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The protective effect of raw milk and raw milk Kefir on the development of allergic disease

In a range of epidemiological studies over the last 10 years, it could be shown, that raw bovine milk intake within the first year of life, was an independent factor in the protection of asthma, allergies and hay fever in the later life. Mechanism, why and how raw milk can be protective is unclear. Milk heating changes multiple raw milk characteristics which might lead to conformational changes in protein structures leading to a changed allergenicity of the major cow's milk proteins, whey and caseins. Moreover, bioactive enzymes are heat sensitive and are made ineffective by heat load. We investigated the causal relationship between intake of raw milk and the development of allergic diseases and investigated the contribution of specific bioactive milk proteins to this effect. The last years we focused on the potential of raw milk Kefir as a safe nutritional concept in the management of allergic disease. We were the first to show that unprocessed bovine milk in contrast to heated milk reduced allergic symptoms in models for food allergy, allergic asthma and in a human pilot study. Some native bioactive components in unprocessed milk contributed to this protective effect. Raw milk kefir reduced allergic symptoms in a model for food allergy Our results show that raw milk and raw milk kefir possess potent immune modulatory capacities with benefit potential for preventing and treating allergic disease.

The three most important milestones in my scientific career:

1. Finalizing my PhD
2. Receiving several grants to support my research group
3. The thesis of Suzanne Abbring on health benefits of raw milk

Research vision: I am conducting translational immunological research in the field of Pharma Nutrition. My main interest field is environmental factors like Urban life-style, food processing and pollution and their influence on the immune system in relation to disease. Currently my major research focus is processing of food (e.g. milk), investigating the effect of food processing on the development and management of allergic diseases like food allergy, allergic asthma, Eosinophilic Esophagitis and inflammatory disorders like IBD. I strongly believe that Pharma Nutritional strategies support the management and prevention of allergic diseases, inflammatory diseases and infections. Advanced cell culture systems in addition to experimental models of inflammation and allergy are part of the research strategy. A holistic approach by studying interventions and immune profiling in humans will be one of my goals area for the upcoming years.

I'm looking forward to the scientific conference on raw milk products because...

...of the possibility of interacting with people also interested in topic of processing of milk (foods) in relation to health benefits.