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yeasts. Eukaryotic fungal cells that are widely used and studied in cell biology and genetics. *Saccharomyces cerevisiae* is the budding yeast used in baking and brewing, and *Schizosaccharomyces pombe* is a fission yeast. Yeast cells grow rapidly in culture and have been widely used in studying the cell cycle. PETITE MUTANTS of yeast, which have mitochondrial gene mutations, are also widely studied, and yeast cells are now used as expression systems for other eukaryotic gene sequences in recombinant DNA technology.

yeast vectors. Yeast cells used as carriers of PLASMIDS, in which novel genes may be replicated, or as transformed cells used to produce the products of integrated novel genes.

Y chromosomes. Chromosomes found in the HETEROGAMETIC SEX. In most mammals the male carries XY chromosomes and the female XX. The Y chromosome is male-determining, as shown by the female phenotype of XO individuals (TURNER'S SYN-

DROME). It is a small heterochromatic chromosome with few if any structural genes located on it. *See also* SEX CHROMOSOMES.

Y fork. *See* REPLICATING FORK.

Y linkage. SEX LINKAGE, in which genes are located on the Y chromosome, and are therefore expressed only in males (holandric inheritance). In mammals the Y chromosome carries few, if any genes, but in some organisms (e.g., medaka fish) the Y chromosome does carry genes.

yolk. Inert, nutrient constituent of the OVUM; consisting mainly of protein and fat. Ova of viviparous animals tend to have very little yolk.

yolk sac. *See* EXTRAEMBRYONIC MEMBRANES.

Y-suppressed lethal gene. Sex-linked recessive lethal gene that allows survival of XY males, but causes the death of XO individuals in *Drosophila melanogaster*.