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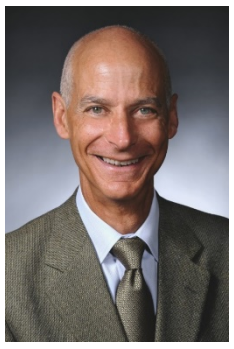
dimecres, 2 d'octubre de 2019, 12:00, Sala Salvador

«The Wondrous Cycles of Polyploidy in Plants»

Per

Jonathan F. Wendel
(Distinguished Professor, Iowa State University)



The research of Jonathan F. Wendel focuses on mechanisms underlying plant genomic and phenotypic diversity, with a special focus on the phenomenon of whole genome doubling, or polyploidy.

Most of his ~280 publications focus on the cotton genus (*Gossypium*), in which two diploid and two polyploid species were each independently domesticated thousands of years ago. This natural evolutionary diversification, followed by parallel strong directional selection under domestication, provide a model framework for exploring the comparative basis of domestication, the origin of form and of diversity in nature, and the evolutionary consequences of genome doubling. His research has helped shape our understanding of the myriad genomic consequences of allopolyploidy, where two diverged diploid genomes become reunited in a common nucleus.

In this talk, Prof. Jonathan F. Wendel will explain the state-of-the-art of research on the evolutionary processes of intergenomic gene conversion, homoeolog expression bias, duplicate gene coregulation and expression dominance, biased fractionation, and the evolutionary trajectories of duplicated networks.

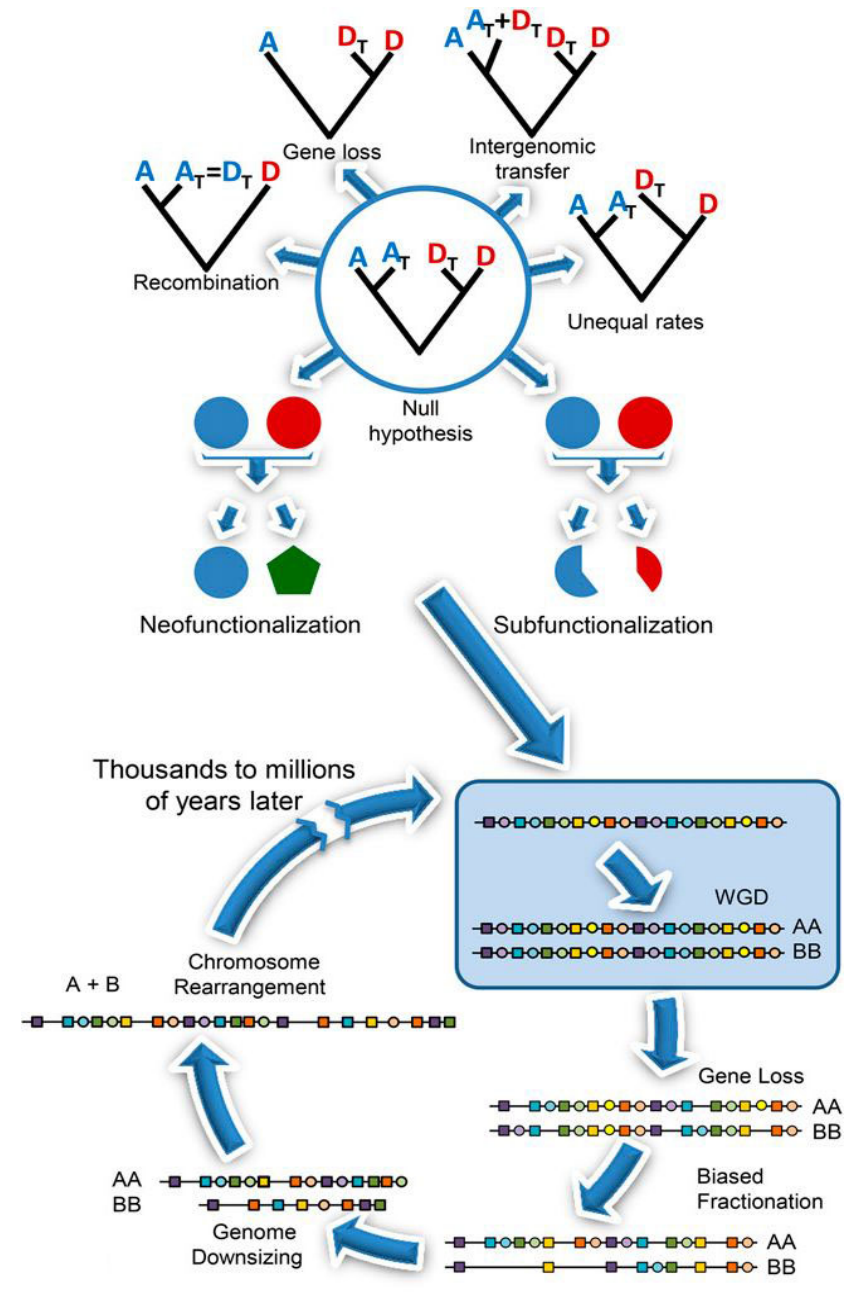


Figure modified from: Wendel, 2015, Am.J.Bot.;102(11):1753-6. doi: 10.3732/ajb.1500320.

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