

Aminoacylation of transfer RNA microinjected into *Xenopus laevis* oocytes

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THE microinjection technique perfected by Gurdon and his collaborators 1,2 represents an excellent method for the study of the in vivo effects of drastically changing the molecular contents of the injected cells. We have demonstrated³ that radioactive yeast transfer RNA injected into oocytes of *Xenopus laevis* is not appreciably degraded after 20 h of incubation inside these cells. It seems therefore, possible to modify the quantity and characteristics of the tRNAs present in frog oocytes and to test the effects that such changes may have on protein synthesis and other cellular processes. An important control in such a study is to determine whether the tRNAs microinjected into frog oocytes are functional in the sense that they can be aminoacylated by the recipient cell. This report presents evidence demonstrating that the amphibian oocyte is capable of aminoacylating yeast tRNAs injected into these cells at concentrations which are greatly in excess of their endogenous tRNA content. © 1