BDR SEMINAR (Kobe & online hybrid)

Aurélien Courtois

Sex Chromosome Biology Laboratory,
The Francis Crick Institute

Friday, February 20, 2026

15:00-16:00

1F Auditorium, DB Building C, Kobe / Broadcast online via Zoom

※This seminar is open only for BDR Members

X inactivation triggered by RSX is essential for early embryonic development in opossums

Summary

In mammals, X-chromosome inactivation balances the dosage of X-linked genes in females with that in males. In eutherians, this process is mediated by the non-coding RNA XIST. However, XIST is absent in marsupials, and another non-coding RNA, RSX, has been postulated as the main driver of X-inactivation. We deleted RSX in the context of X chromosome inactivation initiation (early embryo) and maintenance (fibroblast) to confirm its role during the different phases. We found that RSX is required for the initiation of dosage compensation as well as for proper embryo development in marsupials.

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