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Operons in worms

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Operons contain multiple adjacent genes whose transcription is regulated by the transcription of a single polycistronic message. The processing of polycistronic pre-mRNA involves 3' end formation and *trans*-splicing by the specialized **SL2 small nuclear ribonucleoprotein particle**. In the June 20 *Nature*, Blumenthal *et al.* describe a screen for SL2-containing mRNAs in the *Caenorhabditis elegans* genome (*Nature* 2002, **417**:851-854). They used a probe enriched for SL2-containing mRNA to hybridize to microarrays containing over 17,000 genes. They selected around 1,200 genes, including many genes with known SL2-containing mRNAs. Most of these genes (86%) are located downstream in operons, indicating a strong correlation between SL2 *trans*-splicing and downstream location in an operon. Blumenthal *et al.* estimated that the *C. elegans* genome may contain as many as 1,068 operons, representing over 2,600 genes (or up to 15% of genes).

References

1. A second trans-spliced RNA leader sequence in the nematode *Caenorhabditis elegans*.
2. *Nature*, [<http://www.nature.com>]