

July 05-07, 2018
Vienna, AustriaKim Varming, Insights Allergy Asthma Bronchitis 2018, Volume: 4
DOI: 10.21767/2471-304X-C1-002

NEW HYPOTHESES FOR THE MAINTENANCE OF PERIPHERAL T-CELL TOLERANCE

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According to the traditional models for peripheral T-cell tolerance, T-cells and regulatory T-cells (Tregs) have to be bound to MHC on the same antigen presenting cell (dendritic cell), whereby the Tregs downregulate the non-Tregs. Here, I will discuss new models/hypotheses where Tregs regulate non-Tregs directly in an antigen specific way, and I will further discuss how extracellular microvesicles may play a role in keeping the Tregs active. In modern immunotherapy, we use different biological drugs to combat cancer and autoimmune diseases. Unfortunately, these treatments attack the immune system in a very wide way and therefore they have some potential serious side effects. A nice goal for "immunologists" could be to develop antigen-specific modulators for cancer and autoimmune diseases. New models of the immune system will lead us in that direction.

Biography

Kim Varming is a Medical Specialist in Clinical Immunology. Since 2003 he has been the Medical Director for the department of Clinical Immunology at Aalborg University Hospital. He is a Board Member in The Danish Society for Clinical Immunology and in the Organization of Transfusion Centers in Denmark. He has published more than 60 papers in Peer Reviewed journals. His main research areas are General Immunology, Extracellular Vesicles and Cellular cancer-immunotherapy.

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