Journal of Nutrition & Food Sciences
ISSN: 2155-9600

2020
Vol.10 No.6

Role of berries in preventing/treating cardiovascular conditions

Patrick Turck

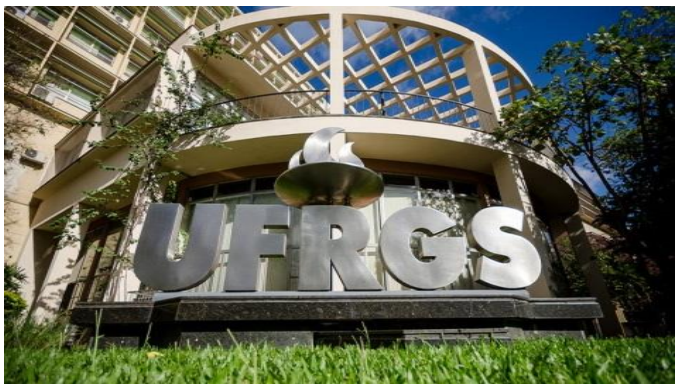
Federal University of Rio Grande do sul, Brazil

Abstract

Cardiovascular disease is a leading cause of death globally. It is well established that dietary patterns strongly influence cardiovascular health, with the consumption of fruits and vegetables being assoaciated with decreased risks of cardiovascular disease. In this regard, berries emerge as a subject of significant interest, since not only in vitro and animal studies, but also human clinical data support berries cardioprotective benefits.

Common consumed berries include blackberry, blueberry, cranberry, raspberry, and strawberries, which all contain a large amount of polyphenols, especially anthocyanins, reported to lower the risk of cardiovascular condition not only acting as antioxidant compounds, but also as modulators of antiinflammatory signaling and nitric oxide metabolism. In this sense, our group recently reported the effects of blueberry extract on experimental pulmonary hypertension, which affects mainly the right heart, showing improvements in cardiovascular functional parameters through endothelin-receptors modifications and redox balance resumption. Furthermore, we showed that in vitro blueberry extract treatment prevented cardiac cells apoptosis via modulation of several signaling cascades (FoxO3a/AKT, STAT3/AMPK and mTOR/p70S6K).

Recently, interest in the role of human gut-assoaciated microbiome has grown, particularly associating changes in its composition with modifications in risk factors for cardiovascular condition. Studies demonstrate not only the distribution of different gut microorganisms phyla and orders but also their metabolites production exert pivotal role on cardiovascular outcomes. Considering this subject, berries matrix constituents, specially phenolic compounds can modulate microbial populations, giving rise to an original field of research relating berries consumption and prevention/treatment of cardiovascular diseases.



Biography:

Graduate in Biomedicine at the Federal University of Rio Grande do Sul (UFRGS, Brazil). During his graduation, worked at the Helmholtz Zentrum für Infektionsforschung (HZI, Germany) investigating the etiology of inflammatory bowel disease. In the Laboratory of Cardiovascular Physiology (UFRGS, Brazil), he completed his Masters, where studied the effects of the drug trapidil on pulmonary hypertension, and his PhD, which investigated the effects of blueberry extract on right cardiac remodeling in pulmonary arterial hypertension. At the moment, he is post-doc student in the Laboratory of Cardiovascular Physiology (UFRGS, Brazil). He has published 18 papers in reputed international journals.

25th International Conference on Food and Nutrition Science; Osaka, Japan - September 29-30, 2020

Abstract Citation:

Patrick Turck, Role of berries in preventing/treating cardiovascular conditions, 25th International Conference on Food and Nutrition Science; Osaka, Japan - September 29-30, 2020.