

## **Genome functional annotation of organs related to chicken production**

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Chicken is an important source of protein for humans, providing us not only meat but also eggs. Functional annotation of the chicken genome has been developed more and more comprehensively, but needs to be supplemented in production. We have prepared several high-quality ATAC and RNA-seq libraries of reproduction-related tissues, mainly including the testis of rooster, the uterovaginal junction(UVJ) and uterus of hen, the last one is associated with eggshell pigmentation which can affect the appearance of sales. And the species including Gamecock, White Leghorn and the F2 generation of both, as well as Hainan Wenchang Chicken. In addition, there are two other production-related tissues, namely the hypothalamus, which is involved in the regulation of thermal balance, and the skin, which affects the appearance of sales as well. The next work is to add ChIP-seq data for a relative complete genome annotation of these organs and tissues of chicken.

Key words: Chicken, ATAC-seq, ChIP-seq, Reproduction, Testis, Uterus