

Visualization, mapping and sequencing of megabase lengths of DNA

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From Beyond the Genome: The true gene count, human evolution and disease genomics
Boston, MA, USA. 11-13 October 2010

Prior to replication, a chromosome comprises a single length of DNA. We report on new methods for handling tens of kilobase to megabase lengths of single DNA molecules. We further report on the direct visualization of sequence organisation and the action of processive enzymatic activity along the molecules. We show how individual molecules can be captured and processed on single molecule microarrays [1] using a ligation base sequencing biochemistry that we have developed [2]. Finally, we describe how our methods will complement next generation DNA sequencing.

Published: 11 October 2010

References

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doi:10.1186/gb-2010-11-S1-P28

Cite this article as: Mir *et al*: Visualization, mapping and sequencing of megabase lengths of DNA. *Genome Biology* 2010 **11**(Suppl 1):P28.

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