The Centromeric DNA of Model Eukaryotes

- **H. sapiens**: 0.25-5 Mb α satellite
- **A. thaliana**: 1-5 Mb 178-bp repeat
- **D. melanogaster**: 420 kb CTCTT AATAT
Our traditional view about centromeres

1. Embedded within a highly heterochromatic domain
2. Contains only repetitive DNA sequences
3. Genetically silent: no genes, no recombination

Cheng et al. (2002) Plant Cell
The centromere of rice chromosome 8 (Cen8)

What questions do we plan to address?

1. How many and what genes are in 12 rice centromeres?
2. Expression profiling using genomic tiling arrays
3. Histone modification patterns of centromeric genes
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