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Exogenous AGEs, Microbiota and Their Role in Chronic Diseases

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Abstract: This is a short presentation that explores several areas: 1) definition of Advanced Glycation End products (AGEs) in general and their pathogenic mechanisms of action; 2) definition of exogenous (mostly dietary) AGEs and their effects in vitro and in vivo in several experimental models in mice; 3) exploring the potential role of dietary AGEs in human health and disease by looking at clinical trials involving patients with diabetes mellitus and other chronic conditions; 4) development of the "AGE hypothesis" as an important pathogenic risk factor for chronic non-transmissible human diseases; 5) Overall review of different sources of AGEs in the body; 5) review evidence that AGEs may form within the gastrointestinal lumen under some conditions and therefore contribute to the body AGE pool; 6) review of the potential interactions between exogenous AGEs and the microbiota; 7) detailed description of our current understanding of the metabolism of exogenous AGEs ; and finally 8) listing potential future directions for research in the field.