# PERSONNEL PLACEMENT

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**Replies to blind ads** should be addressed as follows:
Box (give number)
Science
1515 Massachusetts Ave., NW
Washington 5, D.C.

## POSITIONS WANTED

**Bioanalytic Chemist,** Ph.D., 1951. Diversified experience in methodology, laboratory and thesis supervision in university hospital. Research interests: instrument and method development; medicinal synthesis. Desires research or teaching post with wider responsibility. Box 45, SCIENCE. X

**Bioscience, Ph.D.** Age 45. Seeking position in medical institution teaching bioscience or mathematics while studying for M.D. Location immaterial. Box 48, SCIENCE. 3/7

**Botanist, Ph.D.** Teaching-research. Experienced, publications. Ecology, taxonomy, conservation. Box 46, SCIENCE. 3/7

**Microbiologist,** Ph.D., 34; 9 years of academic, industrial research: fermentations, quantitative virology, tissue culture, bioassay, extraction and purification of antibiotics. Patents; publications. Presently project leader with prominent midwestern pharmaceutical company. Wishes to relocate East in responsible, challenging research position. Box 42, SCIENCE. 2/28

**Research Scientists,** man and wife, Ph.D.; nutrition and biochemistry, foods and chemistry, respectively. Desire relocation other than South or Southwest, commercial or college; 6 years of research experience, publications, ages 36 and 38. Box 38, SCIENCE. 2/28

**Zoologist,** Ph.D.; 1 year grant supported postdoctoral research. Publications; 6 years' teaching and research at midwestern universities. Vertebrate zoology, ornithology, mammalogy, and ecology. Dynamic, lucid, and meticulous lecturer. Desires university position in teaching and research. Box 41, SCIENCE. 2/28; 3/7

## POSITIONS OPEN

**Anatomist.** Assistant professor or instructor for medical and dental school teaching, prefer person experienced in teaching of gross anatomy. Box 49, SCIENCE. 3/7, 14

**Bacteriologist,** male or female; senior technician with bacteriology-serology training to assist with research at Lobund Institute, University of Notre Dame. State qualifications. 2/28

(a) **Bacteriologist** and (b) **Chemist;** M.S. preferred, clinical experience necessary; newly created positions in private laboratory, two pathologists supervising several area hospital laboratories; research opportunity if desired, excellent facilities; to $6000; attractive midwestern city. (c) **Research Pharmacologist;** Ph.D. with CNS or cardiovascular training for basic research studies, new medicinal compounds, report, evaluate findings; $7500 up; eastern concern. (d) **Chief Biochemist,** Ph.D., able to initiate, coordinate basic clinical research program; large university affiliated hospital; to $8600; Southeast. (e) **Assistant Microbiologist;** degree bacteriology, serology or trained technologist; teaching duties in approved technology school; 500-bed general hospital; Midwest. (f) **Bacteriologist;** head department, active laboratory under supervision two pathologists; minimum $5000; scenic college city; West. Woodward Medical Bureau, Ann Woodward, Director, 185 North Wabash, Chicago. X

## POSITIONS OPEN

**Enzymologist,** Ph.D., for interesting research project in intermediary metabolism at an eastern university. Apply Box 47, SCIENCE. X

**Microbiologist.** Preferably a recent Ph.D. to participate in a long-range research program concerning immunological and biochemical aspects of mycology in a large California university. Major training in either mycology, bacteriology, or virology, and minor training in biochemistry desirable. Applicants should reply to Box 21, SCIENCE. 2/28

**NEW WORLD-WIDE SUMMER PLACEMENT DIRECTORY.** Thousands of opportunities in all states, many foreign lands for science teachers, and so forth, who have the summer free. Includes study awards, industry, camps, resorts, ranches, travel tour agencies, earning free trips to Europe, and so forth. Earn, learn, and travel while you vacation. Complete information, including salaries. Send $2 now. CRUSADE, Sci., Box 99, Station G, Brooklyn 22, N.Y. eow



**Professor of Physics,** head of department. Good salary, midwestern college with excellent record. Located in small town near metropolitan areas. Ph.D. required. Box 43, SCIENCE. 2/28

**Supervising Hospital Biochemist** for a clinical chemistry laboratory of a large university hospital affiliated with a medical college; also teaching opportunity. Broad experience is required. Salary range up to $7830. Liberal personnel policies. Please address communication indicating your background and experience to the Administrator, H. N. Hooper, Cincinnati General Hospital, 3231 Burnet Avenue, Cincinnati 29, Ohio. 2/21, 28; 3/7

**SCIENCE TEACHERS, LIBRARIANS, ADMINISTRATORS** urgently needed for positions in many states and foreign lands. Monthly non-fee placement journal since 1952 gives complete job data, salaries. Members' qualifications and vacancies listed free. 1 issue, $1.00. Yearly (12 issues) membership, $5.00. CRUSADE, SCI., Box 99, Station G, Brooklyn 22, N.Y. ew

## FELLOWSHIPS

### THE MELVILLE TRUST FELLOWSHIPS IN CANCER RESEACH

The Trustees of the above scheme invite applications for **Fellowships in Cancer Research** commencing in October 1958. The initial stipend will be according to experience, but will be not less than £800 per annum; and funds are available for the provision of equipment and for technical assistance. A fellowship is normally awarded for a period of 2 years, but thereafter may be renewed, at the discretion of the Trustees.

The research is normally to be carried out in one of the recognized clinical or scientific departments in Edinburgh, and, if possible, applicants should have made prior contact with the head of the appropriate department. If this is not possible, the Trustees will endeavor to make suitable arrangements.

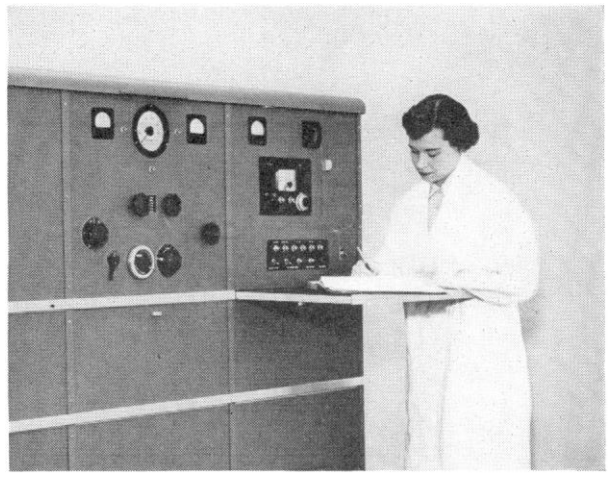
The research may deal with any aspect of malignant disease, and candidates need not necessarily hold a medical qualification.

Applications, together with the names of three referees, should be submitted by **31 March 1958** to the Honorary Secretary, Scientific Advisory Committee, The Melville Trust, Royal College of Surgeons, Edinburgh 8, from whom further particulars may be obtained. The application should be accompanied by an outline of the proposed research and by an account of any previous scientific or research experience.

The expenses incurred in travelling to the United Kingdom by any research fellow appointed from overseas will be defrayed by the Trust, which will also reimburse all candidates who are requested to attend for interview. X

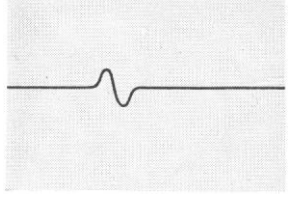
# New ways to measure molecular weights with the Ultracentrifuge

**The technique of ultracentrifugation – studying molecules while they are under centrifugal force – is a classic way to measure molecular weight and purity of viruses, enzymes, proteins, polymers and a variety of organic and inorganic molecules. Recently, a number of advances have greatly extended both the biochemical and industrial uses of the Ultracentrifuge.**



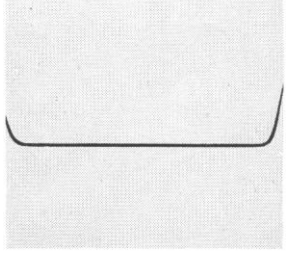
Beckman/Spinco Analytical Ultracentrifuge, Model "E." Speeds to 60,000 rpm, centrifugal forces to 260,000 G. Available with refrigeration, heating and vacuum systems; interchangeable analytical and preparative rotors; absorption, schlieren and Rayleigh fringe optical systems.

At California Institute of Technology, Meselson, Stahl and Vinograd have reported a method of measuring density and molecular weight simultaneously with the Analytical Ultracentrifuge. The method allows them to distinguish between changes in density – such as might result from folding or unfolding of a protein molecule – and changes in molecular weight from actual loss or gain of atoms. The method has many promising applications. It should prove a sensitive way to study denaturation of proteins and such relationships as enzyme coenzyme dissociations.



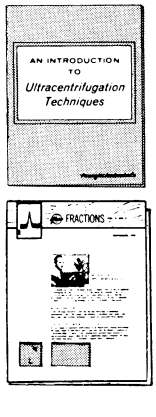
At the University of California at Los Angeles, Mommaerts and Aldrich have used Rayleigh interference fringe optics in conjunction with the approach-to-equilibrium method to measure concentration distribution in the Ultracentrifuge cell. With this technique, they determined with excellent reproducibility the molecular weight of the long, thin protein, myosin, whose molecular weight had been difficult to measure with standard velocity sedimentation methods.

At Clark University, Kegeles, Klainer and Salem have expanded the rapid approach-to-equilibrium method of Archibald to deal with polydisperse nonideal solutions. By selection of speed and centrifuging time for various concentrations of the polymer, the authors obtained data early in the Ultracentrifuge run which they could extrapolate to infinite dilution to obtain weight-average molecular weights.



At the University of California at Berkeley, Richards and Schachman have developed a differential technique for accurately measuring extremely small changes in sedimentation coefficient. Such changes might result from a change in molecular weight, change in frictional coefficient as with bonding a small ion to a protein molecule, or change in buoyancy term as with $D_2O$. In preliminary work, the authors have accurately measured differences in sedimentation coefficient as small as 0.05 svedbergs.

*If Ultracentrifugation is new to you and you would like some interesting basic information on its usefulness in molecular research, we would like to send you a copy of a new technical paper, "An Introduction to Ultracentrifugation Techniques." A limited supply is also available of the latest issue of "Fractions," vol. 3, no. 2 – a periodical sent to Ultracentrifuge owners containing information on new developments in equipment and technique. For copies of either of these publications, write Spinco Division, Beckman Instruments, Inc., Stanford Industrial Park, Palo Alto 5, California.*



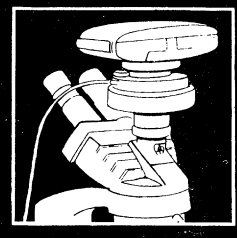

**Beckman®** / **Spinco Division**
*Beckman Instruments, Inc.*

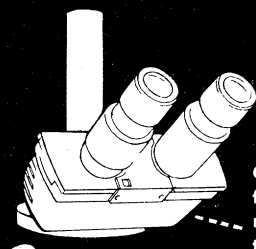
S-51

# Buy Now, Add Later

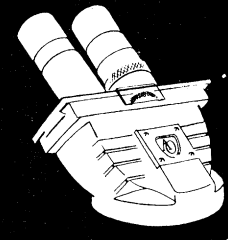
**Microstar's Building Block Concept of design, exclusive with AO Spencer, lets you add parts as new needs arise.**

**Special inclined monocular and vertical monocular bodies available. 35 mm camera for crisp inexpensive photomicrography. Coupled system lets you shoot what you see.**





**Choice of 3 interchangeable full 360° rotatable bodies, monocular, binocular and trinocular; inclined for comfort.**

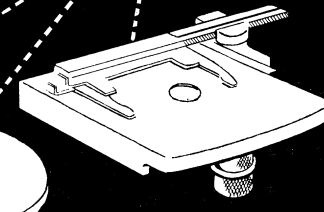


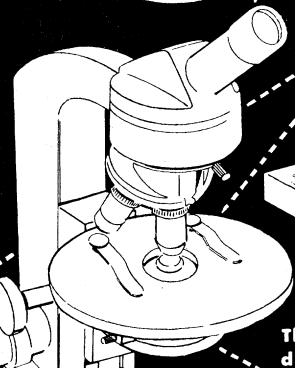
No other microscope can offer you such a wide choice of interchangeable parts and accessories.

You can adapt the Microstar to your exact needs with various combinations of readily interchangeable bodies, stages, bases and optics. You have more than 600 possible combinations or models to choose from.

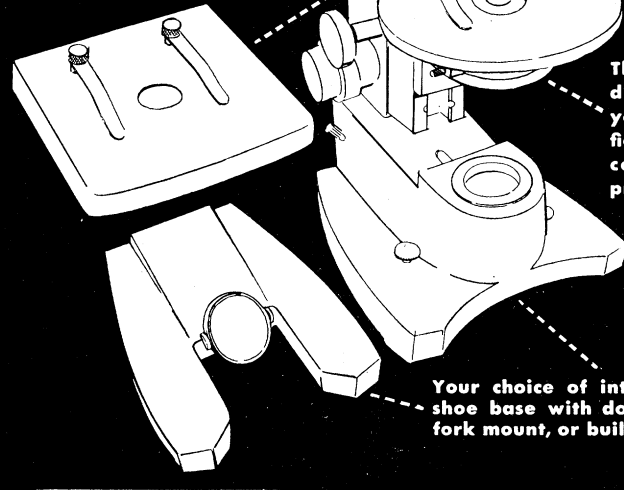
Your Microstar will be "just right" for you in convenience, comfort and the economy of real quality.

**Focus the stage and the specimen to the objectives with low positioned coarse and fine adjustments. Choose from 3 interchangeable stages; graduated or ungraduated mechanical stages or the new Micro-Glide circular stage.**



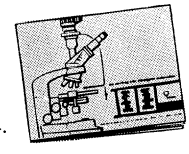


**The large fork-type condenser mount allows you to interchange bright-field, phase and dark field condensers quickly and precisely.**



**Your choice of interchangeable horseshoe base with double-plano mirror in fork mount, or built-in base illuminator.**

Get your copy of the **complete** Microstar story. Write for BROCHURE SB124.
Dept. B-4



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American Optical Company

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