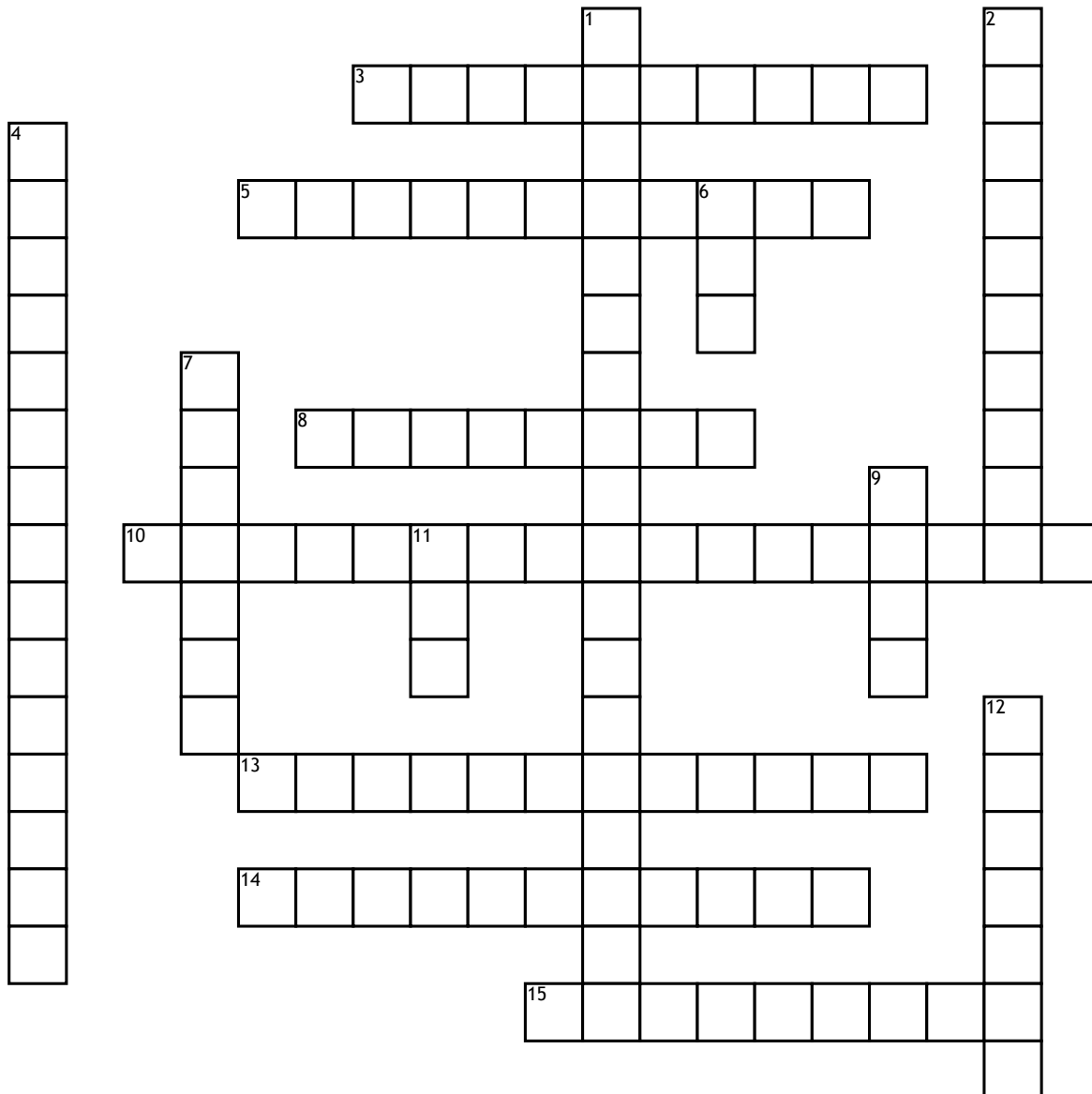


Drug Metabolism



Across

3. This juice inhibits CYP3A4
5. This conjugation reaction in phase 2 transfers reactive electrophiles helping the body deal with radicals
8. Genetic syndrome resulting in higher levels of circulating bilirubin
10. This group of phase 2 enzymes transfers a sulfate to substrates and plays a key role in cholesterol and steroid metabolism
13. N-acetyltransferases limit drug-induced toxicities of this type of genetic mutation

14. This herbal supplement induces CYP enzymes

15. Drug used to treat tuberculosis; highly metabolized by N-acetyltransferases

Down

1. This group of phase 2 enzymes comes in three types in humans: N,O,S
2. Name of the P450 enzyme family that contains heme
4. Phase 2 reaction where glucuronic acid is transferred to an alcohol, phenol, or other functional group

6. This phase of metabolism increases hydrophilicity and may or may not inactivate a drug

7. the better form of glutathione, abbreviated as GSH

9. This family of N-acetyltransferases is expressed ubiquitously throughout the body

11. This phase inactivates the drug and increases hydrophilicity & molecular weight to promote elimination

12. This type of phase 1 hydrolase deactivates this functional group on proteins, RNA, and DNA