Catecholamines and Serotonin
**Across**

4. catecholamine-producing tumor derived from chromaffin cells outside of the adrenal gland  
8. helps regulate sympathetic nervous system and overall state of attention and vigilance  
9. tumor often arising in neuroendocrine system of the GI tract  
10. dopamine, epinephrine/norepinephrine, and serotonin  
12. regulates cardiac output, regulates temperature, and increases energy availability  
13. urine samples can be affected by  
16. modulator of vascular functions

**Down**

1. cells that produce and secrete catecholamines  
2. critical in body’s response to stress  
3. derived from the neural crest cells of sympathetic nervous system  
5. influences reward-seeking behavior  
6. catecholamine-producing tumor derived from chromaffin cells of the adrenal gland  
7. neuroblastomas almost exclusively affect which patients  
11. homovanillic acid  
14. vanillylmandelic  
15. plasma samples should be stored