Histone hyperacetylation during meiosis interferes with large-scale chromatin remodeling, axial chromatid condensation and sister chromatid separation in the mammalian oocyte

FEIKUN YANG, CLAUDIA BAUMANN, MARIA M. VIVEIROS and RABINDRANATH DE LA FUENTE

*Address correspondence to: Rabindranath De La Fuente. Department of Physiology and Pharmacology, College of Veterinary Medicine, University of Georgia, 501 D.W. Brooks Drive, Athens, GA, 30602, USA. e-mail: rfuente@uga.edu

Full text corresponding to this paper is available at: http://dx.doi.org/10.1387/ijdb.120246rd
Supplemental Fig. 1. Abnormal meiotic progression following treatment of non surrounded nucleolus oocytes (NSN) with trichostatin A (TSA).

Oocytes that exhibit the non-surrounded nucleolus (NSN) configuration were microinjected with capped mRNA encoding a histone H2B-GFP fusion protein. Time-lapse analysis of chromosome segregation patterns in the presence of 100 nM TSA revealed a significant delay in meiotic progression in this group of oocytes in which chromosome congression was not completed until 14 h following germinal vesicle breakdown resulting in failure to extrude the first polar body by 18 h of in vitro maturation. Note the abnormal chromosome structure in NSN oocytes arrested at the metaphase I stage following treatment with TSA.