SESSIONE 14 IL MICROBIOTA: NON SOLO INTESTINO

GUT-SKIN AXIS: QUALI REGOLE PER LA SUA INDAGINE

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The human skin harbors a complex microbiota which composition changes based on the different anatomical site. The skin microbiota is composed by both aerobic bacteria (staphylococci and streptococci) and anaerobic bacteria (propionibacteria), being directly involved in several severe skin diseases such as psoriasis, atopic dermatitis and acne. Staphyloccus aureus, indeed, seems to have a pivotal role in the progression of atopic dermatitis, with staphylococcal exoproteins and superantigens enhancing inflammatory reactions in the host. Moreover, the high variability of skin microbiota due to lifestyle, sampling site and the kind of samples collected (swabs or skin biopsies) make the characterization of cutaneous microbiota a fascinating challenge for microbiologists. To date, metagenomic studies based on the combination of bacterial abundance and microbial networks are essential to clearly understand the specific role of cutaneous microorganisms, mainly considering a pathological condition. Psoriatic plaques, for instance, show a reduced biodiversity if compared to healthy skin and a change of microbial distribution in the microbiota, as different bacterial hubs can be observed comparing psoriatic skin to healthy one. In conclusion, system biology is a fundamental approach to characterize the skin microbiota, considering both pathological conditions and the different anatomical site under investigation.