

Review of: "Loss of SUMO-specific protease 2 causes isolated glucocorticoid deficiency by blocking zonal transdifferentiation"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

This is an interesting manuscript. This follows their previous contribution on SUMO in the mouse and human adrenals and extends their findings in a nice way. The studies are extensive and very thorough with strong conclusions.

I have very few questions.

Have they tried to stimulate the adrenal with a low sodium diet to increase aldosterone secretion? ACTH was high in the KO mice with ZF atrophy and ACTH tends to increase the conversion of ZG to ZF and frequently aldosterone secretion decreases with continuous ACTH (in this case endogenous) action. Would this be blocking the effect of b-catenin on ZG?

Would they expect some degree of ZG hyperplasia as a consequence of the promotion of b-catenin activation?

Do they have idea which proteins are sumoylated to mediate the transdifferentiation? Is it just SF1?