

**GOVERNMENT OF INDIA  
HEALTH AND FAMILY WELFARE  
LOK SABHA**

UNSTARRED QUESTION NO:1184  
ANSWERED ON:07.03.2007  
JUNK DNA  
Badiga Shri Ramakrishna

**Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:**

- (a) whether the scientists of centre for Cellular and Molecular Biology (CCMB), Hyderabad, proved that Junk DNA does contain so many secrets;
- (b) if so, the details of the discovery; and
- (c) to what extent this discovery helps in human genome project?

**Answer**

THE MINISTER OF STATE IN THE MINISTRY OF HEALTH & FAMILY WELFARE (SMT. PANABAKA LAKSHMI)

(a) to (c) : According to Council of Scientific and Industrial Research more than 98.8% of human genome is made up of non-coding DNA generally referred to as "JUNK". Less than 1.2% of human DNA codes for proteins. One of the biggest challenges in the field of modern biology is to find out functions of Junk DNA (non-coding sequences). The Y chromosome is of interest to man because it carries genes for maleness. Two-thirds of Y Chromosome is made up of only repetitive DNA, which has been thought of as junk. The current study at Cellular and Molecular Biology (CCMB) presents unequivocal evidence, for the first time that 40 Mega base repeat block of the chromosome, which was earlier perceived as Junk DNA, is transcribed into novel RNAs in testis, which controls the expression of a Gene present on another chromosome. This is the first demonstration of the function for Y-Junk.