## Genetics Additional Review Questions

1. What 3 things happen in meiosis to create diversity?
2. What are the genotypes and phenotypes for blood?
3. What 3 traits are always polygenic? (coded by multiple genes)
4. Hemophilia is sex-linked. Cross an affected male with a carrier female.
5. Sarah is hairy (dominant, A). Her father is also hairy, but his father was not. Sarah’s mother is not hairy.
   1. What are the genotypes for Sarah and her parents?
6. Baldness is recessive and sex-linked. A full-haired woman with a bald father reproduces with a bald man.
   1. What is the probability (%) their sons might be bald?
7. What are 3 things that might cause an alteration in gene expression?
8. For the pedigree on the board (A/a):
   1. If this is a recessive trait, what is the genotype for #4?
   2. If this is a recessive trait, what is the genotype for #9?
   3. If this is a dominant trait, what is the genotype for #9?
9. A unibrow is recessive. One parent has a unibrow; the other carries the recessive allele without expressing it.
   1. What is the chance their child will have a unibrow?
10. What is the number of chromosomes in a human gamete (sperm/egg), and a normal diploid cell?

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