

Glycolysis is operative in amphibian oocytes

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It is generally accepted that in frog full-grown oocytes glycolysis is absent and that carbon metabolic flux is largely directed to glycogen synthesis. Use of an anion exchange pellicular resin for analytical resolution of intermediates in perchloric acid extracts of oocytes has allowed us to observe the formation of labelled lactate after microinjection of [U-14C]glucose. Further, formation of [32P]ATP was observed after microinjection of 32P-labelled glucose-6-P, fructose-6-P or fructose-1,6-bis-P, either in the presence or absence of 0.1 mM cyanide. The presence of phosphofructokinase activity, previously thought to be absent in oocytes, is also reported. These findings indicate that glycolysis to lactate is operative in frog oocytes. © 1994.