

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 3**

1. Finlay has metastatic colon cancer and is taking an agent that stops the tumors from being able to form blood vessels. This type of drug is called a(n)\_\_\_\_\_.
- a. antiangiogenesis drug
  - b. biologically active drug
  - c. tacrine-type drug
  - d. anxiolytic

**ANSWER: a**

2. In the 1990s, an investigational new drug was developed to slow the progression of Alzheimer's, but it was subsequently removed from the market due to liver toxicity. What was this drug?
- a. Cognex
  - b. Retrovir
  - c. Caduet
  - d. Roferon

**ANSWER: a**

3. A research team recently identified a gene associated with epidermolysis bullosa, a disease that causes skin to blister and tear with even slight friction, by searching through a massive database of genetic information using powerful computers. This use of computers is an example of\_\_\_\_\_.
- a. disease DNA
  - b. genetic mining
  - c. bioanalysis
  - d. chemoinformatics

**ANSWER: d**

4. Orianna's insulin was made using the DNA of two different organisms. What is this technique called?
- a. gene therapy
  - b. cloning
  - c. recombinant DNA
  - d. pharmacogenetics

**ANSWER: c**

5. After identifying a gene that causes the skin of patients with epidermolysis bullosa (EB) to be easily blistered and torn, researchers have found a method to make the gene produce collagen needed for healthy skin, at least in the laboratory. Researchers hope to be able to use the same process in real life, and enable patients with EB to have healthy skin. "Fixing" malfunctioning genes is an example of\_\_\_\_\_.
- a. transgenics
  - b. gene therapy
  - c. mutagenics
  - d. translocation

**ANSWER: b**

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6. Your cousin is started on medication after being diagnosed with epilepsy. Because he experiences seizures quite often, he starts with a very large dose of the anticonvulsant to elevate the levels of the drug in his blood as quickly as possible. This initial, large dose is known as a(n)\_\_\_\_\_.
- a. overdose
  - b. loading dose
  - c. shock dose
  - d. therapeutic dose

**ANSWER: b**

7. The cellular changes produced by drugs are known as drug\_\_\_\_\_.
- a. interactions
  - b. actions
  - c. effects
  - d. impacts

**ANSWER: b**

8. The physiologic changes produced by drugs are known as drug\_\_\_\_\_.
- a. actions
  - b. effects
  - c. interactions
  - d. impacts

**ANSWER: b**

9. After experiencing several dangerous blood clots, Blair is prescribed an anticoagulant. She initially takes high doses to get her blood levels of the anticoagulant up as quickly as possible, and then is placed on a lower dose for the foreseeable future. This latter, lower dose is referred to as a\_\_\_\_\_.
- a. routine dose
  - b. standard dose
  - c. maintenance dose
  - d. loading dose

**ANSWER: c**

10. Your friend has recently had a baby, and visits her doctor because of a terribly sinus infection. The doctor wants to know whether she is breastfeeding her baby. What drug process is of concern?
- a. absorption
  - b. distribution
  - c. metabolism
  - d. excretion

**ANSWER: b**

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11. The process of a drug being broken down and altered to more water-soluble by-products is known as \_\_\_\_\_.  
a. biotransformation  
b. degradation  
c. disassembly  
d. solubility

**ANSWER: a**

12. Why are persons with liver failure particularly prone to experiencing the toxic effects of medications?  
a. They do not excrete the medication efficiently.  
b. They distribute the medication differently.  
c. They are unable to properly metabolize the medication.  
d. They absorb the medication too rapidly.

**ANSWER: c**

13. Drug information for prescribing a certain medication indicates that it should be used with extreme caution in patients with impaired kidney function. What drug process is likely of concern?  
a. absorption  
b. metabolism  
c. excretion  
d. distribution

**ANSWER: c**

14. Ozzie's doctor tells him not to take his tetracycline with dairy products because the calcium in the dairy products will form an insoluble complex with the tetracycline. What is this process called?  
a. chelation  
b. adsorption  
c. oxidation  
d. excretion

**ANSWER: a**

15. The instructions for your medication state to "Take on an empty stomach." What drug process will taking the medication on an empty stomach most likely affect?  
a. absorption  
b. distribution  
c. metabolism  
d. excretion

**ANSWER: a**

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16. Briella is given probenecid along with penicillin in order to build up the level of penicillin by decreasing its excretion. The effect of the probenecid is called\_\_\_\_\_.

- a. synergism
- b. potentiation
- c. antagonism
- d. agonism

**ANSWER: b**

17. Zach normally takes an antianxiety medication and, after he has his wisdom teeth pulled, takes a narcotic pain medication as well. He suddenly finds himself very drowsy and disoriented. This is an example of\_\_\_\_\_.

- a. undesirable antagonism
- b. desirable synergism
- c. desirable antagonism
- d. undesirable synergism

**ANSWER: d**

18. Will visits the emergency room because of a badly broken leg. He is given a narcotic pain killer, but quickly becomes extremely dizzy and disoriented, and vomits. Will is then given another medication, naloxone, and soon begins to feel better. The effect of naloxone on the narcotic pain killer is known as\_\_\_\_\_.

- a. undesirable antagonism
- b. desirable antagonism
- c. desirable potentiation
- d. undesirable potentiation

**ANSWER: b**

19. Drugs with an alkaline pH are best absorbed in the\_\_\_\_\_.

- a. large intestine
- b. mouth
- c. stomach
- d. small intestine

**ANSWER: d**

20. You are reading about the treatment of cardiovascular disease and learn that some medications are more effective in African Americans than persons of other races. The study of why medications vary in effectiveness among groups is known as\_\_\_\_\_.

- a. genetic therapy
- b. epigenetics
- c. behavioral genetics
- d. pharmacogenomics

**ANSWER: d**

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21. Your uncle takes nitroglycerin, a vasodilator, for angina, a type of chest pain. When he feels pain from angina, he places a nitroglycerin tablet under his tongue and lets it dissolve. This route of administration is known as \_\_\_\_\_.  
a. subcutaneous  
b. sublingual  
c. buccal  
d. transdermal

**ANSWER: b**

22. What route of administration is the easiest, but is often slower than other routes?  
a. subcutaneous  
b. oral  
c. IM  
d. IV

**ANSWER: b**

23. Your healthy and active grandfather strains his back while helping you move your furniture. You have injured your back as well, so you give him the same over-the-counter pain reliever as the one you take, and in the same dosage. Unfortunately, your grandfather quickly develops severe stomach pain and is found to be bleeding into his stomach. What has he experienced?  
a. contraindication  
b. adverse reaction  
c. abnormal reaction  
d. secondary interaction

**ANSWER: b**

24. Your friend is given an antianxiety medication before a medical procedure. Rather than relaxing, however, your friend becomes agitated and starts shouting at people. This type of reaction is known as a(n) \_\_\_\_\_.  
a. reversal  
b. anaphylactic reaction  
c. antagonistic reaction  
d. paradoxical reaction

**ANSWER: d**

25. The decreased response to a drug that develops after repeated doses are given is known as \_\_\_\_\_.  
a. physical dependence  
b. dose-response paradox  
c. withdrawal  
d. tolerance

**ANSWER: d**