Running head: **Chromosome Number Evolution on Phylogenies**

Title: **Inferring Hypothesis-based Transitions in Clade-specific Models of Chromosome Number Evolution along Phylogenies**

José Ignacio Márquez-Corro1, Santiago Martín-Bravo1, Daniel Spalink2,Modesto Luceño1 & &Marcial Escudero3

1. *Department of Molecular Biology and Biochemical Engineering, Universidad Pablo de Olavide, Carretera de Utrera km 1, ES-41013 Seville, Spain.*

2. *Department of Biology, University of Utah, Salt Lake City, UT 84112, USA.*

3. *Department of Plant Biology and Ecology, University of Seville, Reina Mercedes sn, ES-41012 Seville, Spain.*

Corresponding author: José Ignacio Márquez-Corro, e-mail: [jimarcorr@gmail.com](mailto:jimarcorr@gmail.com).