On “Isomerization as the secret Achilles’ heel of long-lived proteins”

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This summary (1) calls to our attention the importance of often-overlooked stochastic processes that occur as proteins age—especially long-lived proteins. The demonstration by Lyon et al. (2) of the failed chaperone function of \( \alpha \)-crystallins and its relationship to cataract and potentially other protein precipitation diseases is elegant. They should, however, acknowledge that Groenen et al. (3) and Voorter et al. (4) published on this topic decades ago. Goenen showed how simple water-based hydrolysis after racemization can lead to the extensive cleavages that are observed in the aged lens.

References

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The author declares that he has no conflicts of interest with the contents of this article.

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