

How come alternative splicing may be so decisive in the life of a cell?

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Alternative pre-mRNA splicing allows ensuring the establishment of an immense repertoire of proteins that will, collectively and in association with other macromolecules, such as nucleic acids, lipids and sugars, fulfill all functions a specialized cell requires for living, and dying.

With this in mind, we will discuss about what is presently known of the mechanism of splicing, how it can get alternative and how it is linked to gene transcription. Put in context, we will show how it is modified or even disrupted in cancer, and what tools are available to try to predict the outcome of splicing decisions.

Finally, we will propose a fictive scenario showing how enzymes that participate in sugar presentation and hence, in fractone assembly, may depend on alternative splicing switches that take place in a timely manner.