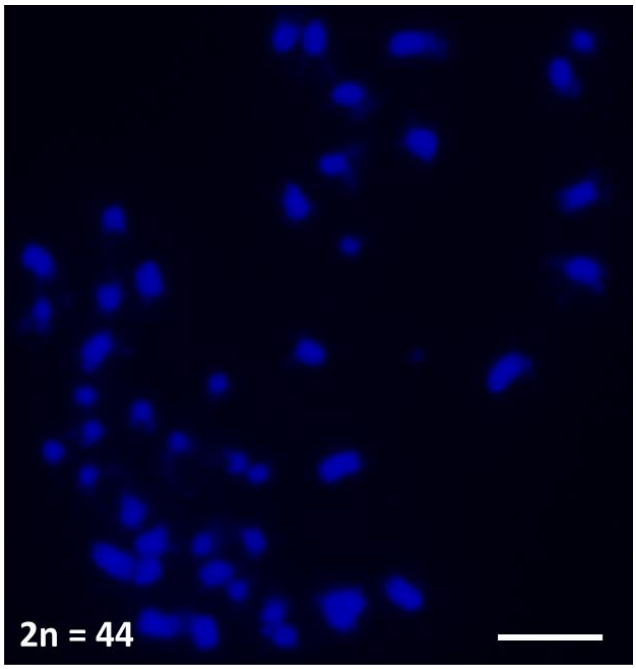
A wide range of chromosome numbers result from unreduced gamete production in *Brassica juncea* × *B. napus* (AABC) interspecific hybrids

Charles Addo Nyarko[1,2], Elvis Katche[2], Mariana Baez[1], Zhenling Lv[1,2], Annaliese S. Mason[1,2,*]

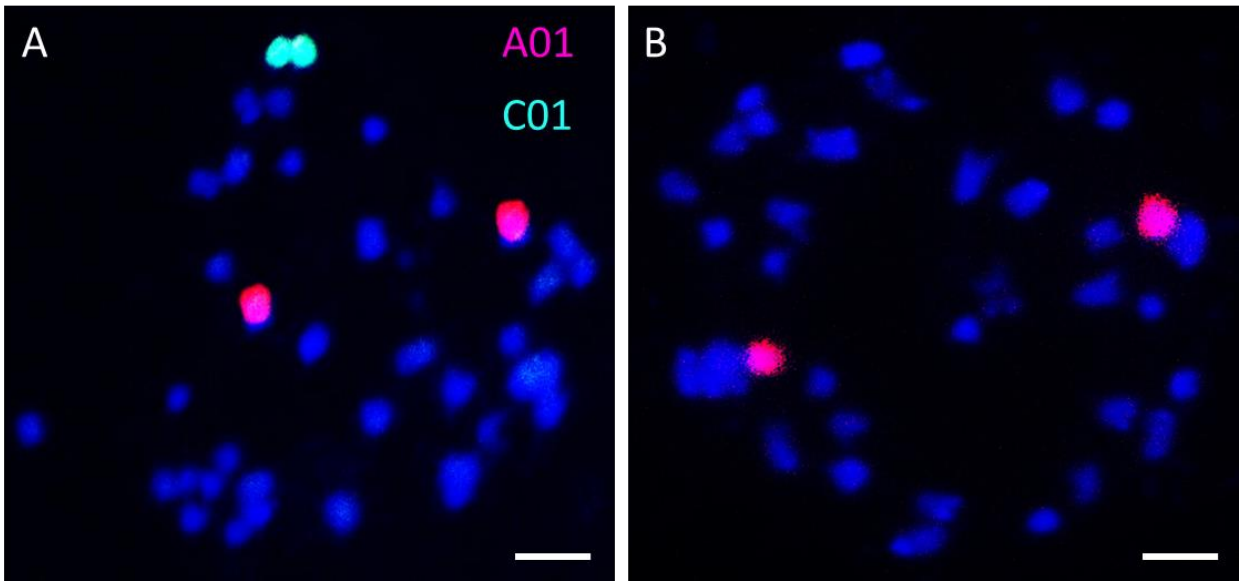
[1] Plant Breeding Department, University of Bonn, Kirschallee 1, 53115, Bonn, Germany

[2] Plant Breeding Department, Justus Liebig University, Heinrich-Buff-Ring 26-32, 35392, Giessen, Germany

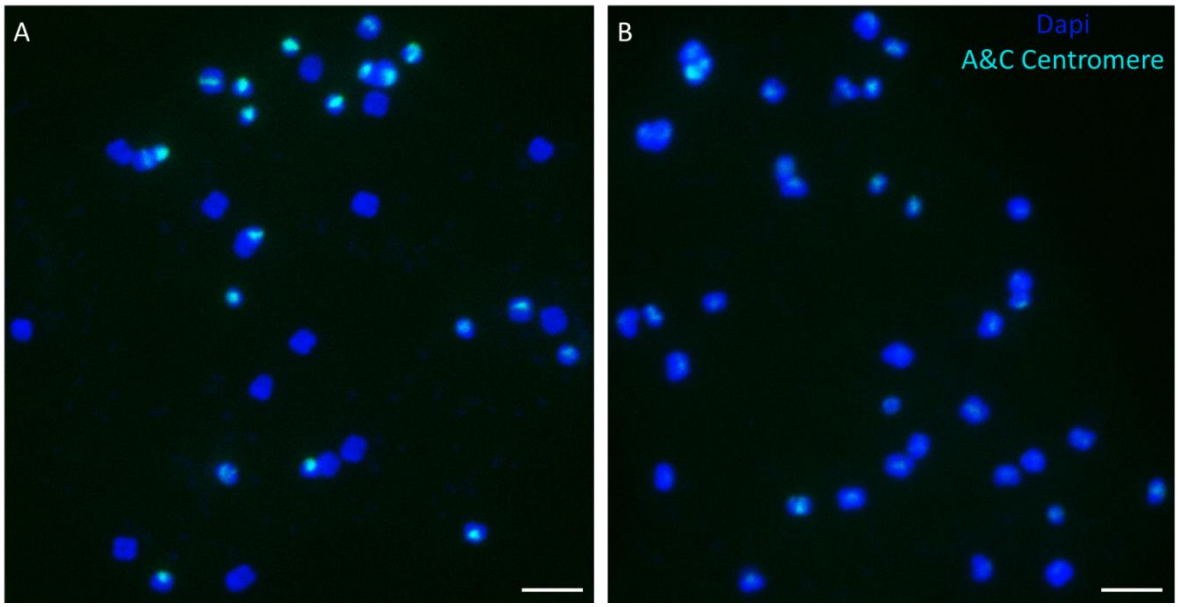
*corresponding author: annaliese.mason@uni-bonn.de



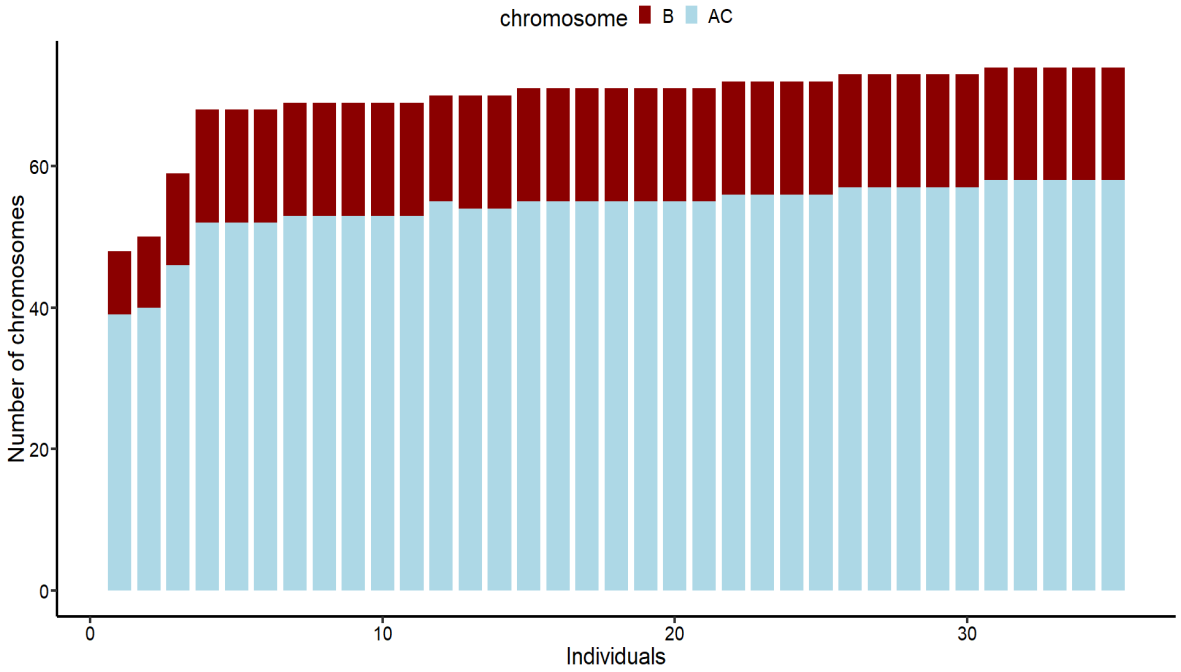
Supplementary Figure 1: Mitotic metaphase chromosome spreads from the S_1 parental hybrid resulting from the cross *Brassica juncea* × *B. napus* followed by one generation of self-pollination. Predicted chromosome number for a first-generation interspecific hybrid is 2*n* = 37 (AABC) chromosomes. Bar = 10 µm.



Supplementary Figure 2: Identification of the number of copies of chromosomes A01 and C1 in the interspecific hybrids resulting from the cross *Brassica juncea* × *B. napus* followed by two generations of self-pollination. A) Parental *Brassica napus* with 2 A01 chromosomes (red) and 2 C1 chromosomes (Turquoise). **B)** Parental *Brassica juncea* with 2 A01 chromosomes. Chromosomes are counterstained with DAPI (blue). Bars = 10µm.



Supplementary Figure 3: Identification of the A and C-genome chromosomes (green) with *Brassica* centromere probes CentBr1 and CentBr2 in the parental *Brassica juncea* (A) and *B. napus* (B). Chromosomes are counterstained with DAPI (blue). Bars = 10µm.



Supplementary Figure 4: Distribution of the number of B and AC-genome chromosomes in the interspecific hybrids resulting from the cross *Brassica juncea* × *B. napus* followed by two generations of self-pollination.