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ANNOUNCING
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THYMIDINE-METHYL-H\(^3\)

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>COMPOUND</th>
<th>SPECIFIC ACTIVITY</th>
<th>PRICES – EFFECTIVE: MAY 9, 1965</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>me/mM</td>
<td>250(\mu)c †</td>
</tr>
<tr>
<td>NET-027</td>
<td>Thymidine-methyl-H(^3)</td>
<td>6.7 curies/mM</td>
<td>$15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sterile aqueous solution in multidose vial.</td>
<td></td>
</tr>
<tr>
<td>NET-027A</td>
<td>Thymidine-methyl-H(^3)</td>
<td>2 curies/mM</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sterile aqueous solution in multidose vial.</td>
<td></td>
</tr>
<tr>
<td>NET-027X</td>
<td>Thymidine-methyl-H(^3)</td>
<td>$&gt;10$ curies/mM</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sterile aqueous solution in multidose vial.</td>
<td></td>
</tr>
<tr>
<td>NET-027E</td>
<td>Thymidine-methyl-H(^3)</td>
<td>$&gt;10$ curies/mM</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethanol: water solution, 70:30, in screw-cap bottle.</td>
<td></td>
</tr>
</tbody>
</table>

†Discount Schedule: List less 20% for 2 or more 0.25 or 1 millicurie packages

*2 x 5mc pkgs. **5 x 5mc pkgs.

FURTHER INFORMATION ON THYMIDINE-METHYL-H\(^3\)

The tritium labeled thymidine sold by NENC is prepared by catalytic reduction of 5-hydroxymethyluracil with tritium gas to form thymine-methyl-H\(^3\), followed by enzymatic conversion of the thymine to thymidine. This procedure prevents the incorporation of any tritium into the deoxyribose portion of the molecule and produces a labeled thymidine in which essentially all of the tritium is in the methyl group of the thymine moiety. The labeled thymidine is separated and purified by column chromatography. Radiochemical purity is verified in three different paper chromatographic systems and chemical purity is determined by ultraviolet spectrophotometry. Various investigators (1) have noted the formation of radioactive impurities in aqueous solutions of high specific activity tritiated thymidine. The observed rates of decomposition are generally in excess of 1% per month. Therefore, aqueous solutions of thymidine shipped from NENC's stock are stored no longer than two months. NENC's chemists have shown that storage in 70% ethanol solution greatly decreases the formation of radioactive impurities. Consequently, NENC now offers very high specific activity thymidine dissolved in ethanol solution. Standard specific activities available from stock are 2.0 curies per millimole and 6.7 curies per millimole in sterile aqueous solution. Specific activities greater than 10 curies per millimole are also available in ethanol or sterile aqueous solution. Sterile aqueous solutions of 250 \(\mu\)c are in 0.5 ml in 3.5 ml multidose vials. One and five millicurie pkgs. are sold at a concentration of 1mc/ml in 3.5ml and 12ml multidose vials respectively. Ethanol solutions of tritium labeled thymidine are packed in screw-cap vials at a concentration of 1mc/ml.


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28 MAY 1965
rhesus (M. mulatta) in the laboratory. Other laboratory lore and a half dozen recent field studies of various primate species (2) suggest that each of them possesses fixed traits of temperament, especially of irritability and aggression. Bernstein and Guiloud’s recent letter (3), however, indicates that not all stumptails are as gentle as those encountered by Kling and Orbach, and they warn that some may be troublesome in the laboratory. Apart from the use of these characteristics as criteria for the choice of animals, these apparently species-fixed variations of simian temperament should be studied in their own right. While this has been done to some extent, little use has been made of the powerful method of cross-fostering, which would help to determine whether (to oversimplify) the surliness of the rhesus and the tolerant friendliness of the stumptail (or free-living gorilla) are genetically built-in or are determined by the experience of being reared by a surly or a friendly monkey mother, in a particular animal “culture.” Kuo (4), who has, in effect, made the lion and the lamb to lie down together, is one of a number of investigators who have modified presumed species-specific traits by manipulating early experiences. Others (5) have ingeniously extended the use of cross-fostering to cross-species fostering—abolishing the combativeness of mice by rearing them with rats. It would be most desirable, in the interests of clarifying our understanding of the effects of early experience and of providing some crucial controls in the field of behavior genetics, to go up the phylectic scale to the stumptail, the rhesus, the pigtail, and other monkeys.

Such studies would be feasible only in major primate research facilities; private correspondence has revealed difficulties in allocating such facilities for the purpose; hence this appeal to investigators who can do so to establish breeding colonies of several different species under conditions permitting cross-fostering along with other manipulations of genetic strains and of aspects of early experience (size of “family,” competition among adults, parents’ mothering experience, artificial mothering, presence of monkey sibs, and so on) which Harlow and others have taught us to look for.

L. Joseph Stone
Department of Child Study,
Vassar College, Poughkeepsie,
New York

References

Referees: Credits and Demerits

Page (Letters, 12 Mar., p. 1241) is right! Referees should be compensated.
The compensation should be in the form of public acknowledgment, in a footnote to each published paper, of the referee who assisted in preparing the paper for publication. This system works well in the reviewing of book manuscripts. It would have many advantages for the publication of scientific papers also.

Samuel Raymond
Papper Laboratory of Clinical Medicine, University of Pennsylvania, Philadelphia 4

It is most unfortunate that the reviewers who are selected by editors of many scientific journals—Science being an exception, in my experience—make no distinction between dissemination of current scientific information and the publication of items of historical scientific interest. Current material becomes historical as manuscripts accumulate dust on the reviewers’ desks.

I propose to editors the following equation for evaluating referees:

\[ T_i = 14d + 1.4d(P_i - 5), \]

where \( T_i \) is the total time (in days) that an editor should tolerate stalling, \( d \) is a period of 24 hours, and \( P_i \) is the total number of typed, double-spaced pages (excluding references). (For referees who are not adept at algebra, the evaluation of \( T_i \) for a 20-page manuscript is 5 weeks; for 5 pages or less, 2 weeks.)

Scientists should retaliate against editors and their lethargic reviewers. When submitting manuscripts they should require that the editor adhere to this formula or return the manuscript immediately. Otherwise, ethical practice should permit the scientist to submit his manuscript to several journals simultaneously and then withdraw it from editorial consideration by others after one journal has accepted it.

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28 MAY 1965
of serological findings as they are related to population identification. Big-eye tuna were chosen as the initial object of the studies because blood-grouping and other basic information is available; moreover, this is one of the largest pelagic fisheries in the world. It was agreed that cooperation must take the form of frequent exchange of reagents, erythrocytes, and information. The principals are to meet when practicable in Hawaii and Japan to standardize reagents and techniques of testing.

Group No. 6, composed of Fujino, Suzuki, and Vrooman, proposed further efforts toward cooperative studies of the erythrocyte antigens of U.S. and Japanese sardines.

The meeting as a whole recommended that a symposium on immunogenetic and serological methods be held at the 11th Pacific Science Congress (Tokyo, 1966). The meeting noted that exchange of scientists and students between the two countries is essential for the promotion of a cooperative program; asked that such materials as blood, serum, and other tissues be exchanged; recommended the training of young scientists in the fields of fish hematology, immunogenetics, and serology in Japanese and U.S. universities; and sought to encourage active participation of workers in these fields in meetings of national and international societies. Documents relating to current research in both countries were distributed and briefly discussed.

Participants not members of the working groups were Heiichiro Miyayama (Japanese Ministry of Education), N. P. Neureiter (National Science Foundation), and Ichiro Nishimura (U.S. Department of State).

LUCIAN M. SPRAGUE
U.S. Bureau of Commercial Fisheries, Honolulu, Hawaii

Forthcoming Events

June

3-5. Canadian Soc. of Plant Physiologists, 6th annual, Univ. of New Brunswick, Fredericton. (R. G. S. Bidwell, Dept. of Botany, Univ. of Toronto, Ont.)


3-5. Advances in Biomedical Computer Applications, New York, N.Y. (T. D. Sterling, Dept. of Preventive Medicine and Industrial Health, Univ. of Cincinnati, Cincinnati, Ohio 45219)
7-11. Hyperbaric Medicine, conf., Buffalo, N.Y. (School of Medicine, State Univ. of New York at Buffalo, Buffalo 14214)


8-9. System Safety, symp., Seattle, Wash. (H. E. Wessman, College of Engineering, Univ. of Washington, Seattle)


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Editor: Reidar F. Sognnaes, Dean, School of Dentistry, Center for the Health Sciences, University of California at Los Angeles

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T. F. Goreau and W. D. Hartman: Boring Sponges as Controlling Factors in the Formation and Maintenance of Coral Reefs
M. R. Carriker, D. B. Scott and G. N. Martin, Jr.: Demineralization Mechanism of Boring Gastropods
R. F. Sognnaes: Dental Hard Tissue Destruction with Special Reference to Idiopathic Erosions
C. R. Barnicoat: Attrition of the Hypsodont Tooth
A. I. Darling: Microstructural Changes in Early Dental Caries
E. Johansen: Ultrastructural and Chemical Observations on Dental Caries
J. A. Gray and M. D. Francis: Physical Chemistry of Enamel Dissolution
P. H. Keyes and H. V. Jordan: Factors Influencing the Initiation, Transmission, and Inhibition of Dental Caries
W. V. Mayer and S. Bernick: Effect of Hibernation on Tooth Structure and Dental Caries
I. Reichborn-Kjennervig: Dento-Alveolar Resorption in Periodontal Disorders
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R. J. Goss: The Deciduous Nature of Deer Antlers
F. C. McLean and R. E. Rowland: Internal Remodeling of Compact Bone
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J. Jowsey: Microradiography of Bone Resorption
R. W. Young: Histophenological Studies on Bone Cells and Bone Resorption
N. M. Hancock and B. Boothroyd: Structure-Function Relationships in the Osteoclast
I. T. Irving and C. S. Handelman: Bone Destruction by Multinucleated Giant Cells
G. Nichols, Jr.: In vitro Studies of Bone Resorptive Mechanisms
B. K. Forscher and D. V. Cohn: In vitro Carbohydrate Metabolism of Bone: Effect of Treatment of Intact Animal with Parathyroid Extract
C. M. Dowse, M. W. Newman, K. Lane and W. F. Neuman: Metabolic Action of Parathyroid Hormone on Rat Calvaria
P. Goldhaber: Some Chemical Factors Influencing Bone Resorption in Tissue Culture
G. N. Jenkins and C. Dawes: The Possible Role of Chelation in Decalcification of Biological Systems
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