute of Dental Research. The research opportunities include physiology and biochemistry of bone regeneration (which also includes studies of growth factors using bone cell cultures), purification and characterization of bone-inductive proteins and monoclonal antibodies, engineering of predictably degrading bone-regenerating systems, biodegradable polymer chemistry and microencapsulation and time-release drug delivery systems. Doctoral degree in life sciences or biomedical sciences is required. Annual stipend for recent graduates is $27,750 and is appropriately higher for those with more than 5 years of experience. Relocation reimbursement and funds for professional travel are available, and a health insurance program is offered. Awards are for 1 year with possible renewals to a total of 3.

For further information contact:
Dr. Jeffrey Hollinger at (202) 576-3764 or Dr. Anshumali Chaudhari at (202) 576-3482.
Their mailing address is:
U.S. Army Institute of Dental Research
Walter Reed Army Medical Center
Washington, D.C. 20307-5300

For application materials, write to:
Associateship Programs (GR 430/FDR),

NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue, N.W.
Washington, D.C. 20418
FAX: (202) 334-2759

Application Deadlines are January 15 and August 15, 1991.
Topics: The Section of Cardiovascular Disease at the University of Oklahoma Health Sciences Center is seeking postdoctoral candidates to work in an active cardiac electrophysiology research group encompassing the following areas: isolated myocytes with fluorescence microscopy and patch clamping; in vivo and in vitro physiological modeling of arrhythmias; computer based processing and modeling of electrical signals from each milieu. Candidates will work with an interdisciplinary team of physiologists, pharmacologists, biomedical engineers and physicians. Candidates should have completed their doctoral requirements in one of these or related areas. Please send CV and three references to Benjamin J. Scherlag, Ph.D., Department of Veterans Affairs Medical Center, 921 NE 13th Street, Oklahoma City, OK 73104 (405) 270-0501 ext. 3553, FAX (405) 270-5132.

ASSISTANT PROFESSOR, PHARMACOLOGY OR TOXICOLOGY.

The Department of Medical Pharmacology & Toxicology at Texas A&M University College of Medicine is expanding its faculty. Special attention will be given to candidates with research interests and expertise in ocular pharmacology, cardiovascular pharmacology or toxicology, although qualified applicants with other interests and expertise will certainly be considered. Appointment will be at the assistant professor level in a tenure-track position. Candidates should hold a Ph.D. and/or M.D. and have a minimum of two years postdoctoral experience. All faculty are expected to establish a strong research program and participate in the teaching of medical and graduate students. Send CV, statement of research interests and career goals, no more than three representative publications and names of at least three references to Dr. Kelly Heeter, Chair, Faculty Search Committee, Department of Medical Pharmacology and Toxicology, College of Medicine, Texas A&M University, College Station, TX 77843-1114. Deadline for receipt of applications is January 15, 1991. Texas A&M University is an equal employment opportunity/affirmative action employer. Women and minority candidates are encouraged to apply.
University of Prince Edward Island
Dean of Veterinary Medicine

The University of Prince Edward Island invites applications and nominations for the position of Dean, Faculty of Veterinary Medicine.

The Atlantic Veterinary College is North America's newest institution of veterinary medical education. Founded in 1986, and fully accredited in 1989, the College has a faculty of 64, a professional student body of 200, 35 graduate students in the M. Sc. program, and a staff of 120. The Faculty of Veterinary Medicine is one of five Faculties within the University. Its Dean reports to the President, and together with other Deans has substantial responsibilities with respect to administrative affairs at the University level. The Dean is an ex officio member of the Academic/Administrative Committee advisory to the President, the University Senate, and a number of Senate Committees.

The Faculty of Veterinary Medicine is organized in four Departments (Anatomy and Physiology, Companion Animals, Health Management, and Pathology and Microbiology), and six additional administrative subdivisions (Academic Programs, Animal Services, Continuing Education, Fish Health, Graduate Studies and Research, and Veterinary Teaching Hospital). The Dean has general administrative authority over the Faculty of Veterinary Medicine. Among his or her responsibilities are promotion of College programs in professional and graduate education, in basic and applied research, and in clinical and diagnostic services; establishing positions, recommending faculty appointments, and supporting faculty development; and contributing as indicated to University administration.

A Candidate for the position of Dean, Faculty of Veterinary Medicine, must hold the Doctor of Veterinary Medicine degree or its equivalent and be qualified for appointment with tenure at the rank of Full Professor in one of the four academic Departments. Additional desirable qualifications may include several years of suitable administrative experience, a graduate degree in a relevant discipline and/or specialty board certification, an understanding of future trends in veterinary medical education, research, and service, and a commitment to the service obligations of veterinary medicine.

The successful candidate will be able to develop and maintain effective relationships with units within the University, with public and private funding agencies, Government departments, veterinary professional organizations, and with practicing veterinarians throughout the region and the nation.

Applications should contain detailed curriculum vitae, and other supporting materials of the applicant's choice. Persons wishing to identify a potential candidate by letter of nomination are encouraged to do so. The University of Prince Edward Island is committed to employment equity. We encourage applications from all, including aboriginal people, people with disabilities, visible minorities, and women.

Receipt of applications and nominations will close on February 1, 1991. Interested persons may send application or nomination materials to:

Dr. James F. Amend
Search Committee for Dean,
Faculty of Veterinary Medicine
Atlantic Veterinary College
University of Prince Edward Island
Charlottetown, P.E.I.
C1A 4P3
Canada

RESEARCH SCIENTIST. Minimal teaching responsibilities. This is a tenure-earning position that carries the rank of Assistant or Associate Professor. The Department of Biocommunication is a joint basic science department in a major urban medical center. Technical support and laboratory facilities are excellent. We seek an individual who is seriously committed to pursuing a career in speech science. Specialization in speech motor control/disorders is desired but not essential. Candidates should have demonstrated research ability and excellent written/verbal skills. The person will be expected to publish and seek external funding. Send inquiries to James E. Flege, Ph.D., Chair, Search Committee, UAB Station, Box 503, Birmingham, AL 35294. The University of Alabama at Birmingham is an affirmative action/equal opportunity employer.

NUTRITION FACULTY. Applications are invited for tenure-track faculty in the Department of Nutrition and Food Science at the associate/full professor rank. The successful candidate will be expected to maintain a vigorous research program in nutrition with extramural funding and teach at graduate and undergraduate levels. There are excellent opportunities for collaborative research with medical school research groups. Candidates should submit a complete CV, a statement of research plan, names and telephone numbers of three references to Dr. Leora Shelef, Chair, Department of Nutrition and Food Science, 160 Old Main, Wayne State University, Detroit, MI 48202. Equal opportunity/affirmative action employer.
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Membership in the Federation of American Societies for Experimental Biology and in Its Constituent Societies

Membership in the Federation is limited to societies; there is no individual membership. Any society in the field of biological science may apply for membership, either corporate or affiliate, and may be admitted by a three-fourths majority vote of all members of the Federation Board. The societies listed below presently constitute the Federation.

Since requirements and procedures for election to membership in the member societies vary, the following information is provided:

Corporate Members

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American Society for Biochemistry and Molecular Biology. Investigators residing in the Americas who have demonstrated the ability to conduct meritorious original investigation in biochemistry or molecular biology are eligible for Regular membership. Such individuals must be nominated by two Regular members of the Society and, if favorably recommended to the Council by the Membership Committee, will be elected at any regular meeting of the Society. Individuals not yet fulfilling the requirements for Regular membership may be nominated by two Regular members for Associate membership. Nominees for Associate membership become members immediately on nomination. Eminent biochemists residing in countries other than the Americas may be nominated for Honorary membership. Individuals not otherwise eligible for any type of membership, but who have made significant contributions through service to biochemistry or molecular biology are eligible for designation as a Distinguished Service Associate. Nomination forms and specific nomination criteria may be obtained from ASBMB Membership Secretary, 9650 Rockville Pike, Bethesda, MD 20814.

American Society for Pharmacology and Experimental Therapeutics. Any qualified investigator who has conducted and published a meritorious original investigation in pharmacology and is a resident of the United States, its dependencies, Canada, or Mexico shall be eligible for Regular membership in the Society. Nominees for membership shall be proposed by two members of the Society who are not members of the Council or of the Membership Committee at the time of the initial nomination. Other classes of membership include Affiliate and Student/Fellow, which are for pharmacologists who are either residents of a country other than the USA, Canada or Mexico, are not now active in research, or who are advanced students or are fewer than 5 years past their doctoral degree. Nomination forms are printed in THE PHARMACOLOGIST and are available from MRS. KAY A. CROKER, Executive Officer, 9650 Rockville Pike, Bethesda, MD 20814.

American Association of Pathologists. Successful candidates for membership in the AAP are independent investigators with solid scientific qualifications, commitment and continuing productivity in experimental pathology or related disciplines. Not all members are pathologists, but are investigators with a strong interest in the pathogenesis and diagnosis of disease. Candidates are nominated by at least two members of the Association for approval by the Council and a majority of members attending the annual AAP Business Meeting. Nominations for Trainee membership (residents or fellows) are accepted from AAP members who can certify the training status of the nominee. Additional information and application forms may be obtained from DR. FRANCES A. PITLICK, Executive Officer, 9650 Rockville Pike, Bethesda, MD 20814.

American Institute of Nutrition. Any person who has conducted and published meritorious original investigations in some phase of nutrition and who is professionally active in the field of nutrition shall be eligible for Active membership. Persons rendering superior service to nutrition through teaching, administration, or technical service may also be deemed eligible. Nominees shall be sponsored by two members of the Institute. Nominations should be received by February 1, and those nominations approved by Council will be presented for election at the annual business meeting. Other classes of individual membership include Associate, Emeritus, and Student. Membership in the American Society for Clinical Nutrition, the Clinical Division of the AIN, is based on professional activities in the area of clinical nutrition. All nominees for ASCN membership must be members of AIN or be considered for election simultaneously. AIN/ASCN nomination forms are available from the AIN Secretariat, 9650 Rockville Pike, Bethesda, MD 20814.

The American Association of Immunologists. Investigators qualified by virtue of a doctorate degree or equivalent experience and training who have conducted and published meritorious original investigations in immunology or related disciplines are eligible for membership. Candidates must be nominated by two members of the Association. The recommendations of a membership committee are submitted for election by the membership at the annual spring meeting. For application forms write to DR. JOSEPH F. SAUNDERS, Executive Director, 9650 Rockville Pike, Bethesda, MD 20814.

Affiliate Member

The American Society for Cell Biology. To be considered for Regular membership, an applicant must hold the Ph.D. or equivalent degree or have equivalent experience, and be sponsored by two Regular or Emeritus members. Other classes of membership are Emeritus and Student. Further information and forms may be obtained from MS. DOROTHEA C. WILSON, Executive Officer, 9650 Rockville Pike, Bethesda, MD 20814.

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