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Antioxidant, antihypertensive and cytotoxicity properties of fermented camel sausage by novel probiotic *Lactococcus lactis*

Mutamed Ayyash[1], **Amin Olaimat**[2] and **Shao-Quan Liu**[3]

[1]College of Food and Agriculture-United Arab Emirates University, UAE
[2]Faculty of Allied Health Sciences-Hashemite University, Jordan
[3]National University of Singapore, Singapore

Fermented functional products including sausages provide several health benefits, particularly when probiotics are used in fermentation process. The objective of this study was to *in-vitro* investigate the antioxidant capacity, cytotoxicity against two cancer cell lines (Caco-2 and MCF-7), -amylase, -glucosidase and angiotensin-converting enzyme (ACE) inhibitory activities and degree of hydrolysis (DH) and lipid peroxidation of camel sausages fermented with a novel probiotic strain *Lactococcus lactis* KX881782 isolated from camel milk compared with fermented beef sausage. Camel and beef sausages fermented with commercial starter culture alone or combined with Lc. lactis were also investigated. Fermented camel sausages showed higher DH%, antioxidant capacity, cytotoxicity against Caco-2 and MCF-7, -amylase, -glucosidase and ACE inhibitory activities than beef sausages. On the other hand, camel sausages had lower water activity and lipid peroxidation compared to beef sausages. The probiotic strain enhanced the health benefits properties of fermented camel sausages. These results suggest that camel sausage fermented with the novel strain of probiotic Lc. lactis KX881782 could be a promising functional food that provides several health benefits to consumers.

mutamed.ayyash@uaeu.ac.ae