
Poster Session 1 – Form and Function

1 Comparative analysis of some weight and structural parameters for determination of sexual dimorphism in adrenal function of the Libyan jird, *Meriones libycus* (Lichtenstein, 1823)

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The existence of sexual dimorphism in the activity of some endocrine-metabolic functions has been well established in several animal species. Furthermore, very little work has been done on small Saharan mammals. In this concept, we compared in *Meriones libycus*, a nocturne Saharan species belonging to *Gerbillinae* subfamily, some metabolic functions by weight explorations including kidneys, adrenals, and pancreas, as well as by histomorphometric analysis of the adrenal cortex. The results show that the organs weights are in favor of the male compared to the female even though the differences are not statistically significant. Moreover, in the histomorphometric profile, it appears that the adrenal cortex is more developed in the female particularly in the fasciculata and reticularis zonae. In addition, cellular and nuclear analyzes confirm this sexual dimorphism in favor of the female of the adrenocortical activity since this development is essentially due to cellular hypertrophy in the cells of all adrenal cortex zones. These results indicate the existence of sexual dimorphism in favor of the female *Meriones libycus* in adrenocortical activity suggesting the involvement of sex hormones in the regulation of adrenocortical activity probably inhibited by androgens and stimulated by estrogens.

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6th International Conference of Rodent
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Book of Abstracts



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