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Jun S Song* (songj@humgen.ucsf.edu), Institute for Human Genetics, 513 Parnassus Avenue, Box 0794, University of California, San Francisco, San Francisco, CA 94143-0794. *The Other Half of Our Genome*.

More than fifty percent of the human genome consists of repeat sequences of various types. The bulk of these repeat sequences arose from retrotransposons which have integrated into our genome via RNA intermediates. This introductory talk describes some important aspects of retrotransposons relevant to the evolution and regulation of genes, genomic instability in cancers, and chromatin dynamics. Recent genomic data indicate that some parts of the selected remnants of retrotransposons are currently being transcribed in our genome, and the implications of these unexpected activities will be discussed. Interesting research topics will be highlighted. (Received September 21, 2009)