

# **New Material**

DNA Replication; Cell Cycle; Cancer

*DNA Replication I:  
Basic Problems & Machinery*

# DNA Replication in Mitosis

- **mitosis** = important for growth & development of multi-cellular organisms
- accurate DNA rep. must precede mitosis
- error rate = 1 in  $10^9$  nucleotides per division
- genome of a cell copied once per cell cycle