Trypsinization of these cells is easy and they grow rapidly; a succession of 14 passages did not reveal any new cellular morphological aspects.

No morphological transformation can be seen in control flasks; cells remain epithelial-like and their arrangement is regular. The supernatant acidification is weak. Trypsinization is difficult and these cells could not be maintained alive for more than 120 days.

Staining of the transformed cells does not reveal any inclusion bodies in the cytoplasm or nucleus. Chromosomal investigations of the transformed cells show until the thirteenth passage a modal number of 60 chromosomes, as in normal bovine cells.

Grafts of these cells in the cheek pouch of cortisone-treated hamsters have failed.

Search for polyoma and *SV*40 viruses in the supernatant from the transformed cells also proved negative.

This cellular transformation is very similar to that recently described by Black *et al.*[9], when using a diploid cell line of fœtal bovine conjunctiva.

The significance of this phenomenon is still uncertain. Further experiments are in progress in order to investigate the specificity and exact nature of this transformation.

In conclusion, the different properties of the bovine papilloma virus which we have described, concerning the ultrastructure (42 capsomeres), the nature of the DNA, the sedimentation equilibrium (1,330), the oncogenic potency *in vivo* and *in vitro*, make this virus very similar to those of the *Papova* group with which it should be classified.

M. Boiron
J. P. Levy
M. Thomas
J. C. Friedmann
Jean Bernard

Laboratoire d'Hématologie Expérimentale,
Institut de Recherches sur les leucémies,
Hôpital Saint-Louis, Paris, 10.

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GENETICS

Factors affecting the Frequency of Tricotyly in *Antirrhinum majus*

The incidence of tricotyly varies widely among a number of varieties of *Antirrhinum majus* which have been maintained by self-pollination for many years at this Institute. Present work[1] on instability at the *pallida* locus has made possible the scoring of large families of seedlings for cotyledon number. The highest frequency occurs in a line homozygous for the mutable allele *pallida-recurrens* (*pal*^{rec}) and showing a high mutation frequency at the *pal* locus (*pal*^{rec}, High). A second line homozygous for an allele of the *pal*^{rec} type, but showing a very much lower mutation frequency (*pal*^{rec}, Low), produces no, or very few, tricotyledonous seedlings. Other lines show various intermediate frequencies. Some of the frequencies shown in material raised from seed matured and sown under glasshouse conditions are given in Table 1.

Table 1

Lines	No. of lines	No. of seedlings scored	% tricots
Unrelated to *pal*^{rec}	26	2,599	3·3
pal^{rec}, High	3	369	8·9
pal^{rec}, Low	1	105	0
Crosses and back-crosses to *pal*^{rec}, High	71	9,049	8·6
Crosses and back-crosses to *pal*^{rec}, Low	30	3,912	2·1
pal^{rec}, High × *A. meonanthum*	4	446	0·2

A high incidence of tricotyly is seen not only in the *pal*^{rec}, High line, but also in the progeny of crosses of this line to other unrelated lines and in subsequent back-cross generations. This indicates that tricotyly is inherited, at least to some extent, a conclusion that has been reached by others[2,3]. Crosses between *pal*^{rec}, High and *A. meonanthum* showed a suppression of tricotyly.

During a series of tests on the effect of temperature on the unstable *recurrens* allele it was found that seed matured at 15° C produced a greater frequency of tricotyly than seed matured at 25° C (Table 2). The two groups of

Table 2

Line	Temperature during seed development (° C)	No. of seedlings	% tricots.
pal^{rec}, High	15	5,124	21·1
	25	5,208	1·1
F_2 (*pal*^{rec}, High) × *pal*^{tubocolorata} *	15	3,843	10·5
	25	2,941	0·9

* *pal*^{tubocolorata} line exhibits a frequency of 2·5 per cent tricotyly from seed developed in glasshouse conditions.

parental plants were established from one plant by cuttings and were therefore genetically identical. The plants were grown from cuttings to seed harvest in controlled-temperature rooms set at 16 h light for 15° C and 10 h light for 25° C; these settings enabled the plants to flower at approximately the same time although the maturing of the seed was considerably slower at the lower temperature.

The results show some genetical control of tricotyly and, more strikingly, that the stability of a basic taxonomic character is strongly dependent on the temperature during seed formation. It is interesting to note, though it may b merely a coincidence, that the lines showing the greatest instability, as evidenced by tricotyly, also show the greatest instability at the *pal* locus. An increase in temperature promotes greater stability in both respects.

B. J. Harrison

John Innes Institute,
Bayfordbury, Hertford.

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Y-linkage in Man

Stern[1], analysing the evidence concerning the mode of inheritance of 16 traits which were suspected to be completely *Y*-linked in man, emphasized that in organisms with heterogamy of the male sex, complete *Y*-linkage of genes with full penetrance is characterized by: (*a*) occurrence of the trait in males only; (*b*) its re-occurrence in all sons of affected males; (*c*) the daughters of affected men being not only phenotypically normal but also, in addition, not having affected offspring. One of the traits discussed was hypertrichosis of the ears (hypertrichosis pinnæ auris[2]), and Stern criticized the original pedigree published by Tommasi[3,4] on grounds of its having been based on unreliable hearsay evidence. He concluded that judgment on the mode of inheritance of this trait should be postponed until better evidence became available.

Later[2], I investigated the inheritance of the trait in three families, one of which is my own, from Andhra Pradesh, India. The phenotype of hypertrichosis pinnæ auris is characterized in most cases by the presence of long hairs growing closely together on the helix of the ears.