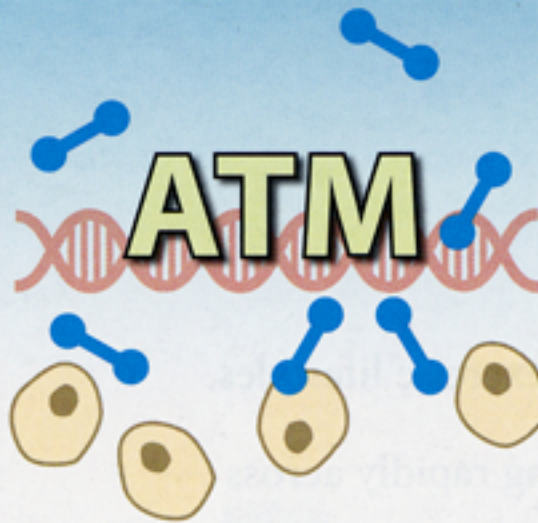
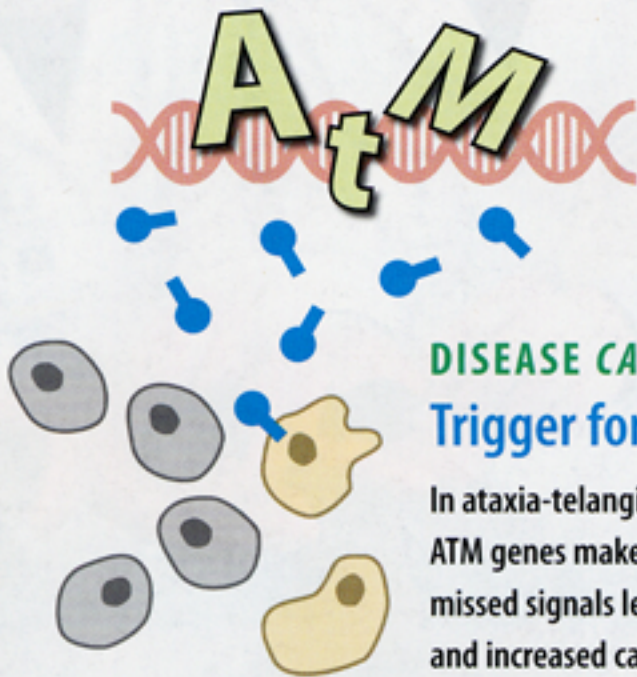


Proteins good and bad

Study of the complex actions of a protein is leading to better understanding of a rare disease as well as indicating potential to treat a common syndrome. The ATM gene encodes ATM proteins which signal proper cell growth and DNA repair, helping to control metabolic and cardiovascular diseases.

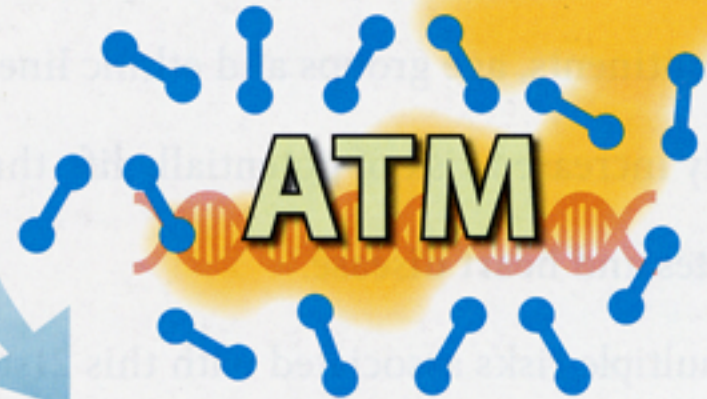


Chloroquine
A common anti-malarial drug



DISEASE CATALYST Trigger for a rare affliction

In ataxia-telangiectasia disease, mutated ATM genes make improper short proteins; missed signals lead to cell deaths, mutation and increased cancer risk. Persons with the disease experience progressive deterioration of the part of the brain that controls muscle function and coordination.



DISEASE PREVENTER Metabolic syndrome mitigator

The drug chloroquine stimulates activity of the ATM protein, which in turn helps boost activity of the hormone insulin. This helps reduce insulin resistance, inflammation and atherosclerosis. Physicians hope the drug, in combination with dietary and lifestyle changes, will help treat metabolic syndrome.