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Outline of Zetetics. Joseph T. Tykociner. Dorrance, Philadelphia, ed. 2, 1971. xiv, 170 pp., illus. \$5.95.

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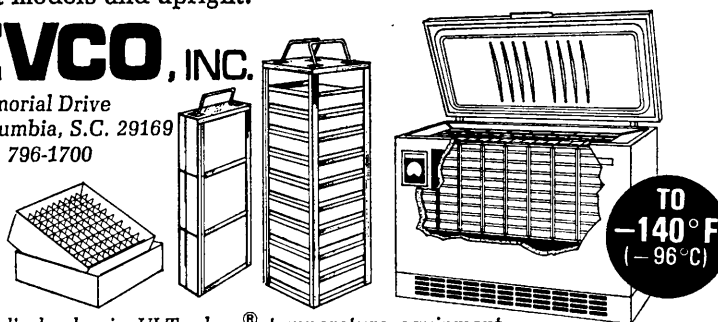
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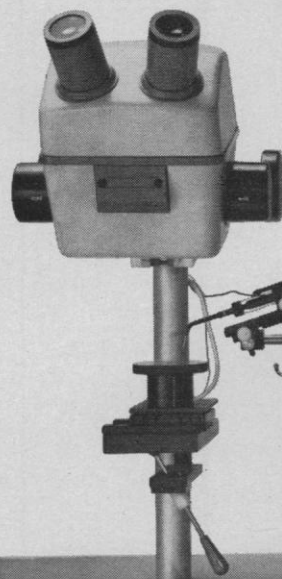
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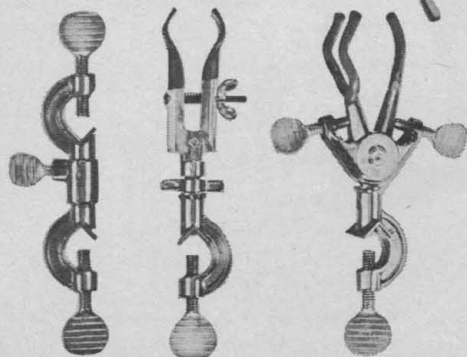
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SCIENCE, VOL. 175

Personnel Placement

POSITIONS WANTED

Biochemist-Chemist (Physiology) Ph.D. Desires responsible senior position, fundamental and applied, with university, institute, or industry. Experience in clinical biochemistry, cancer research, college teaching, and pharmaceutical production. Publications. East. Box 37, SCIENCE. X

Biologist, Biochemistry background desires challenging academic position in either biomedicine, chemistry, or biology. Experience in teaching/research/curriculum and facility planning/administration. Box 38, SCIENCE. X

Biology Administration, Ph.D., broad interest, publications. Experience in teaching, research, grant administration, curriculum and facility planning. Box 39, SCIENCE. 1/28

Biologist, Ph.D. (genetics, 1965), broad training, 36. Special interest innovative undergraduate education. Desires to help build creative major in academically sound department. Write c/o Box 34823, Dallas, Texas 75234. 1/21

Biologist/Chemist, Ph.D., university teaching experience, 14 years of research experience electrophoresis, protein, nucleic acid fractionation, tissue culture. Industry, university, government position. Interests: development, hormones, vitamins, cell biology, aging, enzymes. Box 9, SCIENCE. 1/21

Specialist in Scientific Instrumentation seeks research position; many papers on chemical, electromedical, thermometric and electronic instruments; presently visiting associate professor. Box 33, SCIENCE. 1/21, 28

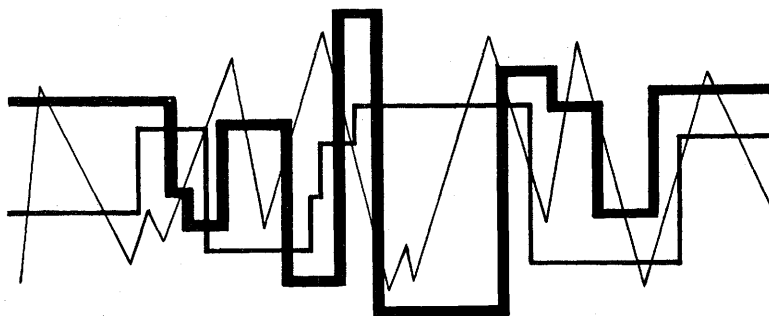
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We have an opening for a Ph.D. in Biochemistry to perform independent research in the area of protein biochemistry, particularly in isolation and characterization of human plasma proteins. Your background should include some work experience in immunochemistry and immunochemical techniques.

If you would like to investigate this opportunity in depth send your resume in confidence to: Dr. Duane D. Schroeder, Biochemical Research Supervisor, 4th and Parker Streets, Berkeley, California 94710. We are an equal opportunity employer.

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Science: Growth & Change

by Henry W. Menard

A Union for Scientists? Yes, contends Henry W. Menard in this perceptive analysis of the growth of science in the United States. "I am principally concerned with scientists who do not win prizes, who are equally dedicated and hard working, but who may have a bleak future if present trends continue," Menard writes. The present trends he refers to are the overabundance of some scientists in certain specialized fields who are unable to transfer to another field; the disproportionate funds allocated to research in rapidly expanding fields to the detriment of others; the lack of political power for scientists as a group and their inability to make their views heard. A scientific and technological union, he proposes, would help solve these and other pressing problems of the scientist in today's scientific community. \$10.00

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Research Positions PATHOLOGIST

The candidate being sought should have a D.V.M. or Ph.D. in Pathology and have board certification. The position of pathologist involves integration with other members of a pathology team, particularly in the gross and histopathologic study of laboratory animals treated with a wide variety of therapeutic agents. Interest and experience in histopathology, differential diagnosis of induced and spontaneous lesions, animal surgery, clinical pathology and electron microscopy would be desirable. The ability to clearly assimilate and report data is essential.

PHARMACOLOGIST

To assume leadership responsibilities for several projects in autonomic/cardiovascular pharmacology. Candidate must have 5-10 years broad post-doctoral experience in either academic or industrial pharmacology. Academic training and practical experience should include a thorough working knowledge of autonomic and cardiovascular pharmacology.

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Cytologist, Ph.D. Publications. Research experience in insect experimental embryology, micro-manipulations, mammalian and human cytogenetics, tissue culture. Seeks research position. Box 40, SCIENCE. X

Embryologist, Descriptive and Experimental, Ph.D., seeks teaching position with research opportunities in college or university, preferably in central or north-central area. Box 6, SCIENCE. 1/21

Microbiologist, Ph.D., 14 years of research, development, and production. Work on hydrocarbon, enzyme, and special product fermentations. Experienced in genetic, phage, and control problems. Desires research or production position. No geographical limitations. Box 42, SCIENCE. X

Human Population Geneticist for senior position. Able and willing to teach biometry, genetics, and so forth, to undergraduates, but requires good computer facilities. Write for summary. Box 45, SCIENCE. 1/28

POSITIONS OPEN

U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND, ANTIMALARIAL DRUG DEVELOPMENT CONTRACT PROGRAM

The U.S. Army Medical Research and Development Command is responsible for a coordinated research program on the development of new antimalarial drugs, both prophylactic and therapeutic. Research contract support is given to qualified laboratories willing to undertake experimental programs of the following types:

1) **Chemical Synthesis of New Antimalarials.** Based upon sound biochemical rationale, literature leads which could be exploited, or structure/activity relationship, potential antimalarials are synthesized and screened in appropriate systems. Screening data are used to guide the syntheses.

2) **Acute and subacute toxicity studies on candidate new drugs in experimental animals.**

These studies have the objectives of establishing a safe drug dose level for candidate drugs in the most sensitive species, target organ of drug toxicity and clinical signs that predict these changes.

3) **Absorption, distribution, biotransformation and excretion of candidate new drugs in experimental animals.**

The objectives of these studies are to obtain pharmacokinetic and metabolic data for candidate drugs in experimental animals in order to predict the most efficacious treatment for clinical trials.

4) **Experimental formulation of candidate drugs.**

The objective of these studies is to prepare experimental dosage forms to provide optimal bioavailability of candidate drugs from oral administration.

5) **Development and utilization of in vivo and in vitro biological models for the testing of compounds.**

These studies have the objective of developing more rapid, inexpensive, and reliable biological tests to evaluate suppressant and prophylactic antimalarial activity. Both screening tests and tests for advanced evaluation of candidate antimalarials are needed.

Many of the programs require an interdisciplinary approach. Factors considered in awarding a contract include, but are not necessarily limited to:

- a. Soundness and cogency of rationale
- b. Qualifications and experience of personnel
- c. Allotment of adequate time
- d. Adequacy of activities and equipment
- e. Budget

Proposals must include specific approaches and an appreciation of the limitations of these approaches.

Acceptance of a contract implies a willingness to participate in a coordinated national program. This necessitates close collaboration with other participating contractors, with the staffs of the U.S. Army Medical Research and Development Command and the Walter Reed Army Institute of Research, and the submission of prompt and comprehensive reports.

In addition to submitting proposals on specific topics, as advertised in the U.S. Department of Commerce *Business Daily*, scientists interested in and qualified for these programs are invited to indicate their specific program interest and to send résumés of training, experience, and facilities showing their qualifications for participation.

In addition to advertising, when requests for proposals are desired by the Command, they will be sent directly to those qualified scientists expressing an interest and having a capability in the program involved.

For information write to: **Commanding General, U.S. Army Medical Research and Development Command, ATTN: SGRD-PC, Washington, D.C. 20314.**

POSITIONS WANTED

Thirty-year-old Ph.D. Invertebrate Biologist with publications concerning pesticide degradation, metabolism and effects on avian reproductive physiology has spent 3.5 years directing the development and execution of the biological aspects of USAF bioengineering water pollution assessment and control program in the CONUS. Seeks academic or industrial position. Box 41, SCIENCE. X

Microbiologist, Ph.D., postdoctoral experience and publications, seeks teaching, research or industrial position commencing summer or fall 1972. Box 46, SCIENCE. X

Minority Group Ph.D. Invertebrate zoology, marine ecology, physiology. Postdoctoral and teaching experience. Broad background. Publications. Box 43, SCIENCE. X

Parasitologist, 27, Ph.D. 1972; publications. Seeks teaching/research position. Research interests: Schistosomiasis, parasite immunity. Teaching interests: Parasitology, biology, aquatic ecology, comparative physiology. Available summer 1972. Box 44, SCIENCE. X

Two Ph.D.'s, 1969 and 1971, ages 43 and 40, willing to share one challenging full-time teaching position in order to afford opportunity for independent research and time for families. Special interests: Mycology-microbiology; systematics-ecology. Teaching competence in all botanical subjects. Both NASA fellows; both NSF fellows. Broad liberal arts backgrounds. Computer experience, publications. Prefer western United States. Contact M. L. Thornton, University of Montana, Missoula, or D. V. Clark, Colorado Mountain College, Glenwood Springs, Colorado. X

POSITIONS OPEN

RESEARCH MICROBIOLOGIST

Ph.D. biochemistry and immunology of bacterial infections. Available February 1972. State university, Midwest. Send résumé, salary requirements and names of references.

Box 32 SCIENCE

FELLOWSHIPS

POSITIONS OPEN

UNIVERSITY OF CALGARY, Graduate Teaching and Research Assistantships are available for students proceeding to the Ph.D. or M.Sc. degrees in all branches of **CHEMISTRY AND BIOCHEMISTRY.** The assistantships are valued from \$3600 to \$4600 per annum and carry remission of fees and a travel allowance. For further information write to: **Dr. E. Tschuikow-Roux, Department of Chemistry, University of Calgary, Calgary 44, Alberta, Canada.**

MICROBIOLOGIST

Wanted for developmental research on poultry vaccines. Appropriate research experience in virology desirable. Salary open. Available immediately. Contact **Dr. Hiram N. Lasher, President, Sterwin Laboratories Inc., Millsboro, Delaware 19966; Phone 302-934-9274.**

M.D. OR PH.D. CANCER BIOLOGIST with knowledge of latest cell kinetic techniques needed to join cancer immunological research group. Salary negotiable depending upon qualifications. Reply with curriculum vitae to: **S. Leshner, Ph.D., Allegheny General Hospital, 320 East North Avenue, Pittsburgh, Pa. 15212.**

GRADUATE STUDY

GRADUATE TRAINING IN BIOCHEMISTRY Leading to Ph.D. degree available at a distinguished cancer research institute. Full tuition and fellowships available to qualified U.S. citizens. Apply early for September 1972 admissions. Write **Dr. Herbert Weinfeld, Roswell Park Graduate Division of State University of New York at Buffalo, 666 Elm Street, Buffalo, New York 14203.**

GRADUATE STUDY IN PHARMACOLOGY. A program leading to the Ph.D. degree involving course work and research training which stresses research on fundamental mechanisms of drug action on neural, neuro-humoral, membrane transport, and endocrine systems using electrophysiological, biochemical, and computer techniques. Full stipend and tuition available to qualified U.S. citizens. Early application for September 1972 strongly advised. **Department of Pharmacology, Schools of Medicine and Dentistry, State University of New York at Buffalo, 122 Capen Hall, Buffalo, N.Y. 14214.**

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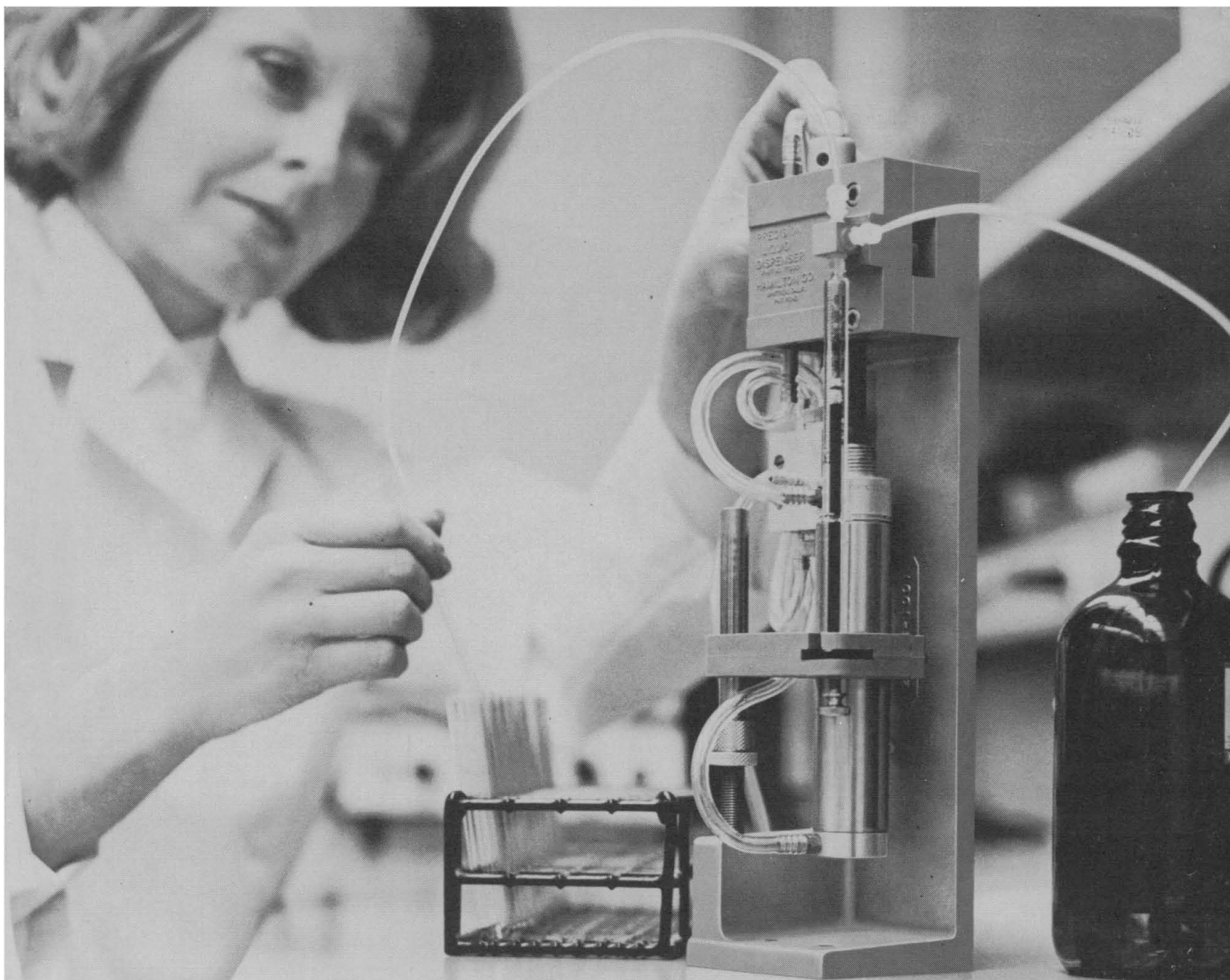
Fellowships are normally for a period of 2 to 4 years with the right, by agreement, to remain at the end. The emolument will be up to \$NZ 12,151 a year depending on scientific merit. The emolument is taxable.

\$NZ 2.1 is approximately £1 sterling. If applicable, the employer's contribution to superannuation scheme will be paid. If reciprocal social security between the Fellow's country and New Zealand does not apply a medical insurance premium will be paid.

A grant equivalent to return economy-class air fares from the Fellow's home to New Zealand will be paid. If the Fellow's wife and family accompany him a grant equivalent to their return fares will also be paid. A grant will be made towards the cost of transport of personal effects. While in New Zealand reasonable travelling expenses incurred in connection with the research work will be paid. Housing is available for a married Fellow.

Further details and application forms are available from The Director, Ruakura Animal Research Station, Private Bag, Hamilton, New Zealand. Applications close with

**The Secretary,
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