Review of: "The CGA Codon Decoding through Arg-tRNA^ICG Supply Governed by Tad2/Tad3 in Saccharomyces cerevisiae"

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Potential competing interests: No potential competing interests to declare.

Decoding of CGA in mRNA by $tRNA^{Arg}$ (ACG) requires deamination of the wobble base, A, to convert it to I, which is performed by TAD2/TAD3 heterodimeric enzyme in yeast. In this manuscript authors showed that 1) Increased expression of $tRNA^{Arg}$ (ACG) partially rescue the stalling of decoding (CGA)12-reporter construct, 2) TAD3 ts-mutant can be rescued by overexpression of wildtype TAD3 and partially by overexpression of TAD2, and 3) the ratio of the matured $tRNA^{Arg}$ (ICG) to its precursor $tRNA^{Arg}$ (ACG) is maintained low by lower expression levels of the deaminase enzyme. From these results authors conclude that deamination of the $tRNA^{Arg}$ (ACG) by TAD2/TAD3 is the rate limiting step for the availability of $tRNA^{Arg}$(ICG) for decoding CGA during translation. The manuscript is interesting, and experiments were performed well. However, the overall new knowledge gained from these studies is limited, since TAD2/TAD3 function and regulation have been well studied. In addition, biological significance and mechanistic details are not shown.