

# 1

## Double Monochromator Provides High Performance

# 2

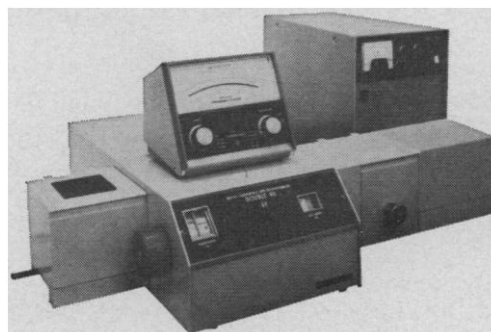
## Automatic 0 and 100% T Adjustment Ensures No Drift

### TWO UNIQUE FEATURES OF SHIMADZU SINGLE-BEAM SPECTROPHOTOMETERS

The Shimadzu Double-40 Series of Spectrophotometers is a unique modular spectrophotometric system built around a prism-grating double monochromator which provides high resolution (better than 2Å), low stray light (0.001% at 195 mμ), and high photometric accuracy (better than 0.2%T in expanded range). Other features: Automatic 0 and 100%T adjustment ensures no-drift single beam operation; undesired grating orders are eliminated by prism-grating configuration; wavelength readout is linear; the slit readout is in mμ of spectral bandwidth; the unit is extremely simple to operate.

Interchangeable detection modules are easily manipulated on a rigid optical bench, offering optimum accuracy and sensitivity for studies of either turbid samples or solutions. Interchangeable sample compartments and monitoring systems (direct meter readout, digital readout device, and recorder presentation) are also available.

For more complete information, write to Aminco.



Shown above is the Double 40S. This unit includes a prism-grating double monochromator, UV and VIS sources, a solid state electronic console, a meter readout and an automatic 0% and 100% adjustment system. The sample compartment contains a 4-cell holder that is usable with both 1 cm and 2 cm cells.



**AMERICAN INSTRUMENT COMPANY**  
DIVISION OF TRAVENOL LABORATORIES, INC.  
Silver Spring, Maryland 20910



The Shimadzu Double-40 Series and Spectrophotometers are distributed exclusively in the U.S. and Canada by the American Instrument Co.

## Personnel Placement

### POSITIONS WANTED

**Biochemist**, Ph.D. Extensive publications in the biochemistry and pathology of atherosclerosis wishes to join cardiovascular team. Box 342, SCIENCE. X

**Cell Biologist**, Ph.D. (microbiology) 1967; age 37. Experience in industry as virologist prior to doctorate; in academia directing clinical cytogenetics laboratory since doctorate. Thesis training as molecular biologist. Teaching experience in genetics, molecular biology and introductory biology. Desires administration/research or teaching. Box 343, SCIENCE. X

**Computer Scientist**, Ph.D., 14 years' experience applications, software, language design, computer architecture, teaching. Seeks academic teaching/research appointment. Publications. Reply Box 241, Claremont, California 91711. X

**Cytogeneticist—RMT**, experienced senior technician, medical genetics unit; interest in cell biology, biochemistry and molecular biology research also. Desires academic or industrial lab. Box 344, SCIENCE. X

**German into English**: scientific-technical-medical. Fast, exact. Write for rates, ATA member. Lee Stavenhagen, Ph.D., Box 1141, Galveston, Texas 77550. X

**Meteorologist/Oceanographer**, M.S. 1969, teaching/research experience, pollution interest, waves, turbulence, air-sea interaction, dynamics. Box 346, SCIENCE. X

### POSITIONS WANTED

**Analytical Biochemist**, Ph.D. Experienced in physical instrumentation (GLC, MS, IR, NMR) applied to biochemical problems. Publications. Currently postdoctorate. Seeks academic position, research/teaching. Box 347, SCIENCE. X

**Physicist**, Ph.D., young, industrial research experience. Seeking position in research, teaching, social service, or other. Will consider foreign and/or the unusual. Box 348, SCIENCE. X

**Plant Physiologist—Astrologer** Ph.D. research in biochemical genetics, postdoctoral experience. Has found astrology has substance and should be taught/researched. Midwest to West. Box 349, SCIENCE. X

**Psychologist** (Ph.D. 1960). Research background in psychopharmacology, learning, motivation, and neurophysiology. Publications. Interested in research position in an active laboratory. Box 351, SCIENCE. X

### POSITIONS OPEN

#### BIOCHEMISTS AND PHARMACOLOGIST

For southern New England university affiliated State mental hospital research laboratory. Technicians, B.A., (2) \$8623; Research Associate, M.S., (2) \$9601; Research Scientist, Ph.D., (2) \$12,383-\$20,128.

Box 331, SCIENCE

#### HISTOLOGIST Ph.D.

Ph.D. or equivalent in histology, parasitology, experimental pathology, or toxicology. Interested in learning evaluation of the safety of chemicals and drugs on a multidisciplinary basis as applied to the environment. Academic appointment in a leading eastern medical college. Send complete résumé, in confidence, to

Box 350, SCIENCE

### POSITIONS OPEN

#### MALE AND FEMALE BIOCHEMICAL-PHARMACOLOGIST M.S.

For work on biochemical evaluation of new anticancer drugs as a member of a clinical research unit. Must have wide experience of research techniques.

*Equal Opportunity Employer*

Apply to: **Dr. Patrick J. Creaven, Section of Oncology, V.A. Hospital, 50 Irving St., N.W., Washington, D.C. Phone: 483-6666, x479 or 6806.**

#### CHAIRMAN, DEPARTMENT OF BIOLOGICAL SCIENCES BROCK UNIVERSITY ST. CATHARINES, ONTARIO, CANADA

Applications are invited for the position of Chairman of the department for a renewable three-year term. The department is in a growing university, has ten faculty members at present and offers undergraduate programs leading to Honours and Pass Bachelors degrees. The department, which incorporates biochemistry, offers an M.Sc. program in cellular and molecular biology and is planning one in ecology. Candidates should have demonstrated research competence and teaching ability and have had appropriate administrative experience. The deadline for applications is 1 November 1970 and the appointment will become effective 1 July 1971.

Applications, including curriculum vitae and the names of at least three references, should be sent to:

**Dr. R. P. Rand**  
Chairman Applications Committee  
Department of Biological Sciences  
Brock University  
St. Catharines, Ontario, Canada

## PHARMACOLOGIST

Lederle Laboratories, a leading pharmaceutical manufacturer offers an opportunity for a Ph.D. Pharmacologist to evaluate results of preclinical studies.

This person should have 3 to 5 years experience as a Research Pharmacologist in the pharmaceutical industry or full time toxicological research experience in the university. Ability to summarize and evaluate animal scientific data is essential. Scientific editing experience in biology or medicine is desirable.

Liberal benefits and excellent working conditions. Location within 45 min. of New York City.

Please send resume and salary history to:

Mr. Fred J. Rella



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### CLINICAL BIO-STATISTICS

If have begun your career as a biostatistician with a pharmaceutical company but feel the need for greater involvement in the area of CLINICAL Research—we have something to offer you! At Warner-Lambert you will participate in all aspects of clinical research from protocol design to final report writing. Your assignments will vary to maximize your development and your associates will be the kind of personnel you can learn from. Our requirements include a Master's Degree or equivalent experience with a good background in experimental design and medical data analysis. Confidential replies to Mr. Robert Brand

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### BIOCHEMIST

or

### MOLECULAR BIOLOGIST

Biologically oriented Biochemist with Ph.D. and several years' postdoctoral experience to do research on newly emerging aspects of metabolic control having possible therapeutic potential. The candidate should have had experience and demonstrated some originality in the development of potential regulatory factors in such fields as reproduction, viral replication, or related areas. Interested person should send a resume of education and research experience to: Charles L. Smith, Research Administrator.

**WYETH LABORATORIES**

P.O. Box 8299

Philadelphia, Pa. 19101

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## MANAGER LIFE SCIENCES

Major health care conglomerate located in Middle Atlantic state now in first phase of aggressive diversification program in diagnostics and lab medicine seeks a mature, innovative and well-organized doctoral level scientist to direct its multidisciplinary biomedical research program as Manager Life Sciences, Research Section.

The successful candidate should have a Ph.D. in clinical chemistry or one of the biological sciences and several years successful research and administrative experience in the diagnostic or clinical laboratory field.

Our employees know of this ad. Reply in confidence stating salary requirements to:

**Mr. Thomas J. Mulderig**  
**Director of Industrial Relations**  
**J. T. Baker Chemical Company**  
**Red School Lane**  
**Phillipsburg, N. J. 08865**

## CAREER

TRAINING IN

## HEALTH SCIENCE

ADMINISTRATION

Through the

PHS Grants

Associates Program

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

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

These positions will be for appointment in the fall of 1971.

If you hold a doctorate or equivalent in a discipline related to the biomedical sciences, including the behavioral sciences, have significant research at the postdoctoral level, and are motivated to health science administration as a profession, you should investigate the opportunities offered by the Grants Associates Program. The beginning salaries for these Civil Service appointments range up to \$19,643. U.S. citizenship required.

For information write: The Executive Secretary, Grants Associates Program.

## NATIONAL INSTITUTES OF HEALTH

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

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# To err is human.

BUT IN A  
LIQUID SCINTILLATION SYSTEM,  
ACCURACY SHOULD BE UNCOMPROMISINGLY HIGH.  
IN OUR SYSTEMS, IT IS, IT IS.

Minimize the experimental variables from sample to sample, from batch to batch—and accuracy becomes an attainable goal. That's exactly what we've done in our systems: The 300-sample, multi-user Mark II™ for high-performance, cooled counting; and the 100-sample, cooled bench-top Unilux® IIA that offers higher  $E^2/B$  than ever.

Both systems come with our patented geometry-optimized external standardization, which uses precise mechanical source placement—directly under the sample vial. For true volume independence and reproducible source-to-vial geometry.

And  $^{133}\text{Ba}$  is our choice as the external standard. It alone most closely matches  $^{14}\text{C}$  and  $^3\text{H}$  quenching. So quench curves are easier to derive and more accurate.

Turn now to controlled-temperature cooling. In the

Mark II and Unilux IIA it eliminates temperature variations and creates a stable, reproducible counting environment. Further, it enhances the stability of counting systems such as Triton X-100.

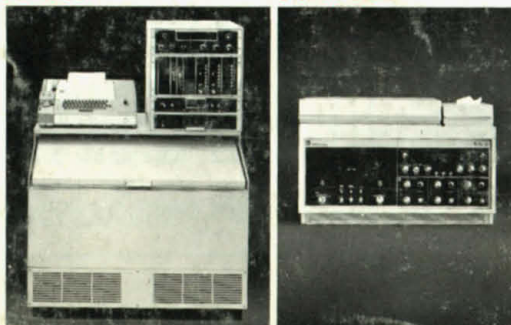
Two more accuracy enhancers: First, automatic calibration is available for those who require the ultimate in long-term stability. This feature allows longer use of quench-correction curves and gain settings. Second, these systems have air-coupled optics to minimize distortion, yellowing, and imprecise light transmission.

Uncompromising accuracy is what validates the Mark II's high performance (guaranteed efficiency of 60% for  $^3\text{H}$ , with an  $E^2/B$  of better than 175 in the same channel).

Call your Nuclear-Chicago sales engineer for a run-down on the Mark II or the Unilux IIA. Or write to us. 0-222

Mark II

Unilux IIA



**NUCLEAR-CHICAGO**

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