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CpG islands

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'CpG islands' are often associated with promoter regions. A CpG island has traditionally been defined as a 200 bp region of DNA with a G+C content over 50% and an observed/expected CpG ratio of 0.6 or more. In the March 19 Proceedings of the National Academy of Sciences, Daiya Takai and Peter Jones of the University of Southern California describe a re-evaluation of CpG islands using the finished sequences of human chromosomes 21 and 22 (Proc Natl Acad Sci USA 2002,99:3740-3745). They developed an algorithm to search for and describe CpG islands, and defined a new criterion for describing a CpG islands. This description eliminates *Alu*sequences and reduces the predicted number of CpG islands on chromosomes 21 and 22 from over 14,000 down to 1,101, which approximately resembles the number of genes found (around 750). They also found evidence for CpG dinucleotide suppression in other genomes, including those of yeast and fruitflies.

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