

Transcription landscape essay

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The research article "Landscape of transcription in human cells" was a collaborative work done by over 40 researchers. The author's question is not a direct question, rather, the research paper was a preliminary report of the ENCODE project which is a sort of encyclopedia that contained all the DNA elements in the human genome.

The hypothesis was the possibility of producing a catalogue of the whole human genome by first identifying the position and location of the RNAs produced. Also, the project also set out to determine whether the 5' termini was modified by the presence of methyl guanosine cap or the 3' termini also modified by the presence of polyadenylation.

The researchers tested the hypothesis by further studying the primary result of the transcription of the RNAs. Moreover, the relationship of the products to the RNAs was also studied, including those of small and long RNAs that have been previously annotated.

The results of the project showed that the researchers were able to compile a list of all the subcellular locations of RNA meaning that all the cell organelles that contained RNA were fully catalogued. Moreover, the researchers were also able to determine the relationship of the precursor RNAs to the final products; thereby contributing a great deal to the current knowledge of scientists about the RNA landscape.

The result of the research indicated that contrary to previous opinions that a large percentage of the human genome was redundant and did not perform any tangible function, the researchers have been able to show that a large percentage of the human genome actually have at least one recognizable function that they perform

References

Djebali et al (2012). Landscape of transcription in human cells. Nature. doi: 10. 1038/nature11233. Retrieved from < <http://www.nature.com/nature/journal/v489/n7414/nature11233/metrics>> on 24th September, 2013