

Thiamin biosynthesis: still yielding fascinating biological chemistry

Tadhg P. Begley

*Department of Chemistry and Chemical Biology,
Cornell University, Ithaca, NY 14853, USA*

Thiamin pyrophosphate is an essential cofactor in all-living systems and consists of a pyrimidine covalently linked to a thiazole. The biosynthesis of thiamin is complex and different from any of the characterized chemical or biochemical routes to these heterocycles.

This lecture will describe recent progress on the biosynthesis of the thiamin pyrimidine in bacteria, the thiamin thiazole in *Saccharomyces cerevisiae* as well as a new thiamin salvage pathway.