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ENGL 21003
Feb 13, 2024.

Xist molecules and autoimmunity: Analysis of the IMRAD format

Xist ribonucleoproteins promotes female sex-biased autoimmunity by Dina R. Dou et al, was published on February 1st, 2024. The objective was to test if the Xist molecule indeed promotes female sex-based autoimmunity. The findings of this research article are effectively communicated through diagrams, graphs, and charts; employing a mix of tenses and voices, utilizing hedging verbs, and using the IMRAD Format.

Dou et al. (2024) began their paper with a well-organized abstract featuring a structured summary and a graph. The abstract follows the IMRAD format, consisting of Introduction, Results, Discussion, and Methods. While the abstract mostly uses the present tense in an active voice, the main body of the paper sticks to the IMRAD format, with the method section placed at the end. The introduction, though mostly in the active voice, occasionally shifts to the passive, such as the line 'The XIST RNP, which comprises an lncRNA, bound RNA..., and utilizes hedging verbs throughout.

The introduction maintains a present tense but incorporates past tense in certain sections, such as in phrases like 'have been extensively studied,' 'was transcribed,' and 'were previously noted.' The hypothesis of the article appears to be centered around the idea that the Xist molecule may play a significant role in the development and progression of autoimmune diseases. The introduction cites seventeen previous studies, establishing a strong foundation for the authors' argument. Dou et al. (2024), argue that the Xist RNP, specifically its influence on autoimmunity, may contribute to the sex-biased female prevalence in autoimmune diseases.

While the IMRAD format typically places the methods section after the introduction, this article puts it at last. Key resource tables, Resource availability, and Experimental Models and Study Participant Details come before the methods details. The text conveys a mix of passive and active voices, mainly using past tense to describe actions and procedures. Though hedging verbs like 'was used, 'were performed, and 'were considered are used, they subtly introduce caution or uncertainty. The results section is the longest section, it has graphs, charts, and diagrams of results of the tests that were explored. There were many subheadings used to fit the findings in categories. The section is mostly written in the active voice, it is also written in the past tense, consistent with the reporting of experimental procedures, observations, and results. For example phrases like, "we developed," "we found," "we note," etc. There are non-hedging verbs in this section such as, "we found that," "this observation stimulated the hypothesis," etc. In COulleSitn- The discussion in Dou et al. (2024), effectively communicates the study's objectives, presents findings, proposes models, and outlines future research directions. The authors maintain an active voice, evident in phrases like 'Our study nominates,' We propose, and 'We identified!' The use of mixed present and past tense, for example, 'This study investigated, We have shown,' and 'Our data further suggest,' enhances the narrative. While there is only a little of hedging, the phrase 'it is formally possible' introduces a cautious tone, acknowledging the potential unknown.

The discussion section has two subheadings, Opportunities for Disease Diagnosis and Therapy, and Limitations of the study. One subheading explores potential medication possibilities for women with autoimmune diseases, while the Limitations of the study section emphasizes the need for further research with larger samples and detailed focus.