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(54) Title: METHODS OF PREPARING ORGANS FOR CRYOPRESERVATION AND SUBSEQUENT TRANSPLANTATION

(57) Abstract

The invention relates to the field of organ and tissue perfusion. More particularly, the present invention relates to a method for preparing organs, such as the kidney and liver, for cryopreservation through the introduction of vitrifiable concentrations of cryoprotectant into them. To prepare the organ for cryopreservation, the donor human or animal, is treated in the usual manner and may also be treated with iloprost, or other vasodilators, and/or transforming growth factor β1. Alternatively, or additionally, the organ which is to be cryopreserved can be administered iloprost, or other vasodilators, and/or transforming growth factor β1 directly into its artery. The invention also relates to preparing organs for transplantation by a method for the removal of the cryoprotectant therefrom using low (such as raffinose, sucrose, mannitol, etc.), medium (such as agents with intermediate molecular weights of around 600-2,000) and high (such as hydroxyethyl starch) molecular weight agents osmotic buffering agents. The invention is also directed to new post-transplantation treatments such as the use of transforming growth factor β1, N-acetylcysteine and aurothioglucose.