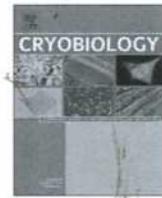




Contents lists available at ScienceDirect

# Cryobiology



ELSEVIER

journal homepage: [www.elsevier.com/locate/ycryo](http://www.elsevier.com/locate/ycryo)

Volume 61, Issue 2, October 2010

## CONTENTS

Abstracted/indexed in Biological Abstracts, Current Contents / Life Sciences, Science Citation Index, MEDLINE®, EMBASE, and EMBiology. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®.

### PERSONAL REPORT

- In Memoriam, Harold T. Meryman, MD (1921–2010) ..... 169

### REGULAR ARTICLES

- I.A.E. Butts, M.K. Litvak, V. Kaspar, E.A. Trippel. Cryopreservation of Atlantic cod *Gadus morhua* L. spermatozoa: Effects of extender composition and freezing rate on sperm motility, velocity and morphology ..... 174
- Xiaohua Wang, Fang Wang, Xiaoxing Wu, Xingen Zhao, Jing Liu, Changjiang Huang, Qiaoxiang Dong. The use of cryomicroscopy in guppy sperm freezing ..... 182
- Ya Kun Chen, Qing Hua Liu, Jun Li, Zhi Zhong Xiao, Shi Hong Xu, Xue Hui Shi, Dao Yuan Ma. Effect of long-term cryopreservation on physiological characteristics, antioxidant activities and lipid peroxidation of red seabream (*Pagrus major*) sperm ..... 189
- Lindong Weng, Weizhong Li, Jianguo Zuo. Kinetics of osmotic water flow across cell membranes in non-ideal solutions during freezing and thawing ..... 194
- Miguel A. Coloma, Amelia Gómez-Brunet, Rosario Velázquez, Adolfo Toledano-Díaz, Antonio López-Sabatín, Julián Santiago-Moreno. Freezability of Iberian ibex (*Capra pyrenaica*) spermatozoa according to the glycerolization temperature and plasma testosterone concentration ..... 204
- Huiping Yang, Michelle Norris, Richard Winn, Terrence R. Tiersch. Evaluation of cryoprotectant and cooling rate for sperm cryopreservation in the euryhaline fish medaka *Oryzias latipes* ..... 211
- Ziban Chandra Das, Mukesh Kumar Gupta, Sang Jun Uhm, Hoon Taek Lee. Lyophilized somatic cells direct embryonic development after whole cell intracytoplasmic injection into pig oocytes ..... 220
- Katiuscia Cipri, Edoardo Lopez, Vincenzo Naso. Investigation of the use of Pulse Tube in cell cryopreservation systems ..... 225

### BRIEF COMMUNICATION

- F.W. Kleinmans, Shinsuke Seki, Peter Mazur. Simple, inexpensive attainment and measurement of very high cooling and warming rates  
Society for Cryobiology ..... 231

A full and complete Guide for Authors can be found at <http://www.elsevier.com/locate/cryo>

Sponsored supplements and/or commercial reprints: For more information please contact Elsevier Life Sciences Commercial Sales, Radarweg 29, 1043 NX Amsterdam, The Netherlands; phone: (+31) (20) 4852939/2059; e-mail: [LSCS@elsevier.com](mailto:LSCS@elsevier.com)