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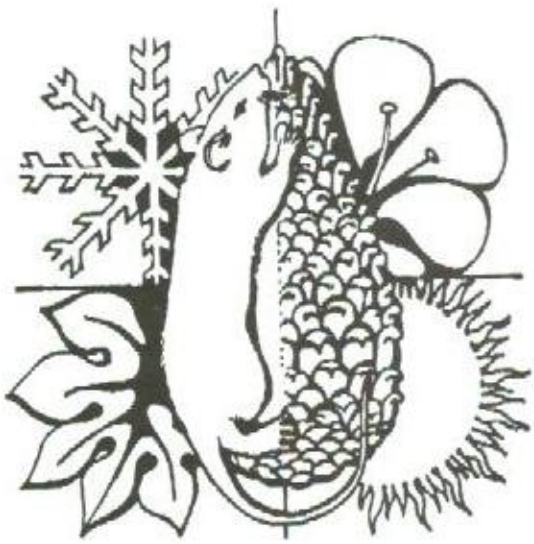
ABSTRACTS



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Bone marrow platelet production after Melatonin i.v. infusion.

The addition in vitro of Melatonin (MLT) to a suspension of fresh rat bone marrow induces the appearance over the surface of megacariocytes of a number of fluorescent corpuscles, which can be identified with platelets.

Such platelet appearance is moreover conditioned by the addition in vitro of NAT-more than by HIOMT inhibitors. When MLT is injected i.v. copious platelets do not appear on the surface of bone marrow megacariocyte, nor is a MLT fluorescence any longer visible. I.v. MLT seems to be able to reduce the toxicity of i.v. injected NAT inhibitors, but in such experimental conditions platelets seem to emerge from megacariocytes from isolated scattered points on the surface of the megacaryocytes. The different behaviour of i.v. injected or locally applied MLT is perhaps pertinent to the different MLT concentrations as well as to its different binding. Platelet production on the surface of megacariocytes is enhanced by NAT inhibitors probably through a transferring of Acetyl-CoA from tryptamin and/or tryptamin derivatives to cholin, which results in formation of Acetylcholin instead of MLT.