

Molecular mimicry: A theoretical immunology to prove many autoimmune diseases

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Biography

Gustavo Alberto Obando-Pereda is currently pursuing her Doctoral studies at ICAR-NIANP, Bangalore, India. She has completed her masters in Biotechnology. Her area of research interest is related to nutraceuticals and its effect on gut health. Her research work is focused to establish an effective and acceptable enzymatic process of D-tagatose production keeping in view the expected demands of D-tagatose in near future and to evaluate its prebiotic and anti-diabetic properties through in-vitro and in-vivo experimental models. She has experience in research and teaching. Her interest lies in conducting a long-term scientific research in the field of nutraceuticals and their role in modulating the gut microbial composition impacting the health and well-being of both animal and human.

Abstract

Oral microbiome possesses more than 1000 microbial species that co-exist with human oral cavity. However, when there is an imbalance in microbial ecosystem, infection and inflammation occurs. Chronic inflammation produces constant antigen-cell presentation and reactivity T and B cell results in an adaptive immune response with high specificity cell-cell and antibody response producing an autoimmune disease by molecular mimicry. In this chapter, using just BLAST, shows self-epitopes (autoantigens) from different autoimmune diseases such as Systemic lupus erythematosus, Sjögren's syndrome, neuromyelitis optica, Stiff-Person syndrome, autoimmune diabetes, autoimmune thyroiditis, Myasthenia gravis, Autoimmune gastritis, autoimmune hepatitis, myositis and rheumatoid arthritis that possess similarities with microbial epitopes belonging to oral microbiome acting as a computer trojan occult in a software package.

Publication

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