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IN BRIEF

RNA

Transcriptome-wide N^6-methyladenosine analysis

Two groups have developed a technique for analysing the transcriptome-wide distribution of the RNA modification N^6-methyladenosine (m^6A) that incorporates antibody-mediated enrichment of the modification coupled with sequencing. Notably, in humans and mice, there was an enrichment for the mark around stop codons. In addition, conservation of modification sites between these species indicates some functionality for this mark, as does its tissue-specific distribution in human RNAs.

ORIGINAL RESEARCH PAPERS Meyer, K. D. *et al.* Comprehensive analysis of mRNA methylation reveals enrichment in 3′ UTRs and near stop codons. *Cell* 17 May 2012 (doi:10.1016/j.cell.2012.05.003) | Dominissini, D. *et al.* Topology of the human and mouse m^6A RNA methylomes revealed by m^6A-seq. *Nature* **485**, 201–205 (2012)

GENE REGULATION

Cis versus *trans* enhancers

This paper presents a transgenic approach towards studying the action of enhancers in *trans* on homologous chromosomes in *Drosophila melanogaster*. The authors show that the eye-specific enhancer glass multimer reporter is able to act in *trans* in a stochastic fashion. Furthermore, promoters in *cis* and in *trans* competed for the enhancer, and the single-cell resolution of the technique indicated that the enhancer could undergo multiple promoter pairings in the same nucleus. Further functional investigation of long-range interactions is enabled by this assay.

ORIGINAL RESEARCH PAPER Bateman, J. R., Johnson, J. E. & Locke, M. N. Comparing enhancer action in *cis* and in *trans*. *Genetics* 29 May 2012 (doi:10.1534/genetics.112.140954)

CANCER

Clonal mosaicism linked to age and cancer risk

Using genome-wide SNP microarray data from over 100,000 DNA samples in total, two recent studies have provided evidence that clonal mosaicism — the co-existence of cells with two or more distinct karyotypes within an individual — increases with age, demonstrating that our DNA changes in subpopulations of cells over time. Furthermore, these studies also suggest that clonal mosaicism may be a risk factor for cancer and that the identification of such chromosomal abnormalities may be a useful screening tool in the future.

ORIGINAL RESEARCH PAPERS Jacobs, K. B. *et al.* Detectable clonal mosaicism and its relationship to aging and cancer. *Nature Genet.* **44**, 651–658 (2012) | Laurie, C. C. *et al.* Detectable clonal mosaicism from birth to old age and its relationship to cancer. *Nature Genet.* **44**, 642–650 (2012)

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