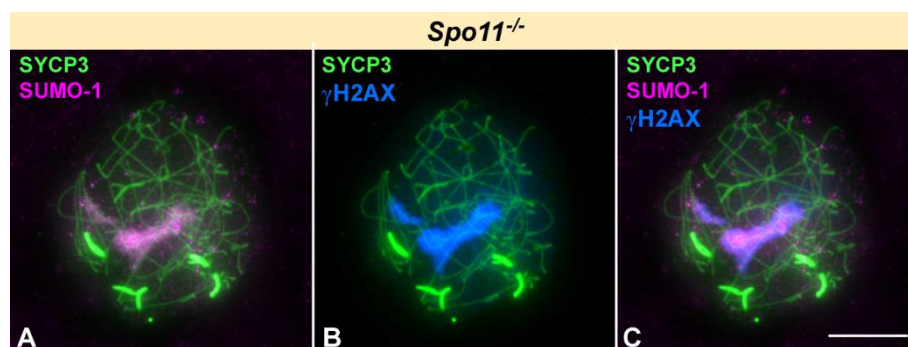


Article

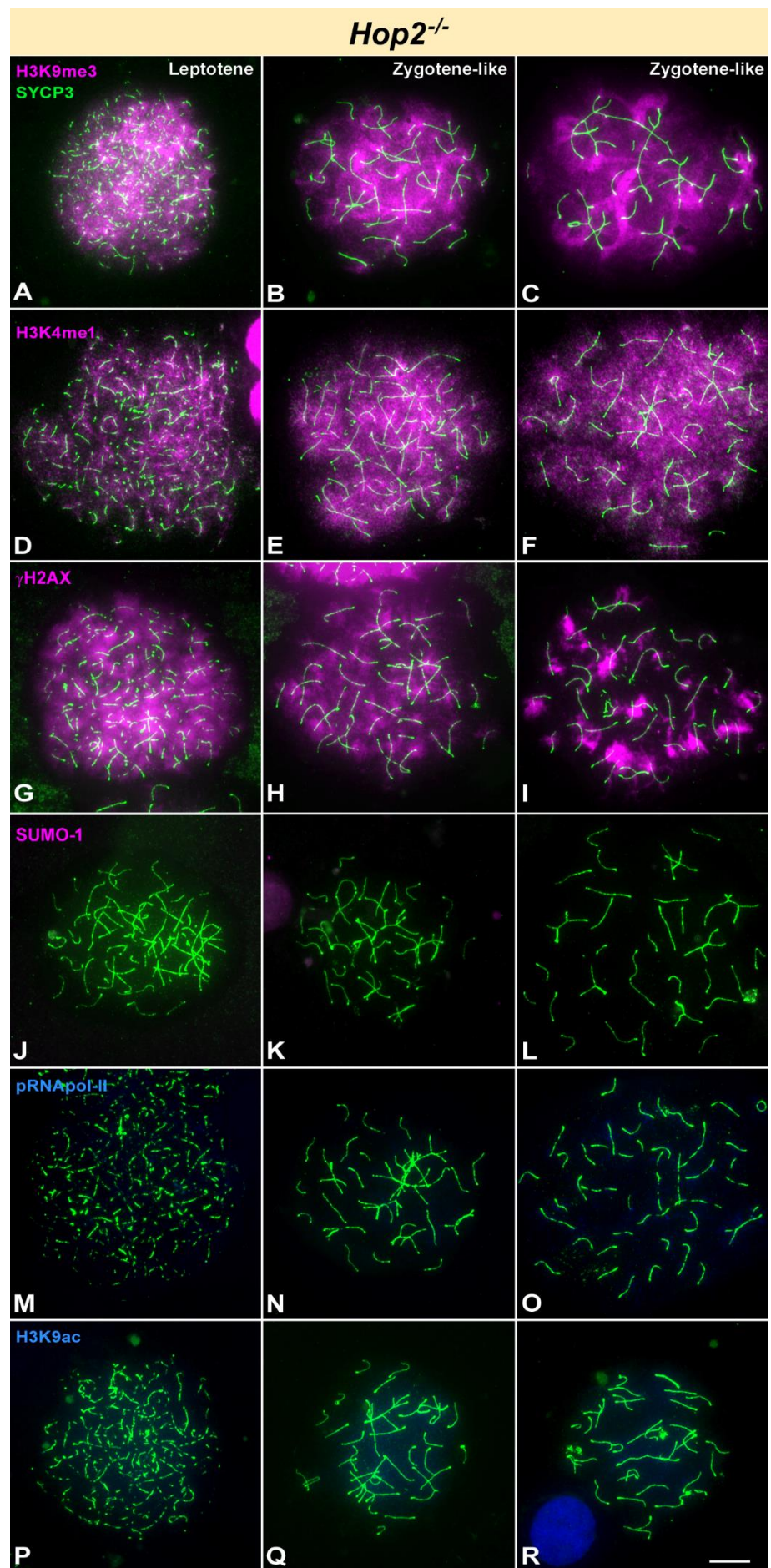
Epigenetic Dysregulation of Mammalian Male Meiosis Caused by Interference of Recombination and Synapsis

Roberto de la Fuente ^{1,2}, Florencia Pratto ³, Abrahan Hernández-Hernández ^{4,†}, Marcia Manterola ⁵, Pablo López-Jiménez ¹, Rocío Gómez ¹, Alberto Viera ¹, María Teresa Parra ¹, Anna Kouznetsova ⁴, R. Daniel Camerini-Otero ³, and Jesús Page ^{1,*}

Supplementary Materials



Supplementary Figure S1: Immunolocalisation of SYCP3 (green) SUMO-1 (pink) and γ H2AX (blue) in a zygotene-like spermatocyte in *Spo11* knockout mice. A diffuse signal is observed with SUMO-1, which co-localised with the signal of γ H2AX. Scale bar: 10 μ m.



Supplementary Figure S2. Immunolocalisation of SYCP3 (green) and epigenetic markers of silencing (pink) or transcription activation (blue) in *Hop2* knockout mice. Cells in each column are classified as leptotene or zygotene-like. **(A-C)**. An intense H3K9me3 labelling is detected in the nucleus in all stages, although it appears slightly more intense in the pericentromeric regions at the late stages. **(D-F)**. H3K4me1 strongly marks the entire nucleus of the spermatocytes at all stages. **(G-I)**. γ H2AX labelling is spread over the entire nucleus in leptotene and some zygotene-like spermatocytes. In some zygotene-like stages **(I)** labelling concentrates as large foci over some autosomal regions. **(J-L)**. SUMO-1 is not detected at any stage on these mutants. **(M-O)**. No signal of pRNAPol-II is detected at any stage. **(P-R)**. H3K9ac is not detected in early leptotene. At zygotene-like, a weak signal is observed in the whole nucleus. Scale bar: 10 μ m.