

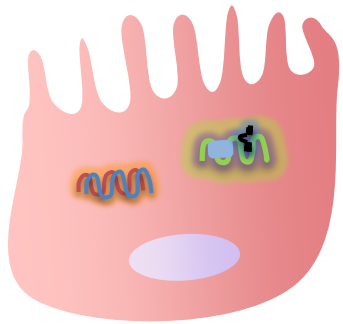
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HucMSC-Ex alleviates inflammatory bowel disease via the lnc78583- mediated miR3202/HOXB13 pathway

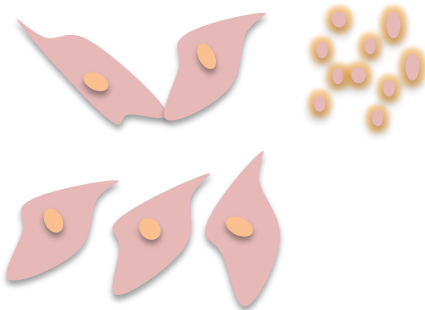
Keywords: Inflammatory bowel disease, mesenchymal stem cell-derived exosome, long non-coding RNAs, homeobox B13, mir3202

Research Summary

This correspondence mainly focused on a novel lncRNAs involved in inflammatory bowel disease (IBD) and the research was performed from the following parts:

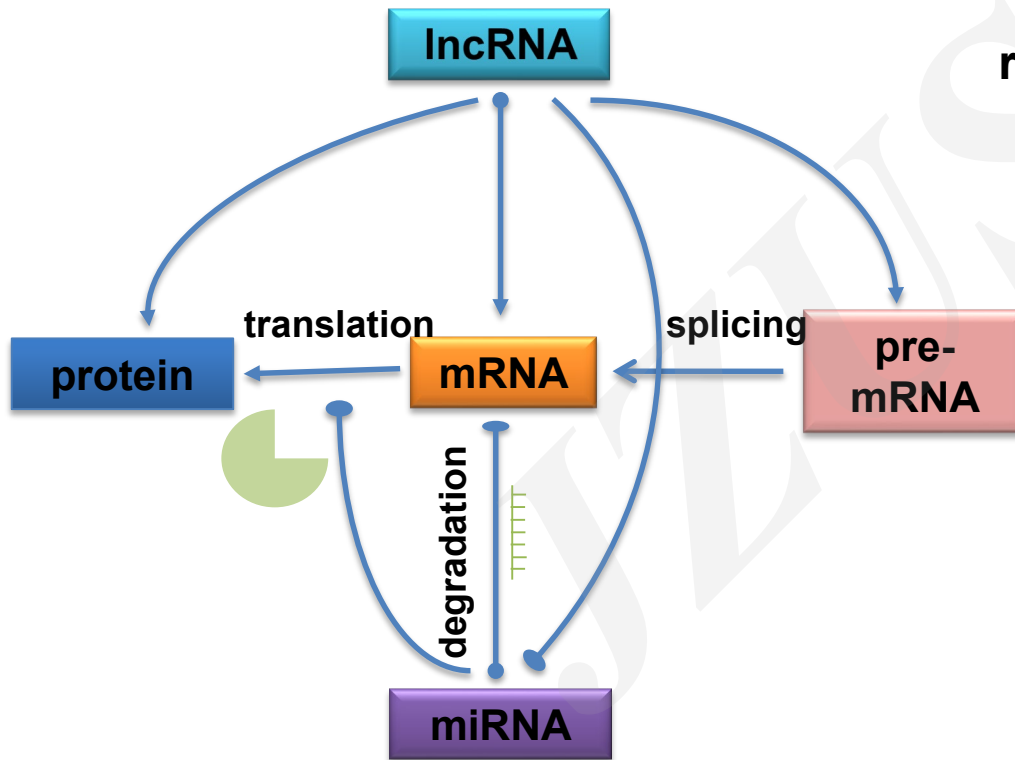


- Determination of differentially expressed lncRNAs and mRNAs in IBD versus health control tissues
- Verification of screened novel lncRNAs
- Protective effects of lnc78583 on LPS induced FHC inflammation through targeting HOXB13
- HucMSC-Ex alleviated LPS induced FHC inflammation through lnc78583/HOXB13
- Sponge function of miR3202 for lnc78583 and HOXB13



Innovation points

LncRNAs are tissue-specific and organ-specific, which can regulate gene expression at multiple levels.



The potential functions of lncRNA in regulating IBD:

- Function as lncRNA-miRNA-mRNA network
- Form lncRNA-protein complex to regulate gene transcription
- Interfere mRNA splicing
- Interfere adjacent protein-coding gene expressions
- Inhibits RNA polymerase II

Innovation points

Key findings in our research

- **Lnc78583 protects IBD through negatively mediating HOXB13**
- **HucMSC-Ex regulates Lnc78583/HOXB13 pathway**
- **MiR3202 plays functional role between Lnc78583 and HOXB13**

