# New insight into Bloom's syndrome

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Two independent papers in the October 15th issue of *G&D* detail the discovery of a previously unidentified fourth component of the Bloom's syndrome complex.

Bloom's syndrome is an inherited cancer predisposition disease, resulting from mutations in a gene on the long arm of chromosome number 15. The BLM gene encodes for one part of a multi-enzyme Bloom's syndrome complex (called BTB) that facilitates DNA repair, and helps ensure the integrity of the genome.

Working entirely separately, two teams of scientists, led by Dr. Weidong Wang at the National Institute on Aging/NIH and Dr. Amom Ruhikanta Meetei at the Cincinnati Children's Hospital Medical Center, have identified a novel protein component of the BTB complex, which they call RMI2. RMI2 is essential for the proper functioning of the BTB complex and the cellular response to repair DNA damage. Although further research is needed to determine the precise mechanism of RMI2 action, these papers clearly posit RMI2 as an integral Bloom's syndrome protein and protector of genome stability.

Source: Cold Spring Harbor Laboratory