



Australian Society for Medical Research

Medical Research Week®

Schools Quiz 2015

Answers are shown in gold highlighting.

Questions

Healthy Ageing

1. A centenarian is a person who lives beyond 100 years. Who are the longest living people in the world?
 - a. Australians
 - b. Americans
 - c. Japanese
 - d. Grecians

2. Yoda the mouse was the longest living mouse to date. His extraordinary lifespan of four years was the result of purposeful genetic modification. What is a common strategy thought to extend lifespan in humans?
 - a. Living in isolation from other people, thereby reducing the risk of developing infectious diseases.
 - b. Genetically modifying your children to live longer.
 - c. Eating less (ie. Calorie restriction)
 - d. Eating more.

3. What is healthspan?
 - a. Extending the amount of years that you live without a cold or flu.
 - b. The period of life in which you are generally healthy and free of disease.
 - c. The time you spend looking after your health.
 - d. The number of years that you live.

Discovering New Medicines

4. How long does it usually take to discover a new medicine from a promising research idea to the official approval?
- a. more than 5 years
 - b. more than 10 years
 - c. more than 15 years
 - d. more than 20 years
5. Which activity is NOT considered as part of the discovery and development phases of new medicines?
- a. Pre-clinical testing
 - b. Clinical trials
 - c. Post-marketing surveillance
 - d. Developing and investigating compounds
6. A medicine that works via a mechanism not used by any other drug is considered to be:
- a. Best in class
 - b. First in class
 - c. Fast follower drug
 - d. Me-too drug

Nutrition

7. Which drink contains the most sugar in it (for the same volume)?
- a. lunch box size poppers
 - b. Caffeinated soft drinks
 - c. flavoured mineral water
 - d. Sweetened chocolate milk
8. Folate is a:
- a. mineral
 - b. vitamin
 - c. amino acid
 - d. carbohydrate
9. Approximately, how long does it take to burn off the energy contained in a Mars Bar?
- a. 30 minutes running on a treadmill
 - b. 1 hour dancing
 - c. 20 minutes rowing
 - d. all of the above

Cancer

10. The use of drugs to treat cancer is called

- A. Homeopathy
- B. Chemotherapy**
- C. Radiotherapy
- D. Physiotherapy

11. Melanoma is a type of

- A. Testicular cancer
- B. Prostate cancer
- C. Colon cancer
- D. Skin cancer**

12. BRCA1 and 2 are associated with

- A. Prostate cancer
- B. Stomach cancer
- C. Colon cancer
- D. Breast cancer**

Immunology

13. An EpiPen is a medical device for injecting a measured dose of _____; it is most often used for the treatment of anaphylaxis – life-threatening allergic reactions caused by allergens, exercise, or unknown triggers.

- A) Epidural
- B) Epididymis
- C) Epinephrine**
- D) Epiphany

14. Gardasil, discovered by Australian researchers, is a vaccine against

- A. Human parvo virus
- B. Human papilloma virus**
- C. HIV
- D. Herpes virus

15. A bone marrow transplant will not be recommended if:

- A) A patient has the common flu**
- B) A patient has certain cancers, such as leukaemia, lymphoma, and multiple myeloma
- C) A patient has a disease that affects the production of bone marrow cells, such as aplastic anaemia, congenital neutropenia, severe immunodeficiency syndromes, sickle cell anaemia, thalassemia
- D) A patient has had chemotherapy that destroyed his/her bone marrow

Neurodegeneration

16. Alzheimer's disease was first described by Alois Alzheimer in:
- 2006
 - 1970
 - 1933
 - 1906
17. Many neurodegenerative diseases develop due to poor lifestyle habits. Which of the following habits can reduce your risk for developing Dementia or Alzheimer's Disease.
- Eating healthfully
 - Exercising regularly
 - Staying socially and mentally active
 - All of the above
18. What type of neurodegenerative disease is thought to be caused by the accumulation (ie build up) of amyloid protein?
- Parkinson's disease
 - Alzheimer's disease
 - Huntington's disease
 - Amyotrophic lateral sclerosis

Developmental Origins of Health & Disease

19. Which of the following adult disorders have been linked to the early environment experienced by a child?
- Type II diabetes
 - Osteoporosis
 - Obesity
 - All of the above
20. What does the "Barker Hypothesis" propose?
- Dental health during pregnancy leads to pre-term birth
 - Under-nutrition during gestation can lead to disease in adulthood
 - Health during the lifespan is due to combination of genetics and environment
 - Type II diabetes can be treated by dietary changes and exercise

Bonus question

If you could discover a brand new medicine, which disease would you cure?