

## NEWS AND COMMENT

(continued from page 850)

panies may yet get their way. The Hughes interests, according to industry rumor, have said they don't need the government's help anyway and plan to launch their barge irrespective of congressional or U.N. action. So the specter that the Japanese, Russian, or French mining vessels may close in on an American barge, with the U.S. Navy coming to defend its claim, may yet become reality.

For one thing, the State Department seems to be bowing to industry pressure and implying that the bravado of the mining interests at the U.N. and in Congress, and the Metcalf-Downing bill's threats of unilateral action, are a helpful club in the negotiations. John Norton Moore, the new chief of the U.S. delegation to the U.N. seabeds meeting, was asked in an interview whether it was confusing to have mining industry spokesmen, with a vested interest opposed to those of the official U.S. delegation, all wheeling around the United Nations. "We're simply doing what is straightforward and honest and conveying very clear signals to other countries—as to what our interests are. . . . I don't think there's any confusion. . . . They all know we have a Congress." Other observers have said that the State Department wants to keep the bill alive as a way of making certain other countries take our views seriously. And in an interview, Moore was surprisingly reluctant to criticize the Metcalf-Downing bill, even though Metcalf is on record as thinking it preposterous. And, as though this were insufficient warmth, Moore downplayed the reports of heavy lobbying by industry advisers to the delegation at seabed meetings.

Even though their favorite bill doesn't stand a chance of passage, the U.S. mining companies may yet launch their proposed undersea mining ventures—with or without the blessing of Congress or the 91-nation Law of the Sea meeting. Such an action could lead to a new congressional examination of the problem reminiscent of the fight over the SST; it could lead to an improved balance of payments and a stunning U.S. technology lead. Or it could lead to chaos over rival mining claims on the seas. In any event, deep-sea mining is sure to stir up more than just a few fish.—DEBORAH SHAPLEY

**Erratum:** In the letter "Politics of psychiatry" (23 Mar., p. 1184), the first signature should have been Paul L. Watson, not Peter L. Watson.

—EDITOR

## 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.

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

**POSITIONS OPEN:** \$110 per inch. No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Ads over 1 inch will be billed to the nearest half inch. Payment in advance is required except where 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 211  
1515 Massachusetts Ave., NW  
Washington, D.C. 20005

Replies to blind ads should be addressed as follows:

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

## POSITIONS WANTED

**Animal Virologist, Ph.D.,** seeks position in veterinary microbiology and allied fields; research, teaching experience; publications. Box 285, SCIENCE. X

**Ph.D. Biochemist, female,** seeks position in Los Angeles area, California, prefer medical research, familiar with nucleic acids and protein synthesis, protein isolation and characterization, immunology and clinical chemistry. Box 286, SCIENCE. X

**Consultation in Veterinary Comparative Histopathology:** Board certified veterinary pathologist will examine stained sections of animal tissues for toxicologic, research, or diagnostic studies. Box 287, SCIENCE. 6/1, 8, 15

**Developmental Biologist, Ph.D. 1969,** electron microscopy specialty, nine publications, desires teaching position at college level. Research opportunity preferred, but not essential. Box 288, SCIENCE. X

Excellent combination of **Directing Medical Research and Clinical Chemistry** for the past 20 years. University position. Seeks new position that will allow the development of new approaches in the diagnosis of disease. Academic or industrial. Box 289, SCIENCE. X

**Drug Metabolism Scientist, Ph.D.,** pharmaceutical sciences. Experience and interest in disposition of drugs and chemicals. Knowledge in isolation, identification and characterization by modern techniques, i.e., TLC, GC-MS, radiotracers, etc. Publications. Seeks challenging position. Box 290, SCIENCE. X

**Medical Chemist/Pharmacologist, Ph.D.,** seeks research/teaching position. Has active transferable grant on anti-cancer agents. Experience with synthesis and biological assay of anti-inflammatory and radioprotective agents and drug metabolism. Four years' teaching experience in medical center. Box 291, SCIENCE. X

**Pharmacologist, Ph.D. (7 years' teaching and research experience; over 60 publications in toxicology, blood coagulation, behavioral and addiction; edited two books on addiction)** seeks academic, research position in government or industry at senior level. Box 292, SCIENCE. 6/1

**Pharmacology Ph.D., veteran, medical undergraduate teaching research experience, seeks pharmacology / physiology / biology / paramedical teaching; foundation/industry considered.** Box 280, SCIENCE. 5/25

## POSITIONS WANTED

**Plant Biochemist/Physiologist, Ph.D., 1963.** Extensive experience teaching, research, some administration. Broad interdisciplinary background in science/humanities, environmental studies, evolution, philosophy of biology. Desires challenging, innovative teaching or administrative position. Box 293, SCIENCE. X

**Plant Physiologist/Biochemist, Ph.D., 1970.** Post-doctoral research, teaching, USDA experience, herbicides, growth regulators, and publications. Desires challenging research or teaching position. Box 294, SCIENCE. X

**Research Management/Information Statistics, B.A., B.Ed., M.A., M.Ed., Ph.D.** School science teaching, 19 years; university teaching, 8 years (plus substantial summer and part-time); government service, 9 years. William H. Lucow, 12 New Coach Lane, Willingboro, N.J. 08046. X

Currently employed **Sales Manager,** laboratory product line, seeks change of scene. Specialist technical sales through distributors, distributor relations, government-manufacturer relations, standards, product promotion. Superb standing and in-depth knowledge of laboratory supply industry. Right man to present and sell quality laboratory products in educational and industrial scientific fields. Capability and knowledge do not restrict to sales alone. Age 55, member ACS, FAIC, NSGA, AAAS. Box 295, SCIENCE. X

**Scientist, Ph.D. Female.** Project director—microbiologist, biochemist, nutritionist; experimentalist—reliable, creative antibiotics, vitamins, fermentations, enzymes, antioxidants, etc. Some teaching experience. Box 296, SCIENCE. X

## POSITIONS OPEN

**ASSISTANT PROFESSOR,** September 1973. Teach undergraduate laboratory courses in animal learning and advanced graduate courses. Expected to develop strong research program. Equal opportunity employer. Write to **Dr. Michael E. Rashotte, Search Committee, Department of Psychology, Florida State University, Tallahassee, Florida 32306.**

## PAHLAVI UNIVERSITY DEPARTMENT OF BIOLOGY SHIRAZ-IRAN

Applications are invited for the following positions:

1. Bacterial genetics.
2. Phycology/Mycology.

Appointments at assistant/associate professor's level on 2-year renewable contracts with an annual salary range equivalent to \$10,000 to \$13,000; depending on qualifications and teaching experience. Applicants with M.Sc. degree are also invited for the post of Instructor (Demonstrator) in Biology, with an annual salary range equivalent to \$2500 to \$3000. Please send written application, curriculum vitae and confidential recommendations from three referees to **Dean Ar-Rushdi, College of Arts and Sciences, Pahlavi University, Shiraz, Iran;** from whom particulars may be obtained.

## ASSISTANT OR ASSOCIATE PROFESSORSHIP

**Ph.D. Biochemist,** available 25 August 1973. Should have strong interest in undergraduate education. Teaching duties will include general biochemistry and general chemistry. Send résumé to **Chairman, Chemistry Faculty, University of Colorado, Colorado Springs, Colorado 80907.**

## THE UNIVERSITY OF BRITISH COLUMBIA FACULTY OF MEDICINE Department of Biochemistry

Applications are invited for the position of Professor and Head of the Department of Biochemistry. The applicant should hold a Ph.D. or M.D. degree and be well qualified in teaching and research in Biochemistry. The successful applicant would be responsible for: (a) administration of departmental affairs; (b) organization of undergraduate and graduate teaching programmes; (c) fostering development of research programmes in the department; (d) active participation in teaching and research.

The salary is negotiable, according to qualifications and experience.

Date of appointment is open.

Interested applicants should send a full curriculum vitae and the names and addresses of three referees to: **Dean David V. Bates, Faculty of Medicine, University of British Columbia, Vancouver 8, British Columbia, Canada.** Closing date for applications is 31 July 1973.

## POSITIONS OPEN

### ASSISTANT PROFESSOR OF BIOLOGY

Teaching responsibilities to include cell biology, developmental biology, general biology and botany. Ph.D. with teaching experience required. Send complete curriculum vitae and three letters of recommendation. Preliminary selections to be made by 23 June. Address:

Coordinator, Biology Department  
Marygrove College  
Detroit, Michigan 48221

### Cell Biologist-Tissue Cultivist, Ph.D.

A position as Research Associate in the Department of Human Genetics and Development is available for someone highly experienced in cell culture, to participate in a team study of genetic regulation of differentiated cellular function and use of cell fusion techniques to identify chromosomes involved in blood group determinants. Appointment on an annual basis, renewable. Send résumé and curriculum vitae to either Dr. O. J. Miller or Dr. E. A. Kabat, Columbia University College of Physicians and Surgeons, 630 West 168th St., New York, New York 10032.

An Equal Opportunity Employer

### CHAIRPERSON

Division of Social Sciences and Humanities, Health Sciences Center, State University of New York at Stony Brook. Vacancy on or before 1 September 1973. Experience in both health professional education and research/teaching in Humanities and Social Sciences at Associate or Full Professor level. *Equal Opportunity Employer.* Salary open. Contact Dr. Daniel Fox, Chairman, Search Committee.

**FACULTY POSITION: Experimental Cell Biologist** with active research program in cell structure and function with interest in techniques of tissue and cell culture, electron microscopy and cytochemistry. Either M.D. or Ph.D. degree will be considered with adequate research and teaching experience. Teaching responsibility will include different levels of cell biology and graduate student training. Reply to M. M. Dewey, Chairman, Department of Anatomical Sciences, Health Sciences Center, State University of New York, Stony Brook, New York 11790 by 30 June 1973.

An Equal Opportunity Employer.

### FACULTY FOR EVOLVING MAJOR MINERAL COLLEGE

Advanced Degree Essential  
Ph.D. Preferred  
Fields: Mining Engineering  
Geological Engineering  
Mineral Systems

Contact Dean Jay Hilary Kelley, School of Mines, West Virginia University, Morgantown, W.Va. 26506.

**FACULTY POSITION** at the assistant professor level for an individual with postdoctoral training in the field of molecular genetics with particular emphasis on the physical mapping of nucleic acids using electron microscopy and heteroduplex mapping as a principle approach. Applicants for this position should send their curriculum vitae and list of publications to the Department of Microbiology, School of Basic Health Sciences, State University of New York at Stony Brook, by 1 June 1973. The Health Sciences Center at Stony Brook is an equal opportunity employer and applications from minority candidates and women are welcome.

### HISTOPATHOLOGY SUPERVISOR

Anatomist, Ph.D. or M.S. with experience; training in histologic techniques, electron microscopy, histochemistry, immunohistochemistry. This individual will be required to supervise the usual routine techniques and also to utilize the more advanced techniques when indicated for diagnosis of surgical, cytologic or autopsy material. Position located in New York City. Send résumé and/or letter indicating salary required to:

Box 281, SCIENCE

### IMMUNOCHEMIST

Exciting program in viral oncology-tumor immunology. Capability in antigen separation, purification and immunoassay. Excellent salary.

Box 282, SCIENCE

## POSITIONS OPEN

### LIMNOLOGIST OR AQUATIC BIOLOGIST

Limnologist, or aquatic biologist, Ph.D., with strong background in mathematics and chemistry to cooperate with scientists of other disciplines in developing mathematical models for simulation of surface water quality. The incumbent's main contribution will involve identification, measurement, and model formulation of biota-nutrient interactions. Experiments in controlled environments or in field situations will be involved. It is desirable that the applicant be experienced in the analysis of natural ecosystems. Interested persons should contact: Dr. S. M. Zand, Research Hydrologist, Water Resources Division, U.S. Geological Survey, 345 Middlefield Road, Menlo Park, California 94025. Salary \$16,682 to \$19,700, depending upon qualifications. This position is in the career civil service, and applicants will be considered without regard to race, color, religion, sex, age, or national origin.

### MARINE GEOLOGY

Inquiries invited for possible opening in fall 1973 as Research Associate for research in deep-sea sedimentation; Ph.D. in oceanography and experience in deep-sea sedimentology and sediment transport dynamics required. For 1 year. Tj. H. van Andel, School of Oceanography, Oregon State University, Corvallis, Oregon 97331. Oregon State University is an equal opportunity employer.

### MEDICAL BACTERIOLOGIST

Assistant or Associate Professor interested in pathogenic bacteriology to teach and do research in a midwestern medical school. Requirements: Doctorate in microbiology or medicine and postdoctorate experience. *An Equal Opportunity Employer.* Send biographical data, with references to:

Box 283, SCIENCE

Applications are invited from qualified persons for two positions: one each in **Molecular Biology** (microbiological and/or physiological training preferred) and one in **Biomathematics** (ecological and/or oceanographic training preferred). Ph.D. required (or about to be awarded). Rank and salary subject to negotiation depending on experience. Appointments will be made on the basis of potential teaching and research. Regular teaching duties with both undergraduates and graduate students; excellent, new facilities for development of a research program.

Please send curriculum vitae to Professor James A. Organ, Chairman, Department of Biology, C.C.N.Y., Convent Avenue, New York, New York 10031.

*An Equal Opportunity/Affirmative Action Employer.*

Three Postdoctoral Fellows, **ovarian biochemical research**: 1) Protein chemist, hormone receptor interaction, expertise affinity labeling, affinity chromatography. 2) Organ, tissue or cell culture, Biologist. 3) Prostaglandin Biochemist. Salary—open. Minimum 2 years. Apply with curriculum vitae to Dr. J. Marsh, Endocrine Laboratory, University of Miami School of Medicine, P.O. Box 875, Biscayne Annex, Miami, Florida 33152.

In accordance with policy of Stanford University, the Department of Surgery of Stanford University School of Medicine invites applications for qualified candidates in the field of **pediatric surgery**. Candidates must be under the age of 42 and must have passed the General Surgical Boards, as well as completed training in pediatric surgery at an accredited institution. Additional specialty training, including research experience in pediatric fields, is desirable.

Stanford University has a faculty affirmative action program. Interested candidates are requested to submit their curriculum vitae to Dr. Roy Cohn, Professor of Surgery, Stanford University School of Medicine, Stanford, California 94305.

### ASSISTANT OR ASSOCIATE PROFESSOR OF PHYSIOLOGY

Ph.D. in physiology or related field with 2 or 3 years of experience minimum in teaching and research. Teach physiology to medical students, graduate students and allied health students. Develop research program in neuropharmacology, neurochemistry, neurophysiology, transport, or smooth muscle. Send curriculum vitae to Personnel Department, University of Vermont, Burlington, Vt. 05401.

*Equal opportunity/affirmative action employer*

## POSITIONS OPEN

### Plant Taxonomist—Director of Herbarium

To be appointed by September 1973 as assistant professor. Position involves teaching and research. Equal opportunities exist for qualified women and members of minority groups. Send curriculum vitae and three letters of recommendation to Chairman, Taxonomist Search Committee, Department of Botany, University of Illinois, Urbana, Illinois 61801.

### Veterinary Toxicologist

To conduct research on the toxicity of environmental chemicals to laboratory animals and wildlife. Send résumé to Gulf South Research Institute, Post Office Box 1177, New Iberia, Louisiana 70560.

*An Equal Opportunity Employer*

**VIRAL IMMUNOLOGY—IMMUNOCHEMISTRY.** Applications are invited for a faculty position in the Department of Microbiology, The Medical College of Wisconsin, from independent investigators to direct research and teaching in viral immunology-immunochemistry. Academic qualifications will determine rank and salary. Curriculum vitae, most significant reprints, and three letters of recommendation should be sent to: Dr. S. E. Grossberg, Chairman, Department of Microbiology, The Medical College of Wisconsin, 561 North 15 St., Milwaukee, Wisconsin 53233.

### VIROLOGIST

Assistant or Associate Professor interested in animal virology to teach and do research in a midwest medical school. Requirements: Doctorate in microbiology or medicine and postdoctorate experience. *An Equal Opportunity Employer.* Send biographical data, with references to Box 284, SCIENCE.

## COURSES

**Courses in Marine Biology for Undergraduates** of 2 to 12 weeks duration offered September to May by the Boston University Marine Program (BUMP) at the Marine Biological Laboratory, Woods Hole, Mass. Ecology of the Sea Margin, Coastal Birds and Mammals, Marine Mycology, Marine Ecology, Zoogeography, Marine Invertebrates, Ichthyology, Methods in Marine Biology, Marine Protists, Behavior of Marine Animals, Marine Algae, Comparative Physiology, Developmental Biology, and Invertebrate Paleocology. For information write to the Director of BUMP, MLB, Woods Hole, Mass. 02543.

### INTRODUCTORY ELECTRON MICROSCOPY

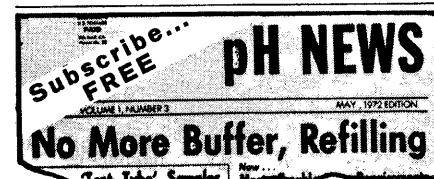
Cornell University, 9-20 July 1973

A course designed for scientists, either physical or biological, who would like to apply microscopical techniques in their research or development programs. The course provides a sound basis upon which participants can develop technical competence in microscopy. The course will consist of lectures, demonstrations, and laboratory practice. Instructors are Sydney S. Breese, Jr., of the Plum Island Animal Disease Laboratory and George G. Cocks of Cornell. For more information write or call Professor George G. Cocks, Olin Hall, Cornell University, Ithaca, New York 14850/607/256-5268.

## GRADUATE STUDY

Postdoctoral Instructors and Predoctoral Graduate Students in Immunology, Microbiology, Virology, Molecular Biology, Cellular Biology, and Oncology. Prerequisites—Predoctoral applicants: B.S. degree in biology, chemistry, or related fields with B average or better. Postdoctoral applicants: recent Ph.D. in Microbiology, Biochemistry, or related subjects. U.S. citizenship required. Applications should be submitted before 1 July to Dr. Sheldon Dray, Head, Department of Microbiology, University of Illinois Medical Center, P.O. Box 6998, Chicago, Illinois 60680.

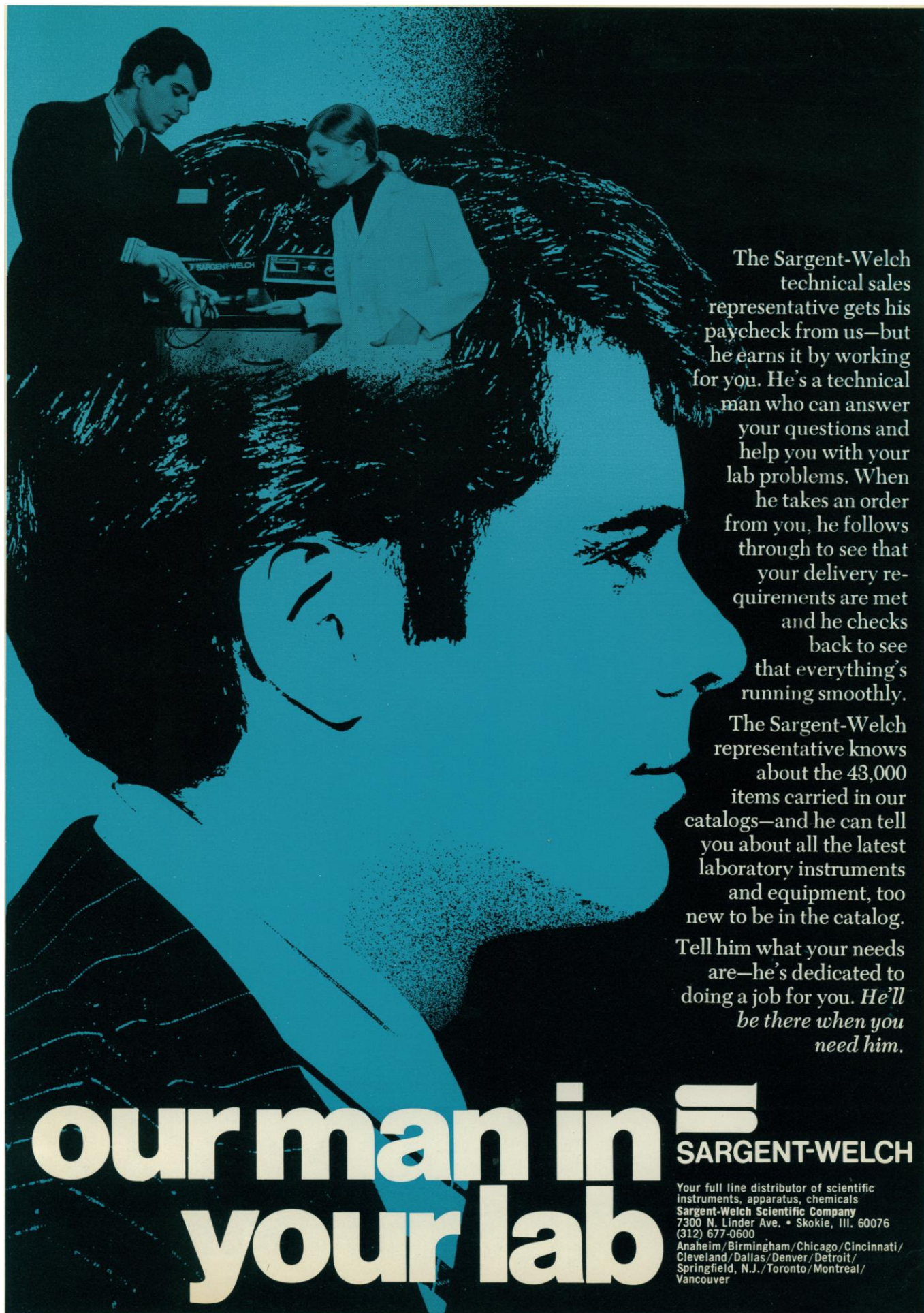
## The Market Place



Markson Science Inc. Box 767, Del Mar, CA 92014  
Circle No. 110 on Readers' Service Card

SCIENCE, VOL. 180





The Sargent-Welch technical sales representative gets his paycheck from us—but he earns it by working for you. He's a technical man who can answer your questions and help you with your lab problems. When he takes an order from you, he follows through to see that your delivery requirements are met and he checks back to see that everything's running smoothly.

The Sargent-Welch representative knows about the 43,000 items carried in our catalogs—and he can tell you about all the latest laboratory instruments and equipment, too new to be in the catalog. Tell him what your needs are—he's dedicated to doing a job for you. *He'll be there when you need him.*

# our man in your lab

**SARGENT-WELCH**

Your full line distributor of scientific instruments, apparatus, chemicals  
**Sargent-Welch Scientific Company**  
7300 N. Linder Ave. • Skokie, Ill. 60076  
(312) 677-0600  
Anaheim/Birmingham/Chicago/Cincinnati/  
Cleveland/Dallas/Denver/Detroit/  
Springfield, N.J./Toronto/Montreal/  
Vancouver

To have our representative call, circle # 15

For a free general catalog, circle # 16



## Add a vertical illuminator for incident light fluorescence

You can extend the versatility of your AO MICROSTAR microscope with the simple addition of our new compact Vertical Illuminator for incident light fluorescence microscopy. It fits any Series 10 or 20 microscope; attaches easily and quickly; requires no alignment or adjustment.

Fluorescence intensity is maximized by excitation with UV incident light regardless of specimen thickness or density. The microscope objective serves as both condenser and objective. Full field coverage is assured, even with the 10X objective.

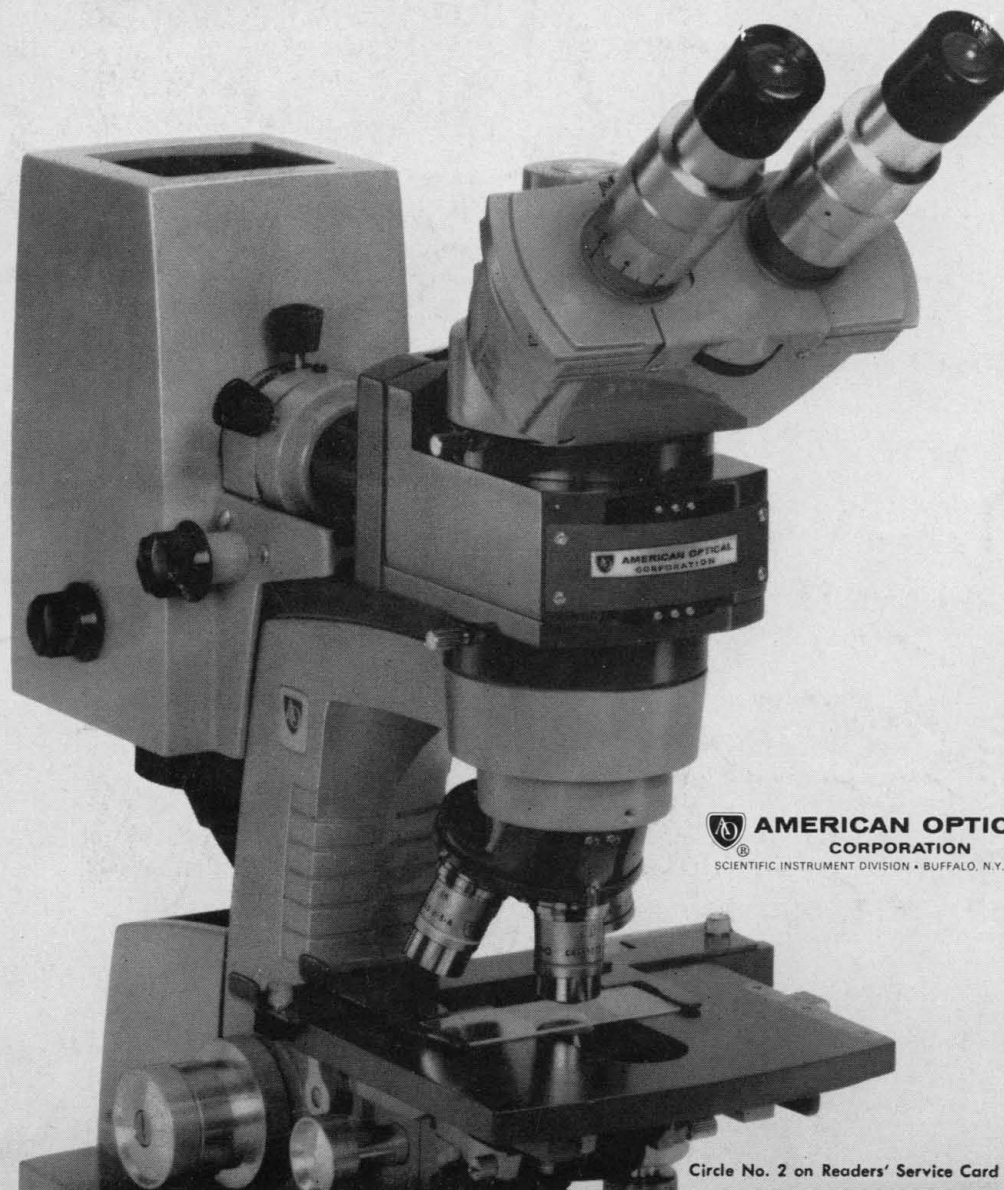
Exciter, barrier and dichroic filters are turret mounted for dial-in convenience. More than that, they can be identified by touch when working in subdued light.

Convert to conventional transmitted light merely by rotating filter turrets to a neutral position.

See your AO dealer or representative or send for detailed brochure on the AO Vertical Illuminator.

If you don't have a MICROSTAR microscope to use it with, we'll be glad to supply information on the Series 10 or 20 also.

### ...makes your AO MICROSTAR® do the work of two microscopes.



 **AMERICAN OPTICAL CORPORATION**  
SCIENTIFIC INSTRUMENT DIVISION • BUFFALO, N.Y. 14215

Circle No. 2 on Readers' Service Card