

# Pharmacology Test Bank

Done By: Lama Abuismail

Lecture 8

- 1. The correct couple (receptor, its family) of the following is :
  - A. Nicotinic receptors , enzyme –linked receptors
  - B. Adrenergic receptors , G protein coupled receptors
  - C. Muscarinic receptors , ligand gated channels
  - D. None of above
- 2. The family which its ligand must be lipid soluble to be able to cross membrane:
  - A. Enzyme- linked receptors
  - B. G protein coupled receptors
  - C. Intracellular receptors
  - D. Ligand gated channels
- 3. When insulin binds to its receptor it will lead to :
  - A. Tyrosine kinase activation
  - B. Activating 2<sup>nd</sup> messenger
  - C. Glucose influx
  - D. G protein activation
- 4. A patient came to the hospital unable to move his arm, after testing him and giving him acetylcholine he still is not able to he is probably has a problem in :
  - A. G protein coupled receptors
  - B. Intracellular receptors
  - C. Tyrosine kinase
  - D. Mutation in Nicotinic receptors
- 5. We wants to know which 2<sup>nd</sup> messenger is the best for TSH , after tests we find the best one is :
  - A. DAG
  - B. cAMP
  - C. IP3
  - D. Ca+2

## 6. All about the following curve is true except :

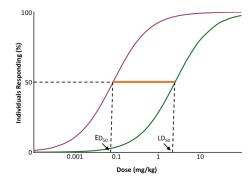
- A. the red spot should be at therapeutic level
- B. The suitable dose cannot be detect through this curve
- C. At the red spot the highest possible response to drug is achieved
- D. This curve represent the graded dose response
- 7. How can you determine the ED50 from the graded response curve:
  - A. By locating the point where the response is zero
  - B. By identifying the point where the response plateaus
  - C. By measuring the maximum response point
  - D. By finding the point where the response is halfway between the maximum and minimum
- 8. In graded dose response curve, if the response plateaus at high doses, what does this imply about the system's maximum response capability:
  - A. The maximum response has been reached
  - B. The system is not responding to the drug
  - C. He response is too low

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D. The response is linear

#### \*\*Regarding to the following curve:



Effect

Dose

#### 9. The purple curve at the plateau shows:

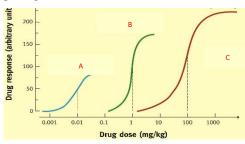
- A. Side effect
- B. Therapeutic window
- C. Best effect
- D. Death of 50% of animals

### \* · \* \* 10. The orange line represents: A. Side effect B. Therapeutic window C. Intrinsic activity D. Death of 50% of animals 11. LD50 value shows : A. Side effect \* B. Therapeutic window C. Best effect D. Death of 50% of animals 12. The value at which the dose produce 50% of response is: \*\*\*\* A. 0.001 **B**. 1 C. 0.1 D. Cannot be detected from the curve 13. If the LD50=3 in the curve, TI value: A. 3 B. 0.033 C. 30 D. 0.3 14. Which parameter is used to indicate the ability of a drug to produce the desired therapeutic effect relative to a toxic effect : A. Potency **B.** Efficacy C. Bioavailability D. Therapeutic index 15. Therapeutic index is a measure of : \* A. Efficacy B. Potency C. Affinity D. Additive

- 16. The best measurement of side effects is :
  - A. TI
  - B. Margin of safety
  - C. PI

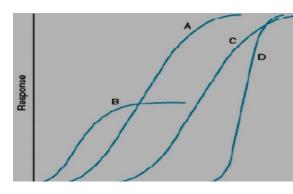
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- D. None of above
- 17. The best description of LD50-ED50 relationship is :
  - A. More ED50 >MORE LD50
  - B. MORE ED50 > LESS LD50
  - C. The nearer they are from each other is better
  - D. The farer they are from each other is better
- 18. We have drug A & drug B , Drug A has: LD50=150 , ED50=50 Drug B has: LD50=100, ED50=25. The correct about them is:
  - A. Drug A is safer than drug B
  - B. Drug B has higher efficacy than drug A
  - C. Drug B has lower TI value than drug A
  - D. None of above is true about them
- 19. One of the following is responsible to assess the safety of a drug :
  - A. TI
  - B. Margin of safety
  - C. A+B
  - D. PI
- 20. In the following curve the best description is :



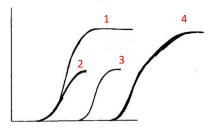
- A. Drug C has the highest potency
- B. Drug B has lower potency than drug A
- C. Drug A is the weakest drug
- D. Drug C is the strongest

21. According to the following curve, the wrong statement is :



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- A. Drug C has higher potency than drug D
- B. Drug B has the highest potency
- C. Drug A has higher efficacy than drug B
- D. Drug D has the same efficacy as drug B
- 22. If 10 mg of drug X give the same effect of 100 mg of drug Y:
  - A. X has same potency of Y
  - B. Y has less efficacy than X
  - C. X has higher potency than Y
  - D. None of above
- 23. You have four drugs A,B,C and D. according to the following statements order them correctly,
  - A lower potency than D
  - C has the same intrinsic activity of A
  - D has the same potency of C
  - B has higher ED50 value than C
    1-2-3-4 :



- A. D-C-B-AB. A-B-D-CC. A-D-C-B
- D. C-D-B-A

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# 24. Regarding to the previous question , the correct statement about

the drugs:

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- A. B is better than D in potency point
- B. D and C have the same effect

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- C. C is the best drug to be given according to its potency
- D. D is the is the most dangerous drug

1	2	3	4	5	6	7
В	C	А	D	С	В	D
8	9	10	11	12	13	14
Α	C	В	D	С	С	D
15	16	17	18	19	20	21
Α	C	D	А	С	В	D
22	23	24				
С	D	С				