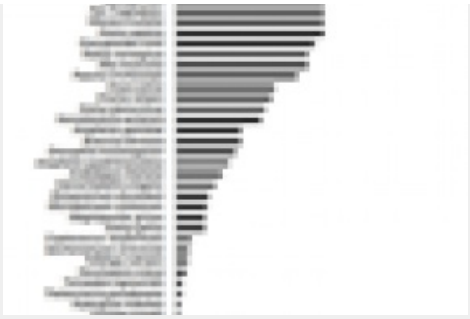

(https://lbbe-web.univ-lyon1.fr/sites/default/files/styles/img__1280x768__image_scale__crop_main/public/media/images/arton2877.png?itok=Mh1McHjR)

Transposable elements and genome evolution

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Transposable elements initially considered as 'junk' and 'selfish' pieces of DNA are now seen as major components of genomes that have played a significant role in evolution. The history of these genomic elements provides one of the best examples of how scientific concepts in biology emerge and then evolve into new concepts.

The idea that some genetic factors are able to move around chromosomes emerged more than 60 years ago when Barbara McClintock first suggested that such elements (now named "Transposable Elements") existed and had a major role in controlling gene expression and that they also have had a major influence in reshaping genomes in evolution. In this article, C. Biémont summarizes the main events that influenced his thinking about transposable elements as a young scientist and the influence and role of these specific genomic elements in evolution over subsequent years. Today, we recognize that the findings about genomic changes affected by transposable elements have considerably altered our view of the ways in which genomes evolve and work.

For more details:

Biémont C. A brief history of the status of transposable elements: from junk DNA to major players in evolution. Genetics. 2010 Dec;186(4):1085-93.