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METCHNIKOFF'S LEGACY: ON THE 100TH ANNIVERSARY OF HIS DEATH

Summary

Observation of a given phenomenon without its (correct) interpretation, without its comprehension and empirical verification of its mechanism(s), remains only an observation. Phagocytosis, a process of particle/bodies internalization by cells, was described before Metchnikoff, but he was the first who realized a role of the process for defense from pathogens. In fact, he understood the evolution of the process from its role in nutrition (simple organisms) to elimination of foreign bodies/altered cells (evolutionary higher animals). After decades of dominance of studies on adaptive immunity, nowadays the innate immunity is considered equally important. Metchnikoff's theory on cellular immunity together with studies of Paul Ehrlich, on its humoral aspect, paved the way for contemporary immunology. But Metchnikoff's heritage is not narrowed to phagocytosis only. He also worked on vaccination and was among the first who understood significance of microbiota in immunity. Metchnikoff's legacy stands strong and in fact some of his findings are acknowledged only today.

Key words: macrophages, microbiota, Metchnikoff, neutrophils, phagocytes, phagocytosis, vaccine