

## Spermidine found to rejuvenate oocyte quality by improving mitophagy during female reproductive aging

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Effects of spermidine supplementation on the ovarian spermidine level, follicle development and female fertility in aged mice. a, A timeline scheme for spermidine (Spd) supplementation, hormone priming and subsequent analyses. hCG, human chorionic gonadotropin; PMSG, pregnant mare serum gonadotropin; MII, metaphase II. b, Spermidine levels were measured in the lysates of ovaries from young mice (n = 60), aged mice (n = 36) and aged mice



supplemented with spermidine (Spd + aged) (n = 36). \*\*\*P = 0.0001, \*P = 0.0465. c, Representative images of ovarian sections from young, aged and Spd + aged mice. Scale bars, a', 300  $\mu$ m; b', 150  $\mu$ m. d, Numbers of follicles at different developmental stages were counted in each ovarian section from young (n = 6), aged (n = 6) and Spd + aged (n = 6) mice. \*\*\*\*P

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