

2018 Seminars

Roles of elusive translational GTPases (LepA and BipA) come to light

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Protein synthesis relies on several translational GTPases (trGTPases), related proteins that couple the hydrolysis of GTP to specific molecular events on the ribosome. Most bacterial trGTPases, including IF2, EF-Tu, EF-G, and RF3, play well-known roles in translation. The cellular functions of LepA (also termed EF4) and BipA (also termed TypA), on the other hand, have remained enigmatic. I will discuss recent evidence that LepA and BipA function in biogenesis of the 30S and 50S subunit, respectively. These findings have important implications for ribosome biogenesis in bacteria.