

9. Altered Knob-10 Chromosomes.

Several altered knob 10 chromosomes have been produced presumably as cross-over products from an X-ray induced ring-10 in compound with a rod chromosome. The original ring chromosome included nearly the entire knob 10 chromosome. The break points must have occurred close to the end of the short arm of chromosome 10 and in the knob itself, leaving about two-thirds of the knob intact. The stable rod chromosomes produced from this ring included the following types of altered knob chromosomes, one lacking the knob but possessing the dissimilar chromomere pattern distal to R; one with the knob in a terminal position; two with the knob located interstitially on the long arm; and another with the knob located on the short arm of chromosome 10.

Another altered knob 10 chromosome originated spontaneously from a normal knob 10 chromosome. This chromosome possesses an elongated knob 10, approximately twice as long as the normal knob. The knob, however, is considerably reduced in width.

Tests of preferential segregation are being made for each of these altered knob 10 chromosomes.

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