

First International Symposium on

Pleomorphic Microbes in Health and Disease

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Nanobacteria In Health And Disease

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Nanobacteria are smallest cell-walled bacteria recently discovered in human and cow blood and products therefrom. They seem to belong to alpha subgroup of Proteobacteria based upon their ribosomal gene sequence. The environment causes drastic changes in their structure, size and shape: under unfavourable conditions they form large multicellular communities surrounded by thick apatite layers. Yet they can release elementary units or particles only 50-200 nm in size that form apatite mineral and can start autonomous replication under suitable conditions. Nanobacteria were found in serum of about 5% adults in Finland. They were found in over 90% of human kidney stones or polycystic kidney disease cysts fluids, and renotrophism was verified in animal models. Nanobacteria may cause pathological calcification in other parts of human body. Nanobacteria are an example of blood-borne pleomorphic organisms undetectable with standard methodology.