benzoic acid in the sulphonamide-fast organisms, this inhibitor is excreted rapidly by the sulphonamide-fast strains as a by-product of bacterial metabolism.

The sulphonamide-fast organisms I used to determine which compounds would inactivate the inhibitor substance were strains of *Streptococcus viridans* and *Staphylococcus aureus*. In order to determine the reaction of fairly primitive mesenchymal cells (for example, the histiocytes of the reticulo-endothelial system) and, in that way, to determine the formation of any toxic decomposition product, the sulphonamide-fast bacteria were implanted on to small squares on plasma clots in Carrel flasks, around which tissue cultures (chick periostial fibroblasts) were implanted. The percentage of deaths of the cultures was plotted against time. The sulphonamide-anti-inhibitor compounds were introduced into the same squares and also the organisms per c.c. of the suspension determined.

It was found that the main compounds that were active in sulphanilamide-fast organisms were sulphanilamido-urea, and to a lesser degree sulphanilamido-allantoin, while sulphanilyl-urate was inactive. These compounds also showed the curious phenomenon of increasing the rate of cell-growth and cell-migration of the fibroblasts towards them, even in the absence of bacterial infections, and were of lower toxicity towards the cells than any other of the sulphanilamides tested. In all the above experiments the strains of sulphanilamide-fast streptococci and staphylococci were very susceptible to sulphanilamido-urea, while they were unaffected by either sulphanilamide or by urea as such. The same applies to a slightly lesser degree to sulphanilyl-allantoin. Among other compounds that showed a high activity in these resistant strains were 7 : 7′-(tetrazo 4 : 4′-diamino-diphenyl-sulphone)-1-acetamino-8-naphthol-3.6-disulphonic acid and its sodium salt. This compound, however, to my knowledge, has not yet been tried clinically.

Preliminary clinical reports available from American workers on sulphonamido-urea show that the material offers great possibilities. It is also being claimed that sulphanilamido-urea shows a greater activity towards ordinary bacterial strains and that the toxic reactions that accompany all sulphanilamides are much less pronounced with this combination.

It is too early yet to judge the full significance of the anti-inhibitor compounds in sulphonamide therapy, especially in the treatment of war injuries; but as the number of clinical cases caused by sulphonamide-fast bacteria is gradually and alarmingly increasing, it is becoming a matter of national importance to investigate as wide a range of sulphonamide-fast bacterial strains as possible, in order to determine as soon as possible the extent to which sulphanilamido-urea combinations will be effective in cases where sulphanilamide, sulphapyridine, sulphathiazole and sulphadiazine have been ineffective, partially or wholly, and whether it would prove practicable to introduce immediately for clinical routine anti-inhibitor-radicals into standard sulphonamide drugs.

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[1] *Proc. Soc. Exp. Biol. Med.*, **51**, 247 (1942).
[2] *Amer. J. Clin. Invest.*, **21**, 628 (1942).
[3] *Proc. Roy. Soc. Med.*, **34**, 349 (1941). *Lond. Hosp. Gaz.*, Clin. Supp., 5 (1940).

Amoeba lescherae

WE have already given a preliminary account of a new amœba which we called *Amœba lescheri*[1]. In a subsequent communication[2] we pointed out that, contrary to our first statement, the division of the nucleus was mitotic. Dr. Margaret Jepps has kindly informed us that, according to the rules of nomenclature[3], the specific name should be *lescheræ*, since the amœba was named to honour the memory of Mary Adela Lescher, the foundress of the College of Notre Dame in Glasgow. It is proposed to use this corrected form, *Amœba lescheræ*, in the full and corrected description of the morphology, cytology and life-history which will shortly appear in the *Quarterly Journal of Microscopical Science*.

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Dowanhill, Glasgow. April 24.

[1] NATURE, **145**, 464 (1940).
[2] NATURE, **149**, 501 (1942).
[3] For example, Proc. IXth Internat. Congress, Zoology, Monaco. See Wenyon, "Protozoology", vol. 2, 1336 (1926).

Potatoes and War Economy

DR. COPISAROW[1] has done well to redirect attention at this season to the importance of our being able to produce 'additional' potatoes. Methods of propagation which he cites are the use of 'tops' (for the development of which Prof. Lysenko and his co-workers have recently been awarded the valuable Stalin Prize for Agriculture), of peelings, of 'eyes' (with a small amount of parent tuber attached), and my own preliminary tests with detached sprouts. All of these methods have given satisfactory or at least worthwhile yields, the first having, according to *Pravda* (October 7, 1942), enabled the Russians to increase their total area under potatoes by 100,000 ha. in 1942, in spite of huge losses in territory and materials; the last method, and the possibilities of storage and vernalization of the detached sprouts, would seem especially worthy of detailed study in Great Britain as by it several effective propagules can readily be obtained from a single tuber without noticeable effect on this last even from a culinary aspect. Thus the self-same tubers can be used first for purposes of propagation and then for food.

In view of the vital importance of our main potato crop in war-time and of the significance attached by the two Ministries concerned to the planting of only imported tubers, many people will have been comforted by the recent announcement that far more 'seed' than a year ago has been brought south from Scotland; others, however, are left wondering whether this is all properly certified material and, particularly, how much of it will be used to full advantage. For between the wide extremes of wastefully planting large tubers whole and of cutting them into hazardously small pieces there lies a happy mean which is both economical and practicable. The former of these extremes is all too common in England and follows the persistent selling of uncertified tubers of 'ware' size (in some recorded instances actually *averaging* more than 8 oz. each) for seed at exorbitant prices under the label 'Scotch Class 1'—a practice that, in the absence of proper advice about 'cutting', is to be condemned in warf time as wickedly wasteful of transport as well as o-food or raw materials[2]. The other extreme is exemplified as implied above by the American 'potato-