ADDITIONAL FILE 4: Example results of metabolic interaction list achieved between manual curation and MINR module.

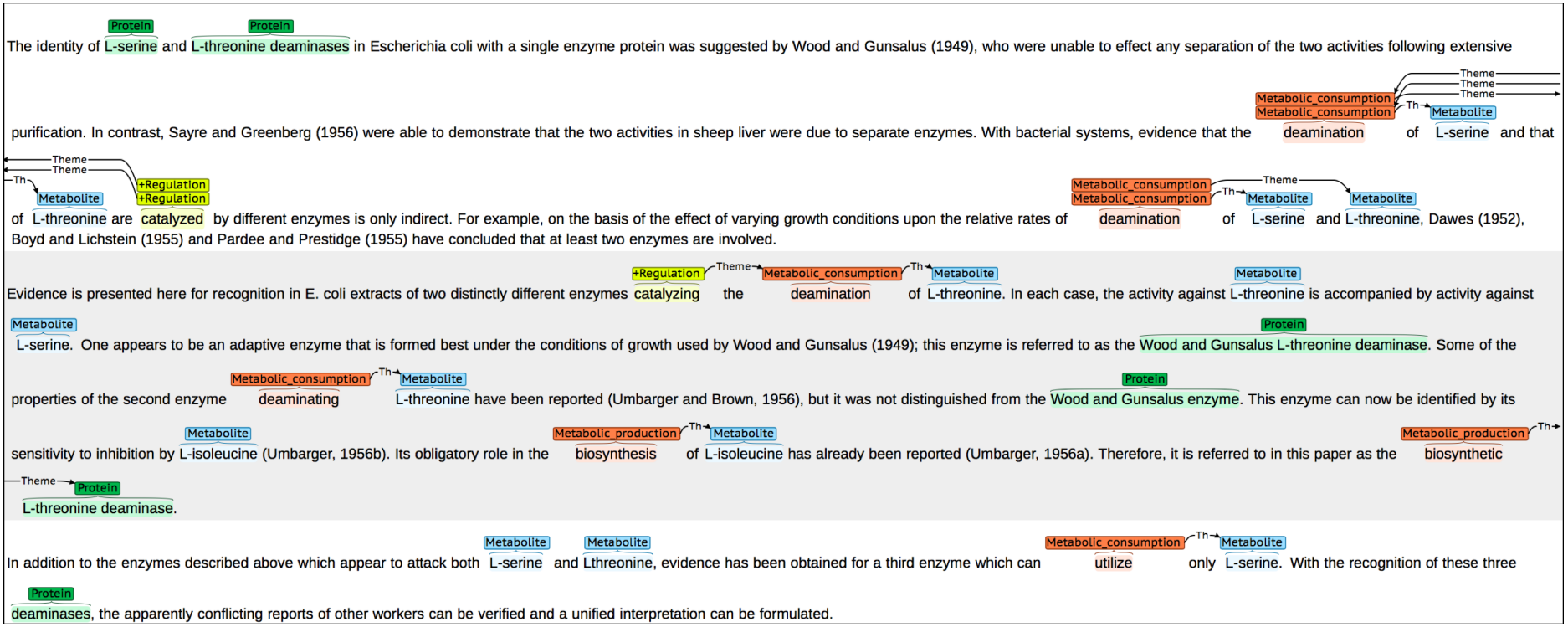
Additional Text and Table 4.1- Example result of metabolic interaction from PMID: 13405870

Sentences selected by a manual curator

S1: The identity of L-serine and L-threonine deaminase in *Escherichia coli* with a single enzyme protein was suggested by Wood and Gunsalus (1949), who were unable to effect any separation of the two activities following extensive purification. In contrast, Sayre and Greenberg (1956) were able to demonstrate that the two activities in sheep liver were due to separate enzymes. With bacterial systems, evidence that the deamination of L-serine and that of L-threonine are catalyzed by different enzymes is only indirect. For example, on the basis of the effect of varying growth conditions upon the relative rates of deamination of L-serine and L-threonine, Dawes (1952), Boyd and Lichstein (1955) and Pardee and Prestidge (1955) have concluded that at least two enzymes are involved.

S2: Evidence is presented here for recognition in *E. coli* extracts of two distinctly different enzymes catalyzing the deamination of L-threonine.

Result achieved from Module 2 within integrated TM framework



Manual curation		**Module 2**
L-serine	L-serine deaminase	Not found
L-threonine	L-threonine deaminase	

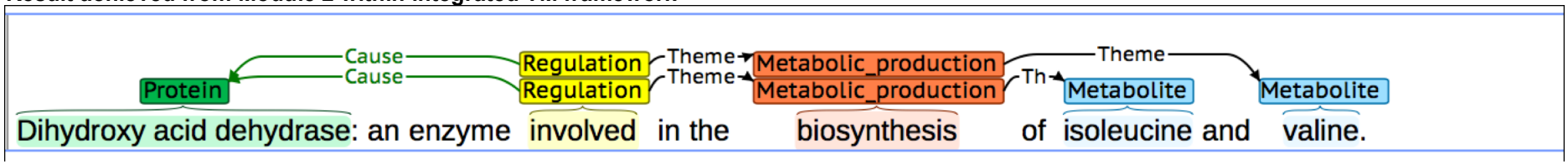
Note: Manual curator notices an implication of L-serine deaminase and L-threonine deaminse interaction with L-serine and L-threonine. Module 2 only detects an explicit mention of interaction, thus it fails to detect this subtle implication.

Additional Text and Table 4.2- Example result of metabolic interaction from PMID: 13727223

Sentence selected by a manual curator

S1: Dihydroxy acid dehydrase: an enzyme involved in the biosynthesis of isoleucine and valine.

Result achieved from Module 2 within integrated TM framework



Manual curation	**Module 2**	
Not found	Dihydroxy acid dehydrase	isoleucine
	Dihydroxy acid dehydrase	valine

Note: This sentence suggests an interaction between Dihydroxy acid dehydrase with isoleucine and valine. However, it can be interpreted either a direct interaction or an indirect interaction. Manual curator can deduce the correct result using domain knowledge. Module 2 detects this sentence as a direct interaction.