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Sodium Salt

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Essentially free of 2,3-Diphosphoglyceric Acid Suitable for the determination of red cell 2.3-Diphosphoglycerate 1

In the reaction

**Phosphoglycerate** 

Mutase

A) 3-Phosphoglycerate ←-→ 2-Phosphoglycerate the initial rate of the reaction is proportional to the concentration of the cofactor 2,3-Diphosphoglycerate. Reaction A) is coupled with the reaction

Enolase

B) Phospho(enol)pyruvate 2-Phosphoglycerate The rate of reaction A) is measured by the decrease in optical density at 240 m<sub>µ</sub> due to the removal of Phospho-(enol)pyruvate in reaction B).2
We offer:

D(-)-3-PHOSPHOGLYCERIC ACID

2.3-DIPHOSPHOGLYCERIC ACID

D 3258 Ditris salt
D 6006 Pentacyclohexylammonium salt

2-PHOSPHOGLYCERIC ACID

P 0257 Sodium salt, approx. 959 P 8377 Barium salt, approx. 80%

PHOSPHO(ENOL)PYRUVATE

P 7002 Trisodium salt, crystalline, hydrate P 7127 Potassium salt, crystalline P 7252 Tricyclohexylamine salt, crystalline P 7377 Barium salt, hydrate

PHOSPHOGLYCERATE MUTASE

P 8252 Crystalline, from rabbit muscle, Ammonium Sulfate suspension. Activity: approx. 200 units per mg protein (One unit will convert 1  $\mu$ mole of 3-PG to 2-PG per minute at pH 7.3 at 25°C) 2 mg \$4.80 10 mg \$17.50 25 mg \$35.10

ENOLASE

E 6126 Type III, lyophilized powder, fom yeast.

rom yeast. Activity: approx. 60 units per mg protein (One unit will convert 1  $\mu$ mole of 2-PG to Phosphoxenol) pyruvate per min. at pH 7.4 at 25°C). 10 mg \$ 5.00 100 mg \$27.00 50 mg \$16.20 250 mg \$54.00

500 mg \$90.00

E 2500 Type I, crystalline, from rabbit muscle, Ammonium Sulfate suspension. Activity: approx. 30 units per mg protein (Unit definition same as for Type III).

2 mg \$4.10 50 mg \$ 71.50 10 mg \$16.55 100 mg \$115.25

Benesch, R. and Benesch, R. E., Nature, 618, 221 (1969).
 Krimsky, I. in H. U. Bergmeyer, Methods of Enzymatic Analysis, p. 238, Academic Press, N.Y. (1965).

For further details, please consult our latest (April 1970)

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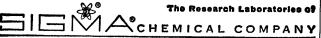
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### DEPARTMENT OF BIOLOGY

Applications are invited, from biologists interested in and committed to excellence in undergraduate teaching as well as graduate teaching and research, for the following posts which will become available 1 July 1971:

- (a) Vertebrate Zoologist with interests in the biology of fishes.
- (b) Invertebrate Zoologist with basic training in General Protozoology and research interests in cellular aspects of Protozoa.

These appointments will be made at either the Assistant or Associate Professor level.

Current starting salary for Assistant Professor—\$10,920.00

Current starting salary for Associate Professor—\$14,630.00

Applications are also invited for the following posts (starting date 1 July 1971):

- (a) Demonstrator in Biology, to assist in teaching laboratory classes in Introductory Biology.
- (b) Demonstrator in General and Invertebrate Zoology.

Demonstrators are full-time teaching appointments with a current starting salary of \$7,500.00. The duties of such appointees include the supervision of large first and second year laboratory classes in the Department of Biology.

To facilitate handling of correspondence applicants should send their curriculum vitae together with the names of three referees with their letter of inquiry to Dr. D. Parkinson, Department of Biology, The University of Calgary, Calgary 44, Alberta, Canada by December 15, 1970.



# Personnel Placement

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### POSITIONS WANTED

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Cell Biologist-Geneticist. Ph.D. Broad background and interests in quality education. Seeks academic position in progressive department. Teaching and research experience, publications. Available Fall 1971. Box 419, SCIENCE.

Educator, recent doctorate, strong background in medical sciences with experience at all college levels seeks university position in health sciences curriculum development and evaluation. Box 420, SCIENCE.

Evolutionary Biologist, Ph D. 1968. Desires to use background in progressive intellectual atmosphere: Invertebrate Zoo ogy, Anatomy, Comparative Anatomy, Evolution, Paleobiology, Publications: Fossil/recent arthropods and mammals. Undergraduate/graduate teaching experience. Box 421, SCIENCE.

Molecular Biologist, B.A. (zoology), Ph.D. (biophysics), postdoctoral research fellow. Seeks primarily undergraduate teaching: biology, genetics, b'ochemistry, philosophy of science. Any where bit Northeast. Available 1971. Box 410, SCIENCE. 10/30

Pathologist with long years in surgical pathology desires position in an academic center. Interested in routine work, teaching and research. Experienced in electron microscopy and immunopathology. Box 422, SCIENCE.

Plant Biologist, Ph.D., seeks challenging sabbatical-leave opportunity, 1971-72; areas: teaching-material innovations; museum displays; research guidance, evaluation; information searches; technical writing; environment, pesticides; consider foreign offer; one-half salary required. Box 423, SCIENCE.

Translation. Most major languages. Technical-scientific-medical. Widely experienced staff. Over 20 years' experience. Box 417, SCIENCE. X

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### State University of Utrecht, The Netherlands

Applications are invited for the position of READER in the department of Medical Physics. This department belongs to both the Faculty of Medicine and the Faculty of Sciences. In the latter it is an integral part of the Physics Laboratories. It has facilities and laboratory room at its disposal in other institutes and in the University Hospital. Main interests are in the field of sensory physiology, neurophysiology, clinical and cellular electrophysiology and cybernetics of the neuromuscular control system. Projects of clinical technological nature are being planned.

Teaching responsibilities cover the final experimental training of about 35 graduate students and the research projects of about 20 postgraduates, including physicists, engineers, a biologist and a biochemist, working for their Ph.D.

The successful applicant is expected to take a proportional share in this training with two full professors and other staff members.

The salary will not be less than Hfl.36.000,—(with a maximum of Hfl.50.000,---) depending on experience and qualifications. Pension schemes and extra allowances for travel and move are possible.

Further information, including method of application, may be obtained from Maarten A. Bouman or Jan J. Denier van der Gon, Eisenhowerlaan 4, Utrecht (tel. 030 - 93 88 48).

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DEPARTMENT OF APPLIED MATHEMATICS

Applications are invited for an Associate Professorship in Applied Statistics. The position entails teaching and research in this area and collaboration with other members of the University in statistical problems. The minimum salary is CS13,450. The appointment will be effective 1 July 1970. Applications, including curriculum vita and the names of two referees, should be addressed to Professor J. H. Blackwell, Head of the Department.

NEUROPHYSIOLOGIST. Desire broadly based Ph.D. interested in research basic to the understanding of clinical problems produced by central nervous system and neuromuscular disease, Areas of interest such as control of motor system, perception, learning and behavior in brain injured, physiology of exercise, control of muscle tone, preferred. Those without training or experience in such areas should not apply. Opportunity for those interested in cooperation with medical faculty and bioengineering group. Teaching to graduate students included. Rank and salary commensurate with training and experience. Send curriculum vitae and three references to Justus F. Lehmann, M.D., Professor and Chairman, Department of Rehabilitation Medicine, University of Washington School of Medicine, Seattle, Washington 98105.

Applications are invited for RESEARCH-ORIENTED FACULTY. M.S. degree is offered; new building is slated for completion in 1973. Positions open (September 1971) in genetics, developmental, cell-molecular, cytology, animal physiology, immunology, and audio-video tutorial techniques. Send vitae to:

Dr. Theodore J. Starr

Department of Biological Sciences
State University College
Brockport, New York 14420

### DEAN

College of Earth Sciences and Mineral Industries University of Alaska at College

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## GRADUATE STUDY



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APPLICATIONS ARE INVITED FOR POSTDOCTORAL FELLOWSHIPS FOR THE ACADEMIC YEAR 1971/1972

In the Fields of Physics, Chemistry, Life Sciences and Earth Sciences

The applicant is required to submit his application (in letter form) together with a curriculum vitae and list of publications, to reach the Dean's Office by 1 December 1970. Simultaneously, to arrange for at least two letters of recommendation to be directed to the same Office, from persons intimate with the applicant's academic and research records and research records.

The fellowship provides for a tax-free salary of IL.10,000, and usually allows for a single round-trip air-ticket.

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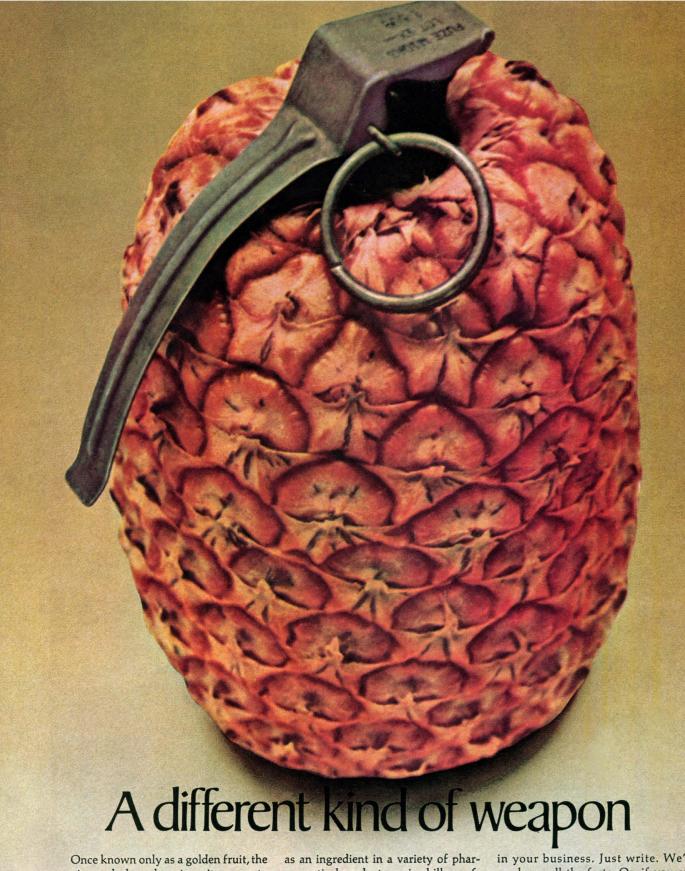
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