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English

Three dimensional structure of biomolecules (proteins, nucleic acids, lipids, carbohydrates)

Energy metabolism of the eukaryotic cell.

Particularities of the cancer cell energy metabolism.

Suggested references;

1. Stryer, L., et al. (2019): Biochemistry. 9th Edition
2. Stigliano A.F. (2020): Biomolecular Interfaces. Springer Verlag
3. Berg JM, Tymoczko JL, Gatto G, Stryer L. Biochemistry, 9th ed. W.H. Freeman; 2019.
4. Alberts B et al. Molecular Biology of the Cell, 7th ed. Garland Science; 2022.
5. Vander Heiden MG, DeBerardinis RJ. Understanding the Intersections between Metabolism and Cancer Biology. Cell. 2017 Feb 9;168(4):657-669. doi: 10.1016/j.cell.2016.12.039. PMID: 28187287; PMCID: PMC5329766.
6. Faubert B, Solmonson A, DeBerardinis RJ. Metabolic reprogramming and cancer progression. Science. 2020 Apr 10;368(6487):eaaw5473. doi: 10.1126/science.aaw5473. PMID: 32273439; PMCID: PMC7227780.
7. Tufail M, Jiang CH, Li N. Altered metabolism in cancer: insights into energy pathways and therapeutic targets. Mol Cancer. 2024 Sep 18;23(1):203. doi: 10.1186/s12943-024-02119-3. PMID: 39294640; PMCID: PMC11409553.
8. Du H, Xu T, Yu S, Wu S, Zhang J. Mitochondrial metabolism and cancer therapeutic innovation. Signal Transduct Target Ther. 2025 Aug 4;10(1):245. doi: 10.1038/s41392-025-02311-x. PMID: 40754534; PMCID: PMC12319113.

Romana

Structura tridimensională a biomoleculelor (proteine, acizi nucleici, lipide, glucide)

Metabolismul energetic al celulei eucariote.

Particularități ale metabolismului energetic al celulei canceroase

Bibliografie orientativă:

1. Stryer, L., et al. (2019): Biochemistry. 9th Edition
2. Stigliano A.F. (2020): Biomolecular Interfaces. Springer Verlag
3. Berg JM, Tymoczko JL, Gatto G, Stryer L. Biochemistry, 9th ed. W.H. Freeman; 2019.
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6. Faubert B, Solmonson A, DeBerardinis RJ. Metabolic reprogramming and cancer progression. *Science*. 2020 Apr 10;368(6487):eaaw5473. doi: 10.1126/science.aaw5473. PMID: 32273439; PMCID: PMC7227780.
7. Tufail M, Jiang CH, Li N. Altered metabolism in cancer: insights into energy pathways and therapeutic targets. *Mol Cancer*. 2024 Sep 18;23(1):203. doi: 10.1186/s12943-024-02119-3. PMID: 39294640; PMCID: PMC11409553.
8. Du H, Xu T, Yu S, Wu S, Zhang J. Mitochondrial metabolism and cancer therapeutic innovation. *Signal Transduct Target Ther*. 2025 Aug 4;10(1):245. doi: 10.1038/s41392-025-02311-x. PMID: 40754534; PMCID: PMC12319113.