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„BLACK GOLD” – MELANINS IN HUMAN LIFE

Summary

Melanin is a general name of macromolecular dyes responsible for the dark pigmentation of organisms. They are products of oxidative polymerization of phenolic and indolic compounds, the most common, heterogenous and resistant to various factors pigments found in the nature. In man they are synthesized in melanosomes that are specific organelles of melanocytes, cells specialized in carrying out the complex process of melanogenesis. The role of melanin in human life is multiplex. Melanins protect against the harmful effects of excessive exposure to UV radiation and reactive oxygen species. They are responsible for skin, hair and iris pigmentation. They take part in the normal processes of vision and hearing and protect the brain against neurodegenerative processes. Melanins are one of the virulence factors of some pathogenic microorganisms. They are present in certain food products, thus improving their health-promoting effect. Melanins are also used in modern medicine and technology.