The simplest and most important of the mechanisms leading to polymorphism is heterozygous advantage and, for any locus controlling an enzyme or other protein, heterozygous advantage will usually result from increased activity or altered specificity of the protein. Such a change can be a property of only few of the possible mutations at a locus (since most will result in decrease or loss of function) and may not be possible at all loci; thus one is led to expect that many protein structural loci will not be polymorphic.

That serum albumin is one of the proteins unlikely to be polymorphic in man receives some support from the existence of an-albuminaemic individuals who show no serious impairment of health due to their almost complete lack of albumin[2]. This suggests that albumin function(s), far from being limiting to fitness, may in certain circumstances be almost dispensable.

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Chromosomes of the Striped Indian Squirrel (*Funambulus pennenti*)

Funambulus pennenti, the striped Indian squirrel, is a small arborial rodent characterized by three white stripes on its dorsal surface and two on the sides and is the predominant species of Northern India. So far as we are aware, the chromosome number of this species has not been reported. In fact, no information is available on chromosome numbers of any member of the genus *Funambulus*, family Sciuridae[1]. The results of an investigation into chromosome number and karyotype of this species are summarized in this report.

Bone marrow was processed for chromosome preparations by the method of Ford and Hamerton[2]. Each squirrel was injected with 0·5 ml. 0·025 per cent colchicine solution and killed 1 h later. Marrow from femurs was removed into hypotonic solution of 0·95 per cent sodium citrate in water warmed at 37° C. After 15 min in hypotonic solution at 37° C the cells were settled out by centrifugation at low gravity and fixed for 15 min in a freshly prepared chilled (1 : 3) mixture of glacial acetic acid and methyl alcohol. Air-dried preparations were made by the method of Rothfels and Siminovitch[3] and stained with 2 per cent aceto-orcein. The slides were made permanent by passing them through two changes of *n*-butyl alcohol, and mounted in neutral canada balsam. All drawings, measurements and photographs were made from permanent slides. Only undamaged and well-spread cells with uniform contraction were selected for recording data. For chromatin length measurements, five cells were drawn with the help of camera lucida. The chromatin length figures given in the text are an average of five mitotic metaphase cells. The chromosomes were matched into pairs using relative length and arm ratio as criteria.

All but one of the 50 cells examined critically from two male squirrels available for study had 54 chromosomes in mitotic cells (Fig. 1). The only cell with a number deviating from the normal had 52 chromosomes. Fig. 1 (below) shows the 54 chromosomes matched into 27 pairs and arranged in descending order of length, the pair of sex chromosomes being placed at the end. The longest chromosome in the complement was 6·67μ in length and the smallest measurable one, chromosome 24, measured 1·46μ. Chromosomes 25 and 26 are too small to be drawn accurately for length measurements. The 26 autosomes can be grouped into the following categories:

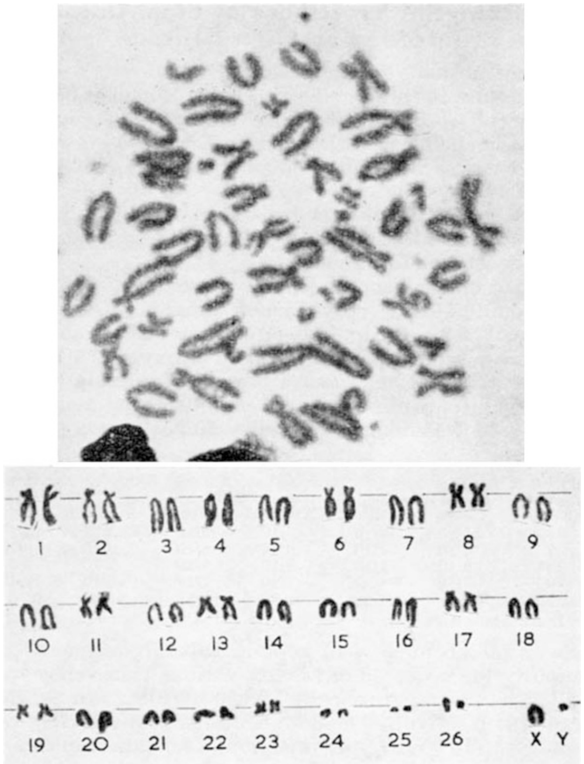

Fig. 1. Typical metaphase plate and karyotype of *Funambulus pennenti* showing 54 somatic chromosomes

(*A*) Large chromosomes, ranging in length from 6·67μ to 3·96μ, include: (i) Subterminals: Chromosome numbers 1, 2, 6, 8, 11 and 13. Chromosome 11 has a satellite on the short arm. (ii) Telocentrics: Chromosome numbers 3, 4, 5, 7, 9, 10 and 12.

(*B*) Medium long chromosomes, ranging in length from 3·75μ to 2·08μ, include: (i) Subterminals: Chromosome numbers 17 and 19. (ii) Telocentrics: Chromosome numbers 14, 15, 16, 18, 20 and 21.

(*C*) Small chromosomes, ranging in length from 1·66μ to 1·46μ and less, include: (i) Metacentric: Chromosome 23. (ii) Telocentrics: Chromosome numbers 22, 24, 25 and 26.

Since the two animals examined were both males, it is difficult to say with certainty which of the sex chromosomes is the *X*-chromosome. It is more likely, however, that the longer one measuring 3·33μ is the '*X*' chromosome. The '*Y*' then is a very short acrocentric chromosome indistinguishable from chromosomes 25 and 26.

Note added in proof. Since this report has been in the press, Rao and Sharda (*Cytogenetics*, 3, 342) have also reported the diploid chromosome number of *Funambulus pennanti* to be 54.

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