

## **EDITORIAL NOTE**

New approaches to the treatment of fear memories, the interaction of the plant *Tropoaeolum majus* and the meylerid *Astylus variegatus*, and a new flying reptile from the Cretaceous of China

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This has been an extraordinary year for the *Anais da Academia Brasileira de Ciências* (AABC)! The impact factor of the journal continues comparatively high due to the excellent papers published in previous years – such as several important contributions that discuss how to control the Dengue Virus (Silva and Oliveira 2009), unfortunately still a dangerous threat to mankind – and the contributions presented in the volume of the *Escola Paulista de Medicina da Universidade Federal de São Paulo* (Nader 2009), just to mention a few. Furthermore, with this last issue of the year, the AABC had in 2011 the largest amount of papers ever published – 112 in over 1500 pages, which increases the scientific contribution of this periodical.

Among the studies presented here is an interesting paper that deals with aspects regarding the treatment of fear memories. Overall, it is widely known that stress is one of the main problems of present times affecting the behavior of individuals in our society, no matter their age and sex (e.g., Mesquita and Reimão 2010), and treatments may vary depending on its cause. Fiorenza et al. (2011) provide a short review on how the posttraumatic stress disorder (PTSD) has been treated. As the authors point out, memories can be modified after their consolidation, with extinction and reconsolidation being the most studied manners on how this happens. Despite the fact that both have been studied independently, their interactions are less investigated. As is known, several drugs can affect both extinction and reconsolidation (e.g., Quirk et al. 2010), and the authors suggest the investigation of some of them that might be used in the treatment of the PTSD, along with extinction therapy.

Studies about the interaction of plants and insects are essential for the agriculture and might also be used to understand the anthropic influence in a particular area (e.g., Luz et al. 2010). In this number of the AABC, Silva et al. (2011) evaluate the interaction of *Tropaeolum majus*, a flowering plant that is very common in South America, and the beetle *Astylus variegatus*. Known under different popular names such as nasturtium and Indian cress, *T. majus* has been widely used not only for ornamentation due to the beauty of its flowers, but also in culinary and for medical purposes. Silva and colleagues were able to study this plant in order to understand the floral mechanism used to attract insects, particularly *A. variegatus*.

Lastly I would like to call the attention to the description of a new flying reptile from China. As has been pointed out before, the deposits of Liaoning have provided a large quantity of fossils that are helping us to better understand the evolutionary history of several groups of organisms (e.g., Chang et al. 2003), including pterosaurs (e.g. Wang et al. 2009). In the paper published here, Jiang and Wang (2011) describe a new pterosaur from this region that not only enhances our knowledge of a particular group of archaeopterodactyloid pterosaurs, the Ctenochasmatidae, but also demonstrates the exceptionality of the Liaoning deposits.

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## REFERENCES

- CHANG MM, CHEN PJ, WANG YQ, WANG Y AND MIAO DS. 2003. The Jehol Biota, the Emergence of Feathered Dinosaurs, Beaked Birds and Flowering Plants. Shanghai: Shanghai Scientific & Technical Publishers, 208 p.
- FIORENZA NG, SARTOR D, MYSKIW JC AND IZQUIERDO I. 2011. Treatment of fear memories: interactions between extinction and reconsolidation. An Acad Bras Cienc 83: 1363–1372.
- JIANG S AND WANG X. 2011. A new ctenochasmatid pterosaur from the Lower Cretaceous, western Liaoning, China. An Acad Bras Cienc 83: 1243–1249.
- LUZ CFP, BACHA JUNIOR GL, FONSECA RLS AND SOUSA PR. 2010. Comparative pollen preferences by africanized honeybees *Apis mellifera* L. of two colonies in Pará de Minas, Minas Gerais, Brazil. An Acad Bras Cienc 82: 293–304.
- MESQUITA B AND REIMÃO R. 2010. Stress and sleep quality in high school Brazilian adolescents. An Acad Bras Cienc 82: 545–551.
- NADER HB. 2009. Science and education on the 75<sup>th</sup> anniversary of Escola Paulista de Medicina, Universidade Federal de São Paulo. An Acad Bras Cienc 81: 319–320.
- QUIRK GJ, PARÉ D, RICHARDSON R, HERRY C, MONFILS MH, SCHILLER D AND VICENTIC A. 2010. Erasing fear memories with extinction training. J Neurosci 30: 14993–14997.
- SILVA MEPF, MUSSURY RM, VIEIRA MC, ALVES JÚNIOR VV, PEREIRA ZV AND SCALON SPQ. 2011. Floral biology of *Tropaeolum majus* L. (Tropaeolaceae) and its relation with *Astylus variegatus* activity (Germar 1824) (Coleoptera: Melyridae). An Acad Bras Cienc 83: 1251–1258.
- SILVA JL AND OLIVEIRA AC. 2009. Science and technology to combat dengue virus. An Acad Bras Cienc 81: 631-632.
- WANG X, KELLNER AWA, JIANG S AND MENG X. 2009. An unusual long-tailed pterosaur with elongated neck from western Liaoning of China. An Acad Bras Cienc 81: 793–812.