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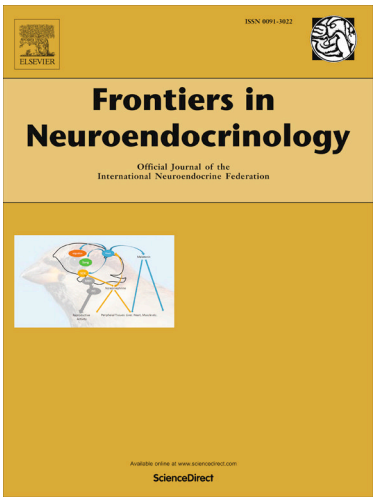

Polycystic ovary syndrome: Understanding the role of the brain

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Polycystic ovary syndrome: understanding the role of the brain

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Keywords: hyperandrogenism, hypothalamus, mouse models, prenatal androgen exposure, estrogen, progesterone, gonadotropin-releasing hormone (GnRH) neurons, GABA, kisspeptin

Highlights:

- PCOS origins are linked to genetic, epigenetic, metabolic and perinatal environmental influences.
- Perinatal androgen exposure results in the PCOS phenotype in women and animal models of PCOS.
- PCOS is associated with impaired steroid hormone feedback control of GnRH neurons in the brain.
- Androgens impact the organisation and activation of brain circuits important in the regulation of female fertility.
- Affective disorders and cognitive dysfunction are also linked with PCOS and changes in brain structure.

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