



Where has all the message gone?

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Titre	Where has all the message gone?
Type de publication	Article de revue
Auteur	Davies, Eric [1], Stankovic, Bratislav [2], Vian, Alain [3], Wood, Andrew J [4]
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Mots-clés	mRNP [5], P-bodies [6], Polysome [7], Ribosome [8], RNA [9], Translation [10] We provide a brief history of polyribosomes, ergosomes, prosomes, informosomes, maternal mRNA, stored mRNA, and RNP particles. Even though most published research focuses on total mRNA rather than polysomal mRNA and often assumes they are synonymous - i.e., if a functional mRNA is present, it must be translated - results from our laboratories comparing polysomal RNA and total mRNA in a range of "normal" tissues show that some transcripts are almost totally absent from polysomes while others are almost entirely associated with polysomes. We describe a recent model from yeast showing various destinies for polysomal mRNA once it has been released from polysomes. The main points we want to emphasize are; a) when mRNA leaves polysomes to go to prosomes, P-bodies, stress granules, etc., it is not necessarily destined for degradation - it can be re-utilized; b) "normal" tissue, not just seeds and stressed tissue, contains functional non-polysomal mRNA; c) association of mRNA with different classes of polysomes affects their sub-cellular location and translatability; and d) drawbacks, misinterpretations, and false hopes arise from analysis of total mRNA rather than polysomal mRNA and from presuming that all polysomes are "created equal".
Résumé en anglais	<p>URL de la notice</p> <p>http://okina.univ-angers.fr/publications/ua7806 [11]</p> <p>DOI</p> <p>10.1016/j.plantsci.2011.08.001 [12]</p> <p>Lien vers le document</p> <p>http://dx.doi.org/10.1016/j.plantsci.2011.08.001 [12]</p>

Liens

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