



- C. (5 points) One of the common treatments for MG is the administration of an acetylcholinesterase inhibitor. It has been shown that this is successful in the treatment of milder forms of MG. Why would this therapy be beneficial, since the problem is the loss of receptors?

**Question 2: (15 points)**

Xeroderma Pigmentosum (XP) is an autosomal recessive disorder in which those affected rarely live past their early 20's. Approximately 1 in every 1 million births results in a patient with XP. Patients with XP suffer from a mutation in a DNA repair enzyme. Patients with XP are at an exponentially increased risk of developing skin cancers including melanoma.

- A. (5 points) What cell type should protect the mitotic cells of the epidermis? What protein is produced by that cell type? In what layer of the epidermis, do you find the mitotic cells?
- B. (5 points) As it is an autosomal recessive disorder, both parents must be carriers of the trait. If two carriers of the XP trait reproduce, what is the likelihood or percent chance of a child being born with XP?

C. (5 points) What component(s) in sunlight are the most dangerous for someone suffering from XP? Why are the skin cells more prone to the damaging effects of sunlight? What recommendations would you as a nurse make to a parent that just learned that their child has XP?