It could be argued that the added RNA is protecting the ribosomes (or the soluble RNA (*s*RNA) subsequently added in the cell-sap) from breakdown by ribonuclease known to be associated with ribosomes[10]. We have, in fact, observed breakdown of added, labelled RNA during pre-incubation but it seems unlikely that all the effect of added RNA on amino-acid incorporation can be ascribed to protective action since we have observed that some preparations of RNA did not, for some still unknown reason, exhibit any stimulatory effect when added during incubation. We have also found that addition of 25 μg of polyuridylic acid to the ribosomes during pre-incubation caused a 6–8-fold stimulation of incorporation of phenylalanine into perchloric acid-precipitable material. It seems unlikely that such a small amount of synthetic polymer could exert much protective action.

It is also unlikely that the RNA added is causing stimulation because of the *s*RNA contained in it since addition of *s*RNA of equivalent amount to the stimulatory RNA used caused no stimulation of incorporation of amino-acid (Table 1).

A possible explanation of these results is that messenger RNA[11] (*m*RNA) exists in rat liver and is needed for incorporation to occur and that the added RNA contains *m*RNA. Pre-incubation may be removing messenger RNA from the ribosomes so that any added *m*RNA has a greater chance of sticking to the ribosomes, thus accounting for the greater percentage stimulation. Alternatively, pre-incubation in the absence of magnesium may have enhanced the ability of the *m*RNA added to combine with the ribosomes since, in the absence of magnesium, RNA will not form inter- and intra-molecular bonds.

Experiments are in progress to distinguish between the messenger and the protective function of the added RNA and to examine the properties of the stimulatory RNA.

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Microbiological Dehydroxylation of Cholic Acid

THE transformation of steroids by micro-organisms has been extensively applied to the steroid hormones and their derivatives[1]. More recently this technique has been extended to other compounds[2]. However, the dehydroxylation reaction of steroids by micro-organisms has not been reported.

In continuing our examination about microbiological degradation of bile acids[3], it was found that *Corynebacterium simplex* (I.F.O. 3530), cultured in a medium containing cholic acid as the sole source of carbon, produced 12α-hydroxy-3-oxo-$\Delta^{1,4}$-choladienic acid, which corresponds to the dehydroxylation derivative of cholic acid.

The following physical constants of the methyl ester of this acid indicated that this ester may be methyl 12α-hydroxy-3-oxo-$\Delta^{1,4}$-choladienate: $C_{25}H_{36}O_4$ (found: C. 75·11; H, 9·13); m.p. 146–148°; $[\alpha]_D^{23}$ $+29·4 \pm 2°$ (dioxane): $\lambda_{max}^{alc.}$ 246 mμ (ε = 15,400); $\nu_{max}^{CHCl_3}$ 3,481 cm^{-1} (OH), 1,732 cm^{-1} (ester) and 1,607, 1,624 and 1,663 cm^{-1} ($\Delta^{1,4}$-3-ketone). The identity with an authentic methyl 12α-hydroxy-3-oxo-$\Delta^{1,4}$-choladienate, prepared from methyl 12α-hydroxy-3-oxo-Δ^4-cholenate by selenium dioxide dehydrogenation, was determined by infra-red comparison and mixed melting point.

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Micro Method of Haptoglobin Typing using Acrylamide Gels

THE value of haptoglobin typing for human sera in relation to population investigations is well known[1]. The usual method of haptoglobin typing following electrophoresis on starch gels[2] is reliable but rather slow and cumbersome so that a quick and reliable method is of considerable advantage when large numbers of sera are to be examined.

The purpose of this communication is to describe a micro-method which utilizes electrophoresis in acrylamide gels on microscope slides and can be completed in 50 min. This method also offers a better resolution of haptoglobin types than the starch gel method and only 0·1 μl. of serum is required for examination. Recording of the results is done on photosensitive paper by transillumination of the slides in a condenser-type enlarger.

Microscope slides 75 mm × 25 mm are placed on a flat 'Perspex' tray the slides of which project uniformly 1·5 mm above the surface of the slides. A solution of acrylamide (supplied as chemical grout AM9 by Cyanamid. Australia Pty., Ltd.) of the following composition is prepared and is immediately poured into the tray.

AM9	7·5 g
Catalyst DMAPN	0·5 ml.
Ammonium persulphate	0·5 g
Water	to 100 ml.

The solution is then sealed from air with a flat 'Perspex' cover slid over the liquid. Polymerization occurs within 4 min at room temperature. The cover is then removed by sliding it off the gel and the gel is cut with a razor-blade along the edges of the slides, which are then immersed in a solution of *tris* (2-amino-2-(hydroxymethyl)-1 : 3-propanediol) of the following composition.

tris	9·2 g
Citric acid	1·0 g
Distilled water	to 2 l.

Sets of twelve slides are washed with 500 ml. of the *tris* solution for 6 h and then with a fresh 500 ml. of the solution overnight, following which the slides can be used, or left in the solution until required for use. The slides are placed in an open electrophoresis tank, as no special precautions are required to prevent evaporation, and

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