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## JOURNAL ARTICLE

# Testicular steroidogenesis in the aging brown Norway rat

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In seeking an animal model of age-associated changes in the male reproductive tract, we examined the effects of age on the health and testicular steroidogenic activity of the Brown Norway rat, with comparisons made to the Sprague-Dawley rat. When perfused in vitro under conditions of maximally stimulating luteinizing hormone significant age-associated reductions were seen in testosterone production by testes of Sprague-Dawley rats of 21-24 months of age and by testes of Brown Norway rats of 18-30 months of age. Decreases in the capacity of the testes to produce testosterone were reflected in age-associated decreases in both serum testosterone and in testosterone concentration within the seminiferous tubule fluid. In contrast to the Sprague-Dawley rat, changes in steroidogenic activity in the Brown Norway rat were not accompanied by the occurrence of pituitary adenomas, obesity, or testicular tumors. This along with its longevity, make the Brown Norway strain a highly promising model for testicular aging.

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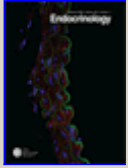
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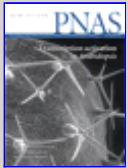
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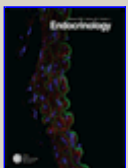
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