



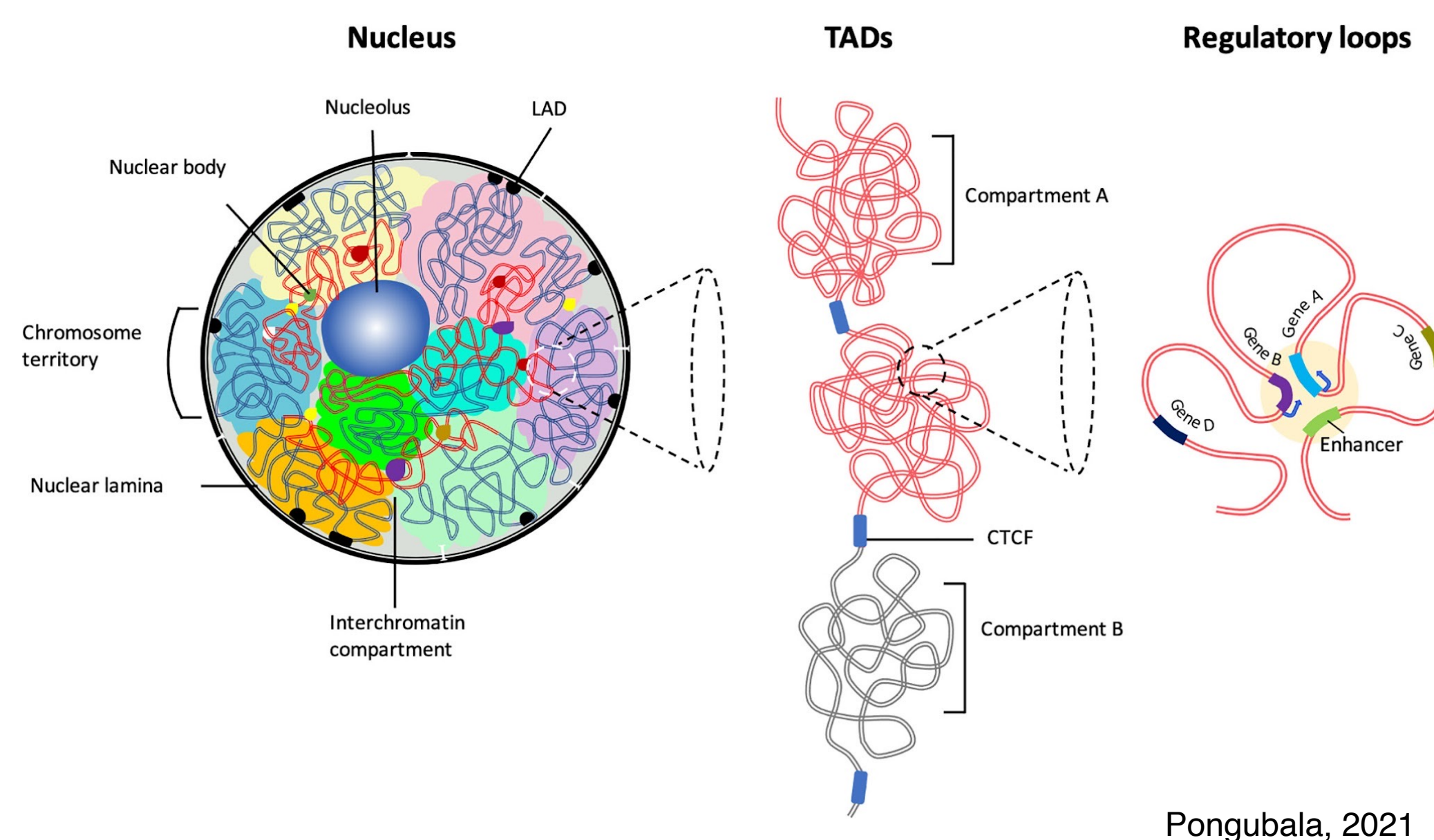
Changes in immediate early gene activation in naïve mouse B cells

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Introduction

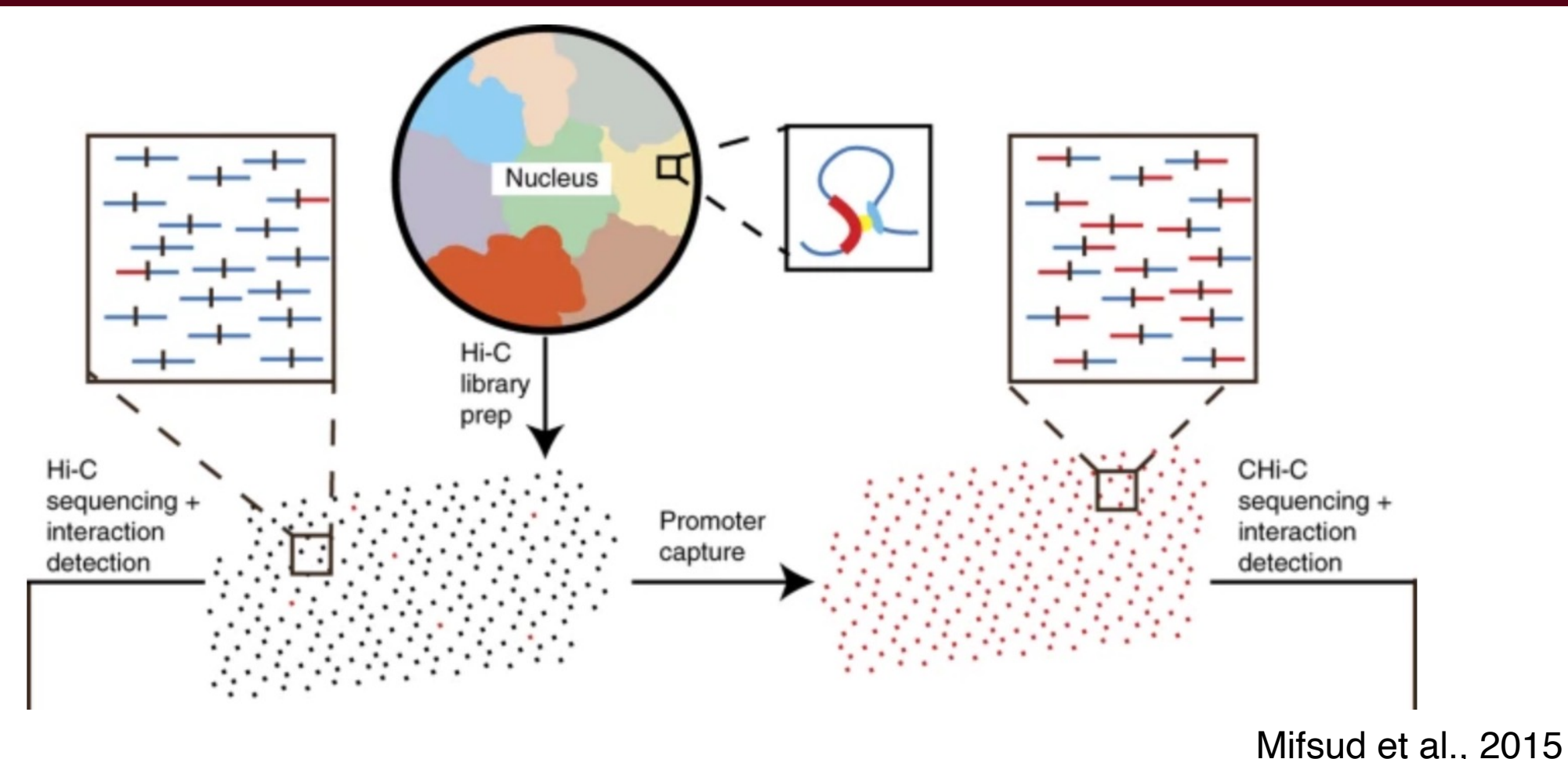
- Understanding nuclear chromatin organization is critical for understanding its function in gene expression and cell fate specification.
- B cells are white blood cells that play a vital role in the body's immune system.



Aim

- Better understand the chromosomal contact changes that take place after B cell activation and how this relates to gene expression.

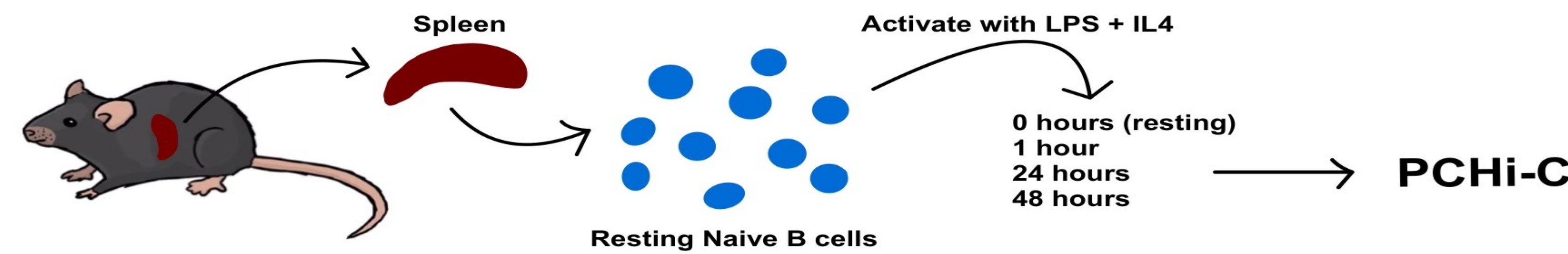
PCHi-C



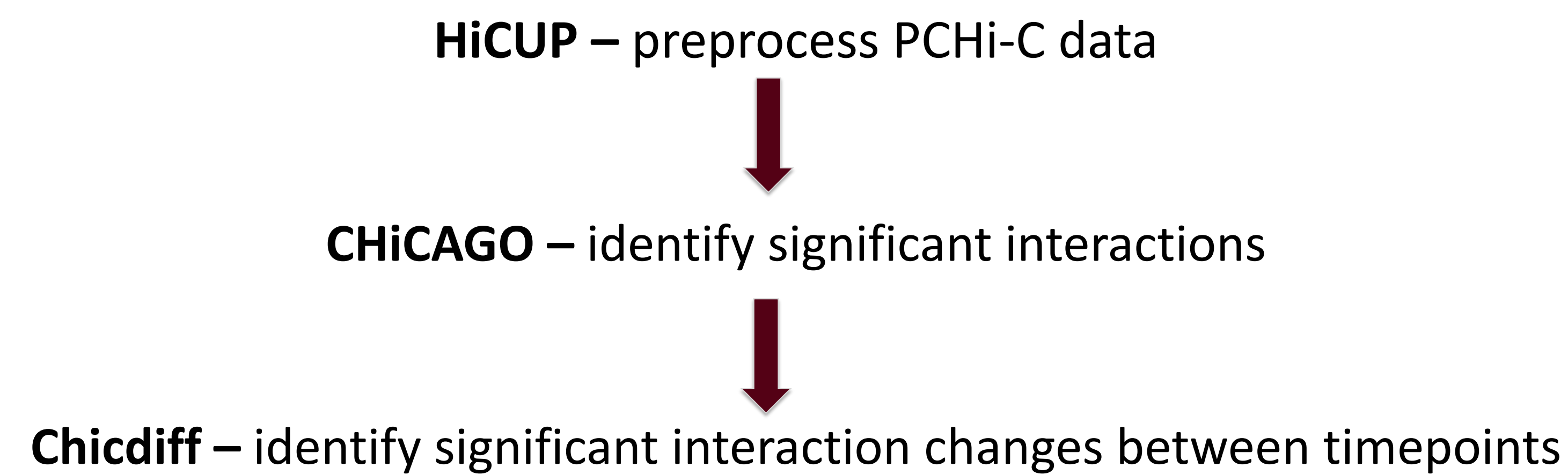
Promoter Capture Hi-C (PCHi-C) is a molecular biology method for studying the interactions between promoter sequences and the rest of the genome.

Methods

Experimental

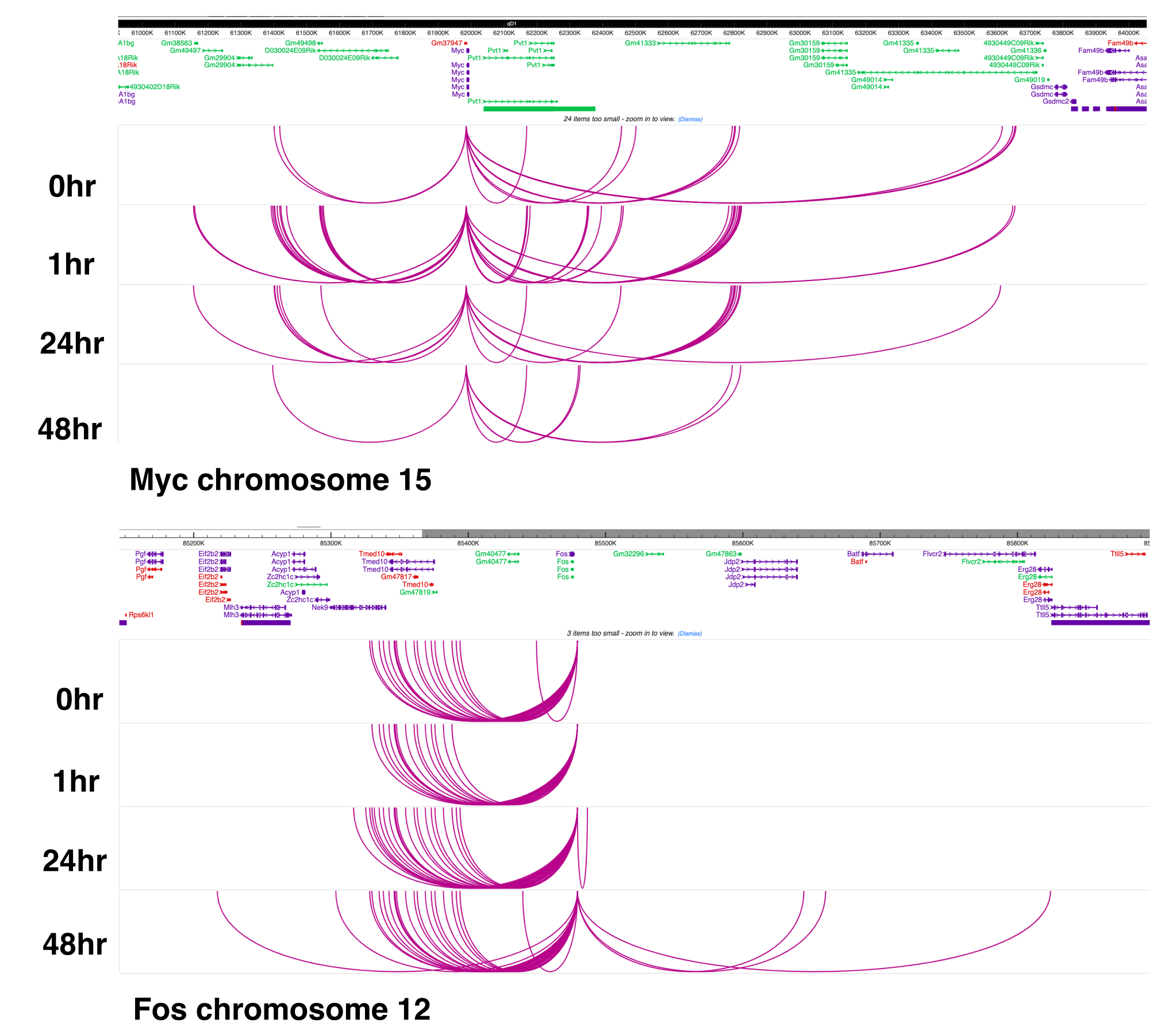


Data Analysis



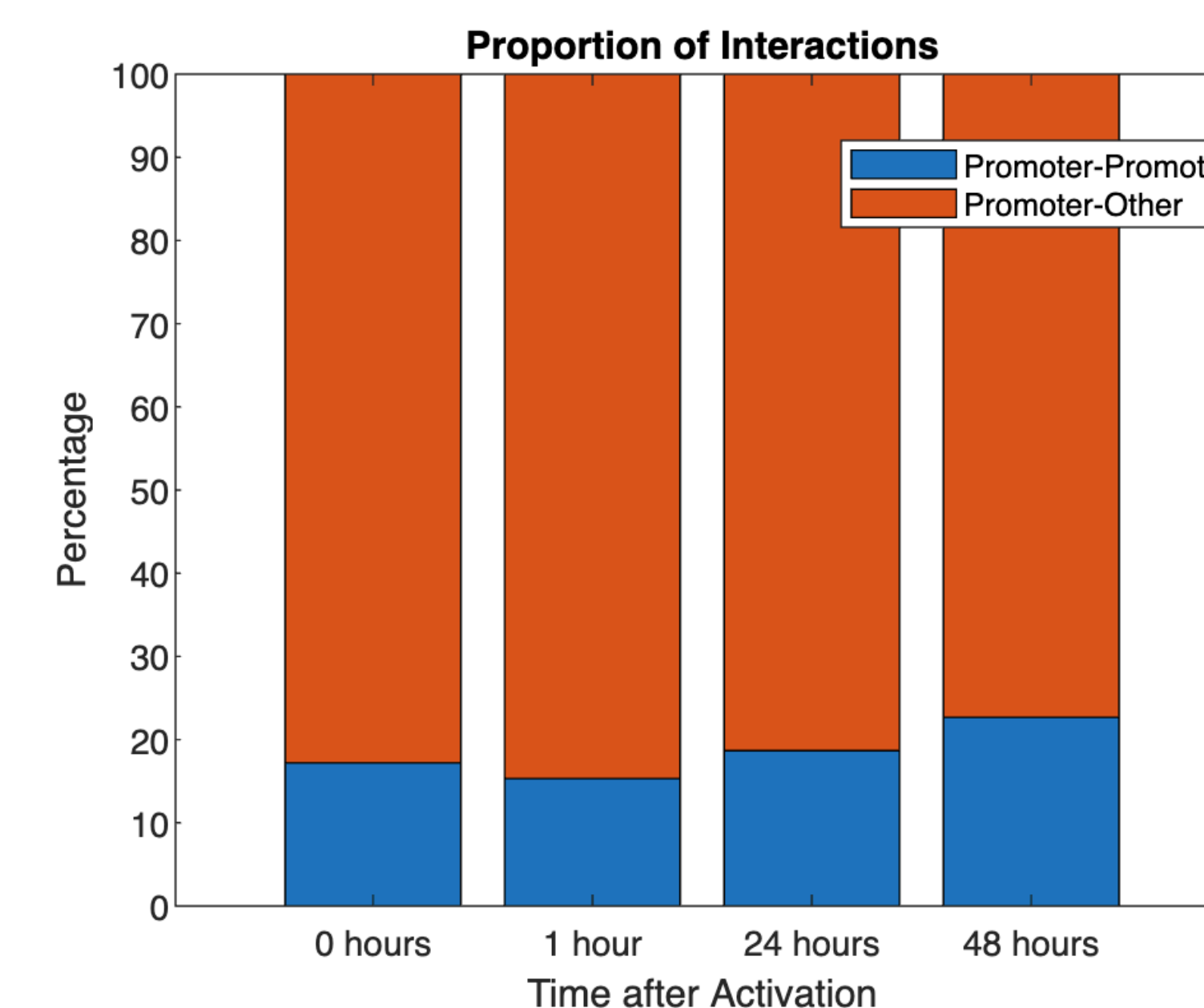
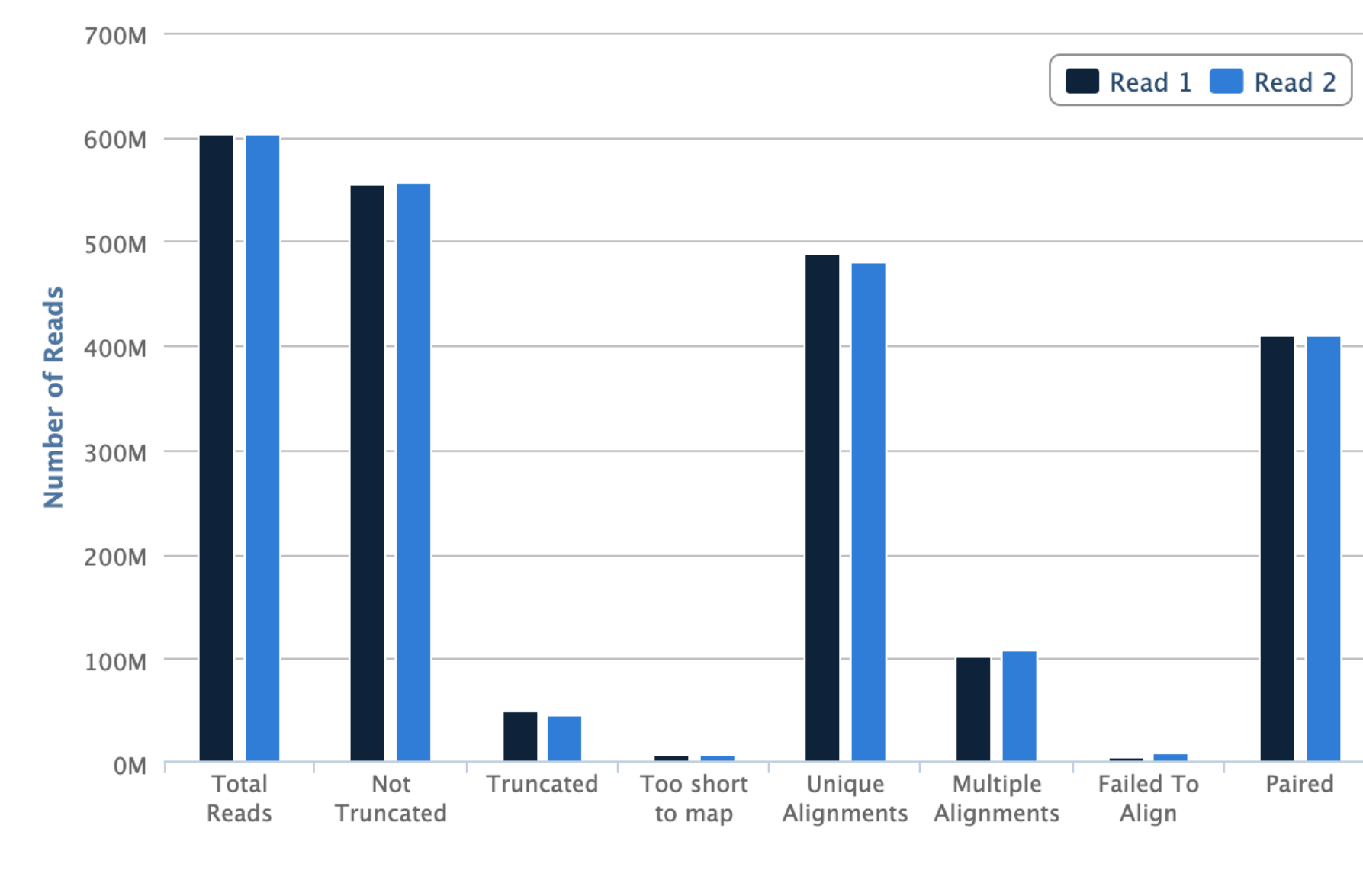
Results

Immediate Early Gene Contacts

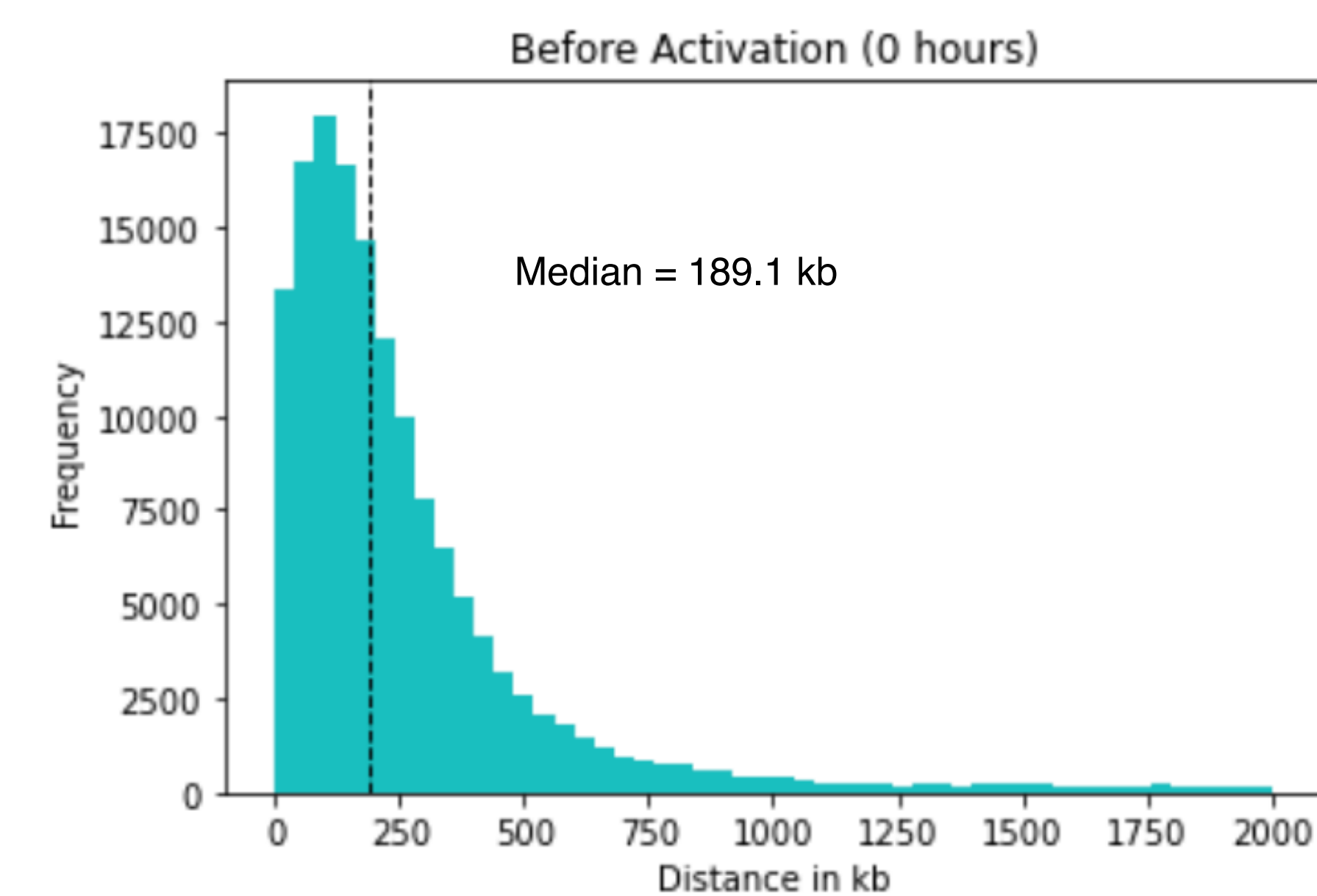
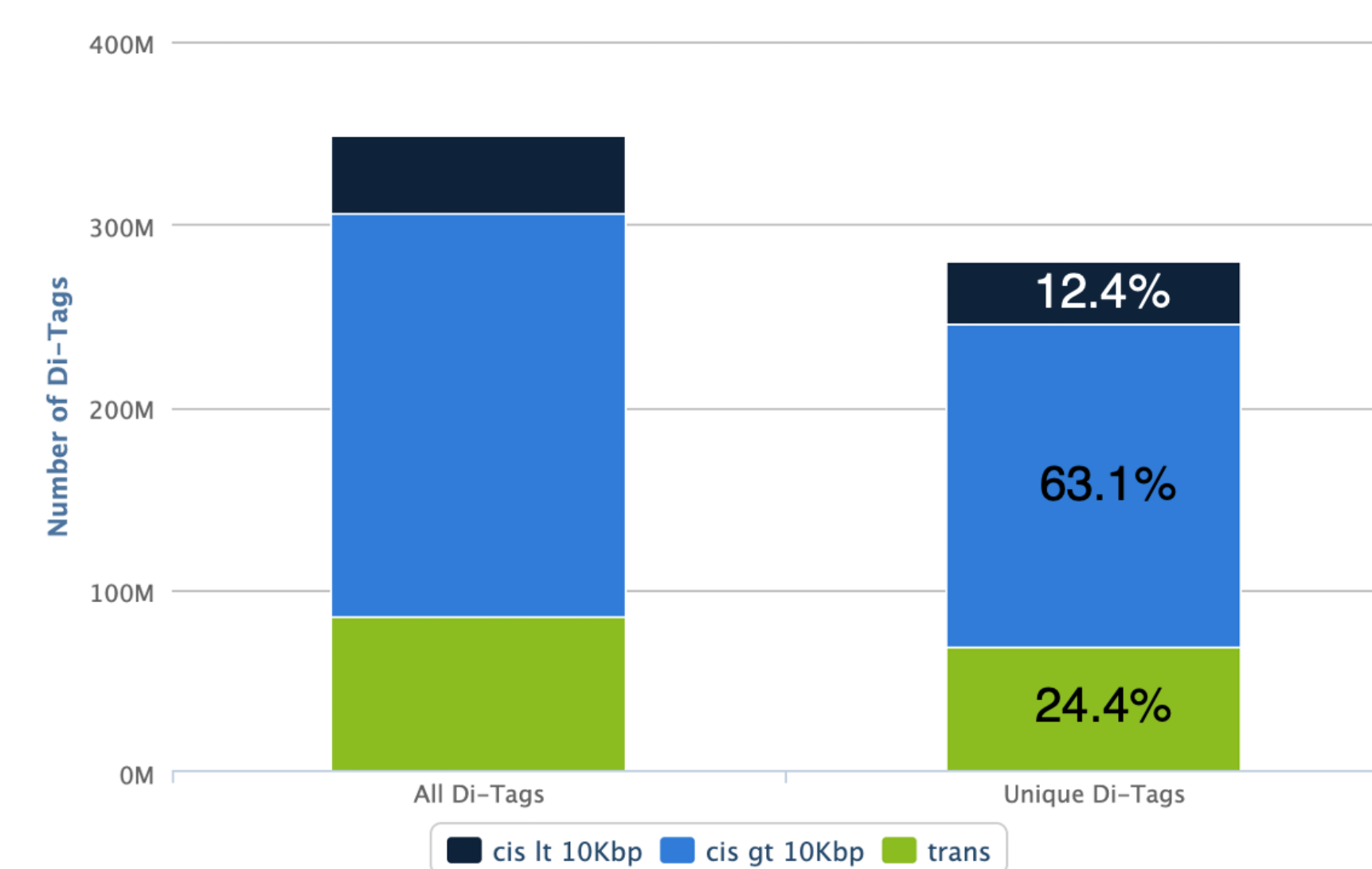


Results

HiCUP Processing Report for Truncation and Mapping



HiCUP Processing Report for De-duplication



Linear genome distance between interactions

Summary

- Successfully identified the significant interactions between promoter regions in naïve B cells that take place during various timepoints after activation.
- Immediate early genes Myc and Fos were among these interactions.
- Next steps include to integrate existing findings with public RNA seq data.

References

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Acknowledgments

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