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JOURNAL ARTICLE

Changing relationships between testis size, Sertoli cell number and spermatogenesis in Sprague-Dawley rats

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Relationships between several reproductive characteristics were investigated in 25 Sprague-Dawley rats aged 60, 150, and 240 days (n = 75). Daily sperm production correlated with body weight (r = 0.63), paired testes weight (r = 0.68), testes weight as a percentage of body weight (r = -0.50), the number of spermatids supported per Sertoli cell (r = 0.51) and the number of Sertoli cells per gram (r = 0.89) or per testis (r = 0.95) among rats pooled across age groups. In general, the number and magnitude of significant coefficients of correlation were decreased when calculated within age groups. The latter often appeared to reflect a statistical consequence of relative homogeneity among rats rather than the absence of a biological relationship. However, the total number of Sertoli cells per testis correlated with daily sperm production within age groups, and could account for 85 to 94% of the variability in sperm production at 150 and 240 days, respectively.

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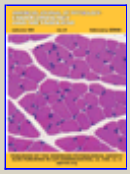

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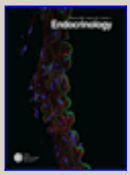

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