



**Figure 3.** Centromeric chromatin domains in *S. pombe*. (A) A schematic representation of the symmetrical DNA arrangement in *S. pombe* centromeres. (B) Heterochromatin: outer repeats are packaged in nucleosomes, which are methylated on lysine 9 of histone H3 (H3K9me) by Clr4 as part of the CLRC complex. This allows the binding of chromodomain proteins Chp1 (a component of the RNAi RITS complex), Chp2, and Swi6. Collectively, these and other factors, including the SHREC complex-containing Clr3 histone deacetylase activity and the RDRC complex, act to assemble and propagate heterochromatin. Central “kinetochore” chromatin: CENP-A is found in the central domain where it probably replaces the majority of histone H3 to form specialized nucleosomes (coral colored). In addition to CENP-A, several proteins assemble at the central domain chromatin to form the inner and outer kinetochore multiprotein structures (coral arc). See Figure 6 for a description of the kinetochore.