

## **A MULTIPLE TECHNICAL APPROACH TO HUMAN ARTICULAR CHONDROCYTE CELL DEATH**

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Cartilage diseases and, in particular, osteoarthritis (OA) have been widely correlated to apoptosis,<sup>1</sup> but recently chondroptosis, a type of death with peculiar features typical of cartilage cells, has been reported.<sup>2</sup> Chondrocyte death is here investigated in a human experimental model. Cell death has been induced in chondrocyte micromasses<sup>3,4</sup> from 1 to 3 weeks with hyperthermia for 1 h at 43°C followed by 4 h recovery, UV-B for 30 min followed by 4 h recovery, 500 nM staurosporine for 24 h<sup>5</sup> all well known apoptotic triggers.....

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- 1. Johnson EO et al. J Surg Orthop Adv 2008, 17;147.*
- 2. Roach HI et al. Apoptosis 2004, 9:265-77.*
- 3. Battistelli M et al. Microsc Res Tech 2005, 67:286-95.*
- 4. Olivotto E et al. J Cell Physiol 2007, 210:417-27.*
- 5. Battistelli M et al. Proceedings of 14th European Microscopy Congress, Aachen, p. 239.*