

# TRANSGENERATION MEMORY OF STRESS IN PLANTS

BARBARA HOHN\*

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*Memory, in the sense of the word as used for mammals and other eukaryotic organisms, is not known for plants. However, incidences of memory as defined as epigenetic transgenerational effects, leading to induced or stochastically occurring changes to persist in the following generations, has been described for plants since long. Our own experiments on the frequency of homologous somatic recombination, as influenced by environmental conditions, have led to the unforeseen findings that increased rates of recombination persist into untreated generations. This is a unique example for transgenerational inheritance of a molecularly defined trait. The potential meaning of these results for evolution will be examined, critical questions as to the importance of the findings and their possible general relevance will be discussed. Recent findings on plants will be incorporated into the general picture of transgenerational memory in other organisms.*

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