Chromatin from two classes of platyhelminthes display both protist H1 and higher eukaryote core histones

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Histones from the parasitic platyhelminthes, Echinococcus granulosus and Fasciola hepatica, were systematically characterized. Core histones H2A, H2B, H3 and H4, which were identified on the basis of amino acid sequencing and mass spectrometry data, showed conserved electrophoretic patterns. Histones H1, identified on the basis of physicochemical properties, amino acid composition and amino acid sequencing, showed divergence, both in their number and electrophoretic mobilities, between the two species and among other organisms. According to these data, core histones but not H1 histones, would be stabilized during evolution at the level of platyhelminthes.