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Endocrine changes at midlife and their influence on circuits important for learning and memory:

Ovarian hormones rule them all

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Abbreviations: ChAT = choline acetyltransferase; AChE = acetylcholinesterase; BF = basal forebrain; Ovx = ovariectomy; GAD = glutamate decarboxylase; GABA = γ -aminobutyric acid; ERK = extracellular regulated kinases; MPA = medroxyprogesterone acetate; ER = estrogen receptor; LH = luteinizing hormone; FSH = follicle stimulating hormone; HSD = hydroxysteroid dehydrogenase; HPG = hypothalamic-pituitary-gonadal; GnRH = gonadotropin releasing hormone

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