Sciences of the U.S.S.R., Lenin Prospekt 7, Moscow)

August 1964

2–8. International Assoc., **Applied Psychology**, 15th congr., Ljubljana, Yugoslavia. (Inst. of Psychology, Faculty of Philosophy, Askerceva 12, Ljubljana)

14–19. **Soil Scientists** tour of the Soviet Union to precede congress. (Acad. of Sciences of the U.S.S.R., Lenin Prospekt 7, Moscow)

31–9. **Soil Scientists**, 8th intern. congr., Bucharest, Rumania. (Acad. of the Rumanian People's Republic, Calea Victoriei 125, Bucharest)

26–3. Electron **Microscope** Societies, intern. 3rd European conf., Prague, Czechoslovakia. (Czechoslovak Acad. of Sciences, Narodní Tr. 3, Prague 1)

September 1964

15–20. **Pharmacists**, Yugoslav, 4th congr., Opatija. (Yugoslav Acad. of Sciences and Arts, Zrinski trg. 11, Zagreb 1)

28–4. **Cardiology**, 14th European congr., Prague, Czechoslovakia. (H. Kafka, Karlovo nam. 31, Prague 2)

30–4. **Spectroscopy**, 11th intern. conf. Belgrade, Yugoslavia. (11th Colloquium Spectroscopicum Internationale, Sekretarijat, Prirodno-matematicki fakultet, Fizickohemijsky zavod, Beograd, Studentski trg. 16, Blok "C" Yugoslavia)

September 1964 (no dates)

Prehistoric and Protohistoric Sciences, 7th intern. congr., Moscow, U.S.S.R. (Acad. of Sciences of the U.S.S.R., Lenin Prospekt 7, Moscow)

Ophthalmological Soc., 28th annual congr., Kosice, Czechoslovakia. (Ophthalmological Diseases Clinic, Medical Faculty, P.J. Safarki Univ., Ratislavova 41, Kosice)

Polarography in chemotherapy, biochemistry, and biology, 2nd Jena symp., Jena, East Germany. (Inst. for Microbiology and Experimental Therapy, Reuthenbergstrasse 11, Jena)

September-October 1964

Pathophysiologists, 1st all-union congr., Tbilisi, U.S.S.R. (I. R. Petrov, All-Union Soc. of Pathophysiologists, Moscow)

1964 (no dates)

Animal Blood Group, 9th conf., Czechoslovakia. (Czechoslovak Acad. of Sciences, Narodní Tr. 3, Prague 1)

Ophthalmologists, 29th Polish congr., Krakow, Poland. (M. Wilczek, ul. Slawkowska m. 3, Krakow)

High Energy Nuclear Physics, 12th intern. conf., Moscow. (I. E. Tamm, Academy of Sciences of the U.S.S.R., B. Kaluzhskaya 14, Moscow)

Inquiries on the following meetings should be addressed to the Academy of Sciences of the U.S.S.R., Lenin Prospekt 7, Moscow:

Theoretical and Applied **Mechanics**, 2nd all-union congr., Moscow. (Dept. of Technical Sciences, Academy of Sciences of the U.S.S.R.)

Microelements and Natural Radioactivity in Soils, inter-VUZ conf., U.S.S.R.

Neurocybernetics, 2nd all-union conf., Kiev, U.S.S.R.

Zoologists, 2nd conf., Krasnodarsk, U.S.S.R.

Forthcoming Events

July

24–27. **Nucleon Structures**, intern. conf., Stanford, Calif. (R. Hofstader, Dept. of Physics, Stanford Univ., Stanford)

25. **Chemotherapy**, 1st intern. meeting, Stuttgart, Germany. (H. P. Kuemmerle, Postfach 3030, Stuttgart 1)

25–26. **Veterinary Toxicology**, conf., New York, N.Y. (K. L. Gabriel, School of Veterinary Medicine, Univ. of Pennsylvania, Philadelphia)

27–3. Institute of **Religion in an Age of Science**, 10th conf., Portsmouth, N.H. (Inst. of Religion in an Age of Science, 280 Newton St., Brookline 46, Mass.)

28–1. **American Veterinary Medical Assoc.** 100th annual, New York. (AVMA, 600 S. Michigan Ave., Chicago 5, Ill.)

28–3. **Pediatrics**, 7th Pan American congr., Quito, Ecuador. (J. Vallarino, P.O. Box 2269, Quito)

29–1. International **Psycho-Analytical** Assoc., 23rd congr., Stockholm, Sweden. (E. R. Zetzel, Intern. Psycho-Analytical Assoc., 14 Hubbard Pl., Cambridge 38, Mass.)

29–3. Global Impacts of **Microbiology**, intern. conf., Stockholm, Sweden. (M. Tveit, Swedish Sugar Corp., Arlöv, Sweden)

29–9. **Chemicals and Paper**, 1st annual conf., Appleton, Wis. (Inst. of Paper Chemistry, Appleton)

August

1–6. Group **Psychotherapy**, 3rd intern. congr., Milan, Italy. (P.O. Box 311, Beacon, N.Y.)

3–7. **Contact Lens**, 2nd world congr., Chicago, Ill. (H. G. Klene, 18 S. Michigan Ave., Chicago 3)

3–10. International **Esperanto** Congr., Sofia, Bulgaria. (R. A. Lewin, Scripps Institution of Oceanography, La Jolla, Calif.)

4–7. **Heat Transfer**, 6th natl. conf., Boston, Mass. (D. Q. Kern, 7016 Euclid Ave., Cleveland 3, Ohio)

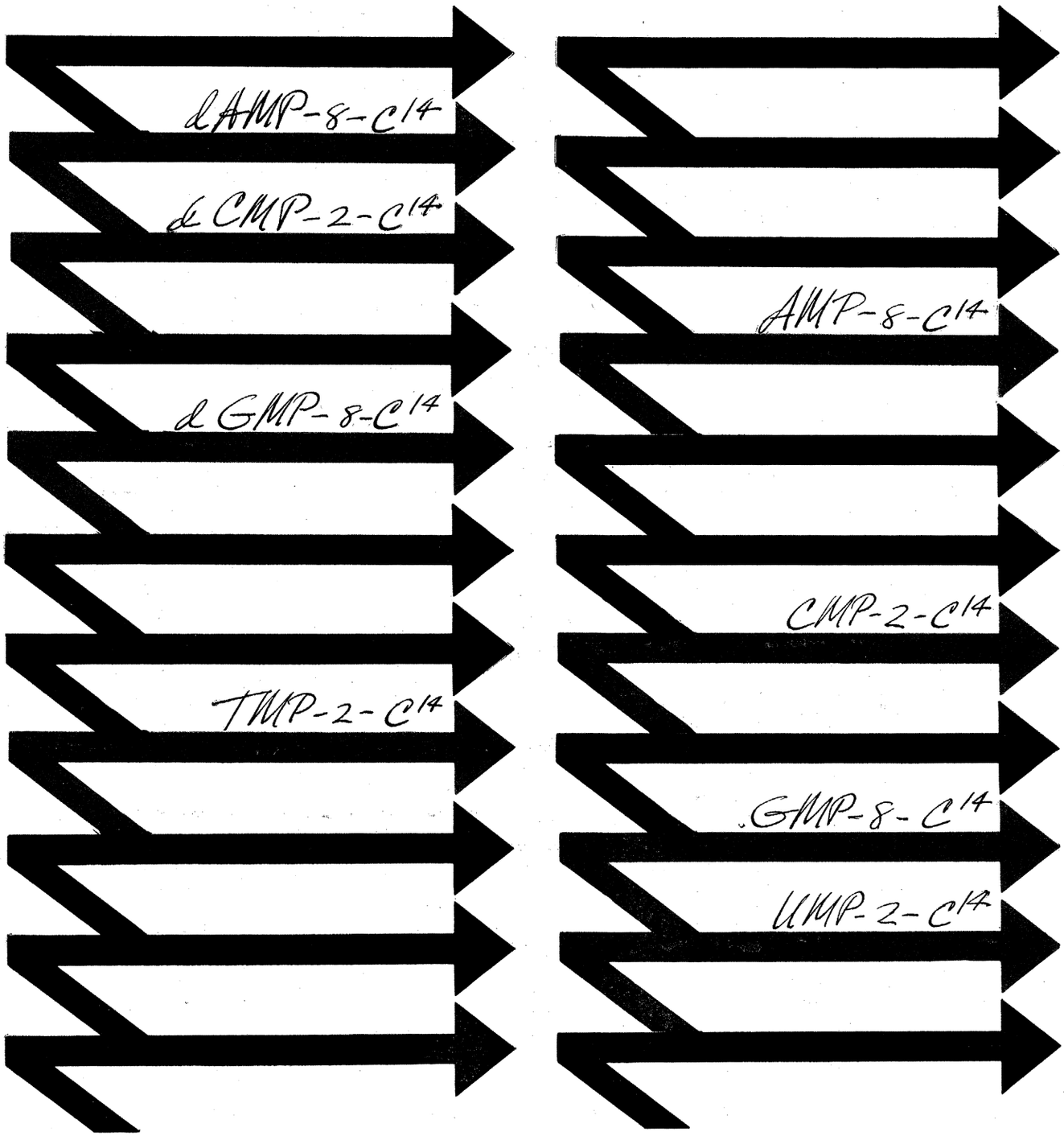
4–9. **Aerospace Support**, intern. conf. and exhibit, Washington, D.C. (I.E.E.E., Box 6635, Washington 9)

5–7. Western **Resources** Conf., 5th annual, Fort Collins, Colo. (N. Evans, Dept. of Agricultural Engineering, Colorado State Univ., Fort Collins)

5–9. **Lattice Dynamics**, intern. conf., Copenhagen, Denmark. (S. Lundqvist, Dept. of Mathematical Physics, Chalmers Univ. of Technology, Gibraltargatan 58, Göteborg S, Sweden)

5–23. Relativity in College **Physics**, Ithaca, N.Y. (T. J. Peterson, Jr., Dept. of Physics, Cornell Univ., Ithaca, N.Y.)

5–30. **Engineering Foundation** Research Conf., Andover, N.H. (H. K. Work, Engineering Foundation, 345 E. 47 St., New York 17)



new specifically labeled 5′-nucleotides—exclusive from Schwarz

Available for the first time, the four major 5′-ribo- and deoxyribonucleotides specifically labeled with C^{14}. Specific activity: 6-10 μc/mg for deoxyribonucleotides; 20-30 μc/mg for ribonucleotides. Packed in 10 and 25 μc vials in 50% aqueous/ethanol solutions of the ammonium salts. We expect to have some C^{14}-labeled di-and triphosphates available at any moment—possibly by the time you read this. Write for further information.

SCHWARZ BIORESEARCH, INC. · Mountain View Avenue, Orangeburg, New York
BIOCHEMICALS • RADIOCHEMICALS • PHARMACEUTICALS for research, for medicine, for industry

New Products

Bedside cardiac monitor provides continuous information on the patient's heart rate, with local visual and remote audible alarm functions, automatically records the electrocardiogram, and provides an electrical pacemaking signal as well. This transistorized bedside unit is designed for observation of cardiac patients, and surgery patients before, during, or after surgery, and in intensive care units. The built-in electrocardiograph records either when manually turned on, or automatically for 10 sec at either preselected intervals or at the onset of bradycardia, tachycardia, or pulse loss or arrest. The integral pacemaker may also be activated manually or set for automatic operation if cardiac arrest occurs. Both internal and external pacemaking voltages are supplied by the unit. Visual warning of eight different occurrences is provided by illuminated, colored indicating windows on the front panel: bradycardia, tachycardia, pulse loss, arrest; instrument power, pacing circuit operation, QRS complex, and inoperative instrument condition. Heart rate is continuously displayed on a meter, equipped with adjustable upper and lower limit settings. All functions are selected and set by push button and thumb-wheel controls on the front panel. The audible alarm function of the Sanborn 780 "Viso-Monitor" is supplied by an optional model 780–800 Remote Indicator, which also has visual indicator lights and a heart rate meter identical to those on the main unit. Each QRS complex produces a "beep" and any distress condition triggers a continuous tone, both adjustable for desired volume. For connection of the Viso-Monitor to a hospital call system, an oscilloscope, or the Remote Indicator unit, plug-in jacks are provided on the rear of the main unit.—R.L.B. (Sanborn Co., Medical Div., Dept. S786, 175 Wyman St., Waltham 54, Mass.)

Temperature-instrumented soldering tool provides both temperature control and temperature indication. The device is comprised of a soldering pencil having a 5-ft cord that plugs into an individual temperature control and indication box. The latter includes a power switch, indicator lamp, and fuse; a continuously variable temperature control; and an indicating instrument calibrated in both 0 to 650°F and the corresponding Celsius-scale indications. With this tool it is said to be possible to predetermine and specify a temperature high enough to assure optimum flux utilization without endangering the supporting structures of substrates or the operating characteristics of temperature-sensitive components.—J.S. (Royco Instruments, Inc., Dept. S799, 440 Olive St., Palo Alto 6, Calif.)

High-temperature tube furnace (model CT–215) produces controlled temperatures from 2000° to 5500°F. It can be heated to its maximum temperature in 55 min and is said to respond rapidly to changes of input power. The work chamber is 2 in. in diameter and 16 in. long. Oxidizing atmospheres may be used by inserting an annular ceramic muffle tube. The furnace can be tilted for use in a vertical, horizontal, or any intermediate position. Standard equipment includes bulkheads with heat-resistant windows at both ends, breather plates to regulate the flow and displacement of protective atmosphere, and a saturable-reactor control unit.—J.S. (Pereny Equipment Co., Inc., Dept. S797, 893 Chambers Rd., Columbus 12, Ohio)

Integrating attachment for the Varian G–14 Graphic Recorder provides a simultaneous measure of the area under the strip-chart curve. Useful for many d-c recording applications such as gas chromatography, x-ray diffraction, and flow measurement, the G–14 Recorder/Integrator combination features fast response, voltage spans down to 1 mv, accuracy to 0.5 percent of full scale, and all solid-state circuitry. The basic integrating mechanism operates on the proven ball-and-disk principle. The device is capable of counting up to 30,000 count/min and it measures the area beneath the recorder's curve trace to within 0.1 percent of full scale. The integrating unit is externally mounted on the right side of the G–14 and is enclosed in a metal cover styled to match the recorder case. A separate readout pen, operating over a 1-in. width on the right side of the chart, records the integral information. Nominal full-scale pen travel for the main recording pen is 3.5 in.—R.L.B. (Varian Associates, Dept. S783, 611 Hansen Way, Palo Alto, Calif.)

Dual counting instrument is designed to count simultaneously pulses from two separate radiation detectors or from two different energy ranges of a single detector. The twin input circuits will accept pulses from scintillation, proportional, or Geiger detectors. Maximum input sensitivity for scintillation or proportional inputs is 25 mv. Each of the two counting channels uses six plug-in electronic decades with total count capacity of 999,999 per channel. Eleven preset counts from 100 to 200,000 may be selected on each counter. Resolving time is less than 1 μsec. A four-decade electronic timer offers a choice of ten preset times either from 0.1 to 80 min or from 1 to 800 sec, with timing accuracy 0.001 min and 0.01 sec, respectively. Other time intervals can be set by adjustment of a slide switch.—J.S. (Picker X-ray Corp., Dept. S817, Cleveland, Ohio)

Solar radiometers measure total, diffuse, and direct solar radiation. The devices measure radiation by generating a short-circuit current proportional to the intensity of the sunlight falling upon them. The standard dual-range type MV meter produces signal strengths of 5 and 10 mv in response to short-wave radiation equivalent to the solar constant, 442 BTU/hr-ft.^{2} Higher signal strength can be provided.

The material in this section is prepared by the following contributing writers:

Robert L. Bowman (R.L.B.), with the assistance of Denis J. Prager, Laboratory of Technical Development, National Heart Institute, Bethesda 14, Md. (medical electronics and biomedical laboratory equipment).

Joshua Stern (J.S.), Basic Instrumentation Section, National Bureau of Standards, Washington 25, D.C. (physics, computing, electronics, and nuclear equipment).

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither *Science* nor the writers assume responsibility for the accuracy of the information.

Address inquiries to the manufacturer, mentioning *Science* and the department number.

The type MA instrument produces an output signal in the range 0 to 20 ma. The sensitive element of both models is a 1-cm^2 silicon cell. Advantages claimed for the devices by the manufacturer include rapid response, built-in temperature compensation, and accuracy of ±3 percent.—J.S. (Yellott Solar Energy Laboratory, Dept. S798, 9051 N. Seventh Ave., Phoenix 21, Ariz.)

Solid-state **electronic null detector** (model ND-106) is designed for use in instrument systems where low sensitivity and low input impedance make conventional galvanometer null detectors unsatisfactory. The instrument includes a high-gain chopper stabilized d-c amplifier, a calibrated attenuator, and a differential d-c output amplifier. Provision is made for zeroing the meter for both short-circuit and open-circuit conditions. Output may be selected to be variable, calibrated, or logarithmic. The input circuit is completely isolated from ground and a guard terminal permits reading of voltages more than 100 volts off ground. Output terminals provide approximately ±2 volts for full-scale meter deflection. Sensitivity is 0.2 μv and can be varied in 9 steps from ±3 to ±30 mv full scale. Nominal input impedance is 100,000 ohms. Maximum noise is stated to be 0.2 μv and drift 1 μv/week.—J.S. (Julie Research Laboratories, Inc., Dept. S814, 211 W. 61 St., New York 23)

Digital voltmeter of the reed-relay type is a solid-state device measuring 6.5 by 5 by 8 in. The voltmeter is a three-decimal-digit instrument with automatic ranging and automatic polarity. Sensitivity is 1 mv and input impedance is 10 megohms. Differential input circuit is floated and guarded and common-mode rejection is greater than 100 db. Absolute accuracy is said to be ±0.1 percent. The instrument is available with ten-line decimal coded output for digital printout. Power requirement is 105 to 125 volts, or 215 to 240 volts, 50 to 60 cy/sec.—J.S. (Princeton Applied Research Corp., Dept. S789, Box 565, Princeton, N.J.)

Cryogenic liquid-level controller is designed to permit unattended monitoring and control of liquid level of nitrogen or oxygen in cold traps, research Dewars, cryostats, and the like. It consists of an automatic recycling timer and a probe to sense liquid level. When the probe senses absence of liquid, it starts the timer and signals a solenoid-operated container discharge device to start the liquid transfer. The sensor is cut out of the operation at this point in the cycle and power is furnished to the liquid transfer mechanism for a preset time established to compensate for such variable factors as length of the transfer line, evaporation losses due to heat transfer, and so forth. The high-level limit is established by the duration of the timer cycle.—J.S. (Sulfrian Cryogenics, Inc., Dept. S790, 1290 Central Ave., Hillside, N.J.)

Radioactive gases are available in lecture size or larger size compressed-gas cylinders. Carbon-14-labeled chemicals that are available in this way include: acetylene; 1, 3-butadiene-1, 4-c-14; 1, 3-butadiene-2, 3-c-14; carbon dioxide; carbon monoxide; ethane; ethylene; ethylene oxide; isobutane; isobutylene; methane; methyl bromide; methyl chloride; methyl iodide; phosgene; propane; and others. Tritium-labeled and sulfur-35-labeled chemical gases can also be supplied.—J.S. (Nuclear Research Chemicals, Inc., Dept. S788, Orlando, Fla.)

Cathode-ray-tube display—(DEC type 30) is a 16-in. random-position, point-plotting cathode-ray tube that permits rapid conversion of digital computer data into graphic or tabular form. The display instrument requires only logic level inputs for operation. Location of any desired point may be specified by any of the 1024 x- and 1024 y-coordinate addresses contained in a 9.5-in. square on the tube face. X- and y-coordinate information in two ten-bit words is received from the computer and, on command, displayed as a spot of light on the tube face. Discrete points may be plotted in any sequence at a 20 kcy/sec rate. Resolution is said to be uniform over the entire usable area of the tube face and maximum spot size is approximately 0.015 in. A "light pen" available as an accessory is a photosensitive device with which the operator can cause the computer to modify the display on the tube. As the pertinent display information is selected by the operator, the pen signals the computer by generating a pulse. Acting on this signal, the computer can instruct other points to be plotted across the tube face in accordance with pen movements or exercise specific options previously programmed without the need for separate input devices.—J.S. (Digital Equipment Corp., Dept. S803, 146 Main St., Maynard, Mass.)

Personnel Placement

POSITIONS WANTED

Anatomist, Ph.D. Well experienced in teaching gross anatomy. Active research in histochemistry. Publications. Box 181, SCIENCE. X

(a) **Ph.D. Geologist**; experienced and interested in teaching, research or applied geology. (b) **Ph.D. Biochemist**, enzyme, metabolism experience; prefers research/teaching. Science Division. The Medical Bureau. Inc. Burneice Larson, Chairman, 900 North Michigan Avenue, Chicago 11, Illinois X

Ph.D. (September) **Plant Breeding-Genetics**, desires teaching/research position. Interests: genetics, chemistry, origin of useful plants. Box 182, SCIENCE. X

POSITIONS OPEN

M.S. BACTERIOLOGISTS

Eli Lilly and Company has research and development opportunities in:

Biological Research—Virus research at the molecular level, including the preparation of nucleic acid and tissue culture techniques.
M.S. degree or appropriate experience. Biochemistry major or minor preferred.

Antibiotic Development—Examination of cultures for new and improved antibiotic organisms and evaluation of antibiotic fermentation methods to increase yields and quality.
M.S. degree in microbiology, bacteriology, biochemistry, mycology, or botany.

Biologics Control—Tissue culture and monkey safety testing on biological products, including tests for residual live virus and adventitions encountered in animal tissue vaccines.
M.S. degree in bacteriology or microbiology, or appropriate experience.

Send resume and letter to:
Mr. W. A. Lewis, Chief
Personnel Requirements
ELI LILLY AND COMPANY
227 East McCarty St., Indianapolis 6, Indiana
"An Equal Opportunity Employer"

Histologist, Histochemist

M.S., or equivalent to supervise routine histology, and take part in research program with emphasis on enzyme and electron histochemistry. Hospital affiliated research institute. **Send résumé to Box 151, SCIENCE.**

MEDICAL MICROBIOLOGIST: M.S. or eligible for general hospital, 450 beds. Medical technology and pathology resident teaching programs. Three weeks paid vacation. Retirement plan. Starting salary $600.00 per month. Write: **Lall G. Montgomery, M.D., Pathologist, Ball Memorial Hospital, Muncie, Indiana.**

MICROBIOLOGIST III

for the state of Hawaii bubonic plague research project. Requires master's degree in biological or medical science and 3 years' experience conducting bacteriological, parasitological and serological tests and analyses. $7488–$9522. Contact Mrs. L. Fukuda, Department of Personnel Services, 825 Mililani St., Honolulu 13, Hawaii. 6/7; 7/5; 8/2

Ultracentrifugation

Applications Specialist

Ideal opportunity for creative scientist who would enjoy helping other scientists explore new methods and techniques in the macro-molecular instrumentation field. This senior-level position calls for a biochemist who knows protein chemistry, with extensive experience in using analytical and preparative ultracentrifuges. Will consider recent Ph.D. who has used ultracentrifuges extensively in graduate research.

Send resume and salary requirements to: Mr. K. L. Knapp, Spinco Division:

Beckman® INSTRUMENTS, INC.

1117 Calif. Ave., Palo Alto, Calif.

POSITIONS OPEN

(a) **M.S. Biologist,** some psychology background; CNS research; central pharmaceutical firm. (b) **Biochemistry Technician** for unusual blood chemistry determinations; Northcentral hospital. *Faculty Appointments*: (c) **Ph.D. Zoologist** (physiologist); develop Ph.D. program; Southcentral university. (d) **Ph.D. Botanist** (mycologist); experienced in directing doctoral students. (e) **Biologist**; new branch eastern university. Many other opportunities for both junior and senior scientists. Please write to Science Division, **The Medical Bureau, Inc.**, *Burneice Larson, Chairman*, 900 North Michigan Avenue, Chicago 11, Illinois. X

SENIOR PHARMACOLOGIST
Ph.D. Level

VETERINARY PATHOLOGIST
D. V. M.

SR. LYOPHILIZATION SCIENTIST

Long-range growth program at The National Drug Company has created the above highly rewarding positions for qualified Scientists.

Attractive salary and fringe benefits offered.

Direct Your Resume In Full Professional Confidence To:—

MR. CHARLES D. WRIGHT
Assistant Personnel Manager

THE NATIONAL DRUG COMPANY
Division of Richardson-Merrell, Inc.
4663 STENTON AVENUE
Philadelphia 44, Pa.

An Equal Opportunity Employer

SUPERVISORY BACTERIOLOGIST. For diagnostic microbiology laboratory of large general hospital affiliated with Western Reserve University School of Medicine. To teach medical technology students and supervise laboratory under M.D. direction. Very active infectious disease service. Staff: Five registered medical technologists and a secretary. Master's degree or extensive experience needed. Starting salary $5000–$6370 Write Dr. E. Wolinsky at **Cleveland Metropolitan General Hospital**, 3395 Scranton Road, Cleveland 9, Ohio. 351-4820, ext. 518. 7/5, 12

VIROLOGIST

STANFORD RESEARCH INSTITUTE has an opening for a Ph.D., or equivalent, Virologist to work with tumorigenic and lytic viruses in tissue culture. Experience with nucleic acid chemistry and immunology desirable. The Group's program offers opportunity for individual research and salaries commensurate with experience. SRI is located on the San Francisco Peninsula in a university community. Interested applicants may submit résumés to:

C. R. WHERRY
STANFORD RESEARCH INSTITUTE
333 Ravenswood
Menlo Park, California
—an equal opportunity employer—

POSITIONS OPEN

ELECTRON MICROSCOPIST

ELECTRON MICROSCOPIST—Ph.D., M.S. or equivalent, to supervise Electron Microscope Laboratory and participate in investigative project, in hospital connected research institute located in New York Area. Opportunity available to start own research project. Salary Open. **Box 178, SCIENCE.**

PHARMACOLOGISTS

Young male M.S. and Ph.D. pharamacologists (0-3 years' experience) to assist in planning and design of experimental approaches; development of appropriate apparatus; conduct and evaluate results of tests and experiments. These positions are open in small, independent, dynamic, life sciences research company located in suburban Washington, D.C. (Va.). Opportunity for publications and scientific meeting attendance. Liberal employee-benefit program including profit sharing. Salary commensurate with degrees and experience. For further information call or write K. T. Paynter, Personnel Manager, **Hazleton Laboratories, Inc.**, P.O. Box 30, Falls Church, Va.
An equal opportunity employer

The Market Place

BOOKS • SERVICES • SUPPLIES • EQUIPMENT

BOOKS AND MAGAZINES

Your sets and files of scientific journals

are needed by our library and institutional customers. Please send us lists and description of periodical files you are willing to sell at high market prices. Write Dept., A3S, CANNER'S, Inc. Boston 20, Massachusetts

SCIENTIFIC JOURNALS WANTED

Sets, Runs and Volumes bought at top prices. Your wants supplied from our Back Files of over 3,000,000 periodicals. **Abrahams Magazine Service, N. Y. 3, N. Y.**

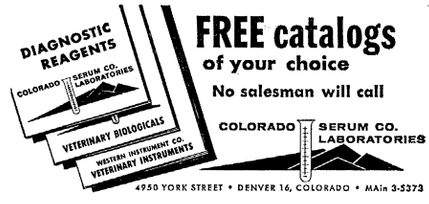
PROFESSIONAL SERVICES

WISCONSIN ALUMNI RESEARCH FOUNDATION

LABORATORY SERVICES
Applied Research and Development, Testing and Consultation • Food, Feed, Drug and Chemical Analyses, Animal Studies, Pesticide Screening, Pesticide and Additive Residue Analyses

For price schedule and specific work proposals, write
WARF
P. O. Box 2217 • Madison 5, Wisconsin

• HYPOPHYSECTOMIZED RATS
Shipped to all points via Air Express
For further information write
HORMONE ASSAY LABORATORIES, Inc.
8169 South Spaulding Ave., Chicago 29, Ill.



FREE catalogs
of your choice
No salesman will call
COLORADO SERUM CO. LABORATORIES
4950 YORK STREET • DENVER 16, COLORADO • MAin 3-5373

NEW FORMABLE GAMMA SHIELDING
A mortar-like mixture of lead and matrix powders that can be—
Plastered — Poured — Cast
Drilled — Sawed — Tapped
Low background, low activation level, reasonable cost.
CHEMTREE CORPORATION
Harriman, New York
Tel. 914-782-8282

NEW CHEMICALS

E. MERCK

(DARMSTADT, W. GERMANY)

...for thin-layer chromatography

New Silica Gel H and HF—exclusive adsorbents for T L C, both without $CaSO_4$ but with hydrated silicon dioxide binder (U. S. Pat. Pending)—are vastly superior to any other adsorbents without calcium sulphate binder because: (a) they really adhere to a plate as a solid layer, (b) they do not set until after they are spread and can be kept in suspension on the shelf, (c) they provide much faster development due to ideal particle size distribution (many others are too finely ground in order to get some adhesion), (d) only adsorbents without $CaSO_4$ which are practical for preparative techniques, (e) no interference from $CaSO_4$—especially recommended for the separation of phospholipids, inorganic compounds and hydrophilic substances, among others.

...for gas chromatography

1. Solid adsorbents for gas adsorption.
2. Inert solid carriers for gas partition.
3. Pure stationary phases.
4. Reference standards.

...for spectroscopy

Optically pure solvents and auxiliary agents for ultraviolet, infrared and nuclear magnetic resonance spectroscopy including deutero-chloroform, deuterium oxide, deutero-hydrochloric acid, deutero-sulphuric acid, hexadeuterobenzene, tetradeuteroacetic acid, deuterotrifluoroacetic acid, hexadeuteroacetone, hexadeuterodimethylsulphoxide, penta-deuteropyridine, etc.

All preparations described are available for immediate delivery from our stock. For further information and prices, please contact:

BRINKMANN

BRINKMANN INSTRUMENTS, INC., 115 CUTTER MILL ROAD, GREAT NECK, N.Y.

PHILADELPHIA • CLEVELAND • HOUSTON • MIAMI • MENLO PARK, CAL. • ST. LOUIS

Serum, plasma or urine determinations quickly and accurately... from a single drop

THE NEW AO TS METER* requires just one drop of sample to provide immediate, accurate determinations of total solids, specific gravity, refractive index, protein concentration or water concentration in serum, plasma and urine.

MINUTE SAMPLE REQUIRED: As little as 0.02 ml . . . a single drop . . . of sample is sufficient for the most precise determinations.

TEMPERATURE COMPENSATED: Unique, hermetically-sealed liquid prism eliminates error due to temperature changes. Samples, whether at body or refrigerated temperatures, can be read immediately when the ambient temperature of the instrument is between 65-95° F.

URINE SPECIFIC GRAVITY: No more "Q.N.S." reports. Ideal for pediatrics, oliguric patients and in collections from ureteral catheters. Readings are consistently obtained with a degree of accuracy, speed or reproducibility significantly better than those obtained with urinometers, the falling-drop method or with instruments uncompensated for temperature.

SERUM PROTEINS: Ideal for rapid screening of serum proteins. Samples as small as those obtained from a microhematocrit tube are ample.

DIRECT READINGS: You make an immediate analysis directly from the built-in scale . . . reading to 0.1 percent total solids . . . without references to graphs, tables or thermometer readings. Model 10400 provides determinations of total solids in plasma or serum and urine specific gravity; model 10401 gives readings of protein concentration and refractive index. Write for complete information!

**Total Solids Meter. This method of analysis using the Goldberg Refractometer was developed in close cooperation with Dr. A. V. Wolf, Head of the Department of Physiology, University of Illinois, College of Medicine, Chicago, Ill.*

American AO Optical
COMPANY

INSTRUMENT DIVISION, BUFFALO 15, NEW YORK

Dept. S2
Gentlemen:

Please send Brochure SB10400 with complete information about the new AO TS Meter.

Name.....

Address.....

City.....Zone.....State.....

IN CANADA write — P.O. Box 130, Postal Station R, Toronto 17, Ontario