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BMS

Judging Dept.

**Venkata Chalamcharla**

Student

BMS

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Marlene Belfort

Dept or Program Years in program

Mentor

**Lactococcus Lactis Group II Ll.ltrb Intron In Escherichia Coli  
- Intron Mobility Vs. Sos Response**

Author (s)

**Venkata Chalamcharla**

Group II introns are a large group of catalytic RNAs that are capable of invading their cognate intron-minus gene in a process known as retrohoming. They can also retrotranspose to ectopic sites on the host chromosome, although at a low frequency. These retroelements, like most other mobile genetic elements, can be truly selfish. Group II introns are unique in that they can not only evade the host defenses but also can exploit the host for their own dispersal, a success strategy for a selfish element. Recent findings that retrohoming of the *Lactococcus lactis* group II intron Ll.ltrB in *Escherichia coli* requires the host's repair polymerases, accentuate the selfish nature of these introns. However, such selfish elements can also benefit the host. It is therefore of interest to understand the exact relationship of the intron with its host. To investigate their relationship, we are monitoring the retromobility of the *L. lactis* group II intron Ll.ltrB in the context of SOS, a global stress response in *E. coli*. Our preliminary results suggest that the retromobility of Ll.ltrB increases significantly in a dose-dependant manner upon UV-exposure, an inducer of the SOS response. The SOS response in *E. coli* can also be induced by genetic or chemical means. As the source of the SOS response dictates the type of SOS machinery signaled, we might see a different retromobility behavior of the Ll.ltrB intron. Hence, we are also monitoring retromobility in a constitutive SOS mutant and upon mitomycin C-treatment. Together, these experiments will help provide us a better understanding of the intron-host relationship. Moreover, as the group II introns share certain aspects of their lifestyle with the eukaryotic spliceosomal introns and even retroviruses, understanding the group II intron-host relationship might provide us valuable insight into the lifestyles of these elements.