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(21) International Application Number: PCT/US96/01217 (22) International Filing Date: 30 January 1996 (30.01.96) (30) Priority Data: 08/380,099, 30 January 1995 (30.01.95) US (60) Parent Application or Grant (63) Related by Continuation US 08/380,099 (CIP) Filed on 30 January 1995 (30.01.95) (71) Applicant (for all designated States except US): ORGANO-GENESIS, INC. [US/US]; 150 Dan Road, Canton, MA 02021 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): WATSON, Stephen, R. [US/US]; Organogenesis, Inc., 150 Dan Road, Canton, MA 02021 (US). TONER, Mehmet [TR/US]; Organogenesis, Inc., 150 Dan Road, Canton, MA 02021 (US). TSCHUMAKOW, Alexander, G. [US/US]; Organogenesis, Inc., 150 Dan Road, Canton, MA 02021 (US).	(74) Agents: BAKER, Hollie, L. et al.; Hale and Dorr, 1455 Pennsylvania Avenue, N.W., Washington, DC 20004 (US). (81) Designated States: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, KZ, LT, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, UA, US, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>	
(54) Title: METHOD AND PACKAGE DESIGN FOR CRYOPRESERVATION AND STORAGE OF CULTURED TISSE EQUIVALENTS (57) Abstract This invention is directed to an efficient cryopreservation package design of harvested mammalian tissues and living cultured tissue equivalents made by <i>in vitro</i> technology. The invention involves immersing a mammalian tissue or cultured tissue equivalent in a cryoprotectant solution, agitating the cryoprotectant solution and the immersed tissue to achieve effective penetration of the cryoprotectant solution into the tissue, and then freezing the tissue at a very slow freezing rate. In the freezing step, extracellular ice formation is initiated by seeding. The cryopreserved tissue may be stored for indefinite periods of time prior to use. The cultured tissue equivalent is an <i>in vitro</i> model of the equivalent human tissue, such as skin or cornea, which, when retrieved from storage can be used for transplantation or implantation <i>in vivo</i> or for screening compounds <i>in vitro</i>.		