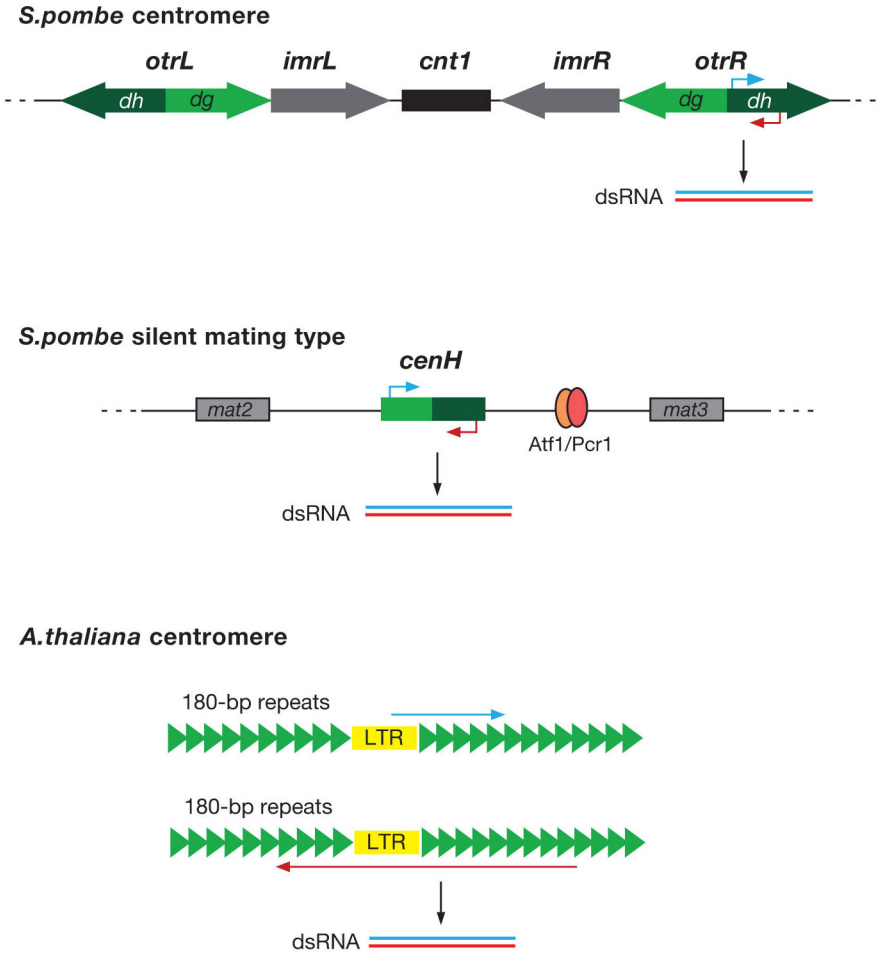

Figure 2. Organization of Heterochromatic Chromosome Regions in *S. pombe* and *A. thaliana*

The centromere of *S. pombe* chromosome 1 is shown as an example. The unique central core (*cnt1*) region is flanked by innermost (*imrL* and *imrR*) and outermost (*otrL* and *otrR*) repeats. The *otr* region is transcribed in both directions, giving rise to forward (*blue*) and reverse (*red*) transcripts. The region between the *mat2* and *mat3* genes contains a domain that is homologous to the centromeric *dg* and *dh* repeats (*cenH*) and is also bidirectionally transcribed. Atf1 and Pcr1 are DNA-binding proteins that act in parallel with RNAi in mating-type silencing. *Arabidopsis* centromeres are composed of 180-bp repeats (*green*) interspersed with retrotransposable elements (*yellow*). Forward transcripts initiating within the long terminal repeat (LTR) of the retroelement and reverse transcripts initiating within the 180-bp repeats are indicated.