

- J. Physiol. (Paris) 75, 64A, 1979

Les isozymes de la lactico-déshydrogénase durant la régénération du muscle soléaire de Rat,

par L. PLAGHKI, M. VAN SCHOOR et G. MARÉCHAL.

(Laboratoire de physiologie générale, UCL-5540, B-1200 Bruxelles.)

Translated from French

The isozymes of lactate dehydrogenase during the regeneration of the soleus muscle of rats,

by L. PLAGHKI, M. VAN SCHOOR and G. MARÉCHAL. (

Laboratory of General Physiology, UCL-5540, B-1200 Brussels.)

Orthotopic autografts of minced Rat soleus regenerate in 15 to 20 days. At 1 postoperative day, lactic dehydrogenase (LDH) activity is only 10% of that of control. It then rises steadily, reaching 80% of that of control on day 60. The distribution of the 5 isozymes of the LDH is of oxidative type in the soleus muscles. It changes rapidly after the operation and resembles the 3rd to the 6th day of regeneration to that of anaerobic type characteristic of a fast muscle such as the long finger extensor (EDL). The evolution of this anaerobic type towards the oxidative type begins from the moment when the regenerate spontaneously reinnervates, and is indirectly stimuable, that is to say after the 15th day. This evolution is inhibited, if the nerve of the EDL is implanted in the graft at the time of the operation: it is then observed that the distribution of the isozymes remains anaerobic type 30 and 60 days after the operation.