Across ▶

1. Converted to morphine
3. Doctor’s orders
6. High blood pressure
8. Juice that messes up some medicines
10. Often, many genes must come together to cause ___
11. As a kid, Johnson raised these
12. Rat-poison blood thinner
14. Family of drug-metabolizing enzymes
15. Drug taken orally
16. Laboratory insect
20. The Human ____ Project
22. Churchill’s hobby
23. Biostatisticians look for ____ in information
25. DNA “letters”
27. Holistic, or _____, genetics
28. Goals of pharmacogenetics: better efficacy and ___

29. Mouse-breeding project: Collaborative ____
30. GeniQuest creature

Down ▼

2. Lowers blood pressure
4. NIH Pharmacogenetics Research Network
5. Cleans up toxins
7. Diabetes-related hormone
9. Someone who studies DNA
12. Find a healthy balance between ___ and life, advises Churchill
13. Tamoxifen-taker cheers because she’s a CYP2D6 ____ metabolizer
17. Genetically determined characteristics
18. These help scientists understand complex data
19. Common model organism
20. These partly determine our looks and health
21. Jackson Laboratory location
24. Johnson’s hobby
26. Amount of drug delivered

Find more NIGMS quizzes and puzzles at https://www.nigms.nih.gov/education/quizzes-and-puzzles/
NIGMS is a part of the National Institutes of Health that supports basic research to increase our understanding of biological processes and lay the foundation for advances in disease diagnosis, treatment, and prevention.

For more information on the Institute's research and training programs, visit [https://www.nigms.nih.gov](https://www.nigms.nih.gov).