

0.025 M MgCl₂, 0.05 M KCl) and examined by sucrose gradient centrifugation. No peaks appeared in the ribosomal subunit, single ribosome, or polysome regions of the gradient.

To construct the curves in Fig. 3, the areas of the single ribosome and dimer peaks above the adjacent baseline were measured on continuous flow absorbance traces similar to those in Fig. 2. The total count associated with single ribosomes and dimers in each analysis was summed.

In the absence of GA there is a fall in the number of ribosomes during incubation (Fig. 3) and very little radioactivity is found in the ribosome and dimer regions of the gradients. During the first 20 h of incubation in the presence of GA there is a similar fall in the number of ribosomes in the half-seeds, while at the same time there is a similar, very small increase in the radioactivity of the ribosome and dimer regions. After 20 h in the presence of GA, however, the ribosome number begins to rise again, and the marked rise in radioactivity associated with ribosomes and dimers is consistent with the synthesis of new ribosomal RNA. Comparison of Fig. 1 and Fig. 3 shows that the secretion of α -amylase into the medium is approximately concurrent with the increase in new ribosomes.

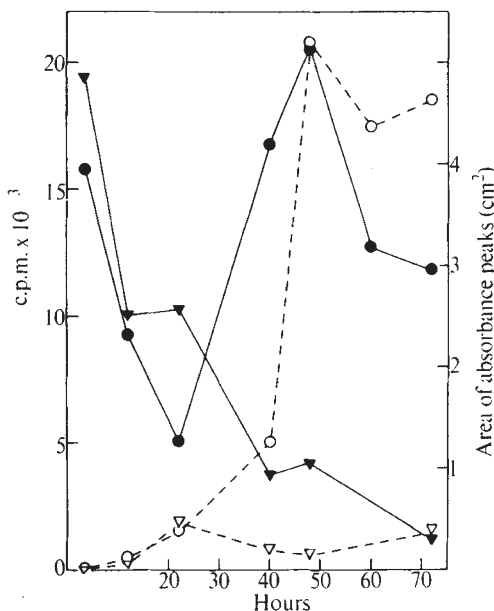


Fig. 3 Ribosome-containing pellets were prepared from embryoless half-seeds which had been incubated with or without GA for various times in a medium containing tritiated uridine monophosphate. The sum of the areas under the single ribosome and ribosomal dimer peaks on the absorbance traces (—) and the radioactivity associated with single ribosomes and dimers (---), obtained from sucrose gradient analyses like those in Fig. 2, are plotted against the time of incubation. ●, Absorbance with GA; ▼, without GA. ○, C.p.m. with GA; ▽, without GA.

Our experiments and others¹ suggest that the aleurone cells already contain ribosomes in the ungerminated dry seeds. Early in germination the original ribosomes are degraded but new ribosomes are synthesized later and become attached to the newly developed endoplasmic reticulum. Some protein, or nucleic acid components (or their degradation products), from the original ribosomes may be used in the new ribosomes.

It is an interesting question why the ribosomes already present in the aleurone cells do not attach to the endoplasmic reticulum which forms early in germination, but are degraded so that new ribosomal RNA, and possible ribosomal protein, must be synthesized and assembled into ribosomes which can then become attached to membranes.

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Errata

IN the contents list for *Nature New Biology*, **241**, January 17, 1973, the correct listing of the authors for the article "Production of Antiserum in Mice to Human Leukaemia-associated Antigens", page 93, should be Baker and Taub.

IN the article "¹⁸O-rich Oxygen from Land Photosynthesis" by G. Dongmann *et al.* (*Nature New Biology*, **240**, 127; 1972) the first sentence in paragraph 7 should read . . . "The mean global deficit of ¹⁸O in fresh water . . . is estimated to be between 4 and 8 per mil" (not per cent). Also, the first sentence in paragraph 8 should read "We expect therefore an average excess of ¹⁸O in oxygen from photosynthesis on land of approximately 10 per mil (not 1 per mil) relative to ocean water," and the sentence beginning on line 6 of the paragraph should read "It seems likely, however, that this product should be higher than the actual observed excess of 20 per mil" (not 2 per mil).

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