

Nut molecule improves inflammatory and metabolic profile of fat cells

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Obesity is an enlargement of adipose tissue to store excess energy intake. Excessive calorie intake may lead to the formation of fat cells, promoting their deterioration (aging) by increasing the production of proinflammatory molecules. Low grade inflammation is a key factor in the development of insulin resistance and type 2 diabetes in obesity.

This study characterized miRNAs (small nucleic acids involved in the regulation of gene expression) vehicled by nanovesicles (emerging players in cell-to-cell communication) isolated from walnuts and hazelnuts, and tested their effectiveness on inflammatory and metabolic profile in fat cells.

Researchers found that two conserved plant miRs (miR156c and miR159a) were able to limit inflammatory response and recover insulin sensitivity in obese mice (fed with a high fat diet).

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