

Animals Needed in Biomedical Research

Crossword

Directions: Name the animal based on the clues provided and write your answers in the boxes. Use the intersecting letters to help you. After filling out the grid, be sure to double check your answers. Good luck!

The crossword puzzle grid consists of 26 numbered starting points for clues:

- 1: Down, 10 letters
- 2: Down, 6 letters
- 3: Right, 3 letters
- 4: Down, 5 letters
- 5: Down, 5 letters
- 7: Right, 10 letters
- 8: Down, 2 letters
- 9: Down, 10 letters
- 10: Right, 7 letters
- 11: Right, 5 letters
- 12: Down, 4 letters
- 13: Right, 4 letters
- 14: Down, 3 letters
- 15: Right, 3 letters
- 16: Down, 4 letters
- 17: Right, 2 letters
- 18: Right, 2 letters
- 19: Down, 4 letters
- 20: Right, 3 letters
- 21: Down, 3 letters
- 22: Right, 5 letters
- 23: Right, 4 letters
- 24: Right, 5 letters
- 25: Right, 6 letters
- 26: Right, 7 letters



ACROSS

3. This animal has counterparts for almost all human disease-linked genes. Researchers can use this information to develop models of human diseases.
6. With its blue blood, this species is critical in testing for bacterial contamination in medical devices and drugs.
10. Despite its tank-like appearance, this animal is very useful in leprosy research because it provides an animal model of the disease.
13. Almost always adopted out after research, these animals were instrumental in the discovery of insulin and are an excellent model for cardiac medical devices.
15. As excellent sleepers, this animal model is necessary for studying vision, sleep, and hearing problems and since it experiences many diseases similarly to humans, including leukemia, Alzheimer's, and heart disease it is important to such research as well.
17. Great for making a sweater, this animal model is also important to the study human organ systems and diseases, and to test medical devices.
20. This animal hops into research because it can regenerate organs, tissues, and limbs, making it a good model for regenerative medicine.
22. This furry animal in the weasel family is the preferred model for vaccine development.
23. The venom of this animal is important to developing potential new drugs.
24. NOT for make-up, this animal model is favored for studying cystic fibrosis and vaccines.
25. While this long snake-like animal belongs to an ancient family of jawless fish that were around before the dinosaurs, and, like sharks, doesn't have any bones, it is a model used in biomedical research to study the evolution and development of vertebrates.
26. Does this fly like apples? Either way, it is the perfect for genetic studies, sharing 75% of the genes that cause diseases in humans.
2. While this model has teeth that grow continuously, about 2–3 inches per year, it is actually an excellent animal model for hearing research.
4. Studies using this small zoo primate are currently focused on areas like neurobiology, metabolism, and behavior, with particular interest in understanding age-related cognitive decline.
5. This animal is often cited when people are talking about being used as a test subject, it is also important to research into neurodegeneration, muscular atrophy, and other neurological diseases.
7. This order of mammals represents 95% of all animal models necessary for biomedical research in the U.S.9. Regenerative species studied for tissue repair.
8. Flying by echolocation, they are an important model for understanding coronaviruses.
9. This tiny worm is needed to study the development of nerve cells and neurotoxicology.
11. While this oddly named member of the rodent family is "naked", it is an excellent model for research into aging.
12. Small but critical, these animals are the most common laboratory animal.
14. With skin very much like humans, snout and all, this animal has been critical to the development of bandages, wound glue, and skin grafts.
16. The "O" spelling of this species is good for studying melanoma and the immune system.
18. Often found in a Habitrail in a classroom, this animal model is susceptible to many carcinogens and develops tumors similar to those in humans.
19. An odd animal with an electric personality, this animal helped scientists develop soft, stretchable 'jelly batteries' that could be used for wearable medical devices or even implanted in the brain to deliver drugs or treat conditions such as epilepsy.
21. While it isn't black and white striped, because of its fully sequenced genome, easy genetic manipulation, external fertilization and rapid development, and nearly transparent embryo this transgenic fish is an increasingly important model for research.

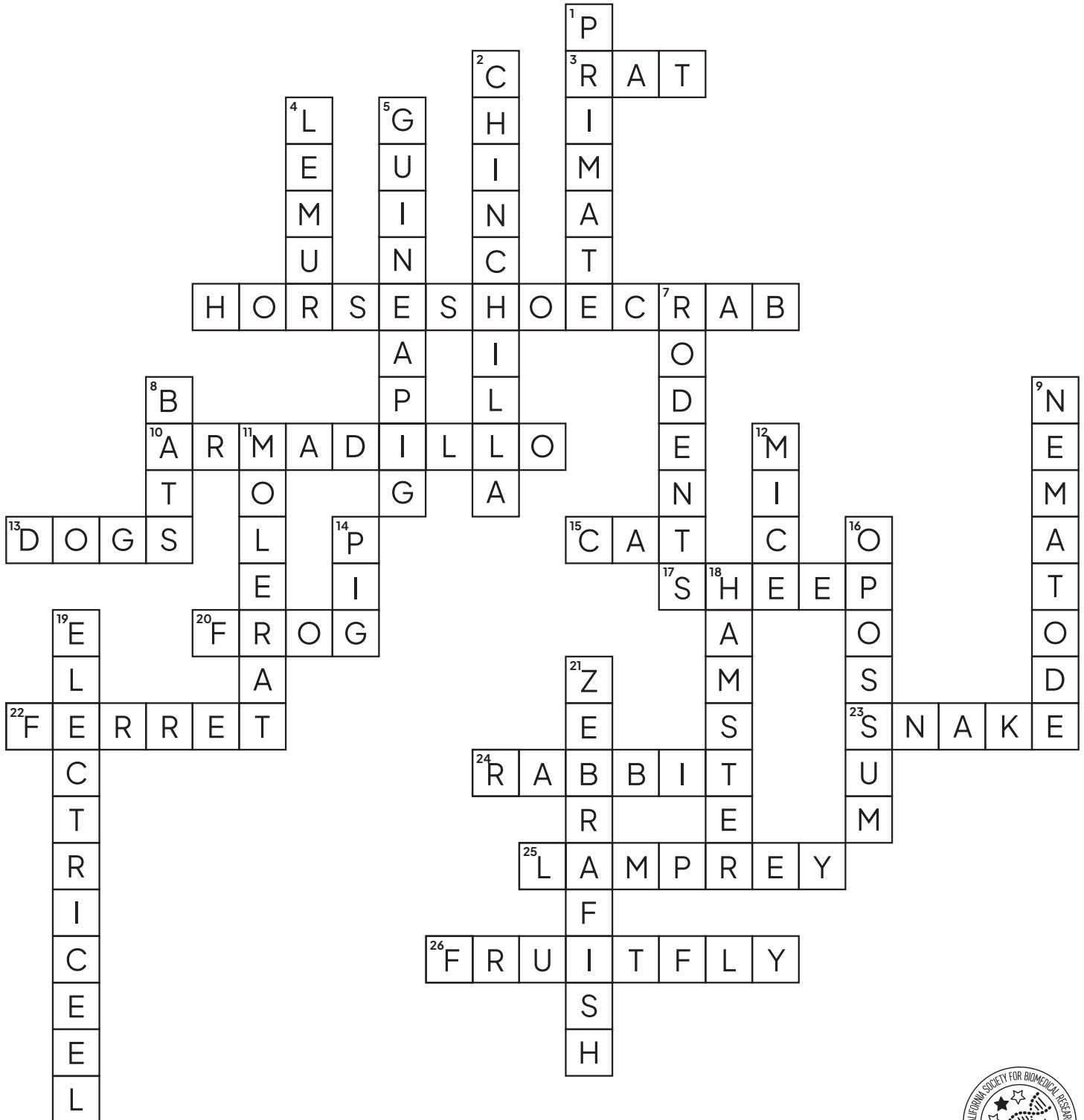
DOWN

1. While very few are needed in research, this popular zoo attraction is critical to HIV/AIDS research, vaccine development, and research into Alzheimer's and Parkinson's diseases.



Animals Needed in Biomedical Research

Answers



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Answers (cont.)

ACROSS

3. RAT
6. HORSESHOE CRAB
10. ARAMADILLO
13. DOGS
15. CAT
17. SHEEP
20. FROG
22. FERRET
23. SNAKE
24. RABBIT
25. LAMPREY
26. FRUIT FLY

DOWN

1. PRIMATE
2. CHINCHILLA
4. LEMUR
5. GUINEA PIG
7. RODENTS
8. BATS
9. NEMATODE
11. MOLE RAT
12. MICE
14. PIG
16. OPOSUM
18. HAMSTER
19. ELECTRIC EEL
21. ZEBRAFISH

