Chapter 9: Revision questions on skin biology

1. Skin has two main components. One is thick, one thin; one cellular the other less so. Tell me more.

2. In addition to keratinocytes, name three other cell types found in the epidermis.

3. What is the main role of fibroblasts in the dermis?

4. Name three appendageal structures.

5. Name the four layers of the epidermis

6. What are the granules in the granular layer made up of?

7. If you inactivate desmosomes, what physical sign or type of lesion might you see?

8. Name two ways in which desmosomes may be inactivated.

9. Explain the components of the ‘bricks and mortar’ model. How do they work?

10. What are lipid lamellae? What function do they serve?

11. A range of different agents that damage skin (friction, irritants) produce two changes in the epidermis: what are they, and what names do we use for them?

12. Name an enzyme important in melanin biosynthesis. Mutations of it cause what disease?

13. Name and describe the two classes of melanin. What phenotypes are associated with them?

14. Is there more melanin in melanocytes or keratinocytes?

15. Do women have thicker skin than men?

16. Name two diseases associated with collagen mutations.

17. Why do those treated with steroids or those who are old, bruise easily?

18. Name a mediator released from mast cells. Describe 3 effects of release of this agent.

19. Why may the absence of or significant malfunction of sweat glands be fatal?

20. Describe the action of three hormones on sebum excretion.

21. Name three types of hair, and name three phases of the hair cycle

22. Why is your hair longer on the scalp than on your chest?

23. Which grow quicker, finger or toenails? Why do you think there is this difference?

24. Is there a parasympathetic nerve supply to skin?

25. Name three arguments for why pain and itch appear to have some relation.

26. How do sedative antihistamines work in atopic dermatitis? Are you sure?

27. Compare and contrast Type 1 and Type 4 hypersensitivity reactions (list 3 differences). Name some example diseases that we can ascribe to these reactions.

Answers to these questions are on the ed.derm.101 support page on the ed.derm.101 support page here.