

CRYOPRESERVATION OF CARDIOMYOCYTES DERIVED FROM INDUCED PLURIPOTENT STEM CELLS

Cláudia Correia^{1,2}, Margarida Serra^{1,2}, Marcos FQ Sousa^{1,2}, Catarina Brito^{1,2}, Karsten Burkert³,
Azra Fatima³, Juergen Hescheler³, Manuel JT Carrondo^{2,4}, Tomo Saric³, Paula M. Alves^{1,2}

¹ Instituto de Tecnologia Química e Biológica (ITQB) – Universidade Nova de Lisboa (UNL), Oeiras, Portugal; ² Instituto de Biologia Experimental e Tecnológica (IBET), Oeiras, Portugal; ³ Institute for Neurophysiology University of Cologne, Cologne, Germany ⁴ Faculdade de Ciências e Tecnologia (FCT), Universidade Nova de Lisboa (UNL), Monte de Caparica, Portugal

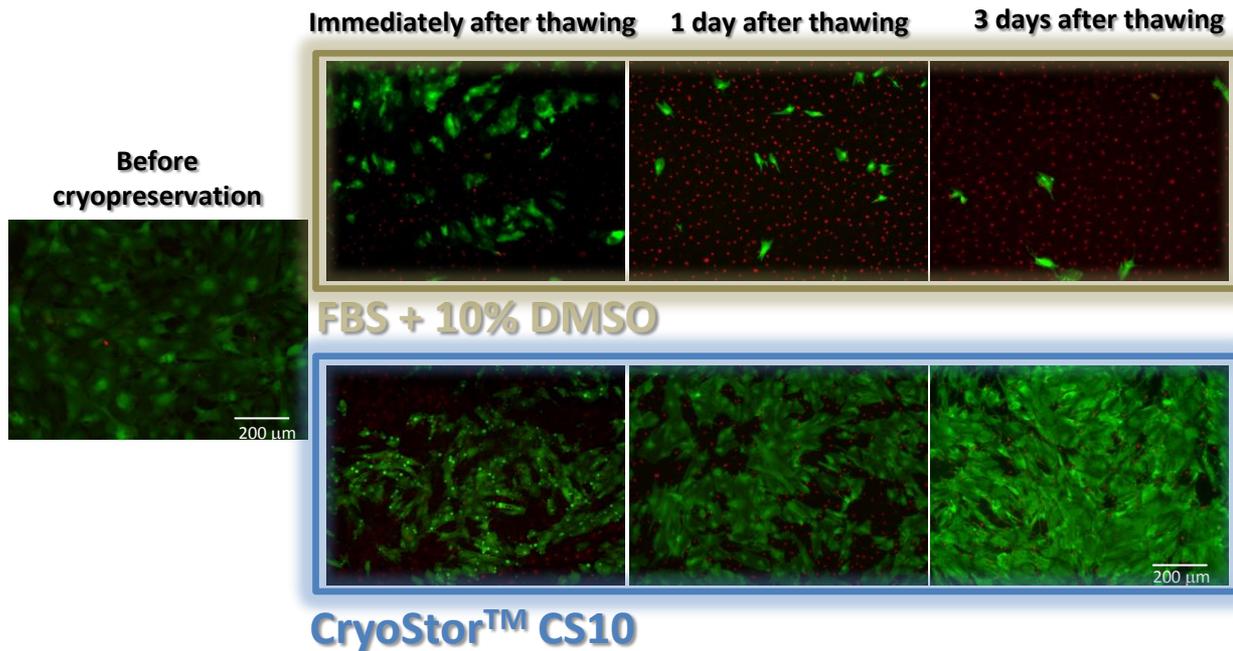
(<http://tca.itqb.unl.pt>; www.ibet.pt)

CRYOPRESERVATION OF CARDIOMYOCYTES

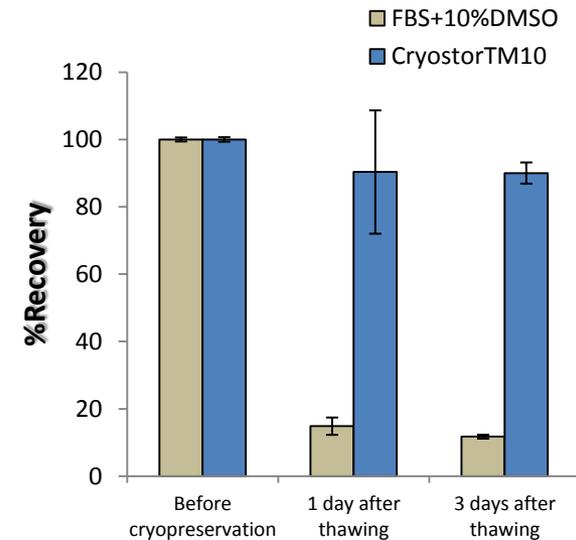


- Cryopreservation Medium Formulation: **FBS + 10% DMSO** vs. **CryoStor™ CS10**

CELL VIABILITY (FDA – VIABLE CELLS, PI – DEAD CELLS)



RECOVERY OF TOTAL CELLS
(metabolic activity - AlamarBlue assay)



CRYOSTOR™ CS10

- ✓ Higher cell viability and cardiomyocyte recovery after thawing

CryoStore™ CS10 improves cell survival by reduction of both apoptosis and necrosis by inhibition of cellular stress during cryopreservation (*Malpique et al., Tissue Eng Part C, 2010*)

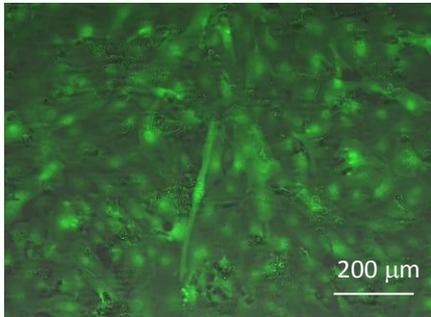
CRYOPRESERVATION OF CARDIOMYOCYTES



Cryopreservation Medium Formulation: **FBS + 10% DMSO** vs. **CryoStor™ CS10**

αMHC-GFP⁺ cells

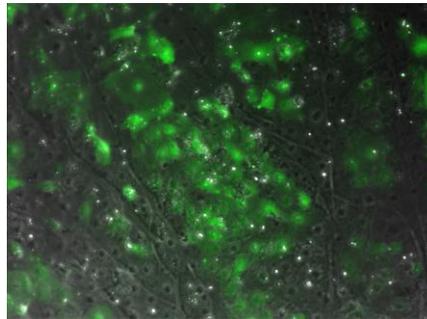
Before
cryopreservation



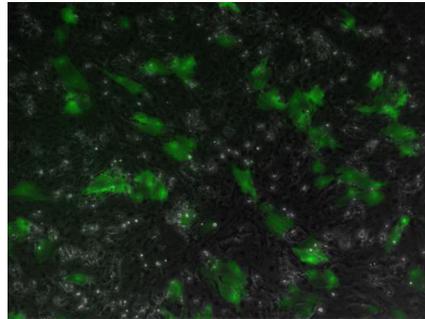
FBS + 10%
DMSO

CRYOSTOR™
CS10

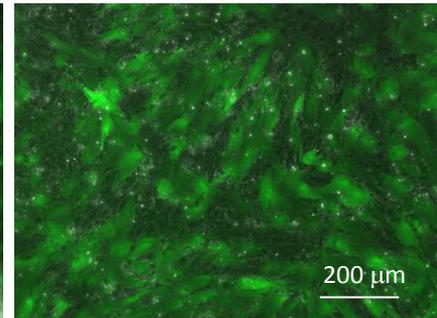
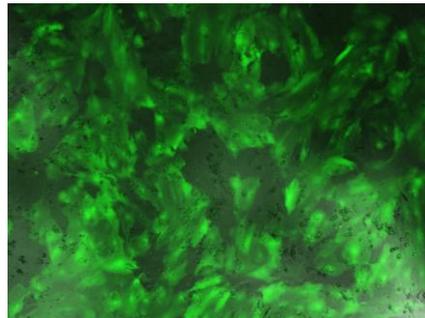
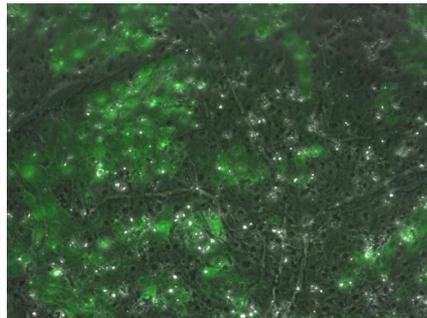
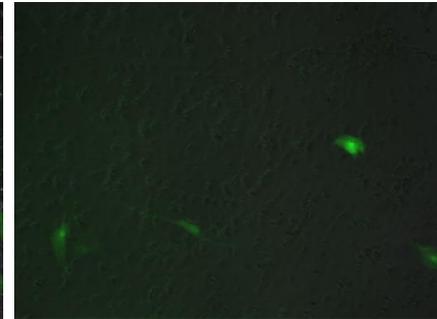
Immediately after thawing



1 day after thawing



3 days after thawing



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