

Answering Reviewers

QUESTION 1.Authors should show that this mutation in ligand-binding domain impairs nuclear-localization of AR in the presence or absence of androgen. In Figure 3, authors should use androgen-free medium in the presence or absence of androgen or DHT.

ANSWER: We performed transfection in the androgen-free medium. After transfection, cells were treated with 100nM Testosterone.

QUESTION 2.In China, ~10% of population has HBsAg. In the patients with this mutation, do they have less occurrence of HCC? This reviewer wants to know whether AR affects on the HCC occurrence or not in patients with HCV infection or HBV infection.

ANSWER:In this study, there was no history of hepatitis virus (including HBV or HCV) infection in the Chinese family.

QUESTION 3.Authors should discuss more. S Breidbart , R D Burk, P Saenger. Hormonal regulation of hepatitis B virus gene expression: influence of androgen receptor. *Pediatr Res.* 1993 Sep;34(3):300-2. doi: 10.1203/00006450-199309000-00012. Zuloaga DG, Morris JA, Jordan CL, Breedlove SM. Mice with the testicular feminization mutation demonstrate a role for androgen receptors in the regulation of anxiety-related behaviors and the hypothalamic-pituitary-adrenal axis. *Horm Behav.* 2008 Nov;54(5):758-66. doi: 10.1016/j.yhbeh.2008.08.004. Epub 2008 Aug 15. PMID: 18775430

ANSWER: We added more to the discussion content.