

# 3<sup>rd</sup> International Conference on Clinical Microbiology & Microbial Genomics

September 24-26, 2014 Valencia Convention Centre, Spain

## Causes of chronic infections and possible approaches to their treatment

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Causes of chronic infections remain unknown. Admittedly, they are related to the antibiotic resistance of microorganisms and immune deficiencies. This, however, contradicts many observations. The active susceptibility hypothesis postulates an absence of fundamental difference between normal and pathogenic microfloras-both are infective and both may or may not cause diseases. Potential chronic infection foci consisting of normal microflora are permanently formed in healthy carriers because the microorganisms release substances that are necessary for the host. That is, natural infection foci are actually formed by the host rather than microorganisms. Since normal and pathogenic infective microfloras are essentially similar, any chronic infection focus is conceivably formed by the host out of biological necessity. Hence, however hard we try to eliminate a chronic infection focus, the body will infect itself again with the same microorganism. This may explain why chronic infections defy cure. Since active susceptibility to infections results from the host's need in products of microorganisms, a logical approach to chronic infection control is to provide the host body with these products (or genes responsible for their synthesis). Then, the host's susceptibility would disappear, thereby ceasing the infection.

### Biography

Alexander P Malyshkin, Microbiologist, graduated from Orenburg State Medical Academy in 1979 and worked for this academy as a researcher. After defending his Candidate of Science (Med.) dissertation (PhD thesis), he headed the Division of Laboratory Diagnosis of Orenburg Regional Tuberculosis Dispensary for some time. His field of research includes microbiology, immunology, and issues of infectious diseases and their prevention. He is the author of the active susceptibility hypothesis and a fundamentally new approach to the prevention of infectious diseases of plants, animals, and humans (including the HIV infection) based on it. The main recent work (now in press) is the chapter on the prevention of infectious diseases in the book *Aquatic Plants and Plant Diseases* (to be published by Nova Science). He is exploring the possibility of collaboration in further developing and implementing his novel approach to disease prevention, which could be used, in particular, for breeding Infection-resistant animal and plant varieties.

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