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Polyglutamine oligomers

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Expansion of [trinucleotide repeats](#), such as the CAG triplet that encodes glutamine, is associated with a number of neurodegenerative disorders. Expanded polyglutamine fragments form aggregates that have been proposed to be linked to neurodegeneration. In the January 23 [Nature](#) Sanchez *et al.* provide strong evidence that polyglutamine oligomerization leads to chronic cytotoxicity (*Nature* 2003, **421**:373-379). They screened a range of anti-amyloid compounds and found that the azo-dye Congo red blocked polyglutamine-induced cell death. Congo red also inhibited cellular ATP depletion and caspase activation. The Congo red dye can block polyglutamine oligomerization and disrupt preformed aggregates. Finally, Sanchez *et al.* tested the effects of Congo red in the R62 mouse model of Huntington's disease and found that it induced the clearance of aggregates and improved survival, weight loss and motor function.

References

1. Trinucleotide repeats: mechanisms and pathophysiology.
2. *Nature*, [<http://www.nature.com>]