Prof. Oleksii Skorokhod. Short Scientific Biography

Oleksii Skorokhod (https://orcid.org/0000-0003-1014-8351) is a biomedical scientist whose research focuses on oxidative stress, host – pathogen interactions, and redox biology in infectious diseases, particularly malaria. His work has significantly contributed to understanding how malaria-derived hemozoin and lipid peroxidation products, such as 4-hydroxynonenal, modulate immune cell function and contribute to disease pathogenesis, including immunosuppression and anemia.

Over the course of his career, Skorokhod has explored molecular mechanisms underlying parasite–host interactions, demonstrating how oxidative damage affects erythrocytes, monocytes, and dendritic cells. His studies have elucidated the role of post-translational protein modifications and cytochrome P450 enzymes in malaria and other vector-borne diseases, linking redox processes to immune regulation and metabolic pathways.

In addition to malaria research, his work extends to antimicrobial strategies and nanomedicine, including the development of lipid-based nanocarriers and modulation of antimicrobial peptide activity. His recent publications highlight advances in drug delivery systems, oxidative stress–related toxicity, and structural modifications of proteins under pathological conditions.

Through interdisciplinary approaches combining biochemistry, molecular biology, and immunology, Skorokhod has contributed to both fundamental knowledge and translational applications in infectious disease research and therapeutic development.