1. Which of the following metabolic flux is decreased during starvation?
2. lipolysis
3. β-oxidation
4. ketogenesis
5. citric acid cycle
6. Type 2 diabetes is distinct from type 1 diabetes in that:
7. type 2 diabetes is treatable with insulin administration.
8. type 2 is associated with an inability to produce insulin.
9. type 2 is associated with increased blood glucose levels.
10. type 2 diabetes is associated with an inability to respond to insulin.
11. Which of the following hormone/molecule promotes food intake?
12. activation of AMPK
13. insulin
14. activation of PI3K-mTOR
15. leptin
16. Which of the following is false?
17. during fasting, high NAD/NADH ratio activates SIRT1 to deacetylate PGC-1.
18. result in decreased gluconeogenesis in liver.
19. result in increased fatty acid oxidation in skeletal and heart muscle.
20. AMPK phosphorylates and activates PGC-lα.
21. Regarding AMPK signaling in of fuel metabolism, which of the following is false?
22. AMPK is activated when the energy charge of the cell is low.
23. AMPK is activated by high AMP/ATP ratio.
24. AMPK stimulating pathways that utilize ATP.
25. AMPK stimulates glycolysis in heart via stimulats PFK-2/FBPase-2 activity.
26. Regarding mTOR signaling in of fuel metabolism, which of the following is false?
27. mTOR is active under nutrient-rich conditions.
28. Activated mTOR inhibits catabolic processes.
29. Akt induces mTORC1 activation.
30. TSC inhibits mTORC1 activation.
31. What is the preferred fuel source of heart muscle?
32. Ketone bodies
33. Protein
34. Fatty acids
35. Glucose