Erratum

The Vertebrate Linker Histones H1⁰, H5, and H1M Are Descendants of Invertebrate “Orphon” Histone H1 Genes

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Re: J Mol Evol (1995) 41:833–840. It has recently been brought to our attention by Dr. S. Khochbin (INSERM, Grenoble, France) that the phylogenetic tree presented in our publication contains a mistake caused by an incorrect manual simplification of the original numerical data obtained by our sequence analysis. The central domains of

the two “histone H5 proteins” of *Xenopus laevis* are a sister group of the vertebrate histone H1⁰ proteins and they are not part of the histone H5 group. These proteins therefore should be called the “histone H1⁰” of *Xenopus laevis*. We present here a corrected version of Fig. 3. Our results confirm the extensive work done by Dr. S. Khochbin and co-workers, who show that not only with respect to their protein primary structure, but also with respect to conserved regulative DNA elements and to their patterns of expression, these proteins correspond to the mammalian histone H1⁰ and not to the avian histone H5.

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Fig. 3. A “phylogenetic tree” has been calculated from the alignment in Fig. 1 by the Clustal V program (Higgins and Sharp 1988) using the neighbor-joining method from Saitou and Nei (1987). The drawing presents the topology of the “phylogenetic tree” but uses similarity scores from the “dendrogram” part of the program to simplify the presentation of branch length. Double lines were used for branches which led to proteins found in vertebrates. Bars were used for groups of sequences with more than three members and correspond in their length to the maximal divergence observed in each group. The number of sequences contributing to each branch is given in parentheses if it is bigger than one.

References

- Khochbin S, Wolffe AP (1993) Developmental regulation and butyrate-inducible transcription of the *Xenopus* histone H1⁰ promotor. *Gene* 128:173–180
- Khochbin S, Wolffe AP (1994) Developmentally regulated expression of linker-histone variants in vertebrates. *Eur J Biochem* 225:501–510
- Grunwald D, Lawrence JJ, Khochbin S (1995) Accumulation of histone H1⁰ during early *Xenopus laevis* development. *Exp Cell Res* 218:586–595