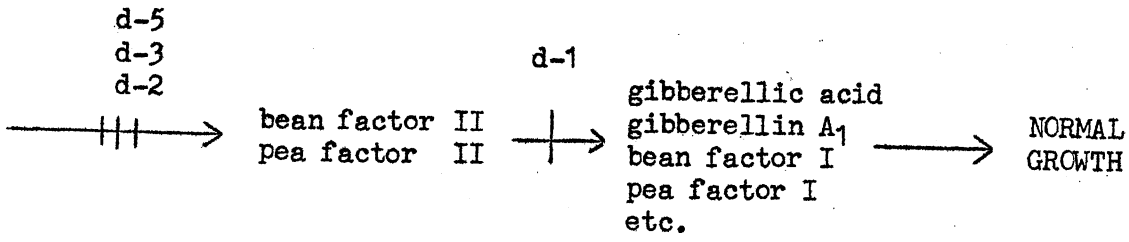

Bernard Phinney
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2. The effect of gibberellins on the frequency of mitotic figures in a dwarf mutant of maize.

The parenchyma cells of the mature first leaf sheath of d-1 seedlings are both shorter and fewer in number than those of normals. Treatment of seedlings with gibberellins results in an increase in both length and number of these parenchyma cells. At a time when the first leaf blade has unfolded (8 days following soaking of seed), there are some 60% fewer mitotic figures in d-1 leaf sheaths than in normals. However, if d-1 seedlings have been treated with 10 micrograms/plant twenty hours prior to this period, the basal meristem of the first leaf sheath shows a frequency of mitotic figures very similar to normals (non-treated d-1 = 27 mitotic figures/leaf sheath; treated d-1 = 70 mitotic figures/leaf sheath; non-treated normals = 71 mitotic figures/leaf sheath.)

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CENTRE DE RECHERCHES AGRONOMIQUES
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1. A new (?) gene affecting the structure of the endosperm.

In the flint inbred MR 368 the action of a recessive gene has been revealed, the effects of which on the structure of the endosperm are analogous to those described in connection with the genes h (soft starch, Mumm 1929), o_1 and o_2 (opaque endosperm, Singleton and Jones). This gene appearing in inbred MR 368 has proved different from the genes h, o_1, o_2, fl_1, fl_2 deriving from Dr. H. H. Kramer's gene stocks; the F_1 seeds from crosses of stock 368 with Kramer's stocks have all been quite normal.

Pending a possible further identification, it is proposed to call this gene h_2, while reserving the term h_1 for the first gene of this type found by Mumm in 1929.