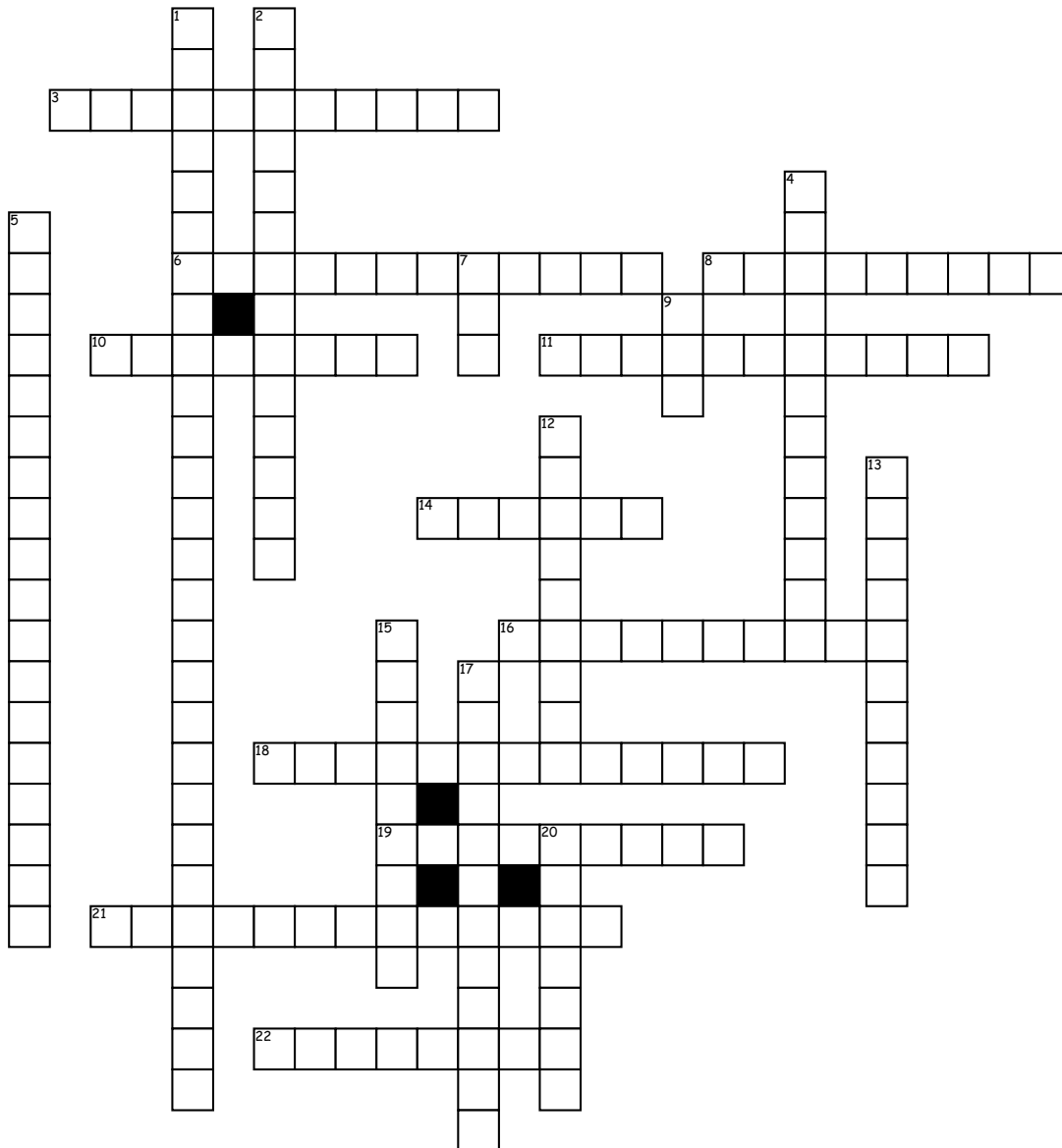


human anatomy



Across

3. The process by which the genetic code carried by messenger RNA (mRNA) directs the production of proteins from amino acids.

6. molecular biology describes the two-step process, transcription and translation

8. an insertion is the addition of one or more nucleotide base pairs into a DNA sequence

10. an enzyme that unwinds the DNA double helix by breaking the hydrogen bonds between the complementary bases.

11. an adaptor molecule composed of RNA, typically 76 to 90 nucleotides in length, that serves as the physical link between the mRNA and the amino acid sequence of proteins

14. the basis of chromosome

16. an enzyme which brings about the formation of a particular polymer, especially DNA or RNA

18. the rearrangement of genetic material, especially by crossing over in chromosomes or by the artificial joining of segments of DNA from different organisms.

19. a triplet of nucleotide bases in transfer RNA that identifies the amino acid carried and binds to a complementary codon in messenger RNA during protein synthesis at a ribosome.

21. the process of making an RNA copy of a gene sequence.

22. in which a part of a chromosome or a sequence of DNA is lost during DNA replication

Down

1. organism whose genome has been engineered in the laboratory in order to favour the expression

2. Polygenic traits are traits that are controlled by multiple genes instead of just one.

4. binds to a cell-surface receptor and initiates intracellular activity — compare second messenger.

5. a genetic mutation caused by indels of a number of nucleotides in a DNA sequence that is not divisible by three

7. deoxyribonucleic acid, a self-replicating material which is present in nearly all living organisms as the main constituent of chromosomes

9. Ribonucleic acid

12. a nucleotide triplet within messenger RNA that signals a termination of translation into proteins

13. a complex organic substance present in living cells, especially DNA or RNA, whose molecules consist of many nucleotides linked in a long chain.

15. It is made up of DNA attached to a protein structure, together with chromosomal RNA

17. mutation is a type of replication error during DNA replication which places the wrong nucleotide or sequence of nucleotides in the wrong position.

20. Literally a fragment, the word in modern medical science has come to mean a replica, for example, of a group of bacteria or a macromolecule such as DNA