

# C60 & telomeres

There are reasons to suspect that the longevity due to C60 is related to maintaining telomere length.

1. The life extension in the Moussa rat experiment is about 100% (including the rat that was prematurely killed). Although I do not know the maximum lifespan of the species used it may safely be assumed that with a 100% extension of the mean lifespan the maximal lifespan has been exceeded.
2. Molecular biologists compute maximum lifespan on the basis of the rate of telomere shrinkage. For man this is 120 years, which tallies with the lifespan of the oldest human (Jean Calment) of 122 years.
3. Dutch scientists have found (in a post-mortem) study of the oldest Dutch person ever - Hendrikje van Andel, 115 years - that certain white blood cells normally derived from roughly 1300 stem cells, were (at the time of death) the 'offspring' of only 2 stem cells. It may safely be assumed that these stem cells have died from critically short telomeres.

This more or less confirms the theoretical prediction (cited above). So, it seems extremely unlikely that maximum lifespan can be exceeded without preserving telomere length.

I suggest that the relationship between C60, lifespan and telomere length be investigated

The antioxidant action of C60, though important, is unable to explain the enormous life extension, unless it can be shown that **it works by inhibiting telomere shrinkage** (which is partly the result of free radicals).

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