



**Across**

1. The process of tumorigenesis is often associated with altered metabolism of this major nutrient and 5 down
5. The highly organized structure of the \_\_\_ apparatus becomes compromised during mitosis
9. \_\_\_ b GTP proteins
10. One kind of ice
11. A kinase central to proper function of DNA damage response
12. 1 across is metabolized into this through glycolysis
16. Tellurium symbol
17. \_\_\_ tonella
19. Control pill in a test
23. Adenosine triphosphate
25. Lactate dehydrogenase

**Down**

1. \_\_\_ 55, a peripheral Golgi protein required for stacking of cisternae in post mitotic cells
2. Back muscle
3. "Grey's Anatomy" star, Sandra
4. \_\_\_throcytes (red blood cells)
5. Non-essential amino acid
6. Genus of parasite nematodes found in rain-forest areas of Sudan and the Congo
7. Values
8. Testing agent in medicine
13. Check for quality
14. Disease caused by Mycobacterium
15. One type of blotting
18. Research and discovery, for short
20. Testing area

27. Gold symbol
28. Functions as a key regulator in response to DNA damage
29. TP53-induced glycolysis and apoptosis regulator
30. Endoplasmic reticulum
33. Plant extract that produces paralysis of skeletal muscle
35. Type of diagram
37. Small monomeric GTP-binding proteins
39. Difficult points
40. Unit of radioactive activity
41. Double chromosomes
42. Glucose transport and its metabolism are also increased by this
45. This is critical in triggering the cell cycle exit of prosensory progenitors in the developing cochleae
46. Unprocessed, of data
48. Surprised expression
49. Genes encoding most of the glycolytic enzymes are direct transcriptional targets of the \_\_\_ oncogene
51. Portion of 46 down
54. Touch
55. This organ, when mature, contains three rows of outer hair cells
56. Shape of a structure that forms near the cell nucleus during mitosis
21. MDC1 was found to be a negative regulator of \_\_\_\_\_ and plk1
22. Approve
24. Leguminous vine
26. The same process of transformation and immortalization of NHBE with \_\_\_\_\_ increases the oxidation of glucose in these cells
31. Hypothetical
32. \_\_\_ and 37 across oncogenes regulate the expression of glycolysis through the activity of HIFI
34. Electro-optic, briefly
35. Through
36. Nitric oxide
38. Lung gas
43. Cycle that produces ATP
44. \_\_\_ Beta Kappa
46. The longer \_\_\_ is notoriously toxic
47. The Notch and \_\_\_ pathways are known to regulate differentiation of both hair cells and supporting cells during development
48. \_\_\_\_\_ on: extraembryonic membrane
50. Life saving technique
52. Sir2 is a \_\_\_ dependent deacetylase
53. Alkaline substance