Bloome syndrome protein is critical for meiotic recombination

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Researchers from Cornell University (NY) provide the first analysis of the function of Bloome syndrome protein (BLM) in mammalian meiosis. Bloome syndrome (BS) is a rare genetic disorder characterized by stunted growth, cancer predisposition, and sterility that is caused by a mutation in the Blm gene and a deficiency of BLM.

The study appears in the March 22 issue of the Journal of Cell Biology.

Although BLM has been shown to play an important role in DNA recombination in somatic cells, there has been no information on the impact of BLM in mammalian meiosis. Now, a team led by Paula Cohen provides new data that indicate mouse BLM is involved in the proper pairing, synapsis, and segregation of homologous chromosomes during meiosis, but does not affect entry into the prophase I stage.

More information: Holloway, J.K., et al. 2010. J. Cell Biol. doi:10.1083/jcb.200909048.

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