

Participation of the Tightly-Bound (Putative Cytoskeleton-Bound) Polysomes in Translation during Germination of Dormant and Non-Dormant Cereal Caryopses

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Research was done on dormant and non-dormant barley cv. Ars caryopses and triticales cv. Grado caryopses treated and non-treated with abscisic acid (ABA). During germination higher participation of populations of so-called tightly-bound polysomes (TBP) in embryos of dormant barley caryopses was observed, as well as their high metabolic activity. In embryos of triticales caryopses of which dormancy was imposed in an artificial way by ABA (100 μ M), the strongest incorporation of ¹⁴C-amino acids into nascent polypeptide chains *in vivo* was found in population of TBP, as well as the highest participation among three of the studied fractions (free polysomes, membrane-bound polysomes and tightly-bound polysomes). These results may indicate the significant role of TBP (putative cytoskeleton-bound polysomes – CBP) in maintaining dormancy during imbibition of cereal caryopses.