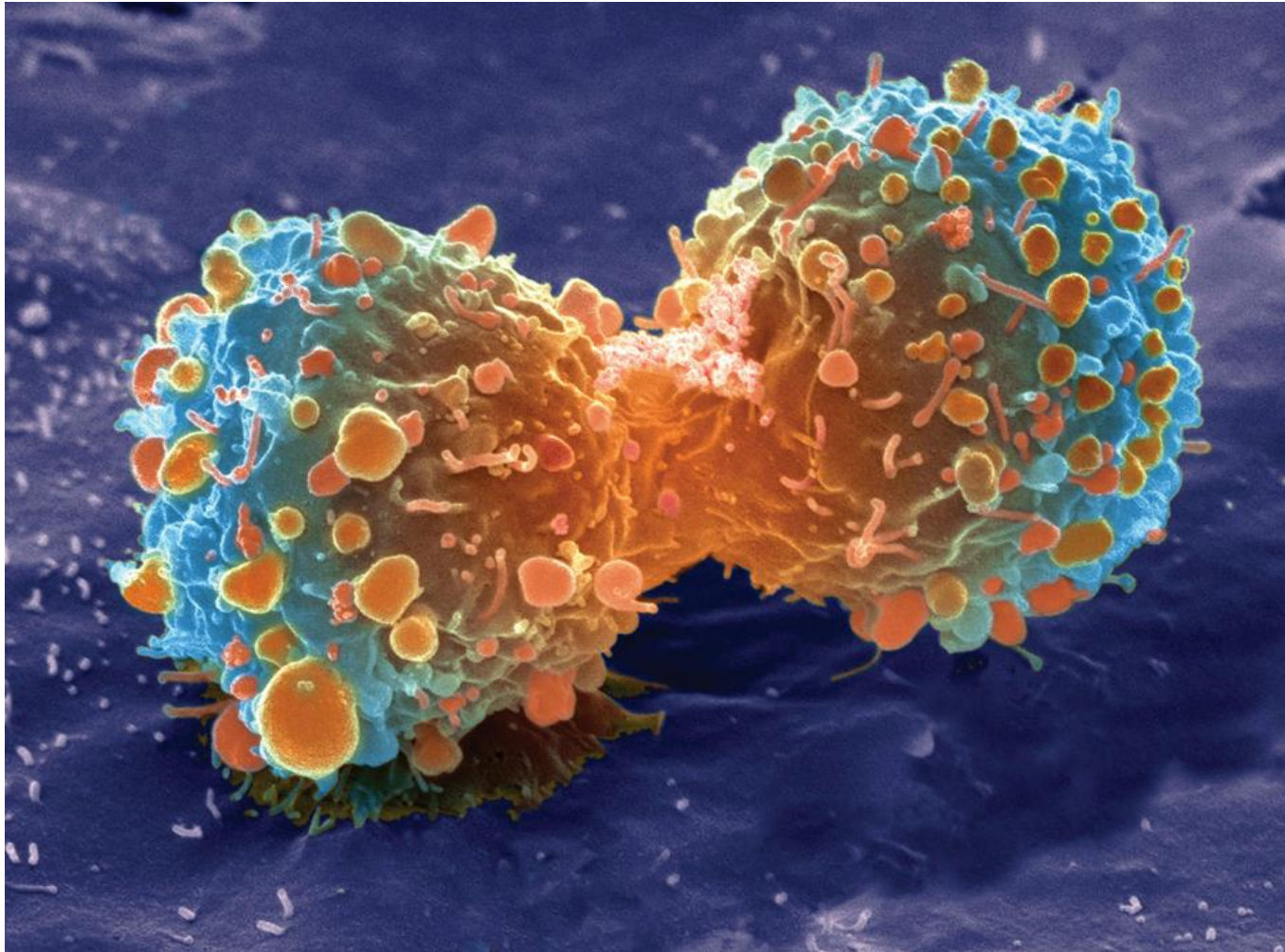


5.4 Asexual Reproduction

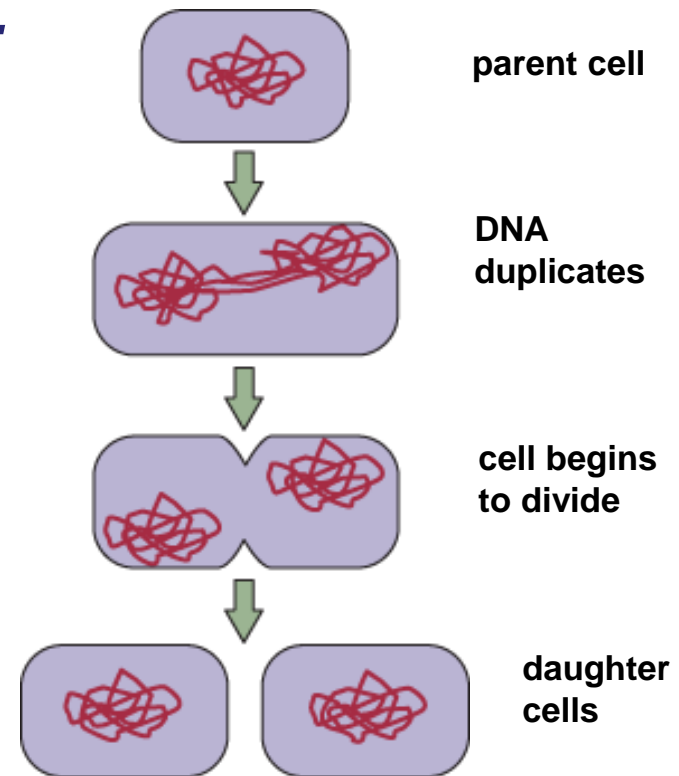
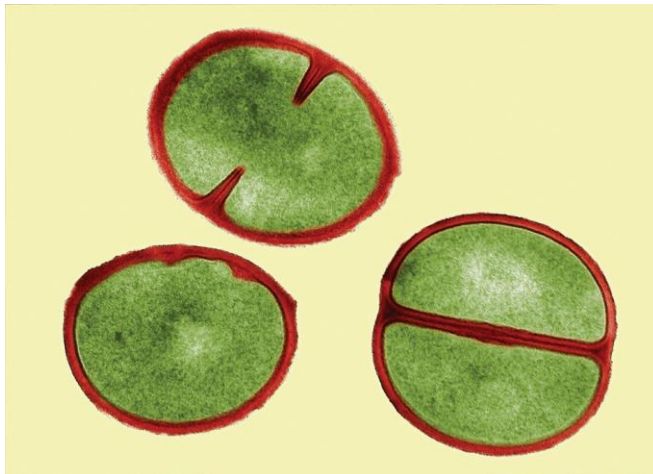
KEY CONCEPT

Many organisms reproduce by cell division.



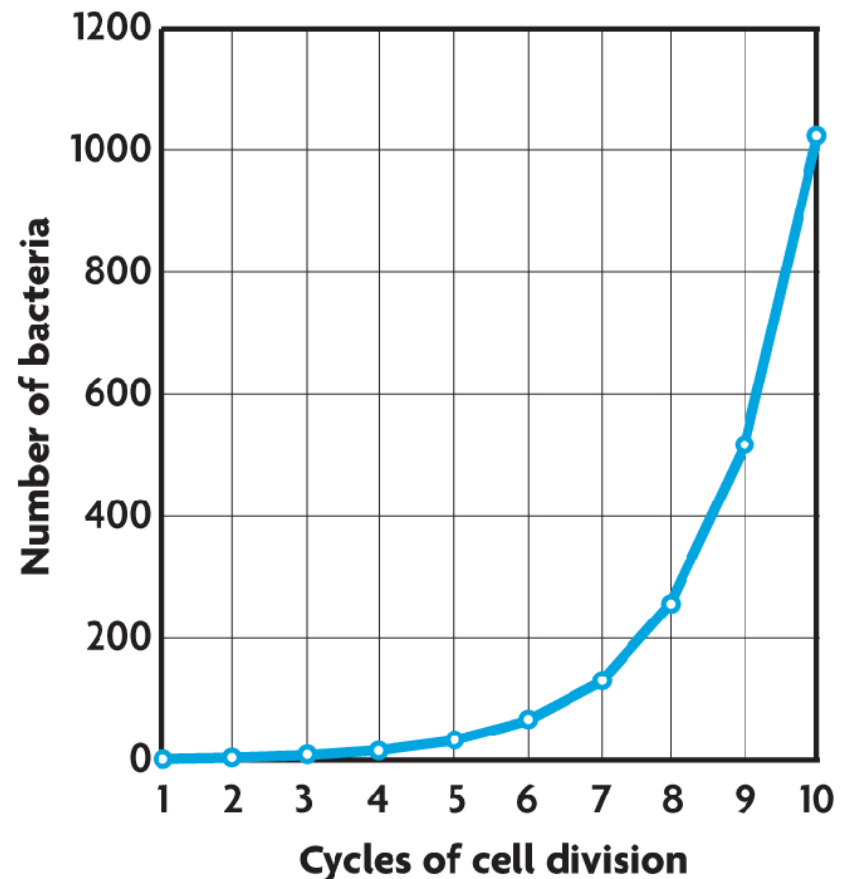
5.4 Asexual Reproduction

- ▶ Binary fission is similar in function to mitosis.
- Asexual reproduction is the creation of offspring from a single parent.
 - Binary fission produces two daughter cells genetically identical to the *parent cell*.
 - Binary fission occurs in *prokaryotes*.



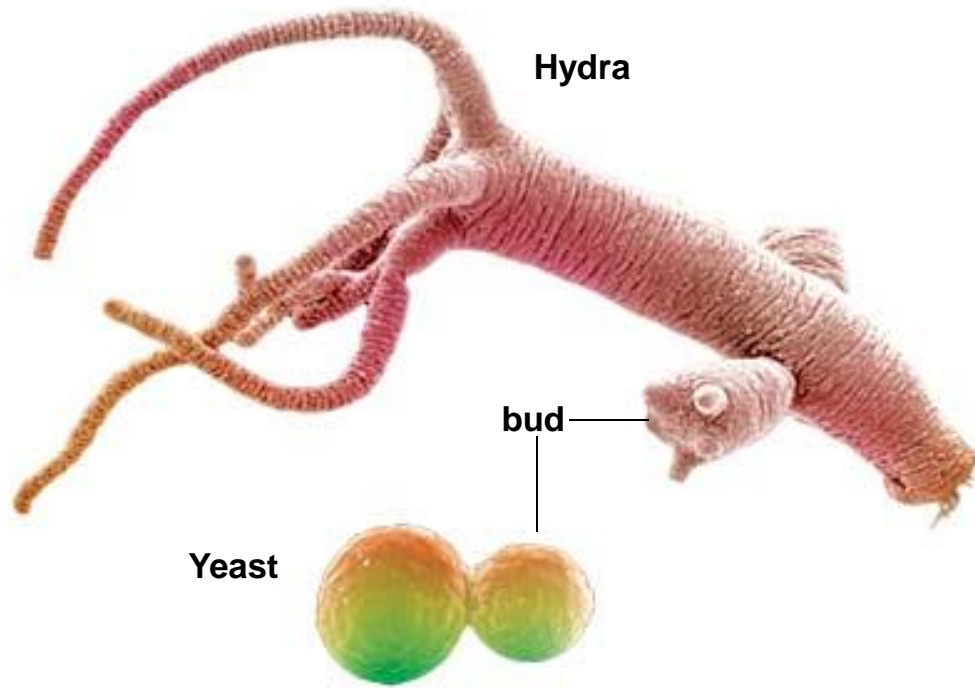
5.4 Asexual Reproduction

- **Environment determines what form of reproduction is most advantageous.**
 - Asexual reproduction is an advantage in ***consistently*** favorable conditions.
 - Sexual reproduction is an advantage in ***changing*** conditions.



5.4 Asexual Reproduction

- ▶ **Some eukaryotes reproduce through mitosis.**
 - ***Budding*** forms a new organism from a small projection growing on the surface of the parent.



5.4 Asexual Reproduction

- **Fragmentation** is the splitting of the parent into pieces that each grow into a new organism.
- **Vegetative** reproduction forms a new plant from the modification of a stem or underground structure on the parent plant.

