Microbiome in psoriasis

The investigation of the microbiome in psoriasis has raised the possibility that psoriasis is triggered by the bacteria in the skin in individuals with the genetic abnormalities. The microbiome has been investigated two methods, swabs and biopsies. In swabs in normal skin the commonest phylum is Actinobacteria and in psoriasis it is Firmicutes. In biopsies the commonest phylum is Firmicutes in both normal skin and psoriasis. At the genus level in swabs the commonest is Propionibacterium and in psoriasis Corynebacterium. In biopsies it is Streptococcus in both normal skin and psoriasis. The ratio of Streptococcus to Propionibacterium is raised in psoriasis compared to normal skin. Bacteria in the skin may have several actions: They can affect the innate immune system, affect T-cell function and may regulate the development of the immune system. Bacteria in the skin may be of primary etiological significance.

Biography

Lionel Fry has studied Medicine at King’s College Hospital Medical School. He has entered dermatology in 1963 after house jobs and a Medical Registrar’s post at King’s. He was trained first at St John’s, then St Thomas’ and finally The London Hospital. Whilst at London he was awarded two MRC grants: One to study psoriasis and the other to study dermatitis herpetiformis. In 1969 he was appointed as Consultant Dermatologist at St Mary’s Hospital in London. In 1997, he became a Professor of Dermatology at Imperial College, London. He is continuing his work on the role of microorganisms in psoriasis with colleagues at The Karolinska Institute in Stockholm. His research interests have focused on dermatitis herpetiformis and psoriasis and he is currently investigating the microbiome of psoriasis.

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