

Abstract of Presentation

Note: This paper should be typed in “Times New Roman” of 12pt.

Presentation Title(Should be no more than 20 words):

Proteomics of a novel nuclear protein as a counterpart of histones.

By

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Abstract :

A novel acid-soluble protein has been extracted from nuclei of developing embryos of the camel tick *H. dromedarii* and purified to homogeneity. This tick embryo basic protein (TEBP) was predominant during the cleavage stage of tick embryogenesis, whereas the complete set of histones was detectable at the late cleavage stage. The TEBP partial sequence did not match any known protein sequence in the Protein Identification Resource (PIR) database. The amino acid at position 11 is identified as acetylated serine by massspectrometry. The N-terminal dipeptide (leucine-serine) is cleaved off between day 12 and 15 after oviposition. At the beginning of organogenesis, the TEBP level is reduced in the nucleus and transported to the cytoplasm where the cleavage of the N-terminal dipeptide (leucine-serine) starts simultaneously with the increase in an aminopeptidase level. The TEBP seems to be related to histone H1 in some properties such as solubility in perchloric acid and binding affinity to DNA. Therefore, a main task for the future will be to define the role of this protein as a counterpart of the histones for the genome organization during early embryogenesis.