



Anais da Academia Brasileira de Ciências

ISSN: 0001-3765

aabc@abc.org.br

Academia Brasileira de Ciências

Brasil

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Anais da Academia Brasileira de Ciências, vol. 88, núm. 3, septiembre, 2016, pp. 1177-1178

Academia Brasileira de Ciências

Rio de Janeiro, Brasil

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EDITORIAL NOTE

Sugarcane and cancer, scientometrics, and phytoplankton dynamics of a beach in the Amazon

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Cancer is arguable the most feared disease in our society. Walking side by side are the efforts in early detection of this malady (e.g., Smith et al. 2015) and the continuous search for different ways on how to fight the various types of abnormal cell growth (e.g., Weinstein 2002, Esquissato et al. 2014, Ferreira et al. 2015). It has been known for many years that some natural products can be used for cancer prevention (e.g., Steinmetz and Potter 1996) and more can be done in this field. In this issue of the Annals of the Brazilian Academy of Sciences (AABC), Vanessa Alves and colleagues have evaluated the cytotoxic activity of sugarcane extracts against cancer cells (Alves et al. 2016). They were able to isolate several compounds, including tricetin, that showed important anticancer activity, indicating that sugarcane might also be a valuable source for tricetin derivatives in the search for the development of pharmacological products.

The constant pressure for publication - also called the “bakery effect” (see Kellner and Ponciano 2008) - is a reality in the “brave new world” of science. This resulted in an exponential increase of published papers (accompanied by a boost of periodicals) and, not rarely, led to the undesired side effect of scientific misconduct (e.g., Fang et al. 2012, Barata et al. 2014, Vasconcelos et al. 2015). At the same time, there has been a constant search regarding evaluations of the scientific development in different countries, what has been done with the development and introduction of distinct scientometric indicators (e.g., Leite et al. 2011). In the present issue of the AABC, Silva (2016) discusses the Nature Index that has been recently used to appraise Brazilian Science, shedding new light on problems of scientific performance indicators.

Lastly, among the several interesting papers published here, I would like to call your attention to the article of Jislene Matos and colleagues. They have studied the structure and temporal variation of the phytoplankton of a beach in the Amazon Coastal Zone in order to have a better understanding of the factors that influence these microscopic organisms (Matos et al. 2016). This area encompasses several aquatic ecosystems (e.g., Souza Filho et al. 2003), all subjected to complex hydrodynamic processes (e.g., Nittrouer and Demaster 1996). Since microalgae constitute an important component of the freshwater community in the Amazon Region and part of the diet of several organisms (e.g., Gomes et al. 2014), such detailed studies, as the one of Matos et al. (2016), are welcome and constitute important steps for a better understanding of the dynamics that affect these organisms in this particular coastal area of Brazil.

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