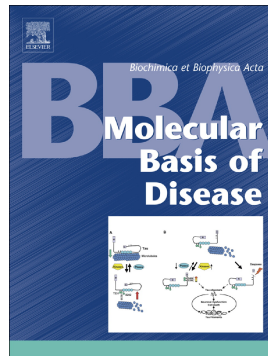


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Drosophila as a model for ageing

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Abbreviations: 4EBP – translation initiation factor 4E binding protein; AMPK – AMP activated protein kinase; AOP – anterior open; ATF4 – activating transcription factor 4; CHOP – C/EBP homologous protein; CR – calorie restriction; DR – dietary restriction; eIF – eukaryotic translation initiation factor; ERK – extracellular signal-regulated kinase; ETS – E-twenty six; FKH – forkhead; FOXO – forkhead BoxO; GCN – general control non-derepressible; IIS – insulin and IGF-1 like signaling; ilp – insulin-like peptide; PI3K – phosphoinositide 3-kinase; ROS – reactive oxygen species; mTOR – mechanistic target of rapamycin; ORF – open reading frame; REPTOR – repressed by TOR; S6K – S6 protein kinase; TSC – tuberous sclerosis complex

Abstract

Drosophila melanogaster has been a key model in developing our current understanding of the molecular mechanisms of ageing. Of particular note is its role in establishing the evolutionary conservation of reduced insulin and IGF-1-like signaling in promoting healthy ageing. Capitalizing on its many advantages

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