

Uncovering the role of genomic "dark matter" in human disease.

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Public Summary:

The human genome encodes thousands of long noncoding RNAs (lncRNAs). Although most remain functionally uncharacterized biological "dark matter," lncRNAs have garnered considerable attention for their diverse roles in human biology, including developmental programs and tumor suppressor gene networks. As the number of lncRNAs associated with human disease grows, ongoing research efforts are focusing on their regulatory mechanisms. New technologies that enable enumeration of lncRNA interaction partners and determination of lncRNA structure are well positioned to drive deeper understanding of their functions and involvement in pathogenesis. In turn, lncRNAs may become targets for therapeutic intervention or new tools for biotechnology.

Scientific Abstract:

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