

National Institute of Public Health: ENCODE project biggest research advance of 2012

1. **ENCODE**

For sheer scientific shock value this year, nothing beat the prosaically-named ENCyclopedia Of DNA Elements (ENCODE) project. ENCODE, funded by the [National Human Genome Research Institute](#), set out to map the active parts of the human genome where the prevailing belief had been that 2 percent was genes and 98 percent was “junk DNA” or, at best, the dark matter of the genome. In September, 30 papers in Nature, Science, and other journals reported that 80 percent, not 2 percent, of the genome was transcribed with over 20,000 non-coding RNA sequences serving as active biological elements of the genome.²⁴ The biggest finding of the year is also the most humbling: we are still in the earliest stages of understanding the blueprints that make us human.

View the original article here: The Top Ten Research Advances of 2012