Kubišta, V.: **Buněčné Základy Životních Procesů [Cellular Principles of Life Processes.]** - Scientia, Praha 1998. 210 pp. CK 199.00. ISBN 80-7183-109-3. [In Czech.]

This excellent textbook for grammar school students was written by Professor Emeritus of Charles University Prague, Dr. Václav Kubišta. It is focused on the structure and function of prokaryotic and eukaryotic cells. The main components of the cell, the principles of cell metabolism, bioenergetics, the main biosynthetic pathways, the structure of biomembranes and transport across membranes, cell organelles, cytoskeletal structure and function and those of the cell wall and extracellular matrix are treated. Chapters on cell growth and cell division are dealing with the structure of DNA, transcription and translation, protein synthesis, the cell cycle, mitosis, the transfer of genetic information, sexual reproduction, meiosis, viruses and cells.

In the following part of the textbook, the cell as a part of a tissue is treated: the specific structural features of a cell in a tissue, cell connections, plasmodesms, secretion pathways, endocytosis, transport mechanisms across membranes (coated vesicules), signal transduction mechanisms in nerve cells, messengers and receptors, cellular aspects of the immune response, and mechanisms of cell differentiation during ontogeny. The textbook ends with some evolutionary aspects concerning the origin of life, main evolution lines of organisms and metabolic pathways.

The text of the book is written very concisely and is well arranged, divided into numerous chapters and subchapters, also using different print type size. Many schemes and figures illustrate the text, and a list of literature as well as a subject index are supplemented. The textbook is primarily addressed to Czech grammar school students but it surely will be a suitable tool for all who wanted to update their knowledge in cell biology.

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