Plant chromatin replicated in the absence of protein synthesis

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The aim of the present work is to detect possible differences in the chromatin of plants replicated in the absence of protein synthesis. The kinetics of nuclease digestion in Allium cepa L., evaluated after making the cells permeable, was faster for the chromatin of meristem cells replicated in the presence of 1.0 ?g ml-1 cycloheximide than in control cells. In order to have a synchronous population in the meristems, cells were labelled as binucleate by a short treatment with 5.0 mM caffeine. Treated cells failed to increase both their content in dense chromatin and intranuclear histones. These facts suggest that chromatin replicated in the presence of cycloheximide did not incorporate histones and was unable to be integrated into dense chromatin patches. © 1983 Oxford University Press.