

**P004** Chaperone-mediated autophagy vs. macroautophagy in Golden hamster Harderian gland: a gender-related adaptation to different oxidative stress status.

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Syrian hamster Harderian gland (HG) shows a huge porphyrins metabolism with a sexual dimorphism. Even in male Syrian hamsters with much lower porphyrins concentration than female HG, this activity is higher than in the liver. Damage derived from constant porphyrin production, displayed by reactive oxygen species, forces the gland to develop mechanisms that allow it to continue with its normal physiology. Previously, we had found autophagic processes in this oxidative stress physiological model. And, herein, we described for the first time different autophagy mechanisms, macroautophagy and chaperone-mediated autophagy, in the Syrian hamster HG, depending on sex and related to oxidative stress status. Male HG, with lower oxidative pressure than female ones, showed Lamp-2 expression, a marker for CMA activity, and absence of LC3-II. In contrast, females showed macroautophagy phenomena as it was revealed by the presence of LC3-II. The discovery of this discrepancy in these autophagy mechanisms *in vivo*, corroborates the previous findings that aim to consider both processes as cell-repair mechanism, alternately developed in response to differential degree damage.