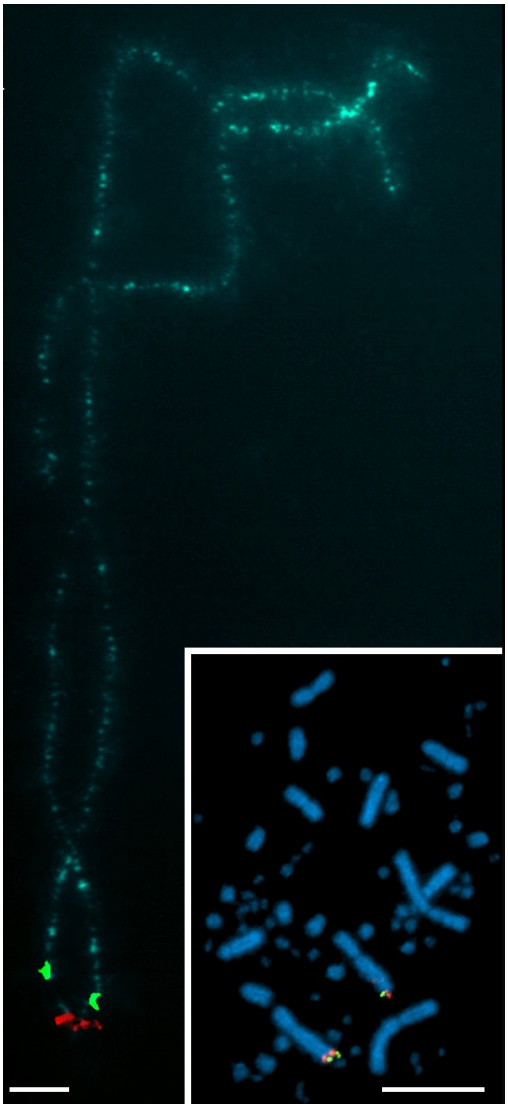

Fluorescence *in situ* hybridization (FISH) on avian lampbrush chromosomes allows high resolution gene mapping. Mapping of two closely located BAC clones WAG107K17 (green) and WAG26A22 (red) using two-color FISH to chicken lampbrush chromosome 2 and metaphase spread (insert). On the lampbrush chromosome the fluorescent signals, which could not be distinguished on mitotic metaphase chromosomes, are separated by four chromomeres. The estimated average amount of DNA per chromomere in chicken lampbrush macrochromosomes is about 1.5–2 Mb. Consequently, FISH mapping on avian lampbrush chromosomes makes it possible to distinguish the order of closely positioned sequences and to reveal gene locations more precisely. Chromosomes are counterstained with DAPI (blue). Scale bar – 10 µm.

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Reference: Galkina S, Deryusheva S, Fillon V, Vignal A, Crooijmans R, Groenen M, Rodionov A, Gaginskaya E. FISH on avian lampbrush chromosomes produces higher resolution gene mapping. Genetica. 2006 128(1-3), p. 241-251