Your body is unique and amazing. The DNA that encodes you can be damaged. Many proteins in your cells look out for damage and help repair your DNA.

This illustration depicts the structure of one such protein, which repairs DNA encoded by the BRCA1 gene. This molecule is too small to be seen, but its elegant structure has been worked out, and depicted as a ‘ribbon’ model.

Proteins that repair DNA help protect us from cancer. However, a small number of people can inherit a copy of the gene where the resulting protein is unable to repair DNA. As a result, people with a BRCA1 gene mutation are more likely to develop cancer, particularly of the breast and ovary. Genetic testing can help identify those at higher risk.

Add colours to the twists and turns of this vibrant molecule that helps look after you.
Molecular Pathology

BRCA1 protein – involved in preventing breast cancer