## AGRICULTURAL AND FOOD CHEMISTRY

# Comment on Protective Effects of Anthocyanins against Amyloid $\beta$ -Peptide-Induced Damage in Neuro-2A Cells

I read with interest the paper of Shih et al. in J. Agric. Food Chem. 2011, 59, 1683-1689.<sup>1</sup> This paper is quite interesting, and the authors should be complimented for the significant amount of work they have done. The purpose of this letter is to call attention to the need for some clarification on the name of the plant described in this paper. Shih et al. state "Notably, our group observed that anthocyanin-rich extracts derived from mulberry (Morus atropurpurea L.)".<sup>1</sup> I have been studying the pharmacotoxicological properties of the medicinal plants of Asia and the Pacific for the past 15 years, and *Morus* atropurpurea L. does not exist.<sup>2-5</sup> Besides, mulberry refers to as many as 10 species, principally Morus alba L.<sup>6</sup> In addition, the statement "These findings suggest that colorful anthocyanins may have considerable potential for preventing  $A\beta$ mediated neurodysfunction" is quite not appropriate. Such a statement should really be made after provisions of pharmacokinetical, pharmacotoxicological, anatomopathological, and epidemiological evidence. In fact, anthocyanins and flavonoids sensu lato have attracted considerable interest due to claimed health-promoting properties, but current evidence suggests that the amount of intact flavonoids that reach target cells in the human body is therapeutically negligible.<sup>7-9</sup>

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#### Notes

The authors declare no competing financial interest.

#### REFERENCES

(1) Shih, P. H.; Wu, C. H.; Yeh, C. T.; Yen, G. C. Protective effects of anthocyanins against amyloid  $\beta$ -peptide-induced damage in neuro-2A cells. *J. Agric. Food Chem.* **2011**, *59*, 1683–1689, DOI: 10.1021/ jf103822h.

(2) Wiart, C. Ethnopharmacology of Medicinal Plants: Asia and the Pacific; Humana Press: Totowa, NJ, 2006.

(3) Wiart, C. Medicinal Plants of Asia and the Pacific; CRC Press: Boca Raton, FL, 2006.

(4) Wiart, C. Medicinal Plants from the East; University of Nottingham Press: Nottingham, UK, 2010.

(5) Wiart, C. Medicinal Plants from China, Korea and Japan: Bioresource from Tomorrow's Drug and Cosmetics; CRC Press: Boca Raton, FL, 2012.

(6) Wiart, C. Medicinal Plants of Asia-Pacific: Drugs for the Future?: World Scientific: Singapore, 2006.

(7) Németh, K.; Plumb, G. W.; Berrin, J. G.; Juge, N.; Jacob, R.; Naim, H. Y.; Williamson, G.; Swallow, D. M.; Kroon, P. A. Deglycosylation by small intestinal epithelial cell  $\beta$ -glucosidases is a critical step in the absorption and metabolism of dietary flavonoid glycosides in humans. *Eur. J. Nutr.* **2003**, *42*, 29–42.

(8) Adlercreutz, H.; Fotsis, T.; Kurzer, M. S.; Wahala, K.; Makela, T.; Hase, T. Isotope dilution gas chromatographic-mass spectrometric method for the determination of unconjugated lignans and isoflavonoids in human feces, with preliminary results in omnivorous and vegetarian women. *Anal. Biochem.* **1995**, 225, 101–108.

(9) Axelson, M.; Sjovall, J.; Gustafsson, B. E; Setchell, K. D. R. Soya: a dietary source of the non-steroidal oestrogen equol in man and animals. *J. Endocrinol.* **1984**, *102*, 49–56.

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