

Individual's genetic info unique in another way: The shape of RNAs

The information contained within a messenger RNA (mRNA) transcript goes beyond the protein recipe embedded in its sequence. mRNAs consist of single strands of nucleotides that can pair with each other in the same way as double-stranded DNA molecules. The resulting 'secondary structures' help determine when and how the encoded protein gets produced.

Researchers led by Yue Wan of the A*STAR Genome Institute of Singapore and Howard Chang of Stanford University in the United States have applied a powerful experimental technique to build a detailed map of secondary structures for the entire human mRNA 'transcriptome'.

Their Parallel Analysis of RNA Structure (PARS) method entails isolating the total mRNA content of a biological sample, then treating it with two different enzymes that selectively cut single- or double-stranded RNA segments. By using sequencing technology to map these cut sites, the researchers could chart the secondary structure of each mRNA transcript.

Read the full, original story: [Genomic differences between individuals can change the physical organization of RNA transcripts](#)