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Designer Spliceosomes Reveal the 3'SS Substrate Binding Site in the Spliceosome Second-Step Active Site

The spliceosome removes introns via two trans-esterification reactions, and there have been long-standing questions about the relationship between the first- and second-reaction active sites. We developed an orthogonal, or second-copy, spliceosome system to investigate first-step catalysis using complete replacement of the branch sequence-U2 snRNA duplex. We have subsequently used this system to identify the second-step binding site for the 3' splice site. Collectively, these data demonstrate that first- and second-step core geometries are similar and are consistent with one active site for both steps, with only minor differences.

Monday, October 20, 2014

Hope 110

3:45 Tea 4:00 Seminar

Host: Karla Neugebauer

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