

Title: Translation of enzymes involved in glutathione synthesis during linear motility in boar sperm



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C301

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Sperm is very specialized cells dedicated to fertilization. Specifically, since sperm has lost the ability to express genes, they produce ATP using proteins synthesized during the spermatogenesis process and move at high speed for a long time to enter the oocyte. During this ATP production, reactive oxygen species are formed as a byproduct, damaging sperm. Mr. Wambugu showed that sperm has a highly stable mRNA with a highly stable mRNA with short poly A tail, and polyadenylation occurs in response to oxidative stress, leading to translation. This special mRNA expresses a group of enzymes involved in glutathione synthesis and converts amino acids contained in seminal plasma and uterine mucus into glutathione, which ensures long-term motility for fertility.

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