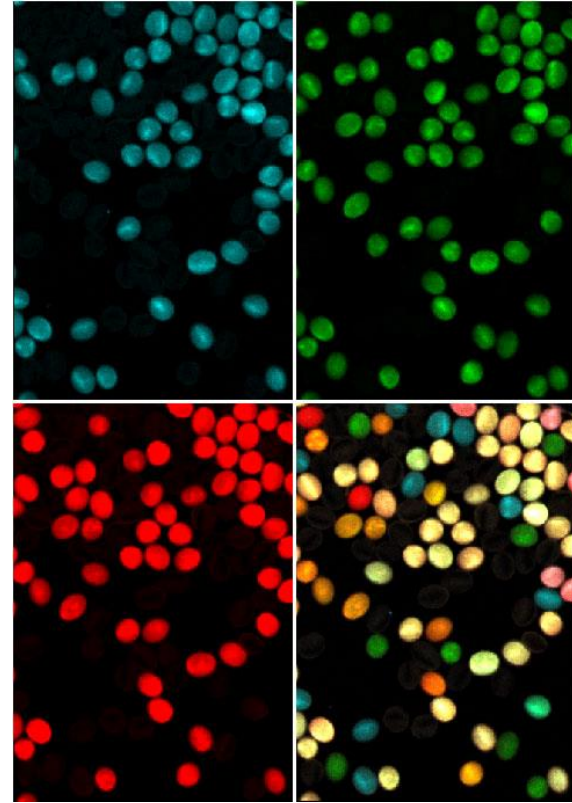
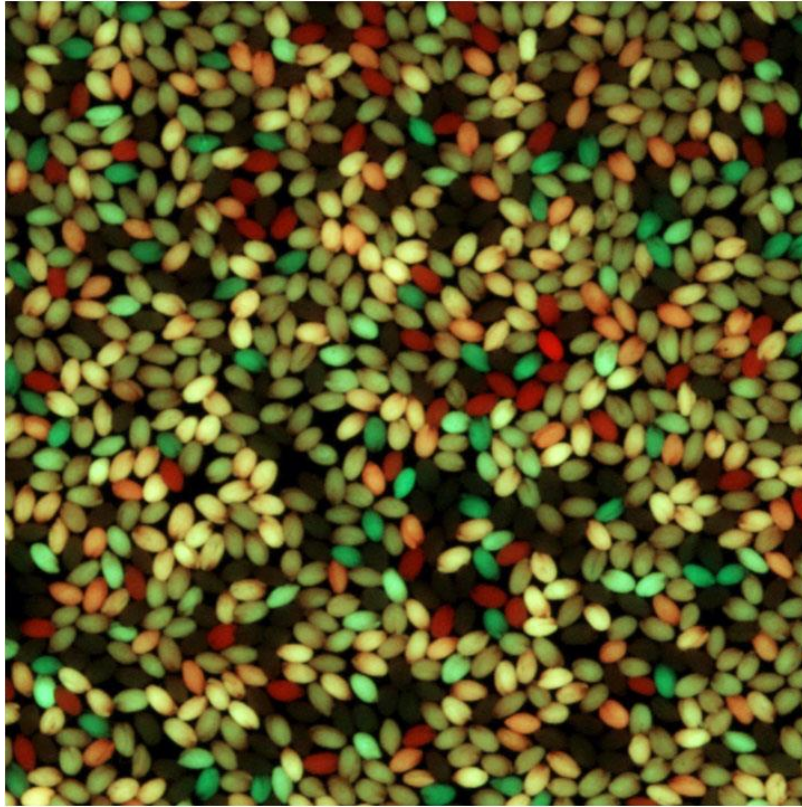


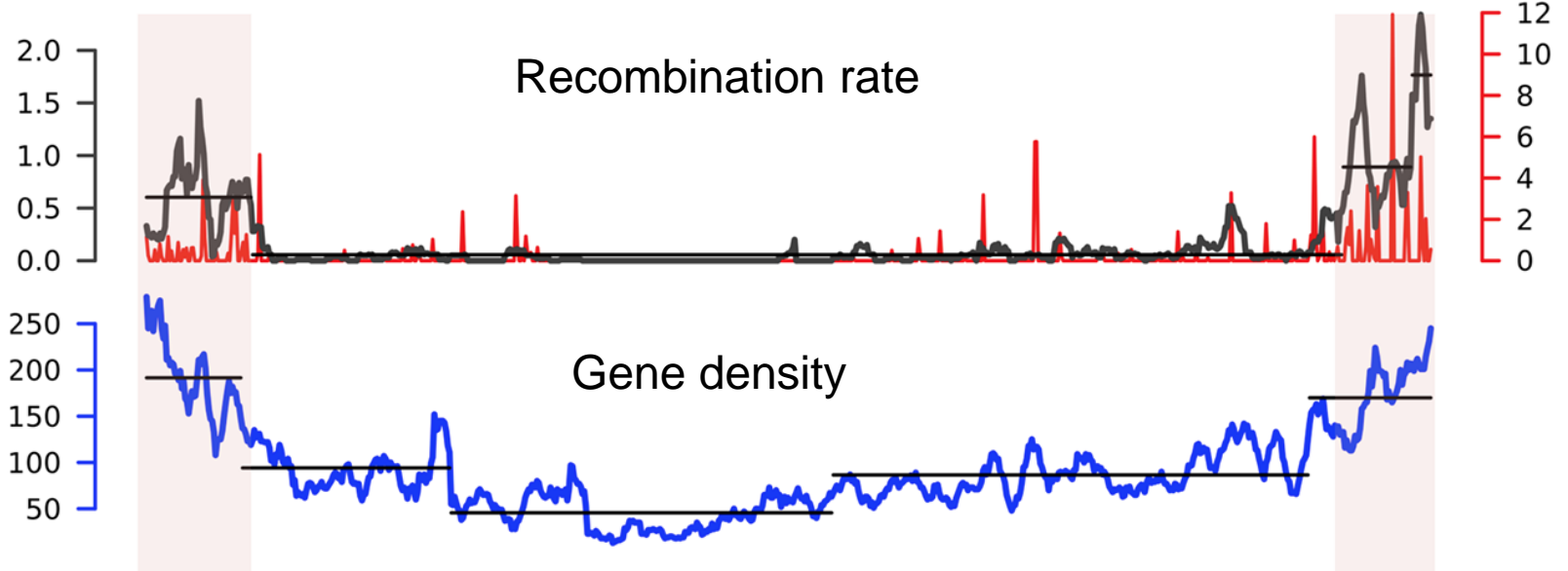
# Synthetic approaches to manipulate meiotic recombination



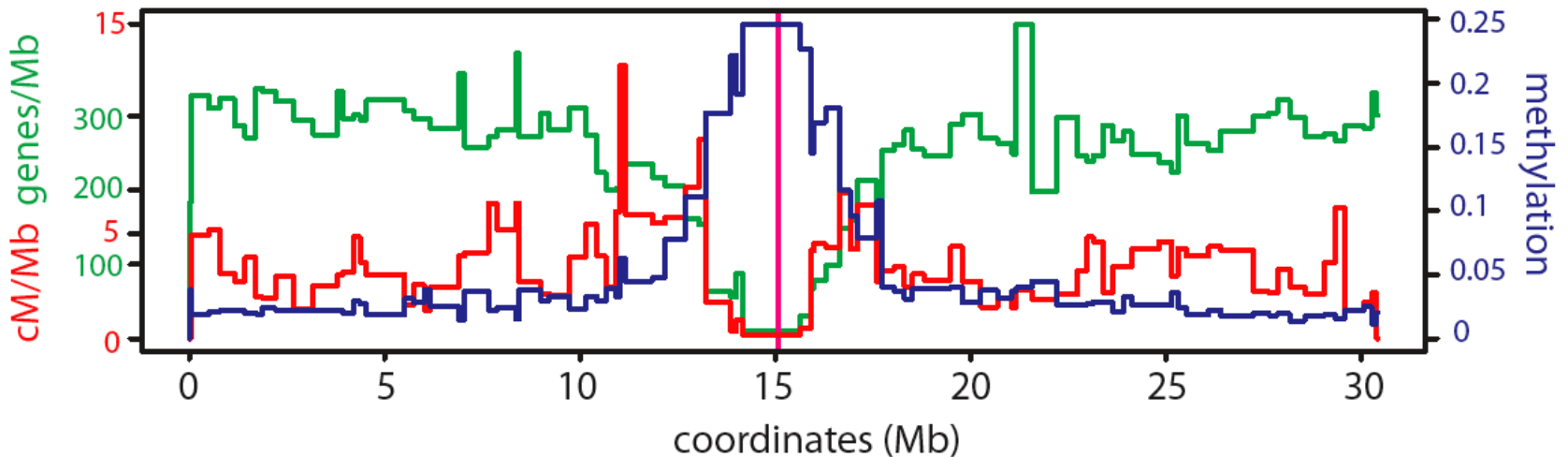
Ian Henderson  
Department of Plant Sciences  
University of Cambridge



# Crossovers are non-randomly distributed in plant genomes

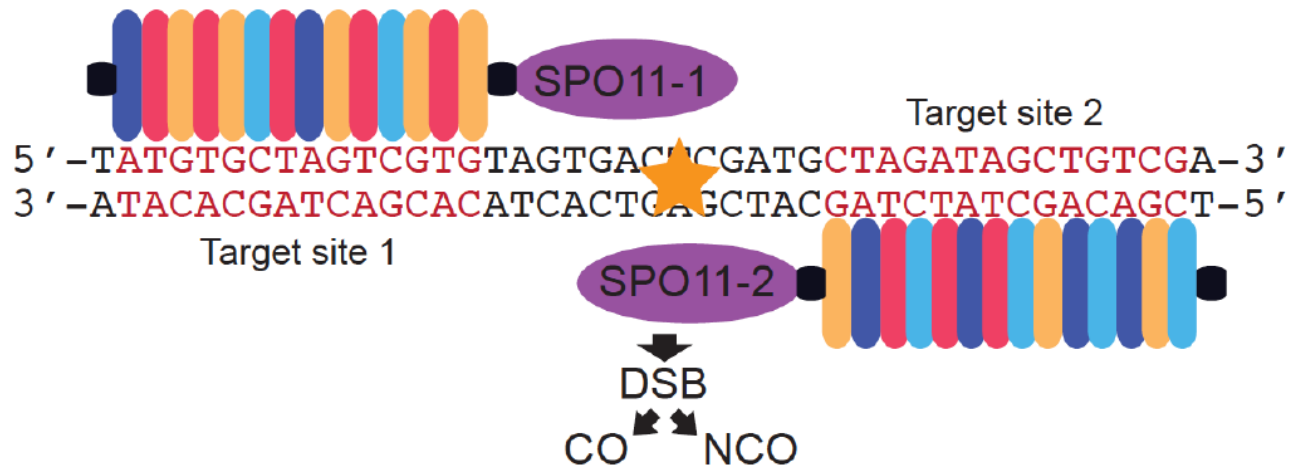


Wheat chromosome 3B 995 Mb : Choulet et al., (2014) *Science*



*Arabidopsis thaliana* chr1 30 Mb : Yelina et al., (2012) *PLoS Genetics*

# Using TALENs (and Cas9) to direct recombination during meiosis



Driven by meiotic promoters *DMC1* or *SPO11*

**Natasha Yelina & Patrick Diaz**