Accepted Manuscript

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PII: S0278-6915(18)30079-6

DOI: 10.1016/j.fct.2018.02.014

Reference: FCT 9585

To appear in: Food and Chemical Toxicology

Received Date: 6 December 2017

Revised Date: 5 February 2018

Accepted Date: 7 February 2018

Please cite this article as: Khan, H., Jawad, M., Kamal, M.A., Baldi, A., Xiao, J., Nabavi, S.M., Daglia, M., Evidence and prospective of plant derived flavonoids as antiplatelet agents: Strong candidates to be drugs of future, *Food and Chemical Toxicology* (2018), doi: 10.1016/j.fct.2018.02.014.

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Evidence and prospective of plant derived flavonoids as antiplatelet agents: strong candidates to be drugs of future

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Abstract: Platelets are involved in hemostasis, inflammation, and thrombosis processes. Following a vascular damage, the endothelium releases protein factors, allowing the adhesion of subendothelium to platelets. Then platelets are activated, leading to the secretion of biologically-active ligands including thromboxane A2, adenosine diphosphate and serotonin. Aspirin, clopidogrel and warfarin are the most common drugs used to meet the challenges of platelet aggregation. However, these agents face issues with aspirin resistance and bleeding. New therapeutically effective and safe agents are therefore strongly needed, and natural substances could be ideal candidates. Flavonoids, a chemically diverse group of polyphenols, might be important in this regard. Consumption of flavonoids is responsible for several health-promoting properties. A number of flavonoids have shown outstanding preclinical antiplatelet effects

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