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Editorial

Cardiovascular disease and cancer progression—A brief insight

Apart from the environmental factors, the complex interaction of genes plays a central role in the development of diseases. Growing evidence indicates that death due to cardiovascular complications and cancer is increasing and survival rate decreasing due to the availability of fewer therapeutic options. The current issue of *Biomedicine* focuses on some of the risk factors that influence cardiovascular disease, and on the functional roles of androgenic signals, very long noncoding RNAs (vlncRNAs), and betel quid chewing in cancer progression.

The first paper reviews the current literature on angiotensin-converting enzyme inhibitory peptides, focusing on their structure–activity relationship and inhibitory mechanisms. In addition, an *in vitro* simulated gastrointestinal digestion model for assessing bioavailability and an *in vivo* examination of the antihypertensive effects of the peptides are also summarized.

The second review mainly focuses on the types of hyperlipidemia, digestion, and absorption of lipids, as well as their consequences on human health, and on potentially effective new therapeutic targets for treating hyperlipidemia.

Low-density lipoprotein (LDL) abnormality is a central cause of atherosclerosis and is associated with complications such as coronary artery disease. Negatively charged LDL (L5), a subclass of circulating LDL, is a nonoxidized or merely oxidized LDL, but it is potentially atherogenic. L5 was isolated from human plasma for mechanistic scrutiny. This review article elucidates the potential role of L5 in endothelial dysfunction and atherosclerosis formation.

Androgenic signals (androgen/androgen receptor; A/AR) function in a biphasic manner in the progression of hepatocellular carcinoma. In this review, the author discusses the roles of the A/AR in hepatic host immunity and the hepatic damage/regenerating state, and how the A/AR signals influence hepatitis B virus replication in cirrhotic livers.

Long noncoding RNAs (lncRNAs) and vlncRNAs, which are more than 5000 nt long, are associated with numerous bio-

logical functions. XIST, MALAT1, PCA3, PCGEM1, and PCNCR1 are some of the vlncRNAs expressed during the progression of cancer. This review focuses on vlncRNAs, a specific group of lncRNAs that are more than 5000 nt long, and explored their roles in the development of diseases.

Although extensive research findings have linked betel quid chewing with oral cancer and precancerous conditions, to date, no pharmacological or behavioral treatment exists for betel quid cessation. In this review, the author reports on the prevalence of betel quid use in Taiwan and the link between betel quid chewing, smoking, and oral cancer among Taiwanese men. The author also elaborately discusses the defaults about smoking and betel quid addiction.

Overall, this issue widens and deepens our knowledge of cardiovascular disease and cancer research by providing new perspectives. Further studies are required to facilitate the development of novel therapeutic applications to treat the abovementioned diseases.

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